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| Exam	Subject	Duration	No. of Questions	Max Marks
AFCAT	General Awareness, Verbal Ability in English, Numerical Ability and Reasoning and Military Aptitude Test	02 Hours	100	300
EKT(For Ground Duty Technical Branch only)	Mechanical, Computer Science and Electrical and Electronics	45 Minutes	50	150

Syllabus of the AFCAT

- **English**: Comprehension, Error Detection, Sentence Completion/Filling in of correct word, Synonyms, Antonyms and Testing of Vocabulary, Idioms and Phrases
- **General Awareness**: History, Geography, Civics, Politics, Current Affairs, Environment, Basic Science, Defence, Art, Culture, Sports, etc
- **Numerical Ability**: Decimal Fraction, Time and Work, Average, Profit & Loss, Percentage, Ratio & Proportion and Simple Interest, Time & Distance (Trains/Boats & Streams)
- **Reasoning and Military Aptitude Test**: Verbal Skills and Spatial Ability

Activity	16 Feb 19 (Day1)		17 Feb 19 (Day 2)	
	1st Shift (AFCAT)	2nd Shift (AFCAT+EKT)	1st Shift (AFCAT)	2nd Shift (AFCAT+EKT)
Candidate Reporting Time	08:00 hrs	12:30 hrs	08:00 hrs	12:30 hrs
Verification of Admit Card & ID Proof, Biometrics, Photo/ Thumb Impression/ Sign on Attendance Sheet & Candidate Seating in Exam Hall	08:00- 09:30 hrs	12:30- 14:00 hrs	08:00- 09:30 hrs	12:30- 14:00 hrs
Reading of Instructions by Candidates	09:30- 09:45 hrs	14:00- 14:15 hrs	09:30- 09:45 hrs	14:00- 14:15 hrs
AFCAT	09:45- 11:45 hrs	14:15 -16:15 hrs	09:45- 11:45 hrs	14:15 -16:15 hrs
Reading of Instructions by Candidates for EKT	-	16:15 -16:30 hrs	-	16:15 -16:30 hrs
EKT	-	16:30 -17:15 hrs	-	16:30 -17:15 hrs

*as per AFCAT 1 2019 notification

Books for AFCAT & EKT
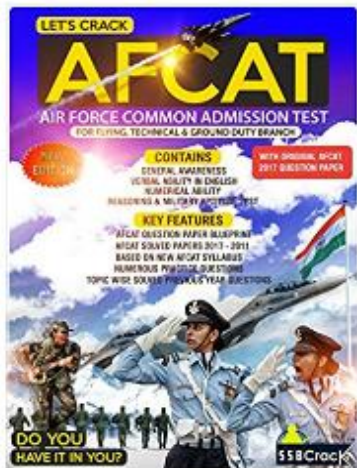
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AFCAT- 1/2019 – SOLVED PAPER

1. Who won the golden boot of FIFA 2018?
(a) Harry Kane
(b) Lionel Messi
(c) Cristiano Ronaldo
(d) Mohamed Salah

2. Who is the first women defence minister of India?
(a) Sakuntala Devi
(b) Nirmala Sitharaman
(c) Jansi Rani
(d) Meenatchi Sundaram

3. Which is the capital of Nigeria?
(a) Diko
(b) Kakanya
(c) Kuje
(d) Abuja

4. Who was the founder of Satavahana dynasty?
(a) Pushyamitra Sunga
(b) Simuka
(c) Vasudeva
(d) Danti Durga

5. How many bouncers are allowed in an over in T20?
(a) 2
(b) 1
(c) 3
(d) 0

6. Who was the first Indian to win the All England badminton championship?
(a) Prakash Padukone
(b) Saina Nehwal
(c) Pullela Gopichand
(d) Prakash Nath

7. Which state celebrates the Hornbill Festival?
(a) Assam
(b) Sikkim
(c) Manipur
(d) Nagaland

8. Who was the First women speaker of Lok Sabha?
(a) Joyce Adeline Bamford-Addo
(b) Violet Hari Alva
(c) Meira Kumar
(d) Sumitra Mahajan

9. Who was the founder of Swatantra party?
(a) Rajendra Prasad
(b) Gopal Krishna Gokhale
(c) Lala Lajpat Rai
(d) Rajagopalachari

10. Which is the capital of Myanmar?
(a) Kyetpyay
(b) Naypyitaw
(c) Pyinmana
(d) Yangon

11. Who wrote Arthashastra?
(a) Aryabhata
(b) Chanakya
(c) Durdhara
(d) Bindusara

12. Which city is known as Cathedral city?
(a) Bhubaneswar
(b) Jamshedpur
(c) Konark
(d) Tanjore

13. Who was the first CM of Bengal state?
(a) Bidhan Chandra Roy
(b) Prafulla Chandra Sen
(c) Ajoy Kumar Mukherjee
(d) Prafulla Chandra Ghosh

14. Where is the Gobi desert located in the world?
(a) Northern China
(b) Southern Mongolia
(c) China
(d) Both (a) and (b)

15. Which is the capital of Chile?
(a) Santiago
(b) San Antonio
(c) Melipilla
(d) Las Condes
16. What is the abbreviation of LCA?
(a) Labor Condition Application
(b) Labor Condition Applicant
(c) Labor Criteria Application
(d) Labor Criteria Applicant
17. Who was the founder of Agra?
(a) Sikandar Lodi
(b) Ibrahim Lodi
(c) Bahlul Lodi
(d) Iltutmish
18. Who wrote the book "Death of a City"?
(a) William Blake
(b) Geoffrey Chaucer
(c) Mike Walsh
(d) John Milton
19. To which sport does Geet Sethi is related?
(a) Carrom
(b) Billiards
(c) Table Tennis
(d) Chess
20. The Golden Threshold was written by whom?
(a) Gopal Krishna Gokhale
(b) Sarojini Naidu
(c) Vijaya Lakshmi Pandit
(d) Bal Gangadhar Tilak

DIRECTIONS (Qs. 21-27): Select the word which gives the nearest meaning of the given word.
21. Ambiguous
(a) Vague
(b) Clear
(c) Transparent
(d) Confusion
22. Adept
(a) Brave
(b) Clever
(c) Skilled
(d) Bold
23. Brawl
(a) Loud fight
(b) Soft conversation
(c) Small fight
(d) Loud conversation
24. Bolster
(a) Weaken
(b) Loosening
(c) Fortify
(d) Gaining
25. Coarse
(a) rough texture
(b) sophisticated
(c) inoffensive
(d) refined
26. Deference
(a) Honest
(b) Respect
(c) Faith
(d) Loyal
27. Dire
(a) Hopeless
(b) Hopeful
(c) Bold
(d) Brave

DIRECTIONS (Qs. 28-35): Select the word which gives the opposite of the given word.
28. Courteous
(a) Soft
(b) Rude
(c) Polite
(d) Respect
29. Dismal
(a) Sad
(b) Cheerful
(c) Happy
(d) Sorrow

30. Contradict
(a) Agree
(b) Argue
(c) Misunderstanding
(d) Conversation
31. Dreary
(a) Sad
(b) Gloomy
(c) Happy
(d) Bright
32. Dubious
(a) Doubtful
(b) Uncertain
(c) Certain
(d) Confusion
33. Emphatic
(a) Expressive
(b) Silent
(c) Reserved
(d) Hesitant
34. Hostile
(a) Harmful
(b) Dangerous
(c) Useful
(d) Friendly
35. Oust
(a) Remove
(b) Force out
(c) Retain
(d) Expel

DIRECTIONS (Qs. 36-50): Select the meaning of the given phrases/idioms.
36. You cannot have your cake and eat it too.
(a) Enjoy forever
(b) Have it both ways
(c) Run away from responsibility
(d) Absolve yourself of guilt
37. The rebels held out for about a month
(a) waited
(b) retreated
(c) bargained

(d) resisted
38. The new economic policy is likely to run into rough weather.
(a) create problems
(b) encounter difficulties
(c) confuse matters
(d) makes things difficult
39. The old father brought home the moral of unity by asking each of his sons to break the bundle of sticks
(a) emphasised
(b) voiced
(c) declared
(d) suggested
40. Some people now wonder whether we just pay lip service or genuinely
(a) Subscribe to democracy.
(b) pay oral tribute
(c) attach no value
(d) remain indifferent
41. He visits the doctor off and on.
(a) everyday
(b) regularly
(c) never at all
(d) occasionally
42. The robber took to his heels when the police arrived.
(a) opened fire
(b) hid himself
(c) ran off
(d) surrendered
43. I hope it will not put you out if I am late.
(a) harm you
(b) irritate you
(c) please you
(d) worry out
44. Manoj was the real power behind the throne and all politicians were aware of this.
(a) The person who had the real control and power
(b) The acknowledged leader

(c) The person who controlled the monarch

(d) The person who controlled the queen

45. His friends let him down.

(a) failed

(b) comforted

(c) succeeded

(d) stood by

46. I felt like a fish out of water among all those business tycoons.

(a) troubled

(b) stupid

(c) uncomfortable

(d) inferior

47. The accounts of the murder made her flesh creep.

(a) Made her sad

(b) surprised her

(c) Made her cry bitterly

(d) Fill her with horror

48. He is an interesting speaker but tends to go off at a tangent.

(a) change the subject immediately

(b) forget things in between

(c) go on at great length

(d) become boisterous

49. Women should be paid the same as men when they do the same job, for, surely what is sauce for the goose is sauce for the gander.

(a) What is thought suitable pay for a man should also be for a woman

(b) Goose and the gender eat the same sauce

(c) Both goose and gander should be equally treated

(d) The principle of equal treatment should be implemented

50. The party stalwarts have advised the President to take it lying down for a while.

(a) to be cautious

(b) to be on the defensive

(c) to take rest

(d) to show no reaction

51. The distance between two stations A and B is 220 km. A train leaves A toward B at an average speed of 80 km/hr. after half an hour another train leaves B toward A at an average speed at 100 km/hr. The distance of the point of two train meet, from A is

(a) 120 km.

(b) 130 km.

(c) 140 km.

(d) 150 km.

52. X and Y are two stations 500 km apart. A train starts from X and moves toward Y at 20 km/hr another train starts from Y at the same times and moves toward X at 30 km/hr. How far from X will they cross each other?

(a) 200 km.

(b) 30 km.

(c) 120 km.

(d) 40 km.

53. In what time will the simple interest on Rs 400 at 10% per annum be the same as the simple interest on Rs 1000 for 4 year at 4 % per annum?

(a) 2 years

(b) 3 years

(c) 4 years

(d) 6 years

54. At what rate percent per annum will a sum of money double in 8 year?

(a) 12%

(b) 12.5%

(c) 13%

(d) 13.5%

55. A and B are 20 km apart. A can walk at an average speed of 4 km/hr and B at 6 km/hr. If they start walking towards each other at 7:00 am, when they will meet?

(a) 8:00 am

(b) 8:30 am

(c) 9:00 am

(d) 10:00 am

56. A plane flies along the four sides of a square field at a speed of 200, 400, 600 and 800 km/hr. Then find the average speed of plane around the square field.
(a) 394
(b) 400
(c) 414
(d) 384

57. The average age of 7 member of Patel's family is 25 year. The average age of the same family 3 year ago was
(a) 21 year
(b) 22 year
(c) 25 year
(d) none of these

58. Rahim covers a certain distance in 14 hrs 40 min. He covers one half of the distance by train at 60 km/hr. and rest half by road at 50 km/hr. The distance travelled by him is
(a) 960 km.
(b) 720 km.
(c) 1000 km.
(d) 800 km.

59. 6 men or 10 women can reap a field in 15 days, then the number of days that 12 men and 5 women will take to reap the same field is?
(a) 5
(b) 6
(c) 8
(d) 12

60. 314 weavers weave 6594 shawls in 1/6 hours. What is the number of shawls weaved per hour by an average weaver?
(a) 42
(b) 21
(c) 102
(d) 126

61. If a person sells a wooden furniture at 8% profit against 8% loss, then he could had earned Rs12 more. What is the cost price of furniture?

(a) 72
(b) 70
(c) 80
(d) 75

62. Calculate the amount of water which should be added to 80% solution of Sulphuric acid to make it a 50% solution?
(a) 60cc
(b) 80cc
(c) 75cc
(d) 70cc

63. Two trains A and B travel from points X to Y and the ratio of the speeds of A to that of B is 2 : 7. Find the ratio of time taken by A and B to reach From X to Y.
(a) 2 : 5
(b) 3 : 5
(c) 3 : 8
(d) 7 : 2

64. Total number of students in a class is 95. If the total number of girls in the class is 45, then the ratio of total number of boys to total number of girls is
(a) 9:10
(b) 11:9
(c) 10:9
(d) 9:11

65. The ratio of money with Ram and Gopal is 7: 17 and that with Gopal and Krishan is 7: 17. If Ram has Rs. 490, Krishan has?
(a) Rs. 2890
(b) Rs. 2330
(c) Rs. 1190
(d) Rs. 2680

66. 'ZYXW' as coded as 'ABCD' then 'STUV' is coded as
(a) HGFE
(b) GFEH
(c) HEFG
(d) GEFH

67. 'bcd' is coded as 'def' then 'true' is coded as

(a) vtwg

(b) tvwg

(c) gtwv

(d) gwtv

68. 'Hyderabad' is coded as 'Ixedszcze' then 'Chennai' is coded as

(a) dgfmojz

(b) dgfmozj

(c) gfdmozj

(d) gfdmojz

69. Apple is coded as 25563, Rung is coded as 7148. Then purple is coded as

(a) 517563

(b) 517536

(c) 753651

(d) 753615

70. If TSEREVE and NOITACUDE stands for EVEREST and EDUCATION, how will you code REDFORT

(a) RECFORT

(b) TEDFNRD

(c) TROFDER

(d) RECFNRT

71. Which code should be replaced in the question mark? MILD:NKOH : GATE:?

(a) IBVC

(b) HCWI

(c) KDXK

(d) ICWA

72. In a code language, SOLID is written as WPSLPIMFHA. What does the code-word ATEXXQIBVO refer to?

(a) WATER

(b) WAGER

(c) EAGER

(d) WAFER

73. If in a certain language, TRIANGLE is coded as SQHZMFKD, which word would be coded as DWZLOKD?

(a) EXAMPLE

(b) FIGMENT

(c) DISMENT

(d) DISJOIN

74. If in a certain code, COVET is written as FRYHW, which word would be written as SHDUO?

(a) QUAKE

(b) REPAY

(c) STINK

(d) PEARL

75. If in a certain language, GRASP is coded as BMVNK, which word would be coded as CRANE?

(a) FUDQH

(b) HWFSJ

(c) GVERI

(d) GMVIZ

DIRECTIONS (Q. 76-86): Find the odd one out.

76. Four words have been given of which three are alike in some way and one is different. Choose the odd one out.

(a) Dollar

(b) Peso

(c) Ounce

(d) Euro

77. Find the odd number or letters from the given alternatives.

(a) Swimming

(b) Sailing

(c) Diving

(d) Driving

78. Find the odd number or letters or word from the given alternative.

(a) 5720

(b) 6710

(c) 2640

(d) 4270

79. Find the odd number or letters from the given alternatives.

(a) PQXZ

(b) CQBN

(c) ABDF

(d) PRMN

80. Pick the odd man out: 154, 235, 352, 460, 324

(a) 234
(b) 324
(c) 154
(d) 460

81. Find the odd number or letters or word from the given alternatives.

(a) Corn
(b) Wheat
(c) Cotton
(d) Jowar

82. Choose the number which is different from others in the group.

(a) 72 : 12
(b) 48 : 24
(c) 120 : 74
(d) 96 : 84

83. Choose the number which is different from others.

(a) 7 : 343
(b) 9 : 243
(c) 8 : 512
(d) 6 : 216

84. Choose the number which is different from others in the group

(a) 263
(b) 383
(c) 242
(d) 551

85. Choose the number which is different from others in the group

(a) 6788
(b) 6878
(c) 6482
(d) 9848

86. Choose the odd pair of words

(a) Aphid - Paper
(b) Termite - Wood
(c) Moth - Wool
(d) Locust - Plant

DIRECTIONS (Q. 87-95): The following question consists of some Problem Figures followed by other figures marked 1, 2, 3, and 4 called the Answer Figures. Find out the correct answer figure that should come next in the sequence of problem figures.
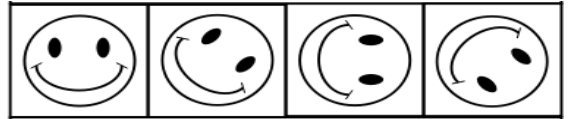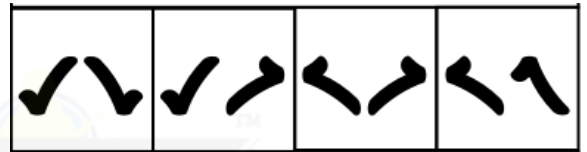
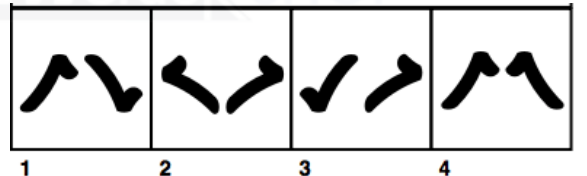**87.** PROBLEM FIGURE
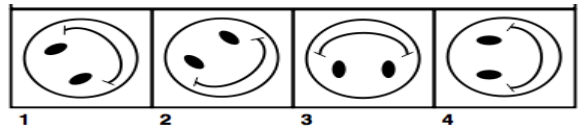
ANSWER FIGURE

(a) 1
(b) 2
(c) 3
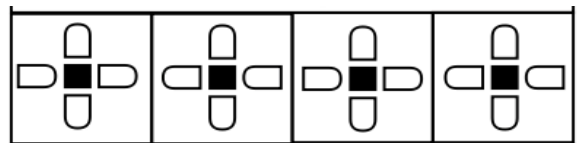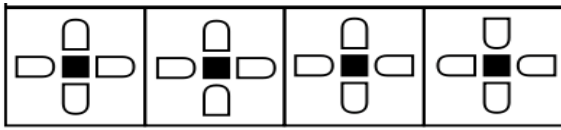(d) 4

88. PROBLEM FIGURE

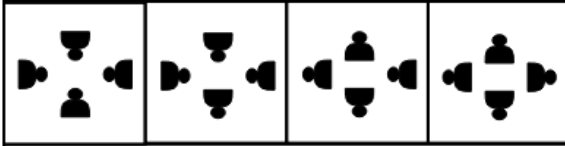ANSWER FIGURE

(a) 4
(b) 2
(c) 3
(d) 1

89. PROBLEM FIGURE

ANSWER FIGURE
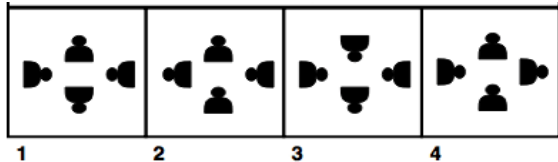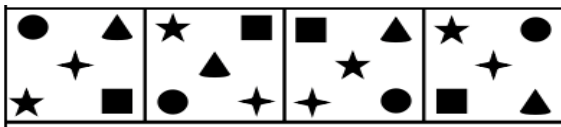
(a) 4
(b) 1
(c) 3
(d) 2

90. PROBLEM FIGURE

ANSWER FIGURE
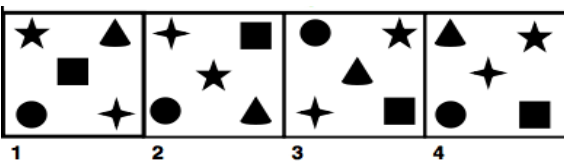

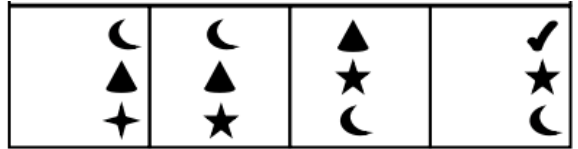(a) 2
(b) 1
(c) 3
(d) 4

91. PROBLEM FIGURE

ANSWER FIGURE
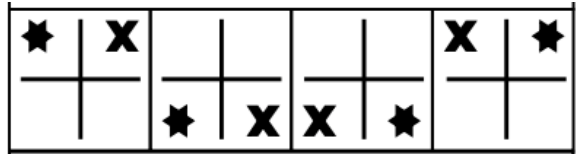

(a) 1
(b) 4
(c) 2
(d) 3

92. PROBLEM FIGURE

ANSWER FIGURE
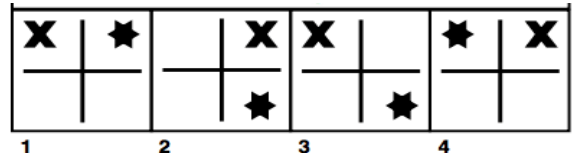

(a) 3
(b) 2
(c) 1
(d) 4

93. PROBLEM FIGURE
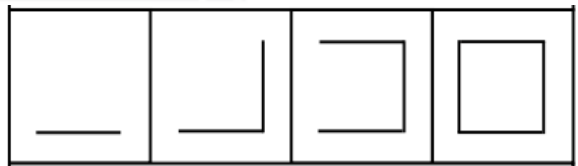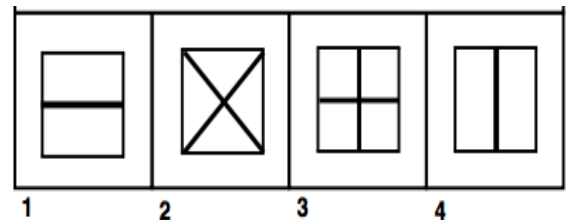

ANSWER FIGURE

(a) 1
(b) 2
(c) 4
(d) 3

94. PROBLEM FIGURE
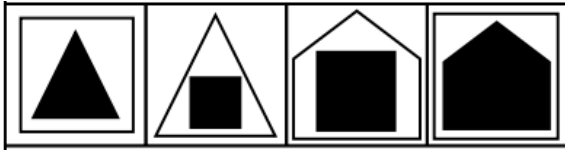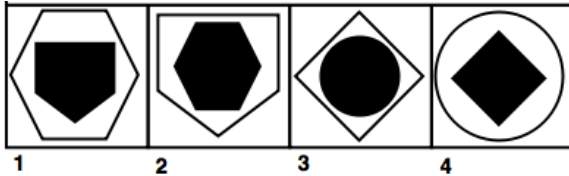

ANSWER FIGURE

(a) 1
(b) 2
(c) 4
(d) 3

95. PROBLEM FIGURE

ANSWER FIGURE

(a) 1
(b) 3
(c) 2
(d) 4

DIRECTIONS (Qs. 96-100): Answer the verbal analogy questions.

96. Author is related to Book as Choreographer is related to
(a) Drama
(b) Ballet
(c) Masque
(d) Opera

97. Glutton is related to Eat as Garrulous is related to
(a) Walk
(b) Talk
(c) Laugh
(d) Travel

98. Vitro is related to Glass as Ligno is related to
(a) Marble
(b) Rock
(c) Wood
(d) Metal

99. Jade is related to Green as Garnet is related to
(a) red
(b) blue
(c) Orange
(d) yellow

100. Estonia is related to Ruble as Chile is related to
(a) Peso
(b) Rupee
(c) Peseta
(d) Dinar

ANSWER KEY									
1. (a)	2. (b)	3. (d)	4. (b)	5. (b)	6. (a)	7. (d)	8. (c)	9. (d)	10. (b)
11. (b)	12.(a)	13. (d)	14. (d)	15.(a)	16 (a)	17. (a)	18. (c)	19. (b)	20. (b)
21. (a)	22. (c)	23. (a)	24. (c)	25. (a)	26. (b)	27. (a)	28. (b)	29. (b)	30. (a)
31. (d)	32. (c)	33. (d)	34. (d)	35. (c)	36. (b)	37. (d)	38. (b)	39. (a)	40. (d)
41. (d)	42. (c)	43. (b)	44. (a)	45. (a)	46. (c)	47. (d)	48. (a)	49. (a)	50. (d)
51. (a)	52. (a)	53. (c)	54. (b)	55. (c)	56. (d)	57. (b)	58. (d)	59. (b)	60. (d)
61. (d)	62. (a)	63. (d)	64. (c)	65. (a)	66. (a)	67. (a)	68. (b)	69. (a)	70. (c)
71. (b)	72. (a)	73. (a)	74. (d)	75. (b)	76. (c)	77. (d)	78. (d)	79. (c)	80. (b)
81. (c)	82. (c)	83. (c)	84. (b)	85. (c)	86. (a)	87. (c)	88. (a)	89. (b)	90. (d)
91. (d)	92. (c)	93. (c)	94. (a)	95. (a)	96. (b)	97. (b)	98. (c)	99. (a)	100.(a)

Hints & Solutions

1. **(A)** Harry Kane won the adidas Golden Boot Award. England's Harry Kane finished as the leading goal scorer at the 2018 FIFA World Cup to win the adidas Golden Boot. France's Antoine Griezmann and Belgium's Romelu Lukaku finished second and third respectively.

2. **(B)** Nirmala Sitharaman becomes the first full-fledged woman defence minister of India, though Indira Gandhi has held this portfolio before, in addition to her responsibilities as Prime Minister of India.

3. **(D)** Abuja, city, capital of Nigeria. It lies in the central part of Nigeria, in the Federal Capital Territory (FCT; created 1976). The city is approximately 300 miles (480 km) northeast of Lagos, the former capital (until 1991).

4. **(B)** The founder of the Satavahana dynasty was Simuka. He and his successors established their authority from the mouth of the Krishna to the entire Deccan plateau. According to the Puranas, the Satavahana king killed the last Kanva ruler of Magadha and presumably took possession of his kingdom.

5. **(B)** Currently, bowlers are allowed to deliver two bouncers per over in Tests and one-day internationals, and one per over in Twenty20 internationals, with similar rules applying in senior domestic cricket.

6. **(A)** Prakash Padukone (born 10 June 1955) is a former Indian badminton player. He was ranked World No. 1 in 1980; the same year he became the first Indian to win the All England Open Badminton Championships.

7. **(D)** Nagaland is the state where Hornbill Festival is celebrated. The Hornbill Festival is held at Naga Heritage Village, Kisama which is about 12 km from Kohima. All the tribes of Nagaland take part in this festival. The aim of the festival is to revive and protect the rich culture of Nagaland and display its extravaganza and traditions.

8. **(C)** Meira Kumar (born 31 March 1945) is an Indian politician and five-time Member of Parliament who was the United Progressive Alliance nominee for President of India in the 2017 election. She was elected unopposed as the first woman Speaker of Lok Sabha and served from 2009 to 2014.

9. **(D)** Rajagopalachari was the founder of Swatantra Party. This party was an Indian classical liberal political party that existed from 1959 to 1974. It was founded by him in reaction to what he felt was the Jawaharlal Nehru-dominated Indian National Congress's increasingly socialist and statist outlook.

10. **(B)** Naypyitaw is the capital of Myanmar. Yangon, also called Rangoon, city, capital of independent Myanmar (Burma) from 1948 to 2006, when the government officially proclaimed the new city of Nay Pyi Taw (Naypyitaw) the capital of the country.

11. **(B)** The Arthashastra is the title of a handbook for running an empire, written by Kautilya (also known as Chanakya, c. 350-275 BCE) an Indian statesman and philosopher, chief advisor and Prime Minister of the Indian Emperor Chandragupta, the first ruler of the Mauryan Empire.

12. **(A)** Bhubaneswar is called as the 'Cathedral City' was once the capital of an ancient

Kalinga kingdom. Bhubaneswar meaning 'The Lord of the Universe' is also the modern capital of Orissa.

13.(D) Prafulla Chandra Ghosh was the first Chief Minister of West Bengal, India.

14.(D) The Gobi is a large desert region which is located in northern China and southern Mongolia. The desert basins of the Gobi are bounded by the Altai Mountains and the grasslands and steppes of Mongolia on the north, by the Tibetan Plateau to the southwest, and by the North China Plain to the southwest.

15.(A) The capital city of Chile is Santiago, also known as Santiago de Chile. This city is located at 1,706 feet above sea level between the Chilean Coastal and the Andes mountains in the Chilean Central Valley. Pedro de Valdivia, a Spanish conquistador, officially founded Santiago on February 12, 1541.

16.(A) LCA stands for Labor Condition Application. LCA is a mandatory document that the H1B Sponsor/employer needs to file with US Department of Labor before they file the H1B petition with USCIS for any non-immigrant worker.

17.(A) Modern Agra was founded by Sikandar Lodhi (Lodhi dynasty; Delhi Sultanate) in the 16th century. Babar (founder of the Mughal dynasty) also stayed for some time in Agra and introduced the concept of square Persian-styled gardens here. Emperor Akbar built the Agra fort and Fatehpur Sikri near Agra.

18.(C) Mike Walsh wrote the book "Death of a City". Mike Walsh is the CEO of Tomorrow, a global consultancy on designing companies for the twenty-first century. He advises leaders on how to thrive in the current era of disruptive technological change.

19.(B) Geet Sethi is related to Billiards. Geet Siriram Sethi (born 17 April 1961) of India is a professional player of English billiards who dominated the sport throughout much of the 1990s, and a notable amateur (ex-pro) snooker player.

20.(B) The Golden Threshold" (1905) was a work of Sarojini Naidu, known by her sobriquet The Nightingale of India (Bharatiya Kokila).

21.(A) The meaning of Ambiguous is **vague**. It is unclear or vague in meaning.

22.(C) The meaning of adept is having knowledge or **skill** in a particular area.

23.(A) The meaning of brawl is **loud fight**, that is, an intense, loud fight or to fight loudly and disruptively.

24.(C) The meaning of Bolster is **fortify** or to support, strengthen.

25.(A) The meaning of coarse is **rough texture**. It also means lacking refinement or sophistication.

26.(B) The meaning of Deference is **respect**. It also means regard.

27.(A) The meaning of dire is **hopeless**. It also means dangerous or fearful.

28.(B) The opposite of Courteous is **rude** or discourteous. The meaning of courteous is polite.

29. (B) The antonym of dismal is **cheerful** whereas the meaning of dismal is dull.

30.(A) The opposite of contradict of is to agree whereas the meaning of contradict is to disagree.

31. (D) The opposite of dreary is **bright** whereas the meaning of dreary is sad, gloomy, and dull.

32.(C) The opposite of dubious is **certain** whereas the meaning of dubious is doubtful or questionable.

33.(D) The opposite of emphatic is **hesitant** whereas the meaning of emphatic is expressing something forcibly and clearly.

34. (D) The opposite of hostile is **friendly** whereas the meaning of hostile is harmful, dangerous and not being friendly.

35. (C) The opposite of oust is **retain** whereas the meaning of oust is remove, force out.

36. (B) Have your cake and eat it too: to have or do two good things at the same time that are impossible to have or do at the same time.

37.(D) held out: to continue to defend yourself against an enemy or attack without being defeated.

38. (B) likely to run into rough weather: to be in unfavourable situation or difficulties.

39. (A) brought home: get to the heart of a matter, make perfectly clear.

40.(D) pay lip service: to say that you agree with something but do nothing to support it.

41. (D) off and on: happening occasionally, or only for part of a period of time, not in a regular or continuous way.

42.(C) took to his heels: to run away.

43.(B) put you out: to annoy or upset someone, often by what you do or say to them.

44.(A) power behind the throne: a person who exerts authority or influence without having formal status.

45. (A) let him down: fail to support or help someone as they had hoped.

46.(C) like a fish out of water: not feel comfortable or relaxed because of being in an unusual or unfamiliar situation.

47.(D) made her flesh creep: to cause one to feel disgusted or frightened.

48.(A) go off at a tangent: to suddenly start talking or thinking about a completely new subject.

49.(A) what is sauce for the goose is sauce for the gander: to emphasize that if one person is allowed to do something or to behave in a particular way, then another person must be allowed to do that thing or behave in that way.

50.(D) to take it lying down: accept an insult, setback, or rebuke without protest.

51.(A) Let the required distance be x km.

Then, $\left(\frac{x}{80}\right) - \frac{220-x}{100} = \frac{1}{2}$

$$\Rightarrow 5x - 4(220 - x) = 200$$
$$\Rightarrow 9x = 1080$$
$$\Rightarrow x = 120 \ km$$

∴ Required distance = 120 km

52.(A) Suppose they meet x km from X

Then, $\frac{x}{20} = \frac{500-x}{30}$

$$\Rightarrow 30x = 10000 - 20x$$
$$\therefore x = 200 \ km.$$

53.(C) Here, $P = Rs. 1000$

n=4yrs

R=4%

where, P=Principal

n=Time

R=Rate

Since, Simple Interest on Rs 1000

$$= \frac{1000 \times 4 \times 4}{100}$$
$$= Rs \ 160$$

now, simple interest= $Rs. 160$

$$P = Rs. 400$$
$$R = 10\%$$

then, $n = \frac{(100 \times SI)}{P \times R}$

$$= \frac{100 \times 160}{400 \times 10}$$
$$= 4 \ yr$$

54.(B) Let $Sum = P$, Then $SI = P$

Amount $A = 2 \times P$

where, $P = $ Principal

Rate $R = \frac{100 \times SI}{P \times n}$

$$= \frac{100 \times P}{P \times 8}\%$$
$$= 12.5\%$$

55.(C) Suppose they will meet after T hours.

$$Distance = Speed \times Time$$

Sum of distance traveled by them after T hours

$$6T + 4T = 20\ km$$
$$T = 2\ hours$$

So, they will meet at

$$7{:}00\ AM + 2\ hours = 9{:}00\ AM$$

56.(D) $\frac{x}{200} + \frac{x}{400} + \frac{x}{600} + \frac{x}{800} = \frac{4x}{y}$

$$\Rightarrow \frac{25x}{2400} = \frac{4x}{y}$$
$$\Rightarrow y = 384$$

∴ Average speed is $384\ km/hr$

57.(B) Present average age of family=25year

3 year ago average of family =25-3=22 years

58.(D) Let the total distance be y km.

Then,

$$\left(\frac{y}{2}\right) \times \left(\frac{1}{60}\right) + \left(\frac{y}{2}\right) \times \left(\frac{1}{50}\right) = \frac{44}{3}$$
$$\Rightarrow \frac{y}{120} + \frac{y}{100} = \frac{44}{3}$$
$$\Rightarrow 5y + 6y = 8800$$
$$\Rightarrow y = 800$$

∴ Required distance = 800 km.

59.(B) Work done by 6 men = work done by 10 women.

Work done by 1 man = work done by 10/6 women = 5/3 women

∴ 12 men + 5 women $= 12 \times \left(\frac{5}{3}\right) + 5$

= 25 women

∴ $W_1 \times D_1 = W_2 \times D_2$

W=women, D=days

$$10 \times 15 = 25 \times D_2$$

$$D_2 = 6$$

60.(D) In 1 hour 314 weavers weave

$= 6594 \times 6$ shawls

In 1 hour 1 weaver weaves = $\frac{6594 \times 6}{314}$ shawls

= 126 shawls

61.(D) Let Cost Price (CP) $= x$

Then Selling Price (SP) if he sells at profit = $x(1 + 8\%) = 1.08x$

and SP, if he sells at loss $= x(1 - 8\%)$

$$= 0.92\%\ x$$

Given, $1.08\%\ x - 0.92\%\ x = Rs\ 12$

$$0.16x = Rs.\ 12$$
$$\Rightarrow x = Rs.\ 75$$

62.(A) Concentration of Sulphuric acid = 80%

So, in a 100cc, Sulphuric acid = 80cc and water=20cc

Let x be the amount of water added to make concentration of 50%

$$\Rightarrow \frac{80}{100 + x} = \frac{50}{100}$$
$$\Rightarrow \frac{80}{100 + x} = \frac{1}{2}$$

∴ $x = 60cc$

63.(D) We know that speed is inversely proportional to time.

Given that:

(Speed of A): (speed of B) = 2: 7

∴ (Time taken by A): (Time taken by B) = $\frac{1}{2}$: $\frac{1}{7} = 7 : 2$

64.(C) Let the total number of boys in the class be x

Then, according to the question,

$$x + 45 = 95$$
$$x = 95 - 45 = 50$$

Hence, the required ratio of total number of boys to total number of girls

$$= 50{:}45 = 10{:}9$$

65.(A) Ram : Gopal = 7 : 17 = 49 : 119

Gopal : Krishan = 7 : 17 = 119 : 289

∴ Ram: Gopal : Krishan = 49 : 119 : 289

⇒ Ram : Krishan = 49 : 289

If Ram has Rs. 490, then Krishnan has Rs. 2890.

66.(A) Z–A, Y–B, X–C, W–D

STUV=HGFE

Rule=letters from backward=letters from forward.

67.(A) b+2=d; c+2=e; d+2=f

By following this way, 'true' can be coded as **'vtwg'**.

68.(B) H+1=I; Y-1=X; D+1=E; E-1=D; R+1=S;

A-1=Z; B+1=C; A-1=Z; D+1=E

Here alternatively the letter increasing and decreasing by one.

Hence, the code for 'Chennai' will be 'dgfmozj'

69.(A) Given codes are A-2, P- 5, L-6, E-3 and R-7, U-1, N-4, G-8

From these two values, we get P-5, U-1, R-7, P-5, L-6, E-3.

Thus, purple is coded as 517563.

70.(C) We can observe that the code is the reverse order of the given word. The answer is obviously TROFDER which is the reverse order of REDFORT.

71.(B) Here, M+1=N; I+2=K; L+3=O; D+4=H

Similarly, G+1=H; A+2=C; T+3=W; E+4=I

Therefore, GATE will be coded as HCWI.

72.(A) Clearly, the word can be obtained by moving the letters at even-numbered positions in the code, three steps forward and omitting those at odd-numbered positions. Hence, 'WATER' is the correct answer.

73.(A) Each letter of the word is one step ahead of the corresponding letter of the code. Hence, 'EXAMPLE' is the correct answer.

74.(D) Each letter of the word is three steps behind the corresponding letter of the code. Hence, 'PEARL' is the correct answer.

75.(B) Each letter of the word is five steps ahead of the corresponding letter of the code. Hence, 'HWFSJ' is the correct answer.

76.(C) All except Ounce are names of currencies, while Ounce is a unit of weight.

77.(D) Swimming, Sailing and, diving are related with water. So, Driving is the odd one.

78. (D) 5720 → 5+2+0 = 7 (Second digit from Right)

6710 → 6+1+0 = 7 (Second digit from Right)

2640 → 2+4+0 = 6 (Second digit from Right)

4270 → 4+7+0 = 11 (Not the second digit from Right)

So, 4270 is the odd one.

79. (C) PQXZ → No vowel. CQBN → No vowel. PRMN → No vowel. ABDF → one vowel.

So, ABDF is the odd one.

80.(B) Sum of the digit in each number, except 324 is 10. So, 324 is the odd one.

81.(C) All except Cotton are food crops, while cotton is a fibre crop.

82.(C) The HCF of all other numbers in the pair is 12 except option (c) 120 - 74.

83.(C) In all other pairs, second number is the cube of the first number, except 9:243.

84.(B) In all other numbers, the middle digit is equal to the product of the other two digits.

(263) → 2 × 3 = 6

(111) → 1×1=1

(242) → 2×2=4

(551) → 5×1=5

(383)→3×3=9, but the number given is 383. So, 383 is the odd one.

85.(C) In all other numbers, sum of digits is 29, while in option C, it is 20.

6 + 4 + 8 + 2 = 20

6 + 7 + 8 + 8 = 29

6 + 8 + 7 + 8 = 29

9 + 8 + 4 + 8 = 29

Thus, 6482 is the odd one.

86.(A) In all other pairs, first is the insect which damages the second.

87.(C) The figure is rotated through 45 degrees in clockwise direction in each step.

Thus, the correct answer figure should be figure 3.

88.(A) The elements are mirror-images in the first step. In the next step, element on the right is rotated and in the next step, mirror-image is obtained. Similarly, in the next step, element on the right is rotated and the next figure should be the mirror-image. Thus, the correct answer figure should be figure 4.

89.(B) The odd numbered figures are identical and the even numbered figures are identical. Thus, in the same order, the correct answer figure should be figure 1.

90.(D) The element at the bottom is rotated through 180 degrees. Then, two elements in the clockwise direction are rotated through 180 degrees.

In the third step, the element to the right is rotated through 180 degrees.

So, the next should be rotation of next two elements in the clockwise direction should be rotated by 180 degrees. Thus, the correct answer figure should be figure 4.

91. (D) The circle and square move in anti-clockwise direction in a set order.

The elements in the centre follow a set order as - 4-pointed star, triangle, 5-pointed star, 4-pointed star and so on. Thus, the correct answer figure should be figure 3.

92.(C) The second element becomes the top element in the next figure. Third element becomes second element. The previous element is deleted and replaced with another. The complete column of figures moves one-third step forward each time.

Thus, the correct answer figure should be figure 1.

93.(C) X moves in clockwise direction and star moves in anti-clockwise direction in a set order. Thus, the correct answer figure should be figure 4.

94.(A) Vertical and horizontal lines are added in each step to obtain a complete figure. Thus, the correct answer figure should be figure 1.

95.(A) 3-sided figure is inside 4-sided and in the next step, it is reversed. Similarly, 4-sided figure is inside 5-sided figure and vice versa. Thus, following the same order, the correct answer figure should be figure 1.

96.(B) Author composes the book. Similarly, Choreographer composes the Ballet.

97.(B) Glutton is one who eats too much. Similarly, Garrulous is one who talks too much.

98.(C) 'Vitro' is related to glass. Similarly, 'Ligno' is related to wood.

99.(A) Jade is a green precious stone. Similarly, Garnet is a red precious stone.

100. (A) Ruble is the currency of Estonia. Similarly, Peso is the currency of Chile.

Numerical Ability

1. Car A is travelling at 60 kmph towards northwest creating an angle 42^0 to north and Car B is travelling towards South West at 80 kmph creating an angle 48^0 degree to South. Both are started from same point. Find distance between A and B after one hour?
   (a) 100 km
   (b) 120 km
   (c) 150 km
   (d) 90 km

2. Average age of n students who promoted in class VIII is Y years. Three more students included in class whose ages are Y-1, Y-2 and Y+3 years. Find their average age when they promoted in class Xth.
   (a) Y
   (b) Y-3
   (c) Y+2
   (d) Y+5

3. Difference between two stations X and Y is 500 km one train starting from X move toward Y with 20 km/h and another train move toward X from Y with the speed 30km/h. What is the distance of the point where both train cross each other from point X.
   (a) 400 km
   (b) 200 km
   (c) 300 km
   (d) 100 km

4. The average monthly rainfall is 2.7inch, the average of first 7 months rainfall is 1.1 less than the average of yearly rainfall and rainfall of other four months is 20.3 what is the average rainfall of the last month?
   (a) 0.9
   (b) 10
   (c) 2.1
   (d) 1.3

5. X, Y and Z have some monkey in the ratio 4:3:8. If 2 monkey run away from X and 4 monkey run away Z than the ratio become 3:3:8 how many monkey they initially had?
   (a) 10
   (b) 20
   (c) 40
   (d) 30

6. A is 5 times efficient as of B. A completes a piece of work in 60 days less than B, how many time will they take individually?
   (a) 15 days,75 days
   (b) 13 days, 65 days
   (c) 15 days, 60 days
   (d) 17 days, 85 days

7. A man bought watch and pen-drive at 1564 each. And one sold for 23% profit and other sold for 23% loss. What is overall profit or loss?
   (a) 0%
   (b) 23%
   (c) 46%
   (d) 0%

8. A and B earn in the ratio 2:1. They spend in the ratio 5:3 and save in the ratio 4:1. If the total monthly savings of both A and B are Rs.5000, the monthly income of B is-
   (a) Rs. 7,000
   (b) Rs. 14,000
   (c) Rs. 5,000
   (d) Rs. 10,000

9. 240 men can finish a work in 20 days working 5 hours a day. To finish the work within 10 days working 8 hours a day, the minimum number of men required is-
   (a) 310
   (b) 300
   (c) 315
   (d) 312

10. While selling, a businessman allows 40% discount on the marked price and there is a loss of 30%. If it is sold at the marked price, profit per cent will be –
    (a) 10%
    (b) 20%
    (c) 16.68%
    (d) 16.25%

11. The average salary of all the staff in an office of a corporate house is Rs. 5,000. The average salary of the officers is Rs. 14,000 and that of the rest is Rs. 4,000. If the total number of staff is 500, the number of officers is–
    (a) 10
    (b) 15
    (c) 25
    (d) 50

12. 60% of the cost price of an article is equal to 50% of its selling price. Then the percentage of profit or loss on the cost price is-
    (a) 20% loss
    (b) $16\frac{2}{3}\%$ profit
    (c) 20% profit
    (d) 10% loss

13. There are in all, 10 balls; some of them are red and the others white. The average cost of all balls is Rs. 28. If the average cost of red balls is Rs. 25 and that of white balls is Rs. 30, the number of white balls is:
    (a) 3
    (b) 5
    (c) 6
    (d) 7

14. Either 8 men or 17 women can paint a house in 33 days. The number of days required to paint three such houses by 12 men and 24 women working at the same rate is :
    (a) 44
    (b) 43
    (c) 34
    (d) 66

15. The difference between simple and compound interest on a sum of money at 5% p.a. for 2 years. is Rs. 100. The sum of money must be.

    (a) Rs. 35, 000
    (b) Rs. 41, 000
    (c) Rs. 40, 000
    (d) Rs. 45, 000

16. If $\sqrt{2} = 1.4142$, find the value of

$$2\sqrt{2} + \sqrt{2} + \frac{1}{2+\sqrt{2}} + \frac{1}{\sqrt{2}-2}$$

    (a) 1.4144
    (b) 2.8284
    (c) 28.284
    (d) 2.4142

17. An alloy contains copper, zinc and nickel in the ratio of 5 : 3 : 2. The quantity of nickel in kg that must be added to 100 kg of this alloy to have the new ratio 5 : 3 : 3 is

    (a) 8
    (b) 10
    (c) 12
    (d) 15

18. The ratio of the ages of Ram and Rahim 10 years ago was 1 : 3. The ratio of their ages five years hence will be 2 : 3. Then the ratio of their present ages is

    (a) 1 : 2
    (b) 3 : 5
    (c) 3 : 4
    (d) 2 : 5

Reasoning and Military Aptitude

DIRECTIONS (Qs. 19–21) : *In each of the following questions, select the related letter/word/ figure/ number from the given alternatives.*

19. Microphone : Loud :: Microscope : ?

    (a) Elongate
    (b) Investigate
    (c) Magnify
    (d) Examine

20. Sound : Medium : : Light : ?

    (a) Air
    (b) Vacuum
    (c) Water
    (d) Glass

21. Democracy : India : : Communism : ?

    (a) France
    (b) China
    (c) Britain
    (d) America

22. In the following figure, rectangle represents Opticians, circle represents Art critics, triangle represents Riders and square represents Boxes. Which set of letters represents Art critics who are not Riders?
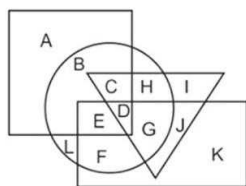
    (a) BLEF
    (b) IJ
    (c) CHDG
    (d) EDGJ

DIRECTIONS (Qs. 23-24): *In the following question, select the related word pair from the given alternatives.*

23. School : Education : : ? : ?

    (a) Scalpel : Teacher
    (b) Hospital : Treatment
    (c) Teacher : School
    (d) Class : College

24. 5 : 125 : : 7 : ?

    (a) 343
    (b) 512
    (c) 243
    (d) 729

DIRECTIONS (Qs. 25-26): *In the following question, select the one which is different from the other three responses.*

25. (a) Daring : Timid
    (b) Beautiful : Pretty
    (c) Clear : Vague
    (d) Youth : Adult

26. (a) Fish : Shoal
    (b) Cow : Herd
    (c) Sheep : Flock
    (d) Man : Mob

DIRECTIONS (Qs. 27-29): *For the following questions Find the odd word / letter / number from the given alternative.*

27. (a) Rival
    (b) Opponent
    (c) Foe
    (d) Ally

28. (a) POCG
    (b) KLIZ
    (c) BUDX
    (d) FQMV

29. (a) Farmer
    (b) Blacksmith
    (c) Cobbler
    (d) Helper

30. Which one of the following diagram represents the correct relationship among

    Professor, Male and Female.

    (a)
    (b)
    (c)
    (d)

31. A's birthday is on Friday 30th June. Find the day of the week on which B's birthday in the same year if B was born 15th November ?

    (a) Tuesday
    (b) Wednesday
    (c) Monday
    (d) Sunday

32. A piece of paper is folded and cut. From the figures given, indicate how it will appear when opened

    (a)
    (b)
    (c)
    (d)
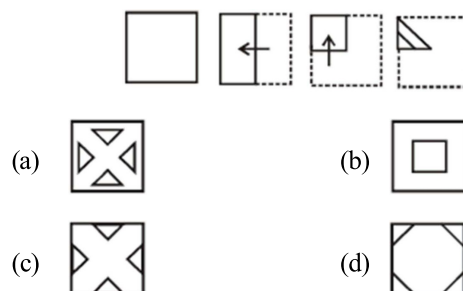
33. Which answer figure will complete the pattern in the following question figure?

(a) 　　(b)

(c) 　　(d)

34. Which one of the following diagram represents the correct relationship among
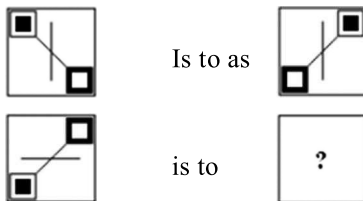
Pink, Blue and Fruit.

(a) 　　(b)

(c) 　　(d)

35. Which one of the following diagram represents the correct relationship among
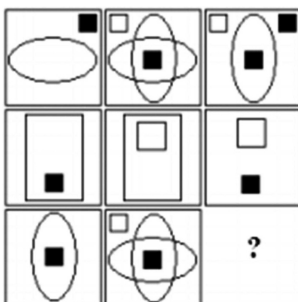
Brain, Cerebrum, Liver and Human body.

(a) 　　(b)

(c) 　　(d)

36. Which figure completes the statement?

Is to as

is to ?

(a) 　　(b)

(c) 　　(d)

37. Look at the patterns in the squares and understand their relationship to one another so as to fill in the square with missing symbols.

38. Replace '?' by the appropriate figure from the given options.
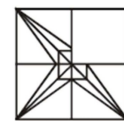

(a) 　　(b)

(c) 　　(d)

39. Which answer figure will complete the question figure?

(a) 　　(b)

(c) 　　(d)
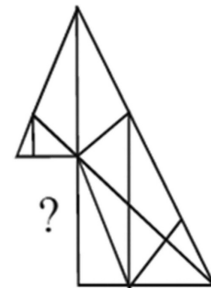
40. Which answer figure will complete the question figure?

(a) 　　(b)

(c) 　　(d)

DIRECTIONS (Qs. 41-43): *Complete the series of figures, by selecting correct answer figure from the given responses.*

41. **Question Figures:**

Answer Figures:

   (a)   (b)   (c)   (d)

42. **Question Figures:**
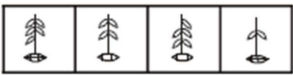

Answer Figures:

   (a) (b) (c) (d)

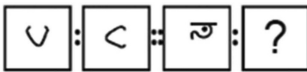43. **Question Figures:**

Answer Figures:

   (a)   (b)   (c)   (d)

DIRECTIONS (Qs. 44-46): *Choose a right figure from the set of answer figures which would replace the question mark (?)*

44. **Question Figures:**

Answer Figures:

   (a)   (b)   (c)   (d)

45. **Question Figures:**

Answer Figures:

   (a)   (b)   (c)   (d)

46. **Question Figures:**

Answer Figures:

   (a)   (b)   (c)   (d)

DIRECTIONS (Qs. 47–48): *In each question below are given some statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows/follow from the given statements, disregarding commonly known facts.*

Give answer

   (a)   If only conclusion I follows.

   (b)   If only conclusion II follows.

   (c)   If either conclusion I or II follows.

   (d)   If neither conclusion I nor II follows.

47. **Statements:**

All shirts are skirts.

No skirt is top.

All tops are kurta.

Conclusions:

I.   All shirts are kurta

II.   Some kurta are skirts.

48. **Statements:**

All September are October.

No October is November.

No November is December.

Conclusions:

I.   Some September are not Novembers

II.   No October is December.

DIRECTIONS (Qs. 49-50): *In each of the following questions, you are given a figure (X) followed by four alternative figures (1), (2), (3) and (4) such that figure (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.*
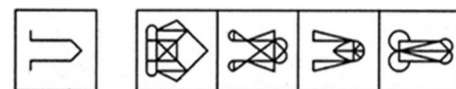
49. Find out the alternative figure which contains figure (X) as its part.
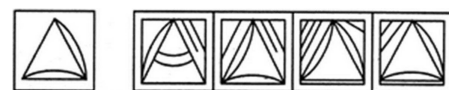
   (X)   (1)   (2)   (3)   (4)

   (a)   1   (b)   2

   (c)   3   (d)   4

50. Find out the alternative figure which contains figure (X) as its part.

   (X)   (1)   (2)   (3)   (4)

   (a)   1   (b)   2

   (c)   3   (d)   4

Verbal Ability

DIRECTIONS (Qs. 51-53): *Out of the four alternatives, choose the one which best expresses the meaning of the given word.*

51. POLTROON
    (a) Pusillanimous   (b) Gallant
    (c) Gutsy   (d) Wearied

52. ROSTRUM
    (a) Guardian   (b) Podium
    (c) Device   (d) Scheme

53. PROROGUE
    (a) Adjourn   (b) Convene
    (c) Rally   (d) Continue

DIRECTIONS (Qs. 54-56): *In the following questions, choose the word opposite in meaning to the given word.*

54. LUCRE
    (a) Debt   (b) Elegance
    (c) Outlaw   (d) Sissy

55. RABBLE
    (a) Rag   (b) Nobility
    (c) Scanty   (d) Sanction

56. COTERIE
    (a) Loner   (b) Socialize
    (c) Elite   (d) Indecent

DIRECTIONS (Qs. 57-60): *In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.*

57. It was being hard to believe (A)/that my brother could be (B)/involved in anything so sinister. (C)/No error(D)
    (a) A   (b) C
    (c) C   (d) D

58. The average age at which (A)/people die of heart diseases (B)/are decreasing. (C)/No error (D)
    (a) A   (b) B
    (c) C   (d) D

59. Hardly had I stepped (A)/out of my house when (B)/I saw them coming towards my house. (C)/No error(D)
    (a) A   (b) B
    (c) C   (d) D

60. The last Mughal emperor was (A)/send into exile (B)/by the British. (C)/ No error (D).
    (a) A   (b) B
    (c) C   (d) D

DIRECTIONS (Qs. 61-63): *Read the passage carefully and choose the best answer to each question out of the four alternatives.*

In the world have we made health an end in itself? We have forgotten that health is really a means to enable a person to do his work and do it well. A lot of modern medicine is concerned with promotion of good health. Many patients as well as many physicians pay very little attention to health; but very much attention to health makes some people imagine that they are ill. Our great concern with health is shown by the medical columns in newspaper, the health articles in popular magazines and the popularity of the Television programme and all those books on medicine we talk about health all the time. Yet for the most only result is more people with imaginary illnesses. The healthy man should not be wasting any time talking about health, he should be using health for work, the work he does and the work that good health makes possible.

61. Modern medicine is primarily concerned with:
    (a) promotion of good health
    (b) people suffering from imaginary illnesses
    (c) people suffering from real illnesses
    (d) increased efficiency in work

62. A healthy man should be concerned with:
    (a) his work which good health makes possible
    (b) looking after his health
    (c) his health which makes work possible
    (d) talking about health

63. Our great concern with health is shown by?
    (a) free medicine distribution in hospitals
    (b) free education to medical students
    (c) taking yoga classes
    (d) the health articles in popular magazines

DIRECTIONS (Qs. 64-67): *In the following questions four alternatives are given for idioms/phrases in now. Choose the one that best expresses the meaning of the given idiom/phrase.*

64. Brain sauce
    (a) Foolish   (b) Wisdom
    (c) Mentally ill   (d) Head full of thoughts

65. Lynch law
    (a) Law imposed by the government
    (b) Law of the mob
    (c) A law that is supposed to be useless
    (d) A rule that no one follows

66. Globetrotters
    (a) Travellers around the world
    (b) Sick people in hospital
    (c) The people living in asylum
    (d) World champions

67. Dole out
    (a) Allocate   (b) Be effective
    (c) Turn up   (d) Mismanage

Some scholars, while exploring the forests of America, discovered some buildings that were in ruins. These buildings were **(68)_____** ruined by encroaching forest. They were remnants of a **(69)_____** civilization. The scholars got interested. They excavated more and discovered **(70)_____** their utmost surprise the remains of a flourishing civilization-the Mayas as they named it.

68. (a) reasonably   (b) surely
    (c) apparently   (d) perfectly
69. (a) great   (b) invisible
    (c) static   (d) ordinary
70. (a) at   (b) for
    (c) by   (d) to

71. Grandmother has a good memory; she can remember things which _____ many years ago.
    (a) had happened   (b) have happened
    (c) happened   (d) happens to be
72. I _____ her among the crowd just now.
    (a) have glimpsed   (b) had glimpsed
    (c) have been glimpsing   (d) glimpsed
73. Lost time is _____ again, and what we call time enough always proves little enough.
    (a) found never   (b) find never
    (c) never found   (d) never been found
74. To such a degree _____ that people rebuked him.
    (a) he made a noise   (b) did he make a noise
    (c) he had made a noise   (d) did he make noise
75. I'm going to adopt her as _____ as Julie and I get married.
    (a) sooner   (b) quickly
   (c) earlier   (d) soon

General Awareness

76. In 4 × 100 m race, which nation holds the record?
    (a) Nigeria   (b) USA
    (c) Kenya   (d) Jamaica
77. Which Continent has the largest coastline?
    (a) Asia   (b) North America
    (c) South America   (d) Africa

78. Which game is Geet Sethi associated with?
    (a) Squash   (b) Table Tennis
    (c) Billiards   (d) Golf
79. In which state of India "Than Ta Dance" is related?
    (a) Meghalaya   (b) Manipur
    (c) Assam   (d) Sikkim
80. When our Constitution was adopted?
    (a) 26 November 1949   (b) 26 January 1949
    (c) 26 January 1950   (d) 26 November 1950
81. The Hardest substance on the Earth?
    (a) Iron   (b) Silver
    (c) Diamond   (d) Lead
82. The language of Ashoka's Inscription?
    (a) Sanskrit   (b) Tamil
    (c) Prakrit   (d) Parthian
83. Who was awarded first Bharat Ratana?
    (a) M. Visvesvaraya
    (b) Sarvepalli Radhakrishnan
    (c) Govind Ballabh Pant
    (d) Rajendra Prasad
84. The first Modern Olympic held where and which city?
    (a) France   (b) Britain
    (c) Cuba   (d) Greece
85. Oldest Mountain range in India?
    (a) Himalaya   (b) Aravali
    (c) Satpura   (d) Nilgiri
86. Number of Players in Basket Ball?
    (a) 11   (b) 9
    (c) 7   (d) 5
87. Shuddhi Movement was run by?
    (a) Arya Samaj   (b) Brahmo Samaj
    (c) Prarthana Samaj   (d) None of these
88. ISRO's Satish Bahwan Space Center is located at which place?
    (a) Andhra Pradesh   (b) Telangana
    (c) Tamil Nadu   (d) Odisha
89. The Author of the book "The Golden Threshold"?
    (a) R.K Narayan   (b) Sarojini Naidu
    (c) Jhumpa Lahiri   (d) Arundhati Roy
90. The founder of Stavahana Dynasty?
    (a) Satakarni   (b) Simuka
    (c) Pulumavi   (d) Kanha
91. Who is the Father of the Indian Space Program?
    (a) Vikram Ambalal Sarabhai   (b) A. P. J. Abdul Kalam
    (c) Homi Jehangir Bhabha   (d) Satyendra Nath Bose

92. Uber cup is related to which sport?
    (a) Cricket   (b) Badminton
    (c) Football   (d) Tennis

93. Who is the youngest grandmaster in India?
    (a) Parimarjan Negi (b) D. Gukesh
    (c) Krishnan Sasikiran (d) Surya Shekhar

94. From which country India bought C-17 transport aircraft?
    (a) Iran   (b) France
    (c) USA   (d) Germany

95. Asian games maximum number of times?
    (a) Japan   (b) China
    (c) Thailand   (d) India

96. Agra city was founded by -
    (a) Sikandar Lodhi   (b) Babar
    (c) Akbar   (d) Shah Jahan

97. The visible part of the sun is called –
    (a) Chromosphere   (b) Photosphere
    (c) Corona   (d) Core

98. Ozone layer located in which layer -
    (a) Stratosphere   (b) Troposphere
    (c) Mesosphere   (d) Exosphere

99. Who is the chairman of the constitution drafting committee–
    (a) Alladi Krishnaswami Ayyar
    (b) N. Gopalaswami
    (c) B.R. Ambedkar
    (d) K.M Munshi

100. UN was established on?
    (a) 1944   (b) 1945
    (c) 1942   (d) 1946

Answers

1. (a)
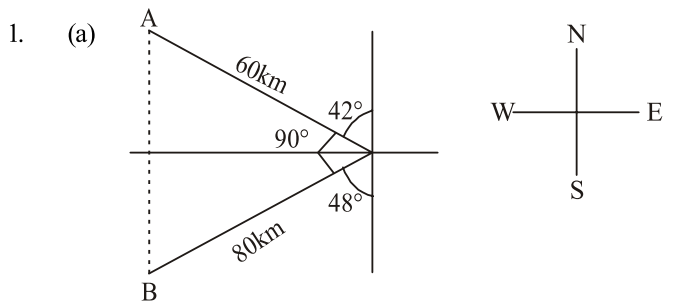
   Distance travelled by A in one hour = 60 km
   Distance travelled by B in one hour = 80 km
   Angle between them = 90°
   Using Pythagoras theorm.

   Distance between A & B after one hour $= \sqrt{60^2 + 80^2}$
   $$= \sqrt{3600 + 6400}$$
   $$= \sqrt{10000}$$
   $$= 100 \, km.$$

2. (c) Total age of students who promoted in class VIII is
   = n. Y years.
   When 3 more students included this college.
   $= n.Y + Y - 1 + Y - 2 + Y + 3$
   $= ny + 3y$
   After two years when they are in X^{th} total age
   $= n(Y + 2) + 3(Y + 2)$

   Avg age $= \dfrac{n(Y+2) + 3(Y+2)}{(n+3)}$

   $= \dfrac{(n+3)(Y+2)}{n+3} = Y + 2$

3. (b)
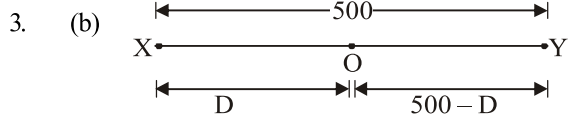
   Suppose they meet at point 'O' at the same time

   Time $= \dfrac{D}{20} = \dfrac{(500 - D)}{30}$

   $\Rightarrow \quad 30D = (500 - D) \times 20$
   $\Rightarrow \quad 50D = 500 \times 20$
   $D = 200 \, km$

   Both the train meet 200 km from point 'X'.

4. (a) Total Rain fall of 12 months $= 2.7 \times 12 = 32.4$
   Total Rain fall of first 7 months $= 7 \times (2.7 - 1.1) = 11.2$
   Rain fall of last month
   $= 32.4 - (11.2 + 20.3)$
   $= 32.4 - 31.5$
   $= 0.9$

5. (d)

X	:	Y	:	Z
4	:	3	:	8

   $\dfrac{4k - 2}{3k} = \dfrac{3}{3}$

   $4k - 2 = 3k$
   $k = 2$
   Initially monkey $= (4 + 3 + 8) k = 15 \, k = 15 \times 2 = 30$

6. (a) According to question,

	A	:	B
Efficiency	5	:	1
Time	1	:	5

$5x - x = 60$

$4x = 60$

$x = 15$

Time take by A = 15 days

 B = 75 days

7. (d) $CP = 1564 + 1564 = 3128$

$SP = \dfrac{1564 \times 123}{100} + \dfrac{1564 \times 77}{100}$

$= \dfrac{1564 \times 200}{100} = 3128$

$CP = S.P$

So, no profit no loss.

8. (a) Let the monthly income of B be Rs. x.

Then , Monthly income of A = Rs. 2x and

Saving of A $= 5000 \times 4/(4+1)$

$=$ Rs. 4000

Saving of B = Rs. 1000

Now , we have

$(2x - 4000)/(x - 1000) = 5/3$

$\Rightarrow 6x - 12000 = 5x - 5000$

$x =$ Rs. 7000

So, Monthly income of B = 7000

9. (b) $M_1 D_1 H_1 = M_2 D_2 H_2$

Required no. of men $= (240 \times 5 \times 20)/(8 \times 10)$

$= 300$

10. (c) Let the M.P. be Rs. 100.

We know $S.P = (100 - 40) =$ Rs. 60

and $C.P. = 60 \times 100/(100 - 30) =$ Rs. 600/7 = 85.7

So, Required % profit $= (100 - 85.7)/85.7 \times 100$

$= 14.3/85.7 \times 100 = 16.68\%$

11. (d) Let the number of officers be x.

$\because 5000 \times 500 = 14000x + 4000(500 - x)$

$\therefore 2500000 = 14000x + 2000000 - 4000x$

$\therefore x = 500000/10000 = 50$

12. (c) Let the cost price be Rs. 100.

$\because S.P \times 50/100 = 100 \times (60)/100$

$\therefore S.P = (60 \times 100)50$

$=$ Rs. 120

$\therefore$ Required % profit $= (120 - 100)/100 \times 100 = 20\%$

13. (c) Let the number of white balls be x.

$\therefore$ Number of red balls $= (10 - x)$

$\therefore 10 \times 28 = x \times 30 + 25(10 - x)$

$\Rightarrow 280 = 30x + 250 - 25x$

$= 280 = 5x + 250$

$\Rightarrow 5x = 280 - 250 = 30$

$\Rightarrow x = 6$

So, The number of white balls = 6

14. (c) $\therefore$ 8 men = 17 women

$\Rightarrow 12$ men $\equiv \dfrac{17}{8} \times 12 = \dfrac{51}{2}$ women

$\therefore$ 12 men + 24 women

$= \dfrac{51}{2} + 24 = \dfrac{99}{2}$ women

By $\dfrac{M_1 D_1}{W_1} = \dfrac{M_2 D_2}{W_2}$

$\Rightarrow \dfrac{17 \times 33}{1} = \dfrac{99 \times D_2}{2 \times 3}$

$D_2 = \dfrac{17 \times 33 \times 6}{99} = 34$ days

15. (c) Difference $= \dfrac{Pr^2}{(100)^2}$

$\Rightarrow 100 = \dfrac{P \times 5 \times 5}{100 \times 100}$

$\Rightarrow \dfrac{P}{400} = 100$

$\Rightarrow P =$ Rs. 40000

16. (b) Expression:

$= 2\sqrt{2} + \sqrt{2} + \dfrac{1}{2 + \sqrt{2}} + \dfrac{1}{\sqrt{2} - 2}$

$= 2\sqrt{2} + \sqrt{2} + \left(\dfrac{1}{2 + \sqrt{2}} + \dfrac{1}{\sqrt{2} - 2} \right)$

$= 2\sqrt{2} + \sqrt{2} + \left(\dfrac{-2 + \sqrt{2} + 2 + \sqrt{2}}{(2 + \sqrt{2})(\sqrt{2} - 2)} \right)$

$$= 2\sqrt{2} + \sqrt{2} + \frac{2\sqrt{2}}{2-4}$$

$$= 2\sqrt{2} + \sqrt{2} - \sqrt{2} = 2\sqrt{2}$$

$$= 2 \times 1.4142 = 2.8284$$

17. (b) Let x kg of nickel be mixed.

$$\therefore \quad \frac{20+x}{100+x} = \frac{3}{11}$$

$$\Rightarrow \quad 220 + 11x = 300 + 3x$$

$$\Rightarrow \quad 11x - 3x = 300 - 220$$

$$\Rightarrow \quad 8x = 80$$

$$\Rightarrow \quad x = 10 \, kg$$

18. (b) Let the ages of Ram and Rahim 10 years ago be x and 3x years respectively.

After 5 years from now,

$$\Rightarrow \frac{x+15}{3x+15} = \frac{2}{3}$$

$$\Rightarrow 6x + 30 = 3x + 45$$

$$\Rightarrow 3x = 45 - 30 \Rightarrow 3x = 15$$

$$\Rightarrow \quad x = 5$$

∴ Ratio of their present ages

$$= (x+10):(3x+10)$$

$$= 15 : 25 = 3 : 5$$

19. (c) As, Microphone makes sound louder. Similarly, Microscope makes the object magnified.

20. (b) Sound requires medium to travel and light can travel in vacuum.

21. (b) Country and its type of governance.

22. (a) B L E F

23. (b) We get education in school, Similarly Treatment is done in hospital.

24. (a) $5^3 = 125$

$7^3 = 343$

25. (b) In all other pairs, the two words are antonyms of each other.

26. (d) In all other pairs, second is a collective group of the first.

27. (d) Ally is different in nature.

28. (d) FQMV is different because there is no vowel in word.

29. (d) Helper may be of any profession.

30. (a)

31. (b) According to question,

Required day = $(31 + 31 + 30 + 31 + 15) \div 7 = 5$ days

Hence, B's birthday was on 5 days later of A's birthday

Hence, Wednesday is the required day.

32. (c) 33. (c) 34. (d) 35. (d) 36. (b)

37. (a)

38. (c) Similar figure reappears in every fourth step and each time a figure reappears, it rotates through 90°ACW.

39. (c) 40. (b) 41. (c) 42. (d) 43. (c)

44. (b) 45. (d) 46. (d)

47. (d)
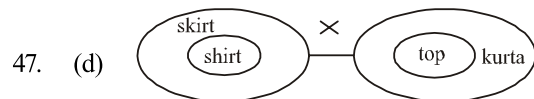
So neither conclusion I nor II follows.

48. (a)
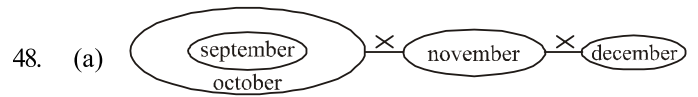
So only conclusion I follows.

49. (d)

50. (b)
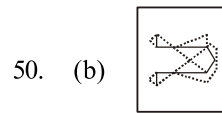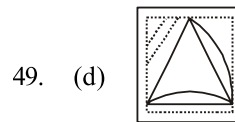
51. (a) Poltroon: having or showing a shameful lack of courage.

Pusillanimous: showing a lack of courage or determination; timid.

Gutsy: having or showing courage, determination, and spirit.

Hence Poltroon and Pusillanimous are synonyms to each other.

52. (b) Rostrum: a level usually raised surface.

Podium: a small platform on which a person may stand to be seen by an audience.

Hence Rostrum and Podium are synonyms to each other.

53. (a) Prorogue: to bring to a formal close for a period of time.

Adjourn: break off (a meeting, legal case, or game) with the intention of resuming it later.

Convene: come or bring together for a meeting or activity.

Hence Prorogue and Adjourn are synonyms to each other.

54. (a) Lucre: monetary gain.

Debt: a sum of money that is owed or due.

Outlaw: a person who has broken the law.

Sissy: a person regarded as effeminate or cowardly.

Hence 'Debt' is the correct antonym.

55. (b) Rabble: a disorderly crowd; a mob.

Nobility: the quality of being noble in character; integrity.

Hence 'Nobility' is the correct antonym.

56. (a) Coterie: a small group of people with shared interests or tastes, especially one that is exclusive of other people.

Loner: a person that prefers not to associate with others.

Hence 'Loner' is the correct antonym.

57. (a) "Being" should be removed because two forms of "be" in a complement should not be used.

58. (c) When we talk about "age" and if we need to talk about the context related to lessening, the word "reduce" should be used.

59. (d) No Error

60. (b) As the sentence is in passive and in passive voice structured sentence, we use "be + v3" and the 3rd form of "send" is "sent" thus "sent" should be used in place of "send".

61. (a) Refer to, "A lot of modern medicine is concerned with promotion of good health."

62. (a) Refer to, "The healthy man should not be wasting any time talking about health, he should be using health for work, the work he does and the work that good health makes possible.

63. (d) Refer to, "Our great concern with health is shown by the medical columns in newspaper, the health articles in popular magazines and the popularity of the Television programme and all those books on medicine we talk about health all the time".

64. (b) 65. (b) 66. (a) 67. (a) 68. (c)

69. (a) 70. (d)

71. (c) Subject + V2(past form of verb)+ Object……………..+ ago.

72. (d) When 'just now' means a very short time ago. It takes past form of the verb i.e.V2.

73. (c) 'Never', 'Seldom', 'Always' are used before the 'Main verb'. Also the sentence is in 'passive voice'. Hence option C is the correct choice.

74. (b) Sentences beginning with 'To such a point, 'To such a degree', 'To such an extent' take inversion form i.e. "To such a degree + H.V. (auxiliary) +Subject + M.V."

Moreover 'make a noise' is the correct idiomatic expression not 'make noise'.

75. (d) Soon means 'a short time after then' i.e. in or after a short time.

Early means 'near the beginning of a period of time we are talking about'. Early does not mean soon. Moreover, comparative degree is not needed.

While we use quickly to refer to the speed with which something is done.

Hence option D is the correct choice.

76. (d)

77. (a) Asia, the largest continent, stretches from the eastern Mediterranean Sea to the western Pacific Ocean. There are more than 40 countries in Asia. Some are among the most-populated countries in the world, including China, India, and Indonesia.

78. (c) 79. (b) 80. (a) 81. (c)

82. (c) Prakrit, Greek, and Aramaic

83. (c) Rajagopalachari, Sarvepalli Radhakrishnan, C. V. Raman were awarded the Bharat Ratana Award in the year 1954, after the effect of the constitution.

84. (d) In 1896, the first modern Olympic was played in Athens, Greece.

85. (b) The Aravalli Range is the oldest range of fold mountains in India. The estimated age of Aravalli Range according to geologists is about 350 million years. As for now the Aravalli Range of mountains is approximately 692 km in the north–west part of India. It starts from Delhi and pass through southern Haryana and across the states of Rajasthan which ends in Gujarat.

86. (d) Basketball is a team sport in which two teams, most commonly of five players each, opposing one another on a rectangular court. The only major sport strictly of U.S. origin, basketball was invented by James Naismith (1861–1939) on or about December 1, 1891.

87. (a) Arya samaj was founded by the sannyasi Dayanand Saraswati on 10 April 1875. Members of the Arya Samaj believe in one God and reject the worship of idols. It is an Indian Hindu reform movement.

88. (a) Sriharikota is a barrier island off the Bay of Bengal coast located in the Nellore district of Andhra Pradesh, India. It houses the Satish Dhawan Space Centre, one of the two satellite launch centres in India.

89. (b)

90. (b) Simuka was an Indian king belonging to the Satavahana dynasty. He is mentioned as the first king in a list of royals in a Satavahana inscription at Nanaghat.

91. (a) Vikram Ambalal Sarabhai was an Indian scientist and innovator widely regarded as the father of India's space programme. Sarabhai received the Shanti Swarup Bhatnagar Medal in 1962. The nation honoured him by awarding Padma Bhushan in 1966 and Padma Vibhushan in 1972.

92. (b)

93. (b) As per the latest data of the World Chess Federation; D. Gukesh has become India's youngest Grandmasters at 12 years, 7 months and 17 days with this achievement, Gukesh has overtaken Praggnanandhaa who held the record at 12 years and 10 months in June 2018.

94. (c)   95. (c)

96. (a) Modern Agra was founded by Sikandar Lodhi in the 16th century. Emperor Akbar built the Agra fort and Fatehpur Sikri near Agra.

97. (b) The boundary between the Sun's interior and the solar atmosphere is called the photosphere. It is what we see as the visible "surface" of the Sun.

98. (a) Stratosphere extends upwards from the tropopause to about 50 km. It contains much of the ozone in the atmosphere. The increase in temperature with height occurs because of absorption of ultraviolet (UV) radiation from the sun by this ozone.

99. (c) The Drafting Committee had seven members: Alladi Krishnaswami Ayyar, N. Gopalaswami; B.R. Ambedkar, K.M Munshi, Mohammad Saadulla, B.L. Mitter and D.P. Khaitan. At its first meeting on 30th August 1947, the Drafting Committee elected B.R Ambedkar as its Chairman.

100. (b)

AFCAT-2/2018– SOLVED PAPER

1. Who was the Indian hockey team captain in the year 1928?
(a) Lal Shah Bokhari
(b) Jaipal Singh Munda
(c) Dhyan Chand
(d) Ranganathan Francis

2. Which biome has a long dry season?
(a) Tundra
(b) Cool Temperate
(c) Tropical Rain Forest
(d) Savanna

3. What is the Mike Powell's long jump record in meters?
(a) 8.95 m
(b) 8.65 m
(c) 7.80 m
(d) 9.90 m

4. Who is the first ever women Prime minister in the world?
(a) Indira Gandhi
(b) Sheikh Hasina
(c) Sirimavo Bandaranaike
(d) Margaret Thatcher

5. Who was the first posthumous recipient of Bharat Ratna?
(a) Shri Lal Bahadur Shastri
(b) Bhupen Hazarika
(c) Nanaji Deshmukh
(d) Pranab Mukherjee

6. In which year Goa was taken by India?
(a) 1970
(b) 1987
(c) 1974
(d) 1961

7. The Baltic cup is related to which game?
(a) Hockey
(b) Tennis
(c) Football
(d) Cricket

8. The hook shot is majorly related to which game?
(a) Basketball
(b) Kho-Kho
(c) Volley ball
(d) Rugby

9. Who is the writer of the Hindu Sanskrit Book 'Natya Shastra'?
(a) Gnanananda Giri
(b) Lakulisha
(c) Nityanand Misra
(d) Bharata Muni

10. How many timeouts can a team take in volleyball?
(a) 2
(b) 3
(c) 4
(d) 5

11. When did the Jallianwala Bagh Massacre occur?
(a) 17 May, 1919
(b) 13 April, 1919
(c) 5 June, 1917
(d) 24 February, 1918

12. What is the full form of ROV?
(a) Remotely Operated Vehicle
(b) Rigidly Organised Ventilation
(c) Remote Orifice Vacuum
(d) Refilled Oxygen Valve

13. What was the term used for the measurement of land in the Delhi Sultanate period?
(a) Mamluk
(b) Masahat
(c) Tughlaq
(d) Sayyid

14. Riga is the capital of which country?
(a) Latvia
(b) Fustat
(c) Thebes
(d) Memphis

15. Who was the founder of Brahmo Samaj?
(a) B. R. Ambedkar
(b) Raja Rammohan Roy
(c) Pt. Jawaharlal Nehru
(d) Atal Bihari Vajpayee

16. Where is Indira Point located?
(a) Andaman and Nicobar Islands
(b) Havelock Island
(c) Neill Island
(d) Barren Island

17. JAXA is an aerospace agency of which country?
(a) USA
(b) Iran
(c) Japan
(d) Siberia

18. What is the full form of ADB?
(a) Asian Development Bank
(b) Android Debug Bridge
(c) Automatic Differential Brake
(d) Advanced Digital Broadcast

19. Which of the following vitamins is responsible for blood clotting?
(a) Vitamin A
(b) Vitamin K
(c) Vitamin D
(d) Vitamin C

20. Which is the oldest of the following Vedas?
(a) Sama-Veda
(b) Yajur-Veda
(c) Atharva-Veda
(d) Rig-Veda

DIRECTIONS (Qs. 21-27): Select the word which gives the nearest meaning of the given word.
21. Defunct.
(a) Disused
(b) Useless
(c) Useable
(d) Useful

22. Brawn
(a) Muscle
(b) Power
(c) Weakness
(d) Task

23. Debilitate
(a) Strong
(b) Weakening
(c) Soft
(d) Fragile

24. Daunt
(a) Intimidate
(b) Intimate
(c) Initiate
(d) Indulge

25. Capricious
(a) Prickle
(b) Sickle
(c) Fickle
(d) Tickle

26. Umbrage
(a) Defensive
(b) Bridle
(c) Outrage
(d) Calmness

27. Controversy
(a) Dispute
(b) Agreement
(c) Consent
(d) Rumble

DIRECTIONS (Qs. 28-35): Select the word which means the opposite of the given word.
28. Tranquility
(a) Commotion
(b) Emotion
(c) Rendition
(d) Rectification

29. Brawny
(a) Agony
(b) Weak
(c) Polite
(d) Scrawny
30. Prevalent
(a) Rare
(b) Precious
(c) Common
(d) Tough
31. Bizarre
(a) Ordinary
(b) Unusual
(c) Rare
(d) Nightmare
32. Reveal
(a) Show
(b) Hide
(c) Wrap
(d) Engulf
33. Split
(a) Engage
(b) Collide
(c) Combine
(d) Blast
34. Ironic
(a) Stupid
(b) Clever
(c) Logical
(d) Funny
35. Obstacle
(a) Advantage
(b) Disadvantage
(c) Barrier
(d) Path

DIRECTIONS (Qs. 36-45): Select the meaning of the given phrases/idioms.

36. To make clean breast of
(a) To gain prominence
(b) To praise oneself
(c) To confess without of reserve
(d) To destroy before it blooms

37. 'By dint of'?
(a) By the significance of
(b) By means of
(c) By the influence of
(d) With the help of

38. To keeps one's temper
(a) To become hungry
(b) To be in good mood
(c) To preserve ones energy
(d) To be aloof from

39. To catch a tartar
(a) To trap wanted criminal with great difficulty
(b) To catch a dangerous person
(c) To meet with disaster
(d) To deal with a person who is more than one's match

40. To drive home
(a) To find one's roots
(b) To return to place of rest
(c) Back to original position
(d) To emphasise

41. To have an axe to grind
(a) A private end to serve
(b) To fail to arouse interest
(c) To have no result
(d) To work for both sides

42. To cry wolf
(a) To listen eagerly
(b) To give false alarm
(c) To turn pale
(d) To keep off starvation

43. To end in smoke
(a) To make completely understand
(b) To ruin oneself
(c) To excite great applause
(d) To overcome someone

44. To be above board
(a) To have a good height

(b) To be honest in any business deal
(c) They have no debts
(d) To try to be beautiful

45. To put one's hand to plough
(a) To take up agricultural farming
(b) To take a difficult task
(c) To get entangled into unnecessary things
(d) Take interest in technical work

DIRECTIONS (Qs. 46-50): In each of the following questions, choose the correctly spelt word.

46.
(a) Acheviement
(b) Achevement
(c) Achievement
(d) Achieviment

47.
(a) Compression
(b) Compresion
(c) Compretion
(d) Compresson

48.
(a) Dilligence
(b) Deligence
(c) Diligence
(d) Delligance

49.
(a) Perspration
(b) Perspirasion
(c) Perspirason
(d) Perspiration

50.
(a) Preceding
(b) Preceeding
(c) Preciding
(d) Priceeding

51. The difference between simple interest and the compound interest on a certain amount of money for 3 years at 10% per annum is Rs. 46.50. The sum is:

(a) Rs.1550
(b) Rs.1500
(c) Rs.1450
(d) Rs.1600

52. Two horses sold at 1200/-each. First one on a profit of 20% and second one is in 20% loss. The overall profit/loss in percentage is?
(a) 7% loss
(b) 8% loss
(c) 4% loss
(d) 6% loss

53. The initial price of a colour TV is three times of that music system, now if price of TV is increased by 10% and music system by 18%, then find the profit loss % on buying 8 colour TV and 5 music system?
(a) 15 %
(b) 20 %
(c) 10 %
(d) 12 %

54. What is the average of 2/3, 5/6 and 7/12?
(a) $\frac{25}{36}$
(b) $\frac{26}{25}$
(c) $\frac{35}{26}$
(d) $\frac{36}{25}$

55. A and B, working together, can build a wall, 221 m long, in 100/9 Days. If they work on alternate days, with A starting the work, it takes 89/4 days to build the same wall. If A and B work together and build a similar wall but of twice the length and earn a total of $1800 for it, then B's share of the earnings is
(a) $750
(b) $800
(c) $1000
(d) $1050

56. Efficiency of A, B and C is in the ratio 4:5:6. What is the ratio of the time in which they complete the work?

(a) 12:16:10
(b) 15:12:10
(c) 24:15:12
(d) 16:15:10

57. A man purchases 8 dozen of eggs for Rs 480. Out of which 8 eggs were found broken. At what rate he should sell eggs so that he gets 10% profit?
(a) Rs. 6
(b) Rs. 7
(c) Rs. 10
(d) Rs. 5

58. A sum of Rs 10,000 is borrowed at a rate of interest 15% per annum for 2 years. Find the simple interest for 2 years.
(a) Rs. 1500
(b) Rs. 2000
(c) Rs. 2500
(d) Rs. 3000

59. A boat travels upstream from B to A and downstream from A to B in 3 hours. If the speed of boat in still water is 9 km/hr, and the speed of the current is 3 km/hr, then what is the distance between A and B?
(a) 17 km
(b) 18 km
(c) 12 km
(d) 10 km

60. What will, $(256)^{0.16} \times (16)^{0.18}$ equal to?
(a) 6
(b) 4
(c) 12.7
(d) 14.56

61. What is the square root of 0.0081?
(a) 0.009
(b) 0.9
(c) 1.09
(d) 0.09

62. The price of onions increases by 25%, by what percent should a housewife reduces the consumption so that expenditure on onions can be same as before?
(a) 25%
(b) 30%
(c) 20%
(d) 40%

63. The square of a positive number is 2000% greater than the number itself, then the square of that number is :
(a) 1762
(b) 1635
(c) 441
(d) 139

64. The cost of a car is 400% greater than the cost of a bike. If there is an increase in the cost of the car is 15% and that of bike 20%. Then the total increase in the cost of the 5 cars and 10 bikes is:
(a) $15\frac{2}{7}\%$
(b) $16\frac{3}{7}\%$
(c) $18\frac{4}{7}\%$
(d) $14\frac{5}{7}\%$

65. Connie has a number of gold bars, all of different weights. She gives the 24 lightest bars, which weigh 45% of the total weight, to Brennan. She gives the 13 heaviest bars, which weigh 26% of the total weight, to Maya. She gives the rest of the bars to Blair. How many bars did Blair receive?
(a) 14
(b) 15
(c) 16
(d) 17

66. If EHFNRQ is the code for BECKON, which word has the code QDFWXULQ?
(a) NCAUTIRN
(b) NACUTIRN
(c) NATCRIUN
(d) NACTURIN

67. In a certain code, KAVERI is written as VAKIRE. How is MYSORE written in that code?
(a) EROSYM
(b) SYMROE
(c) SYMERO
(d) SMYERP

68. In a certain code language if the word 'MUSEUM' is coded as 'LSPAPG', then how will the word 'PALACE' be coded in that language?
(a) OYIWXY
(b) OYIXYW
(c) IYXYWO
(d) YXWYOI

69. If DELHI is coded as 73541 and CALCUTTA as 82589662, how can CALICUT be coded?
(a) 5279431
(b) 5978213
(c) 8251896
(d) 8543691

70. In a certain code language, if the value of CONTRACT = 56 and 'GROWTH' = 30, then what is the value of DISTRIBUTION?
(a) 130
(b) 132
(c) 140
(d) 142

71. In a certain code language, if the value of 'BLOCK' = 13 and 'CURTAIN' = 27, then what is the value of the word 'SCIENCE'?
(a) 32
(b) 36
(c) 38
(d) 34

72. In a certain code language, if the word 'DISTANCE' is coded as EDCINSAT, then how will you code 'ACQUIRE' in that language?
(a) EACIQUR
(b) EACRIUQ
(c) ERCIAQU
(d) EARCIQU

73. In a certain code language, if the value of 28 + 14 = 50 and 36 + 43 = 63, then what is the value of 44 + 52 =?
(a) 54
(b) 56
(c) 58
(d) 62

74. In a certain code language, if the value of 14 × 15 = 25 and 26 × 42 = 64, then what is the value of 73 × 31 =?
(a) 100
(b) 110
(c) 90
(d) 120

75. In a certain code language, 'kew xas huma deko' means 'she is eating apples'; 'kew tepo qua' means 'she sells toys' and 'sul lim deko' means 'I like apples'. Which word in that language means 'she' and 'apples'?
(a) xas & deko
(b) xas & kew
(c) kew & deko
(d) kew & xas

76. Choose the odd pair of words
(a) Bottle – Wine
(b) Ball – Bat
(c) Cup – Tea
(d) Pitcher – Water

77. Choose the odd pair of words
(a) Russia – Moscow
(b) Spain – Madrid
(c) India – New Delhi
(d) Japan – Ottawa

78. Choose the odd pair of words
(a) Bass - Shoal
(b) Albatross – Rookery
(c) Coyotes – Band
(d) Man – Woman

79. Choose the odd pair.
(a) Quran – Islam
(b) Tripitika - Buddhism

(c) Kojiki - Shintoism
(d) Temple – Hindu

80. Choose the odd pair of words
(a) Profit - Loss
(b) Virtue - Vice
(c) Seduce - Attract
(d) Wise – Foolish

81. Choose the odd pair of words
(a) Badger - Cub
(b) Boar - Sow
(c) Beaver - Pup
(d) Hawk – Eyas

82. Choose the word which is least like the other words in the group
(a) Volcano
(b) Tsunami
(c) Earthquake
(d) Explosion

83. Choose the word which is not similar to the other words in the group.
(a) Car
(b) Cycle
(c) Scooter
(d) Helicopter

84. Choose the word which is least like the other words in the group.
(a) Crocodile
(b) Snake
(c) Locust
(d) Skink

85. Find the word which is least like the other words in the group.
(a) Patella
(b) Tibia
(c) Fibula
(d) Skull

86. Choose the word which is not similar to the other words in the group.
(a) Joey
(b) Filly

(c) Gosling
(d) Vixen

DIRECTIONS (Qs. 87-95): The following question consists of some Problem Figures followed by other figures marked 1, 2, 3, 4 called the Answer Figures. Find out the correct answer figure that should come next in the sequence of problem figures.
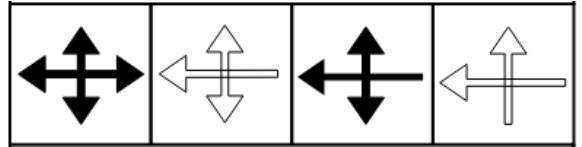
87. PROBLEM FIGURE
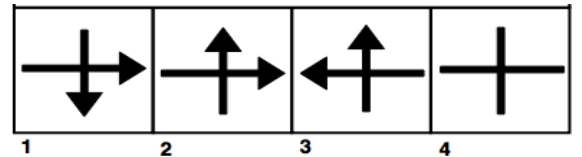
ANSWER FIGURE

(a) 1
(b) 2
(c) 4
(d) 3

88. PROBLEM FIGURE
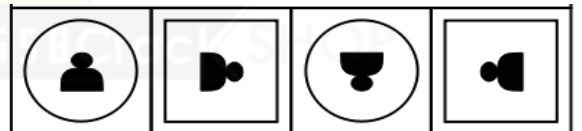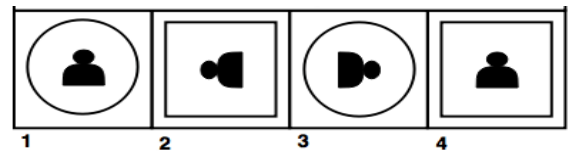
ANSWER FIGURE

(a) 1
(b) 3
(c) 4
(d) 2

89. PROBLEM FIGURE
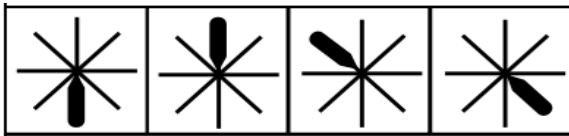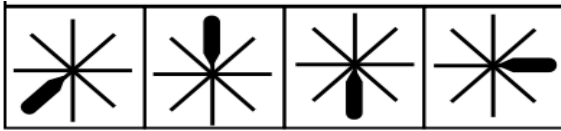
ANSWER FIGURE

(a) 2
(b) 3
(c) 1
(d) 4

90. PROBLEM FIGURE
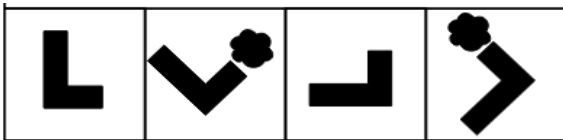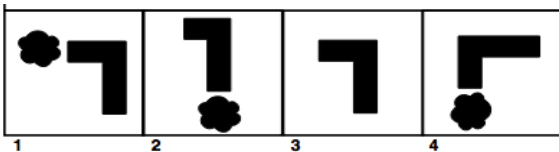
ANSWER FIGURE

(a) 1
(b) 4
(c) 2
(d) 3

91. PROBLEM FIGURE
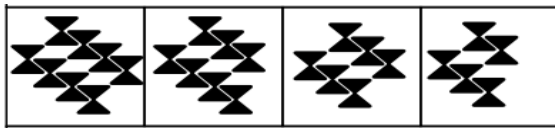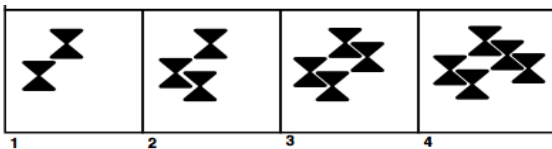
ANSWER FIGURE

(a) 1
(b) 2
(c) 4
(d) 3

92. PROBLEM FIGURE
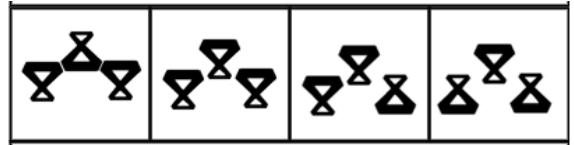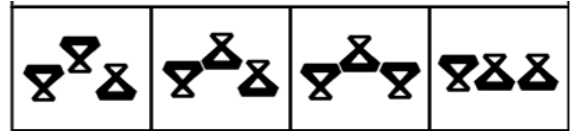
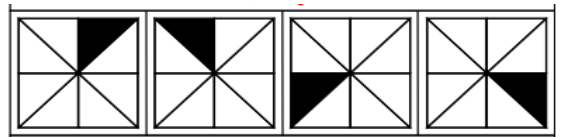**ANSWER FIGURE**

(a) 1
(b) 2
(c) 3
(d) 4

93. PROBLEM FIGURE
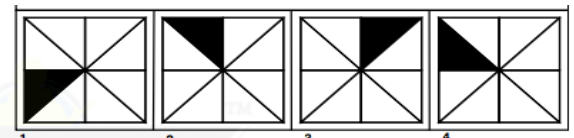
ANSWER FIGURE

(a) 1
(b) 3
(c) 2
(d) 4

94. PROBLEM FIGURE
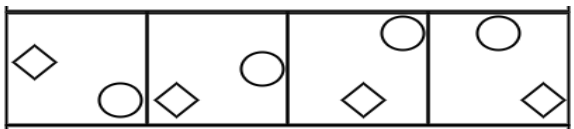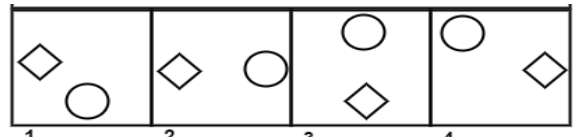
ANSWER FIGURE

(a) 2
(b) 1

(c) 4
(d) 3

95. PROBLEM FIGURE

ANSWER FIGURE
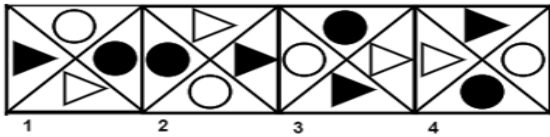
(a) 2
(b) 3
(c) 1
(d) 4

DIRECTIONS (Qs. 96-99): Choose the pair of words which have a relationship similar to that between the given pair of words:

96. Management: CEO
(a) Journalism: Managing Editor
(b) Office: Clerk
(c) Hospital: Paramedic
(d) None of the above

97. Pleasant: Dislikable
(a) Sorry: Defiant
(b) Guilty: Innocent
(c) Happy: Overjoyed
(d) Sad: Sorrowful

98. Stench: Fragrance
(a) Sound: Clap
(b) Sound: Silence
(c) Sound: Chatter
(d) Sound: Noise

99. Healer : Doctor
(a) Pilot: Airhostess
(b) Artist: Designer
(c) Patient: Doctor
(d) Educator: Teacher

100. If barometer is to air pressure, then bolometer is to
(a) electromagnetic radiation
(b) magnetic declination
(c) wind speed
(d) altitude

ANSWER KEY									
1. (b)	2. (d)	3. (a)	4. (c)	5. (a)	6. (d)	7. (c)	8. (a)	9. (d)	10. (a)
11. (b)	12.(a)	13. (b)	14. (a)	15.(b)	16 (a)	17. (c)	18. (a)	19. (b)	20. (d)
21. (a)	22. (a)	23. (b)	24. (a)	25. (c)	26. (b)	27. (a)	28. (a)	29. (d)	30. (b)
31. (a)	32. (b)	33. (c)	34. (c)	35. (c)	36. (c)	37. (b)	38. (b)	39. (b)	40. (d)
41. (a)	42. (b)	43. (b)	44. (b)	45. (b)	46. (c)	47. (a)	48. (c)	49. (d)	50. (a)
51. (b)	52. (c)	53. (c)	54. (a)	55. (c)	56. (b)	57. (a)	58. (d)	59. (c)	60. (b)
61. (d)	62. (c)	63. (c)	64. (b)	65. (b)	66. (d)	67. (c)	68. (a)	69. (c)	70. (b)
71. (c)	72. (d)	73. (b)	74. (a)	75. (c)	76. (d)	77. (d)	78. (d)	79. (d)	80. (c)
81. (b)	82. (d)	83. (b)	84. (c)	85. (d)	86. (d)	87. (d)	88. (a)	89. (d)	90. (d)
91. (d)	92. (a)	93. (d)	94. (c)	95. (b)	96. (a)	97. (b)	98. (b)	99. (d)	100.(a)

Hints & Solutions

1. (b) Jaipal Singh Munda was the Indian hockey team captain in the year 1928. Jaipal Singh Munda born in a Munda tribal family was a politician, prolific writer and sportsman. He was the member of the Constituent Assembly which debated on the new Constitution of the Indian Union. He captained the Indian field hockey team to clinch gold in the 1928 Summer Olympics in Amsterdam.

2. (d) The ecosystem of a region is the biome. A biome is collections of different kinds of ecosystem. Savanna is the biome which has a long dry season.

3. (a) At the 1991 World Championships in Athletics (Tokyo), Powell broke Bob Beamon's almost 23-year-old long jump world record by 5 cm (2 inches), leaping 8.95 m (29 ft 4 1⁄4 in).

4. (c) Sirima Ratwatte Dias Bandaranaike, commonly known as Sirimavo Bandaranaike, was a Sri Lankan stateswoman. She became the world's first non-hereditary female head of government in modern history, when she was elected Prime Minister of Sri Lanka in 1960.

5. (a) In 1966 Shri Lal Bahadur Shastri was the first Indian to receive the Bharat Ratna posthumously.

6. (d) The Annexation of Goa was the process in which the Republic of India annexed the former Portuguese Indian territories of Goa, Daman, and Diu, starting with the "armed action" carried out by the Indian Armed Forces in December 1961.

7. (c) The Baltic Cup is an international football competition contested by the national teams of the Baltic States – Estonia, Latvia and Lithuania. Also, Finland has participated as a guest twice.

8. (a) In basketball, a hook shot is a play in which the offensive player, usually turned perpendicular to the basket, gently throws the ball with a sweeping motion of the arm farther from the basket in an upward arc with a follow-through which ends over his head.

9. (d) Bharata Muni was an ancient Indian theatrologist and musicologist who wrote the Natya Shastra, a theoretical treatise on ancient Indian dramaturgy and histrionics, especially Sanskrit theatre. Bharata Muni is considered as the father of Indian theatrical art forms.

10. (a) Maximum of 2 timeouts per game for a team is allowed. Time out lasts 30 seconds. In official international competitions, two 60 seconds technical time-out is used when the leading team reaches the 8- or 16-point mark.

11. (b) The Jallianwala Bagh massacre, also known as the Amritsar massacre, took place on 13 April, 1919 when a crowd of nonviolent protesters, along with Baisakhi pilgrims, who had gathered in Jallianwala Bagh, Amritsar, Punjab, were fired upon by troops of the British Indian Army under the command of Colonel Reginald Dyer.

12. (a) Remotely Operated Vehicles are vehicles which are controlled by an operator who is not in the vehicle. These can be operated by radio control, or through a cable or line connecting the vehicle to the operator's location.

13. (b) During the sultanate period, there was a term that is being used to describe the measurement of land which is 'Masahat'. Like nowadays we are using cents and hectares for measurement.

14. (a) Latvia, with Riga as its capital city, thus declared its independence on 18 November 1918. Between World War I and World War II (1918–1940), Riga and Latvia shifted their focus from Russia to the countries of Western Europe.

15. (b) Raja Rammohan Roy founded Brahmo Samaj in Calcutta on 20 August 1828. It was more of a reformist movement of Hinduism which later got divided into Adi Brahmo Samaj and Sadharan Brahmo Samaj.

16. (a) Indira Point is a village in the Nicobar district at Great Nicobar Island of Andaman and Nicobar Islands, India. It is located in the Great Nicobar tehsil. It is the location of the southernmost point of India's territory.

17. (c) The Japan Aerospace Exploration Agency is the Japanese national aerospace and space agency. Through the merger of three previously independent organizations, JAXA was formed on 1st October 2003.

18. (a) India became a member of the Asian Development Bank (ADB) as a founding member in 1966. The Bank is engaged in promoting economic and social progress of its developing member countries (DMCs) in the Asia Pacific Region.

19. (b) Vitamin K affects the clotting mechanism by being essential for the production of four distinct clotting factors: prothrombin, factors VII, IX and X.

20. (d) The Rigveda is the oldest work, which Witzel states are probably from the period of 1900 to 1100 BCE. Witzel, also notes that it is the Vedic period itself, where incipient lists divide the Vedic texts into three (trayī) or four branches: Rig, Yajur, Sama and Atharva.

21. (a) Defunct means no longer living, existing, or functioning.

22. (a) Brawn means physical strength in contrast to intelligence.

23. (b) Debilitate means make (someone) very weak and infirm.

24. (a) Daunt means make (someone) feel intimidated or apprehensive.

25. (c) Capricious means sudden and unaccountable changes of mood or behaviour.

26. (b) Umbrage means offence or annoyance.

27. (a) Controversy means prolonged public disagreement or heated discussion.

28. (a) Commotion is the antonym of tranquility. It means a state of confused and noisy disturbance.

29. (d) Scrawny is the antonym of brawny. It means unattractively thin and bony.

30. (b) Antonym of prevalent is rare. Rare means not occurring very often.

31. (a) Ordinary is the antonym of bizarre. It means very strange or unusual.

32. (b) Hide is the antonym of Reveal. It means put or keep out of sight.

33. (c) Combine is the antonym of split. It means join or merge to form a single unit or substance.

34. (c) Logical is the antonym of ironic. It means according to the rules of logic or formal argument.

35. (c) Advantage is the antonym of obstacle. It means a condition or circumstance that puts one in a favourable or superior position.

36. (c) To make clean breast of: to disclose something openly.

37. (b) 'By means of' is the meaning for the idiom 'By dint of'. By means of, as in By dint of hard work, he got his degree in three years. The word dint, which survives only in this expression, originally meant "a stroke or blow," and by the late 1500s signified the force behind such a blow.

38. (b) To keeps one's temper: to maintain control of one's composure despite being angry or upset.

39. (b) To catch a tartar: to deal with someone or something that proves unexpectedly troublesome or powerful.

40. (d) To drive home: give special importance or value to.

41. (a) To have an axe to grind: to have a strong personal opinion about something that you want people to accept and that is the reason why you do something.

42. (b) To cry wolf: to ask for assistance when you don't need it.

43. (b) To end in smoke: to be destroyed or ruined.

44. (b) To be above board: business agreement which is honest and not trying to deceive anyone.

45. (b) To put one's hand to plough: to do a difficult task.

46. (c) Achievement is the correctly spelt word.

47. (a) Compression is the proper spelling.

48. (c) Diligence is the properly spelled word.

49. (d) Perspiration is the correct spelling.

50. (a) Preceding is the proper spelling.

51. (b) Let the sum be Rs. x. then

$$S.I. = \left(x \times 10 \times \frac{3}{100} \right) = \frac{3x}{10}$$

$$C.I = \left[x \left(1 + \frac{10}{100} \right)^3 - x \right] = \frac{331x}{1000}$$

$$\frac{331x}{1000} - \frac{3x}{10} = 46.50$$

$$\Rightarrow \frac{31x}{1000} = 46.50$$

$$\Rightarrow x = 1500$$

52. (c) If two articles are sold at same price, one at a loss of R% and another at a profit of R%, then there will always be a net loss of $\frac{R^2}{100}$.

$$\Rightarrow Net\ loss = \frac{20^2}{100} = 4\%$$

Alternate method:

Let SP of 1st horse = 240 & SP of 2nd horse = 240

CP of first horse $= \frac{240}{120} \times 100 = 200$

CP of 2nd horse $= \frac{240}{80} \times 100 = 300$

Total Cost Price = 200 + 300 = 500

Total Selling Price = 240 + 240 = 480

Net Loss = 500 - 480 = 20

$$\Rightarrow \frac{20}{500} \times 100 = 4\%$$

53. (c) Let initial cost of music system = 100

Cost of TV = 300

After price increasing, Cost of TV = 330

Cost of music system = 110

Initial cost of 8 TV = 2400

Initial cost of 5 music = 500

Total = 2400+500=2900

After increasing, cost of 8 TV = 2640

Cost of 5 music system = 550

Total increase = 2900-(2640+550)=290

$$\frac{290}{2900} \times 100\% = 10\%$$

54. (a) $\frac{2}{3} = \frac{8}{12}$;

$\frac{5}{6} = \frac{10}{12}$;

$\frac{8}{12} + \frac{10}{12} + \frac{7}{12} = \frac{25}{12}$

$\frac{25}{12}$ divided by $3 = \frac{25}{36}$

55. (c) A - meters built in 1 day.

B - meters built in 1 day.

1st set - $(A + B) \times \frac{100}{9} = 221$

2nd set - $11B + \left(\frac{45}{4} \right) \times A = 221$

Equating 1 and 2.

B = 1.25 A

B works 25% more than A.

a - amount paid to worker A.

b - amount paid to worker B.

Set 3: a + b = 1800

a + 1.25a = 1800

a = $800

b = $1000

56. (b) Since ratio of efficiency of A, B, C = 4:5:6

We know that who is more efficient will take less time to complete work.

So, the ratio of the time taken by A, B and C will be reciprocal of the ratio of efficiency of A, B and C = LCM of 4, 5, 6 = 60

Thus, the ratio of their times will be 15:12:10

57. (a) As 8 dozen eggs cost Rs. 480, so 1 egg will cost $\frac{480}{8 \times 12} = 5$ i.e. Rs 5

As profit of man should be 10% which means he should sell all eggs at Rs $480 + 480 \times \frac{10}{100} = 528$ i.e. Rs 528

As 8 of his eggs are found broken so left eggs are $12 \times 8 - 8 = 88$

So, he has to sell 88 eggs in Rs 528 to earn 10% profit

So, cost of one egg should be $\frac{528}{88} = 6$

i.e. Rs. 6

So the retailer will sell his egg at cost of Rs.6

58. (d) On Rs 100, interest charged for 1 year is Rs 15.

So, on Rs. 10,000, interest charged

$\frac{15}{100} \times 10000$ = Rs. 1500

Interest for 2 years = Rs 1500 × 2 = Rs. 3000

59. (c) Speed of the boat upstream = 9–3

= 6 km/hr

Speed of the boat downstream = 9+3

= 12 km/hr

Let distance between A and B be x kms.

So, time taken to travel x km upstream by boat

= x/6 hrs.

And time taken to travel x kms downstream= x/12 hrs.

According to the question,

$\frac{x}{6} + \frac{x}{12} = 3$

$$x \left[\frac{1}{6} + \frac{1}{12} \right] = 3$$
$$x = 4 \times 3 = 12$$

So, distance between A and B is 12 km.

60. (b) $(256)^{\frac{16}{100}} \times (16)^{\frac{18}{100}}$

= $(16^2)^{\frac{4}{25}} \times (16)^{\frac{9}{50}}$

= $(16)^{\frac{8}{25}} \times (16)^{\frac{9}{50}}$

= $(16)^{\frac{8}{25} + \frac{9}{50}} = (16)^{\frac{25}{50}}$

= $(16)^{\frac{1}{2}} = \sqrt{16} = 4$

61. (d) Note that $0.0081 = \frac{81}{10000}$

$\sqrt{0.0081} = \sqrt{\frac{81}{10000}}$

$= \frac{\sqrt{81}}{\sqrt{10000}} = \frac{9}{100} = 0.09$

62. (c) Let the price before increase be 100

Increased price = 25percent of 100

$$\frac{25}{100} \times 100 + 100 = 125$$

When the price is increased to 125 she has to reduce 25

When the price is increased to 1 she has to reduce $\frac{25}{125}$

Rate by which consumption decreases = $\frac{\frac{25}{125} \times 100}$

=20 percent

63. (c) Let the positive number be x.

According to the question,

$x \times x = x + \frac{x \times 2000}{100}$

$x^2 = x + 20x$

$x^2 - 21x = 0$

Either, $x = 0, or\ x = 21$

21 is the possible value.

Then square of 21 is 441

64. (b) Let the bike's initial cost be x

And then car's initial cost be 5x

After the increase,

Bike's price = 1.2x

Car's price = 5.75x

Initial total cost of 5 cars and 10 bikes,

= 25x+10x = 35x

New cost = 28.75x+12x = 40.75x

Change in cost

$= (40.75x - 35x) = 5.75x$

% change $= \frac{5.75x \times 100}{35} = 16\frac{3}{7}\%.$

65. (b) The average weight of the bars given to Brennan (light) < the average weight of the bars given to Blair < the average weight of the bars given to Maya (heavy).

Let the total weight of all the bars be X.

The weight of the bars given to Brennan,

=45% of $x = 0.45x$

The weight of the bars given to Maya,

=26% of $x = 0.26x$

The weight of the bars given to Claire = rest

$= 29\% \ of \ x = 0.29x$

The average weight of the bars given to Brennan, = Weight/number of bars

$= \frac{0.45x}{24}$

The average weight of the bars given to Maya = Weight/number of bars

$= \frac{0.26x}{13}$

Similarly, if the number of bars given to Blair = B,

then the average weight of the bars given to Blair = $\frac{0.29x}{B}$

As, the average weight of the bars given to Brennan (light) < the average weight of the bars given to Blair < the average weight of the bars given to Maya.

66. (d) Each letter of the word is three steps behind the corresponding letter of the code. QDFWXULQ is the code for 'NACTURIN'

67. (c) The letters in the first half and second half of the word is written in the reverse order to obtain the code. Thus, we have:
MYSORE → MYS/ORE → SYM/ERO → SYMERO

68. (a) Word: M   U   S   E   U   M
Logic: -1   -2   -3   -4   -5   -6
Code: L   S   P   A   P   G
Similarly, the code for PALACE is
     Word: P   A   L   A   C   E
     Logic: -1   -2   -3   -4   -5   -6
     Code: O   Y   I   W   X   Y

69. (c) The given codes are
D E L H I C A U T
7 3 5 4 1 8 2 9 6
So, the code for CALICUT is 8251896.

70. (b) Number of letters in the word CONTRACT = 8 and $8 \times 7 = 56$.
Number of letters in the word GROWTH = 6 and $6 \times 5 = 30$.
Similarly, the number of letters in DISTRIBUTION is 12, so $12 \times 11 = 132$

71. (c) In this product of the digits in the position of the letters as per the alphabet is obtained first and then added i.e.,
For "BLOCK"
B = 2
L = 12 ⟹ 1 x 2 = 2
O = 15 ⟹ 1 x 5 = 5
C = 3
K = 11 ⟹ 1 x 1 = 1

Now (2 + 2 + 5 + 3 + 1) = 13
So, BLOCK = 13.
Similarly, SCIENCE = 38

72. (d) In this coding, the letters from either end of the word are written, first a letter from the right end and then a letter from the left end of the word and so on. Hence DISTANCE is coded as EDCINSAT. Similarly, ACQUIRE is coded as EARCIQU.

73. (b) It is given that
28 + 14 = 50 ⟹ (2 + 8) × (1 + 4)
⟹ 10 × 5 = 50
36 + 43 = 63 ⟹ (3 + 6) × (4 + 3)
⟹9 × 7 = 63
Then, 44 + 52 ⟹ (4 + 4) × (5 + 2)
⟹ 8 × 7 = 56.

74. (a) 14 × 15 = 14 + 15 = 29
and 29 – 4 = 25.
26 × 42 = 26 + 42 = 68 and 68 – 4 = 64
Similarly, 73 × 31 = (73 + 31)– 4
= 104 – 4 = 100.

75. (c) In the first and second statements, the common code word is 'kew' and the common word is 'she'. So, 'kew' stands for 'she'.
In the first and third statements, the common code word is 'deko' and the common word is 'apples'. So, 'deko' stands for 'apples'.

76. (d) In all the other pairs except (d), the first is used to hold the second.

77. (d) In all other pairs except (d), second term is the capital city of country denoted in the first.

78. (d) In all other pairs except (d), second term is the collective group of the first.

79. (d) In all of the other pairs except (d), first is the sacred and religious book of the second.

80. (c) In all other pairs, the words are antonyms of each other.

81. (b) In option (b), second is the female of the first. All others are the young ones of the first.

82. (d) All others are natural calamities except explosion.

83. (b) All others run on fuel except cycle.

84. (c) Locust is an insect, while all other are reptiles.

85. (d) All except skull are bones of legs.

86. (d) All others are young ones of animals. Vixen is a female fox.

87. (d) In the first step, triangle element is deleted and shallow figure is obtained. In the second step, shallow figure is replaced by filled one. This pattern is followed and repeated. Thus, the answer figure should be figure 3.

88. (a) Circle and square outlines are alternatively changed and the figure inside is rotated through 90 degrees in clockwise direction. The correct answer figure should be figure 1.

89. (d) The bold bar is rotated through 180 degrees in first step and then through 45 degrees in anti-clockwise direction. The same step is repeated in a set order. The correct answer figure should be figure 4.

90. (d) L-bar is rotated through 45 degree in anticlockwise direction. Then, one small figure is added on the smaller side of the bar. In the next step, the bar is rotated through 45 degrees and the small figure is removed. Thus, the correct answer figure should be figure 3.

91. (d) Elements are deleted in a set order from each row alternately. The correct answer figure should be figure 3.

92. (a) Starting from left to right, the figures are rotated by 180 degree (flipped vertically), one by one in a set order. The correct answer figure should be figure 1.

93. (d) The shaded part of the figure moves in anticlockwise direction with gaps of 0, 1, 2, 3, 4 and so on. Thus, the correct answer figure should be figure 4.

94. (c) The circle and the diamond both move in anti-clockwise order along the sides of the square. Thus, the correct answer figure should be figure 4.

95. (b) Elements are moved forward in each step in a set order, the preceding shallow element moves in place of filled element in clockwise order. The answer figure should be figure 3.

96. (a) CEO heads the management. Similarly, the managing editor heads a team of journalists. But a clerk does not head the office. Similarly, a paramedic is not the head of the department of the hospital's sections. So (a) is the correct choice.

97. (b) Pleasant is the opposite of dislikable for example Harish is a pleasant and happy person while Mahesh is thoroughly dislikable. Similarly, guilty is the direct opposite of innocent and therefore the correct answer. The other two options have word pairs which mean the same thing.

98. (b) Silence is the opposite of sound while clap, chatter and noise are all forms of sound that can be heard. Stench is the opposite of fragrance therefore the correct choice is (b).

99. (d) Doctor is a type of healer while pilots and air hostesses are allied professions. Artist and designer are similar professions and educators include professors, lecturers and teachers. Therefore, a teacher is a type of educator and (d) is the correct answer.

100.(a) Barometer is used to measure air pressure.

Similarly, bolometer is used to measure electromagnetic radiation.

The device used to measure magnetic declination is declinometer, wind speed is anemometer and altitude is altimeter.

AFCAT 2 2018 Question Paper (memory based)

note: these are memory based questions collected from different sets

Numerical Ability

1. The difference between compound interest and simple interest accrued on an amount at the end of 3rd year at a rate of 10% is 77.5 rupees. What is amount?
   - (a) 2600
   - (b) 2500
   - (c) 2800
   - (d) 2950

2. A person sells two horses for rupees 1200/ each. On the first at a profit of 20% and second at a loss of 20%. The overall profit/loss in percentage is___ ?
   - (a) 4% loss
   - (b) 4% profit
   - (c) 5% loss
   - (d) 5% profit

3. The average of 5/16 and 3/8 is___?
   - (a) 0.5425
   - (b) 0.2585
   - (c) 0.3475
   - (d) 0.4385

4. Efficiency of A, B and C is in the ratio 4:5:6. What is the ratio of the time in which they complete the work?
   - (a) 5:4:3
   - (b) 15:12:10
   - (c) 15:10:12
   - (d) 10:12:15

5. Someone purchase 5 dozen of egg in $\gtrless$ 100. Out of which 20% eggs were found broken. At what rate he should sell eggs so that he gets 10% profit?
   - (a) 2.29
   - (b) 3.25
   - (c) 2.75
   - (d) 3.75

6. A bank give 16% interest per annum compounded semi annually. What interest a man get on amount of $\gtrless$ 10000 in 2 years?
   - (a) 12665
   - (b) 13205
   - (c) 14515
   - (d) 13605

7. Find the value of $\sqrt{0.0081} + \sqrt{0.0064}$?
   - (a) 0.27
   - (b) 0.7
   - (c) 0.17
   - (d) 0.4

8. Find the value of $216^{0.16} \times 16^{0.18}$?
   - (a) 4
   - (b) 6
   - (c) 8
   - (d) 2

9. If there is 25% increase in the cost of sugar by what % consumption should be decreased in order to maintain expenditure?
   - (a) 25%
   - (b) 20%
   - (c) 32.5%
   - (d) 15%

10. Average marks of a class are 70. If average marks of fail students are 40 and pass students are 80 marks. Find percentage of pass students?
    - (a) 25%
    - (b) 50%
    - (c) 65%
    - (d) 75%

11. The population of a village increase 5% per annum. It's population at the end of 2016 was 1852200. What was its population in 2014?
    - (a) 1680000
    - (b) 1640000
    - (c) 1720000
    - (d) 1560000

12. 250 ml of mixture contains milk and water in the ratio of 7:2. How much more milk must be added to get a new mixture containing milk and water in the ratio of 4:1?
    - (a) 50 ml
    - (b) 42 ml
    - (c) 28 ml
    - (d) 32 ml

13. The average age of 25 students is 16 years. If a teacher is added the average age becomes 18 years. What is the age of teacher?
    - (a) 68 years
    - (b) 62 years
    - (c) 64 years
    - (d) 70 years

14. A and B can do a piece of work in 10 days. B and C can do it in 12 days. A and C can do it in 15 days. How long will A take to do it alone?
    - (a) 20 days
    - (b) 24 days
    - (c) 30 days
    - (d) 40 days

15. If $3^{(a+8)} = 27^{(2a+1)}$, then find 'a'?
    - (a) 1
    - (b) 0
    - (c) −1
    - (d) 0.5

16. A bus started its journey from Pune and reached Mumbai in 44 minutes at its average speed of 50 km/hr. If the average speed of the bus is increased by 5 km/hour, how much time will it take to cover the same distance?
    - (a) 40 minutes
    - (b) 38 minutes
    - (c) 36 minutes
    - (d) 31 minutes

17. The price of onions has been increased by 50% in order to keep the expenditure on onions the same, the percentage of reduction in consumption has to be.
    - (a) 50%
    - (b) $33\frac{1}{3}$
    - (c) 33%
    - (d) 30%

18. The ratio of the numbers of males and females in a club is 5 : 6. If 22 females leave the club, the ratio becomes reversed. The number of males in the club is
   - (a) 40
    - (b) 50
    - (c) 55
    - (d) 60

Reasoning and Military Aptitude

DIRECTIONS (Qs. 19-21): *Each of the questions below contains three elements. These three elements may or may not have some linkage. Each group of the elements may fit into one of the diagrams at (a), (b), (c) and (d). You have to indicate groups of elements in each of the questions fit into which of the diagrams given below. The letter indicating the diagram is the answer.*
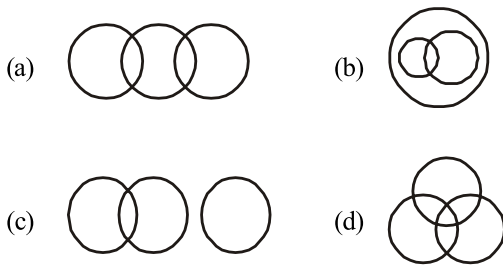
19. Brick , House, Bridge
20. Student of law, Student of science, Men
21. Antisocial, Pickpockets, Kidnappers
22. The following diagram represents the students who are singers, dancers and poets.
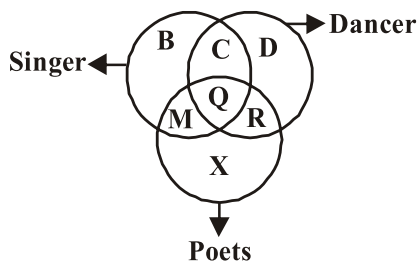
Study the diagram and identify the region which represents the students who are both poets and singers but not dancers.
    - (a) B + C + D
    - (b) M
    - (c) Q + R
    - (d) R + X

DIRECTIONS (Qs. 23-25) : *In each of the following questions find out the alternative which will replace the question mark.*

23. Sheep : Lamb :: Insect : ?
    - (a) Cub
    - (b) Larva
    - (c) Bull
    - (d) Tadpole
24. Monk : Nun :: Bachelor : ?
    - (a) Spinster
    - (b) Woman
    - (c) Lady
    - (d) Man
25. Dark : Fear :: Honesty : ?
    - (a) Personality
    - (b) Money
    - (c) Treachery
    - (d) Trust

DIRECTIONS (Qs. 26-27): *The following questions consist of two words each that have a certain relationship to each other, followed by four pairs of words. Select the pair that has the same relationship as the original pair of words.*

26. Food : Hungry
    - (a) Thought : Politics
    - (b) Water : River
    - (c) Rest : Weary
    - (d) Wine : Intoseication
27. Ampere : Current
    - (a) Sound : Waves
    - (b) Newton : Force
    - (c) Speed : Time
    - (d) Distance : Mile

DIRECTIONS (Qs. 28-30): *Choose the odd man from the words given below in the question.*

28. (a) APRIL
    (b) JUNE
    (c) JULY
    (d) SEPTEMBER
29. (a) Hill Myna
    (b) House Sparrow
    (c) Emerald Dove
    (d) Imperial Eagle
30. (a) Anther
    (b) Retina
    (c) Ovary
    (d) Petal

DIRECTIONS (Qs. 31-32): *In the following question, select the one which is different from the other three responses.*

31. (a) Mason : Wall
    (b) Cobbler : Shoe
    (c) Farmer : Crop
    (d) Chef : Cook
32. (a) Bottle : Wine
    (b) Cup : Tea
    (c) Pitcher : Water
    (d) Ball : Bat
33. Identify the figure that will complete the pattern.
    Question Figure
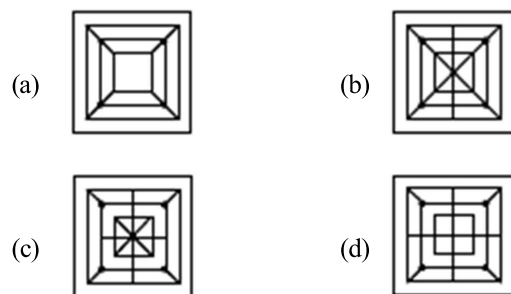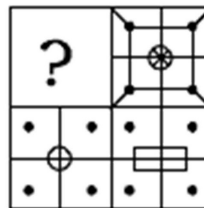
34. In a row of 64 girls, Anu is 17th from the left. Jagrati is 11th to the right of Anu. What is Jagrati's position from the right end of the row?
    - (a) 36th
    - (b) 37th
    - (c) 38th
    - (d) 40th

35. Consider the following figure:
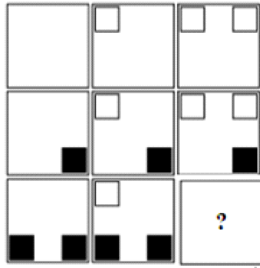
Which of the following alternatives should replace the question mark ?

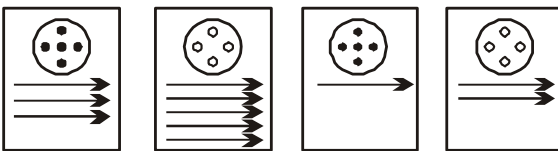(a) (b) (c) (d)

36. Which figure completes the statement?
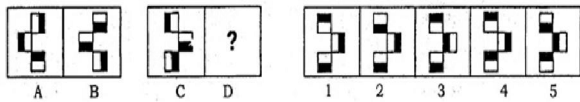
(a) 1   (b) 3
(c) 4   (d) 5

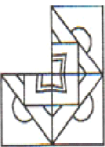37. Find the missing figure from the given responses.
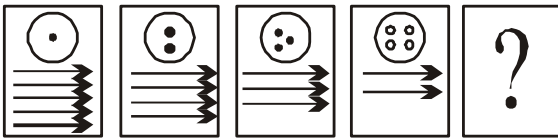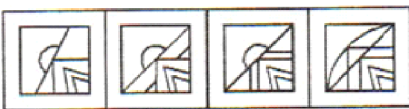
Question Figures:

Answer Figures:

(a)   (b)   (c)   (d)

38. Which one of the Answer Figures shall complete the given question figure?

Question Figures:

Answer Figures:

(a)   (b)   (c)   (d)

39. Which answer figure will complete the pattern in the question figure?

Question Figure:

Answer Figure:

(a)   (b)   (c)   (d)

40. Which answer figure will complete the pattern in the question figure?

Question Figure:

Answer Figure:

(a)   (b)   (c)   (d)

DIRECTIONS (Qs.41-43): *Find the missing figure in the series from the given answer figures.*

41. **Question Figure:**
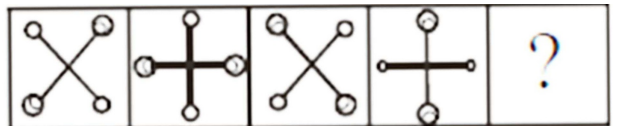
Answer Figure:
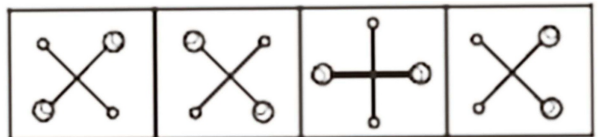
(a)   (b)   (c)   (d)

42. **Question Figure:**

Answer Figure:

(a)   (b)   (c)   (d)
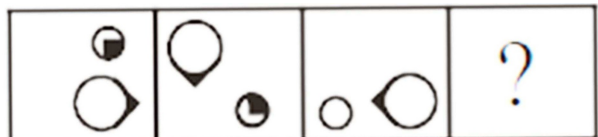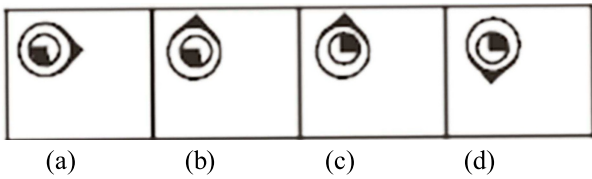
43. **Question Figure:**

Answer Figure:
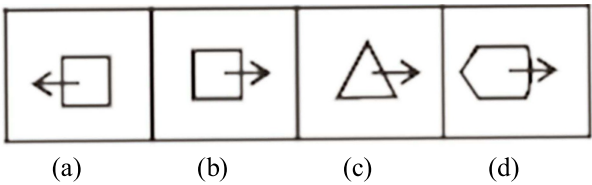
(a)   (b)   (c)   (d)

DIRECTIONS (Qs. 44-46): *Choose a right figure from the set of answer figures which would replace the question mark (?)*

44. **Question Figure:**

Answer Figure:

(a)   (b)   (c)   (d)

45. **Question Figure:**

Answer Figure:

(a)   (b)   (c)   (d)

46. **Question Figure:**

Answer Figure:

(a)   (b)   (c)   (d)
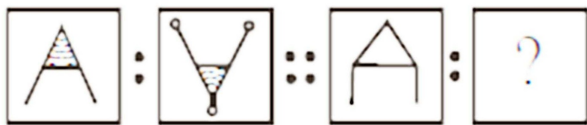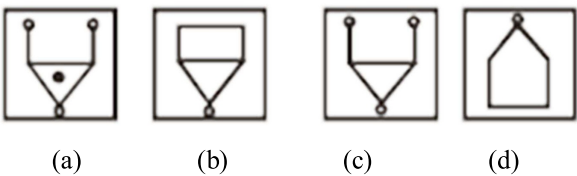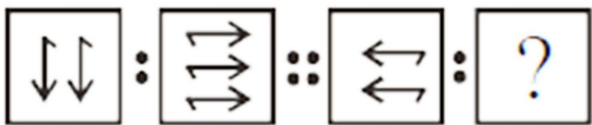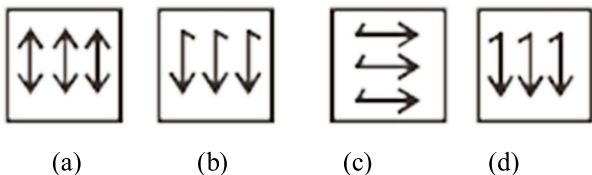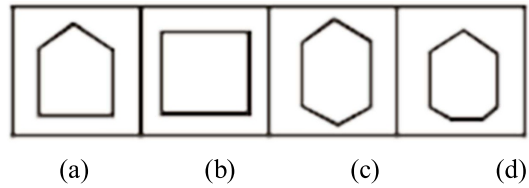
DIRECTIONS (Qs. 47 - 48): *In this question two/three statements followed by two conclusions numbered I and II have been given. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows the given statements disregarding commonly known facts.*

(a) Only conclusion I is true
(b) Neither conclusion I nor II is true
(c) Only conclusion II is true
(d) Both conclusions I and II are true

47. **Statement:**
No right is a left.
All up are left.
Some down are up.
Conclusions:
I. No up is a right.
II. At least some down are left.

48. **Statements:**
Some cricketers are footballers
All footballers are boxers.
Some boxers are players.
Conclusions:
I. At least some boxers are cricketers.
II. No player is a cricketer.

DIRECTIONS (Qs. 49-50): *In each of the following questions, you are given a figure (X) followed by four alternative figures (1), (2), (3) and (4) such that figure (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.*

49. Find out the alternative figure which contains figure (X) as its part.

(X)   (1)   (2)   (3)   (4)

(a) 1   (b) 2
(c) 3   (d) 4

50. Find out the alternative figure which contains figure (X) as its part.

(X)   (1)   (2)   (3)   (4)
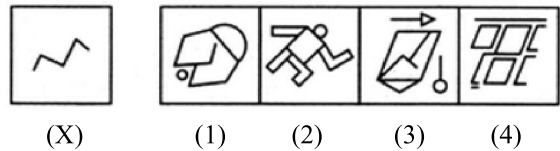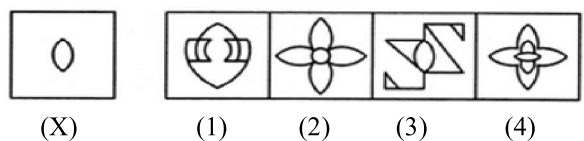
(a) 1   (b) 2
(c) 3   (d) 4

Verbal Ability

DIRECTIONS (Qs. 51-53): *Study the paragraph and answer the questions that follow:*

Judiciary has become the centre of controversy, in the recent past, on account of the sudden 'Me' in the level of judicial intervention. The area of judicial intervention has been steadily expanding through the device of public interest litigation. The judiciary has shed its pro-status-quo approach and taken upon itself the duty to enforce the basic rights of the poor and vulnerable sections of society, by progressive interpretation and positive action. The Supreme Court has developed new methods of dispensing justice to the masses through the public interest litigation. Former Chief Justice PN. Bhagwat, under whose leadership public interest litigation attained a new dimension comments that "the Supreme Court has developed several new commitments. It has carried forward participative justice".

51. The steady expansion of judicial intervention is the result of
    (a) excessive laws
    (b) public interest litigation
    (c) Supreme Court's new methods of dispensing justice
    (d) new commitments of Supreme Court

52. According to the author, judiciary has become the center of controversy because of
    (a) problems arising in dispensing justice in the recent past
    (b) public interest litigation
    (c) sudden 'Me' in the level of judicial intervention
    (d) Supreme Court's supremacy

53. According to Justice PN. Bhagwat, Supreme Court has developed
    (a) judicial intervention
    (b) various new commitments
    (c) participative judicial approach to dispense justice
    (d) public interest litigation

DIRECTIONS (Qs. 54-58): *Given below are sentences with a blank in each. Identify the most suitable alternative among the five given that fits into the blank to make the sentence logical and meaningful.*

54. In the same amount of time it would take me to correct all the _____ in your report, I could write a better report myself.
    (a) mistakes   (b) problems
    (c) accuracies   (d) obstacles

55. I have recently used the services of his _____ agency to book a cruise in the Mediterranean.
    (a) progress   (b) deportation
    (c) travel   (d) transfer

56. They would like local authorities to be given greater _____ as to how the money is spent.
    (a) affairs   (b) function
    (c) omission   (d) discretion

57. In a 10-billion-year-old galaxy there should have been ample _____ for at least one species to escape its

own mess, and to spread across the stars, filling every niche.
    (a) negligence   (b) opportunity
    (c) surveillance   (d) supply

58. A true _____ of the resources involved in sport would include the unpaid labour services.
    (a) growth   (b) consideration
    (c) guidance   (d) estimation

DIRECTIONS (Qs. 59-61): *In the following passage some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.*

Tibet **(59)** _____ up images of a mystic land. Snow-capped mountain peaks pierce the blue sky and fierce chilly winds sweep the rolling grasslands. Maroon-robed Buddhist monks pray in remote monasteries and **(60)** _____ horsemen pound the rugged earth. People in this high plateau perform punishing rituals like prostrating hundreds of miles in tattered clothes on pilgrimage. Spirits, spells and flying apparitions are part of the Tibetan world. In short, Tibet remains an **(61)**.

59. (a) molds   (b) conjures
    (c) puts   (d) toil

60. (a) sturdy   (b) wobbly
    (c) devilish   (d) drained

61. (a) inspiration   (b) abhorrent
    (c) exotica   (d) heaven

DIRECTIONS (Qs. 62-65): *In these questions some of the sentences have errors and some have none. Find out which part of a sentence has an error and indicate it corresponding to the appropriate letters. If there is no error, indicate corresponding to the option of No Error.*

62. The Allahabad High Court on Monday dismissed a plea from private power producers seeking relieve from (A)/ an RBI diktat to banks to take cognizance of a stressed loan (B)/ if repayments were missed even by a day. (C)/ No Error (D)
    (a) A   (b) B
    (c) C   (d) D

63. The Turkish lira, which has lost (A)/ almost half its value this year, is (B)/ another currency in doldrums. (C)/ No Error (D)
    (a) A   (b) B
    (c) C   (d) D

64. The mandate of emerging market central banks in (A)/the current scenario should be to let their currencies find (B)/ their true value in a smooth manner. (C)/ No Error (D)
    (a) A   (b) B
    (c) C   (d) D

65. Developmental activities of the (A)/ government come to a standstill (B)/ due to paucity of funds (C)/ No Error (D)
    (a) A   (b) B
    (c) C   (d) D

66. Take the spear
    (a) To drink in the company of others
    (b) To make an exaggerated statement
    (c) To fight fiercely till the end
    (d) To accept full blame for something

67. Grist to one's mill
    (a) Harmful to somebody   (b) Useful to somebody
    (c) Useless to somebody   (d) Dreadful to somebody

68. In a lather
    (a) Encouraged   (b) Tired
    (c) Distressed   (d) Refreshed

69. Mop down
    (a) To clean something
    (b) To misinterpret a statement
    (c) To be dejected
    (d) To be uncertain

70. UPEND
    (a) Overbear   (b) Subdue
    (c) Flourish   (d) Lose

71. TURF
    (a) Shelter   (b) Oust
    (c) Injure   (d) Evict

72. SPLEEN
    (a) Caprice   (b) Cheer
    (c) Sway   (d) Boisterous

73. BARGE
    (a) Shove   (b) Shout
    (c) Interpret   (d) Plead

74. CHERUBIC
    (a) Elderly   (b) Lowness
    (c) Adorable   (d) Hardheaded

75. HUMMOCK
    (a) Tranquility   (b) Slab
    (c) Hammer   (d) Knoll

General Awareness

76. What is the maximum Number of timeouts in Volleyball that a team can take?
    (a) Maximum of 1   (b) Maximum of 2
    (c) Maximum of 3   (d) Maximum of 4

77. Who was the captain Indian hockey team in 1928?
    (a) Lal shah Bokhari   (b) Dhyan Chand
    (c) Kishan Lal   (d) Jaipal Singh

78. What is the Radcliffe Line?
    (a) Boundary demarcation line between India and Pakistan.
    (b) Boundary demarcation line between India and Nepal.
    (c) Boundary demarcation line between India and China.
    (d) Boundary demarcation line between Indian and Afghanistan.

79. Who among the following was the first posthumous recipient of Bharat Ratna?
    (a) B.R. Ambedkar   (b) Lal Bahadur Shastri
    (c) K. Kamraj   (d) M.G. Ramachandran

80. In which year Goa is taken by India?
    (a) November 1949   (b) December 1961
    (c) August 1962   (d) July 1963

81. Baltic cup is related to which game?
    (a) Football   (b) Hockey
    (c) Volleyball   (d) Badminton

82. Hook pass is related to which of the following game?
    (a) Football   (b) Hockey
    (c) Volleyball   (d) Basketball

83. Who wrote Hindu Sanskrit Book Natya Shastra?
    (a) Bharata Muni   (b) Manu Rishi
    (c) Yagyawalak   (d) Ashwagosh

84. When did the Jallianwala Bagh Massacre take place?
    (a) 24 February 1919   (b) 10 March 1919
    (c) 13 April 1919   (d) 24 July 1927

85. What was the term used for measurement of land in the Delhi Sultanate period?
    (a) Kismat-i-Ghalla   (b) Ghalla Bakshi
    (c) Masahat   (d) Ghazi

86. Riga is the capital of which country?
    (a) Latavia   (b) Estonia
    (c) Lithuania   (d) Belarus

87. Who was the founder of Brahmo Samaj?
    (a) Debendranath Tagor   (b) Rammohan Roy
    (c) Keshab Chandra Sen   (d) Dayanand Saraswati

88. Where is Indira Point located?
    (a) Nicobar Islands   (b) Lakshadweep
    (c) Kerala Coast   (d) Tamil Nadu Coast

89. JAXA is an aerospace agency of which of the following country?
    (a) Russia   (b) China
    (c) United Kingdom   (d) Japan

90. When did India become a member of Asian Development Bank?
    (a) 1966 (b) 1972
    (c) 1978 (d) 1982

91. Which of the given Vitamin is responsible for blood clotting?
    (a) Vitamin K (b) Vitamin A
    (c) Vitamin E (d) Vitamin C

92. Which of the following act is known as the Black Act?
    (a) Regulating Act of 1773
    (b) Charter Act of 1813
    (c) Vernacular Press Act 1878
    (d) Rowlatt Act 1919

93. Taseometer is an instrument to measure?
    (a) Intensity (b) Strains
    (c) Sea waves (d) Speed of Storm

94. Which island is located between Russia and Japan?
    (a) Kuril Islands (b) St Helena Island
    (c) Ascension Island (d) Curieuse Island

95. "Double fault" is related to which of the following sport?
    (a) Rugby (b) Tennis
    (c) Basket ball (d) Football

96. 'Lona' is the term associated with which sports?
    (a) Kho Kho (b) Kabaddi
    (c) Lawn Tennis (d) Badminton

97. Which is the capital of Estonia?
    (a) Tallinn (b) Vilnius
    (c) Minsk (d) Riga

98. Which war was fought between Sher Shah and Humayun in the year 1540AD?
    (a) Battle of Chausa (b) Battle of Bhojpur
    (c) Battle of Guzargh (d) Battle of Kannauj

99. Women who won first medal in Olympic in India was?
    (a) Mary Kom (b) Jwala Gutta
    (c) Karnam Malleswari (d) Sakshi Malik

100. Who is the author of the book "Underground"?
    (a) Colson Whitehead (b) Khaled Hosseini
    (c) Nora Roberts (d) Dean Koontz

ANSWERS

1. **(b)** From formula, difference between C.I. and S.I. at the end of 3 years.

$$D = \frac{Pr^2}{(100)^2}\left(\frac{300+r}{100}\right)$$

$$\therefore 77.5 = P\left(\frac{10}{100}\right)^2\left(\frac{300+10}{100}\right)$$

$$77.5 = \frac{P}{100}\left(\frac{31}{10}\right)$$

$$\therefore P = \frac{77.5 \times 1000}{31} = ₹2500$$

2. **(a)** Cost price of first horse

$$= 1200 \times \frac{100}{120} = 1000$$

Cost price of second horse

$$= 1200 \times \frac{100}{80} = 1500$$

Sum of cost price of two horses

$$= 1000 + 1500 = 2500$$

Sum of selling price of two horses

$$= 1200 + 1200 = 2400$$

Loss = 2500 − 2400 = 100

Overall percentage loss $= \frac{100}{2500} \times 100 = 4\%(\text{loss})$

3. **(c)** Average $= \dfrac{\dfrac{5}{16}+\dfrac{3}{8}}{2}$

$$= \frac{\dfrac{5+6}{16}}{2} = \frac{11}{32} = 0.3475.$$

4. **(b)** We know that efficiency is inversely proportional to the time
So, ratio of time in which they complete the work

$$= \frac{1}{4} : \frac{1}{5} : \frac{1}{6}$$
$$= 15 : 12 : 10$$
So, ratio of time = 15 : 12 : 10

5. **(a)** 5 dozen = 60
Now, cost price of 60 eggs = ₹100

Number of unbroken eggs $= 60 \times \dfrac{80}{100} = 48$

to get 10% profit selling price of 48 eggs

$$= 100 \times \frac{110}{100} = 110$$

Selling price of each egg $= \dfrac{110}{48} = 2.292 / \text{eggs}.$

6. **(d)** Rate of interest (semi annually) $= \dfrac{16}{2}\% = 8\%$

Time (in semi year) = 4

Now, compound interest $= P\left(1+\dfrac{r}{100}\right)^t$

$$= 10000\left(1+\frac{8}{100}\right)^4$$
$$= 13605$$

7. (c) $\sqrt{0.0081} + \sqrt{0.0064}$

$= \sqrt{(0.09)^2} + \sqrt{(0.08)^2}$

$= 0.09 + 0.08 = 0.17$

8. (a) $256^{0.16} \times 16^{0.18}$

$(2^8)^{0.16} \times (2^4)^{0.18}$

$(2)^{1.28} \times (2)^{0.72}$

$= 2^{1.28+0.72}$

$= 2^2 = 4$

9. (b) Let cost price of 1 kg sugar is ₹100

After increase in cost price by 25%

Cost price of 1 kg sugar = 125

Amount of sugar we can purchase in ₹100

$= \dfrac{100}{125} = \dfrac{4}{5}$ kg

Percentage decrease in consumption

$= \left(\dfrac{1 - \dfrac{4}{5}}{1} \right) \times 100 = 20\%$

10. (d) Let number of students fail and pass in the class are x and y respectively.

ATQ,

$70\,(x + y) = 40x + 80y$

$30x = 10y \Rightarrow y = 3x$

Now, $\dfrac{y}{x} = 3$

$\dfrac{y}{x + y} = \dfrac{3}{1 + 3}$ {By componendo & devedendo}.

∴ Percentage of pass students $= \dfrac{3}{4} \times 100 = 75\%$

11. (a) Let population of the village in 2014 is N.

Then, $1852200 = N \left(1 + \dfrac{5}{100} \right)^2$

$\therefore N = \dfrac{1852200}{1.05 \times 1.05} = 1680000.$

12. (c) Amount of milk in the mixture

$= 250 \times \dfrac{7}{9} = 194.4$ ml

Amount of water in the mixture = 55.6

Let x ml of milk is added in the mixture then, Ratio of milk to water.

$= \dfrac{194.4 + x}{55.6} = \dfrac{4}{1}$

$(194.4 + x) = 55.6 \times 4$

$194.4 + x = 222.4$

$x = 28$ ml.

13. (a) Let the Teacher's age is x year.

ATQ,

$18 \times 26 = 16 \times 25 + x$

$468 = 400 + x$

∴ Teacher's age $= 468 - 400$

$= 68$ years.

14. (b) (A + B)'s 1 day's work $= \dfrac{1}{10}$

(B + C)'s 1 day's work $= \dfrac{1}{12}$

(C + A)'s day's work $= \dfrac{1}{15}$

On adding,

$2(A + B + C)$'s 1 day's work $= \dfrac{1}{10} + \dfrac{1}{12} + \dfrac{1}{15} = \dfrac{6 + 5 + 4}{60} = \dfrac{1}{4}$

∴ $(A + B + C)$'s 1 day's work $= \dfrac{1}{8}$

A's 1 day's work $= = \dfrac{1}{8} - \dfrac{1}{12} = \dfrac{3 - 2}{24} = \dfrac{1}{24}$

∴ A alone will complete the work in 24 days.

Hence option [b] is correct answer.

15. (a) According to question,

$3^{(a+8)} = 27^{(2a+1)} \Rightarrow 3^{(a+8)} = 3^{3(2a+1)}$.

Equating the powers, we get $(a+8) = 3(2a+1)$ or 'a' = 1.

16. (a) Distance $= (44/60) \times 50 = (x/60) \times 55$

∴ x = 40 minutes

17. (b) The percentage of reduction in consumption:

$= \dfrac{100 \times 50}{100 + 50} = (100 \times 50)/150 = 33\dfrac{1}{3}\%$

18. (d) Ratio of males and females = 5 : 6

Let the males are 5x and females are 6x

Now,

22 females leave the club

$5x : (6x - 22) = 6 : 5$

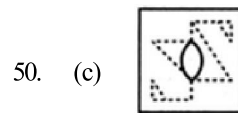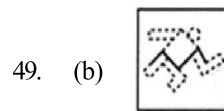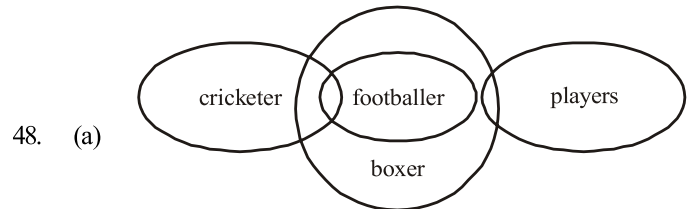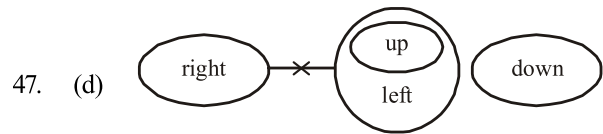$(6x - 22)6 = 5x \times 5$

$36x - 132 = 25x$

$36x - 25x = 132$

$11x = 132$

$\Rightarrow x = 12$

The number of males $= 5x = 5 \times 12 = 60$

19. (a)

Bridge | House
Brick

20. (b)

Student of law — Student of science — Men

21. (b)

Pickpockets — Kidnappers — Antisocial
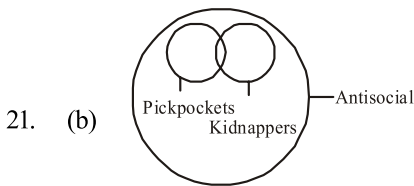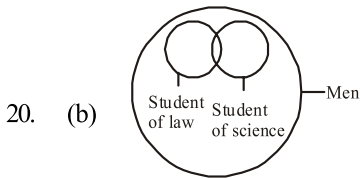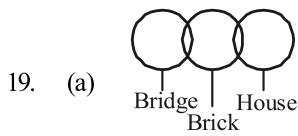
22. (b) According to diagram,
M is poet and singer but not dancer.

23. (b) As, Infant of sheep is lamb. Similarly, Infant of Insect is larva.

24. (a) As, Monk antonyms is Nun. Similarly, Bachelor antonyms is Spinster.

25. (d) Fear comes in Dark same as Trust comes due to Honesty.

26. (c) As, Hungry needs food, Similarly, Weary needs rest.

27. (b) As, Ampere is unit of current. Similarly, Newton is unit of force.

28. (c) Except July, All other month have 30 days.

29. (b) House sparrow is a common type of bird.

30. (b) Except Retina, all others are parts of a flower.

31. (d) In all other pairs, second is prepared by the first.

32. (d) In all other pairs, first is used to hold the second.

33. (c)

34. (b) According to question,
Required Number = 64 – (17 + 11) + 1 = 37th

35. (d)

36. (a) In PF(1), top half darkened rectangle turned 900 clockwise, middle half darkened rectangle turned anti-clockwise 900 and bottom half darkened rectangle turned clockwise by 900. So turn the rectangles in PF(C), clockwise, anti-clockwise, and clockwise. So correct Option (a)

37. (c) In each subsequent figure one dot is added and alternatively dots become white. Again, in each subsequent figure one arrow is deleted.

38. (b) 39. (d) 40. (a) 41. (a) 42. (b)

43. (b) 44. (c) 45. (d) 46. (d)

47. (d)

right ⟶✕ up / left   down

48. (a)

cricketer   footballer   players
boxer

49. (b)

50. (c)

51. (b) 52. (c) 53. (b)

54. (a) The most appropriate word that would fill the blank is 'mistakes' which means an act or judgement that is misguided or wrong. All the other words do not fill the blank appropriately, hence option (a) is the most suitable answer choice. Accuracies means the quality or state of being correct or precise. Obstacles means a thing that blocks one's way or prevents or hinders progress.

55. (c) The most appropriate word that would fill the blank is 'travel' which means journeys, especially abroad. All the other words do not fill the blank appropriately, hence option (c) is the most suitable answer choice. Deportation means the action of deporting a foreigner from a country. Transfer means move from one place to another.

56. (d) The most appropriate word that would fill the blank is 'discretion' which means the freedom to decide what should be done in a particular situation. All the other words do not fill the blank appropriately, hence option (d) is the most suitable answer choice. Omission means someone or something that has been left out or excluded. Affairs means an event or sequence of events of a specified kind or that has previously been referred to.

57. (b) The most appropriate word that would fill the blank is 'opportunity' which means a time or set of circumstances that makes it possible to do something. All the other words do not fill the blank appropriately, hence option (b) is the most suitable answer choice. Negligence means failure to take proper care over something. Surveillance means close observation, especially of a suspected spy or criminal.

58. (d) The most appropriate word that would fill the blank is 'estimation' which means a judgement of the worth or character of someone or something. All the other words do not fill the blank appropriately, hence option (d) is the most suitable answer choice. Consideration means careful thought, typically over a period of time. Guidance means advice or information aimed at resolving a problem or difficulty, especially as given by someone in authority.

59. (b) 60. (a) 61. (c)

62. (a) Replace verb 'relieve' with noun 'relief'. Relief (noun): financial or practical assistance given to those in special need or difficulty.

63. (c) Replace 'in doldrums' with correct idiomatic expression 'in the doldrums' which means 'in a state of stagnation; lacking activity or progress'.

64. (d) No Error.

65. (b) Replace 'come' by 'have come'. As the sentence doesn't imply a regular habit, universal truth or general fact but a time based event hence, Perfect Tense is required.

66. (d) 67. (b) 68. (c) 69. (a)

70. (d) Upend: to achieve a victory over.

71. (a) Turf: force (someone) to leave somewhere.

72. (b) Spleen: bad temper; spite.
Caprice: a sudden and unaccountable change of mood or behaviour.
Sway: rule; control.
Hence 'Cheer' is the correct antonym.

73. (a) Barge: move forcefully or roughly.
Shove: push (someone or something) roughly.
Hence Barge and Shove are synonyms to each other.

74. (c) Cherubic: having the innocence or plump prettiness of a young child.
Adorable: inspiring great affection or delight.
Hence Cherubic and Adorable are synonyms to each other.

75. (d) Hummock: a very small hill or raised part of the ground; hillock.
Knoll: a small hill or mound.
Hummock and Knoll are synonyms to each other.

76. (b) Maximum of 2 time outs per game for a team is allowed.

Time out lasts 30 seconds. In official international competitions two 60 seconds technical time-out are used when the leading team reaches the 8 or 16 point mark.

77. (d) Jaipal Singh Munda (3 January 1903 - 20 March 1970) born in a Munda tribal family in Jharkhand, was a politician, prolific writer and sportsman. He captained the Indian field hockey team to clinch gold in the 1928 Summer Olympics in Amsterdam. Lal Shah Bokari , Dhyan Chand and Kishan Lal also became the captain of Indian Hockey Team later.

78. (a) The Radcliffe Line was the boundary demarcation line between the Indian and Pakistani portions of the Punjab and Bengal provinces of British India. It was named after its architect, Sir Cyril Radcliffe, who, as the joint chairman of the two boundary commissions for the two provinces, received the responsibility to equitably divide 175,000 square miles (450,000 km2) of territory with 88 million people.

79. (b)

80. (b) The Annexation of Goa was the process in which the Republic of India annexed the former Portuguese Indian territories of Goa, Daman, and Diu, starting with the "armed action" carried out by the Indian Armed Forces in December 1961.

81. (a) The Baltic Cup is an international football competition contested by the national teams of the Baltic States - Estonia, Latvia and Lithuania. Finland has also participated as a guest twice in this game.

82. (d)

83. (a) Bharata Muni was an ancient Indian theatrologist and musicologist who wrote the Natya Shastra, a theoretical treatise on ancient Indian dramaturgy and histrionics, especially Sanskrit theatre. Bharata is considered the father of Indian theatrical art forms.

84. (a) The Jallianwala Bagh massacre, also known as the Amritsar massacre, took place on 13 April 1919 when a crowd of nonviolent protesters, along with Baishakhi pilgrims, who had gathered in Jallianwala Bagh, Amritsar, Punjab, were fired upon by troops of the British Indian Army under the command of Colonel Reginald Dyer.

85. (c) 86. (a) 87. (b)

88. (a) Indira Point is a village in the Nicobar district at Great Nicobar Island of Andaman and Nicobar Islands, India. It is located in the Great Nicobar tehsil. It is the location of the southernmost point of India's territory.

89. (d)

90. (a) India became a member of the Asian Development Bank (ADB) as a founding member in 1966. The Bank is engaged in promoting economic and social progress of its developing member countries (DMCs) in the Asia Pacific Region.

91. (a) Vitamin K affects the clotting mechanism by being essential for the production of four distinct clotting factors: prothrombin, factors VII, IX and X.

92. (d) 93. (a) 94. (a) 95. (b) 96. (b)

97. (a) Tallinn became the capital of an independent Estonia. After World War II started, Estonia acceded to the Soviet Union (USSR) in 1940, and later occupied by Nazi Germany from 1941 to 1944.

98. (d) Battle of Kannauj (1540 A.D.) - Sher Shah Suri defeated Humayun.

99. (c) The first Indian woman to ever win an Olympic medal was Karnam Malleswari who won a bronze medal at the Sydney Olympics in the Women's 69 kg category in Weightlifting.

100. (a) Colson Whitehead is an American novelist. He is the author of six novels, including his debut work, the 1999 novel The Intuitionist, and The Underground Railroad, for which he won the 2016 National Book Award for Fiction and the 2017 Pulitzer Prize for Fiction.

1. When was Indian National Congress founded?
   (a) 18 December, 1885
   (b) 28, December, 1885
   (c) 11, September, 1901
   (d) 11, September, 1903

2. Pugilist is a term used for player of a game. Identify the game.
   (a) Hockey
   (b) Badminton
   (c) Boxing
   (d) Billiards

3. Theyyam is a tradition of which state?
   (a) Tamil Nadu
   (b) Karnataka
   (c) Andhra Pradesh
   (d) Kerala

4. How many hurdles are there in 400m race?
   (a) 6
   (b) 8
   (c) 10
   (d) 12

5. In which two years were Asian games held in India?
   (a) 1951, 1982
   (b) 1982, 2011
   (c) 1951, 1983
   (d) 1954, 1981

6. Who won 4 back to back titles in badminton?
   (a) Pankaj Adwani
   (b) Prannoy Kumar
   (c) K. Srikanth
   (d) Mahesh Bhupti

7. When was modern Olympic started?
   (a) 6th April, 1986
   (b) 6th April, 1896
   (c) 11th July, 1807
   (d) 4th June, 1907

8. How many countries are there in Asia?
   (a) 26
   (b) 39
   (c) 42
   (d) 48

9. What is the name of first artificial satellite of USA?
   (a) Explorer 1
   (b) Discovery
   (c) Titan
   (d) Atlantis

10. How many states does tropic of cancer pass through?
    (a) 6
    (b) 7
    (c) 8
    (d) 9

11. Who is the author of 'India divided'?
    (a) Jawahar Lal Nehru
    (b) Shashi Tharoor
    (c) Rajendra Prasad
    (d) Kapil Sibbal

12. Speed of wind measured by _____.
    (a) Speedometer
    (b) Spectrometer
    (c) Hydrometer
    (d) Anemometer

13. Which Indian made the national record in long jump?
    (a) Ankit Sharma
    (b) Devendra Jhajharia
    (c) Anju Bobby George
    (d) Nayana James

14. Where is NATO headquarter located?
    (a) Ottawa, Canada
    (b) Mexico City, Mexico
    (c) Brussels, Belgium
    (d) New York, USA

15. Tashkent agreement was signed by _____.
    (a) Sardar Patel and John Mathai
    (b) Lal Bahadur Shahstri and Ayub Khan
    (c) Maulana Abul Kalam Azad and Rajendra Prasad
    (d) Rajendra Prasad and Jawahar Lal Nehru

16. Who has written Panchtantra?
    (a) Vaishnu Sharma
    (b) Munshi Prem Chand
    (c) Subhadra Kumari Chauhan
    (d) Maithali Saran Gupt

17. Ruder cup is associated with which sport?
    (a) Men's golf
    (b) Soccer
    (c) Badminton
    (d) Basketball

18. Salal project is on the river_____.
    (a) Godavri
    (b) Ganga
    (c) Chenab
    (d) Mahanadi

19. In which city was the first British factory established in India.
    (a) Kedarpuram
    (b) Machhilipatnam
    (c) Agra
    (d) Panji

20. In which year was the first FIFA world cup held?
    (a) 1931
    (b) 1930
    (c) 1940
    (d) 1935

21. Guwahati is on the bank of which river?
    (a) Ganga
    (b) Barak
    (c) Brahmaputra
    (d) Teesta

22. Who was the Governor General of India during formation of Indian National Congress?
    (a) Lord Dufferin
    (b) Lord Mountbattern
    (c) Lord Minto
    (d) Lord William Bentinck

23. Who is the author of 'Sleeping of Jupiter'?
    (a) Jhumpa Lahiri
    (b) Anuradha Roy
    (c) Shushma Swaraj
    (d) Vikram Seth

24. Find the odd one out:
    (a) Plassey
    (b) Sarnath
    (c) Haldighati
    (d) Panipat

25. In 1954 which French settlements joined to India?
    (a) Pondicherry
    (b) Dutch
    (c) Goa
    (d) Chennai

26. The sum of two numbers is 36 and their H.C.F and L.C.M. are 3 and 105 respectively. The sum of the reciprocals of two numbers is
    (a) $\frac{2}{35}$
    (b) $\frac{3}{25}$
    (c) $\frac{4}{35}$
    (d) $\frac{2}{25}$

27. A teacher wants to arrange his students in an equal number of rows and columns. If there are 1369 students, the number of students in the last row are
    (a) 37
    (b) 33
    (c) 63
    (d) 47

28. . A farmer divides his herd of n cows among his four sons, so that the first son gets one–half the herd, the second one– fourth, the third son 1/5 and the fourth son 7 cows. Then the value of n is
    (a) 240
    (b) 100
    (c) 180
    (d) 140

29. If $2x - \frac{1}{2x} = 6$, then the value of $x^2 + \frac{1}{16x^2}$ is
    (a) $\frac{19}{2}$
    (b) $\frac{17}{2}$
    (c) $\frac{18}{3}$
    (d) $\frac{15}{2}$

30. On a journey across Kolkata, a taxi averages 50 km per hour for 50% of the distance. 40 km per hour for 40% of it and 20 km per hour for the remaining. The average speed in km/ hour, for the whole journey is:
    (a) 42
    (b) 40
    (c) 35
    (d) 45

31. The average salary of all the workers in a workshop is Rs. 8,000. The average salary of 7 technicians is Rs. 12,000 and the average salary of the rest is Rs. 6,000. The total number of workers in the workshop is
    (a) 20
    (b) 21
    (c) 22
    (d) 23

32. The monthly salaries of A and B together amount to ` 40,000. A spends 85% of his salary and B, 95% of his salary. If now their savings are the same, then the salary (in Rupees) of A is
    (a) 10,000
    (b) 12,000
    (c) 16,000
    (d) 18,000

33. The price of table depreciates every year by 20%. If the value of the table after 2 years will be ` 32000, then what is the present price (in Rupees) of the table?
(a) 48,000
(b) 44,000
(c) 50,000
(d) 51,000

34. Krishna purchased a number of articles at Rs. 10 for each and the same number for Rs. 14 each. He mixed them together and sold them for `13 each. Then his gain or loss percent is
(a) Loss $8\frac{1}{3}\%$
(b) Gain $8\frac{2}{3}\%$
(c) Loss $8\frac{2}{3}\%$
(d) Gain $8\frac{1}{3}\%$

35. The price of an article is first decreased by 20% and then increased by 30%. if the resulting price is Rs. 416, the original price of the article is.
(a) Rs. 350
(b) Rs. 405
(c) Rs. 400
(d) Rs. 450

36. A sum of Rs. 12,000, deposited at compound interest becomes double after 5 years. How much will it be after 20 years?
(a) Rs. 1,44,000
(b) Rs. 1,20,000
(c) Rs. 1,50,000
(d) Rs. 1,92,000

37. A sum becomes Rs. 2,916 in 2 years at 8% per annum compound interest. The simple interest at 9% per annum for 3 years on the same amount will be
(a) Rs. 625
(b) Rs. 600
(c) Rs. 675
(d) Rs. 650

38. Rs. 700 is divided among A, B, C in such a way that the ratio of the amount of A and B is 2 : 3 and that of B and C is 4 : 5. Find the amounts in ` each received, in the order A, B, C.
(a) 150, 250, 300
(b) 160, 240, 300
(c) 150, 250, 290
(d) 150, 240, 310

39. A and B can complete a piece of work in 8 days, B and C can do it in 12 days, C and A can do it in 8 days. A, B and C together can complete it in
(a) 4 days
(b) 5 days
(c) 6 days
(d) 7 days

40. Pipe A alone can fill a tank in 8 hours. Pipe B alone can fill it in 6 hours. If both the pipes are opened and after 2 hours pipe A is closed, then the other pipe will fill the tank in
(a) 6 hours
(b) 3 1/2 hours
(c) 4 hours
(d) 2 1/2 hours

41. P is four times as efficient as Q. P can complete a work in 45 days less than Q. If both of them work together, then in how many days the work will be completed?
(a) 10
(b) 12
(c) 15
(d) 30

42. Two trains 108 m and 112 m in length are running towards each other on the parallel lines at a speed of 45 km/hr and 54 km/hr respectively. To cross each other after they meet, it will take
(a) 10 sec
(b) 12 sec
(c) 9 sec
(d) 8 sec

43. A boat goes 15 km upstream and 10 ½ km downstream in 3 hours 15 minutes. It goes 12 km upstream and 14 km downstream in 3 hours. What is the speed of the boat in still water?
(a) 4
(b) 6
(c) 10
(d) 14

DIRECTIONS (Qs. 44-47): From the given answer figures, select the one in which the question figure is hidden/embedded.

44. Question Figure:

Answer Figure:

(a)   (b)   (c)   (d)

45. Question Figure:

Answer Figures:

(a)   (b)   (c)   (d)

46. Question Figure:

Answer Figures:

(a)   (b)   (c)   (d)
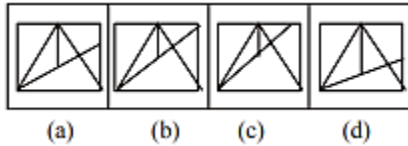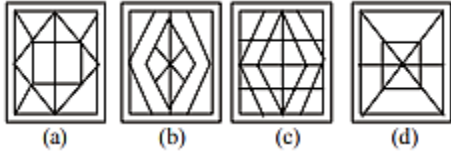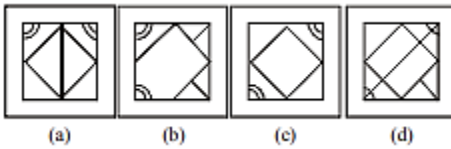
47. Question Figure:

Answer Figures:
(a)

(b)

(c)

(d)
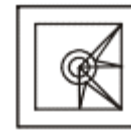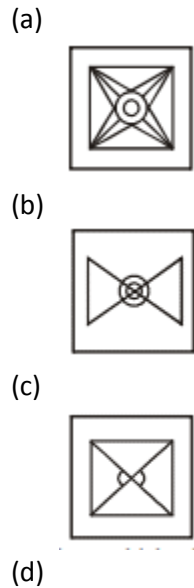
48. Find out which of the diagrams given in the alternatives correctly represents the relationship stated in the question. Sharks, Whales, Turtles
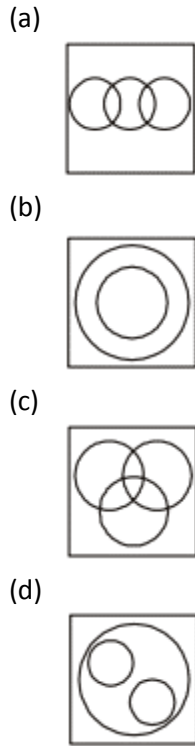
(a)

(b)

(c)

(d)
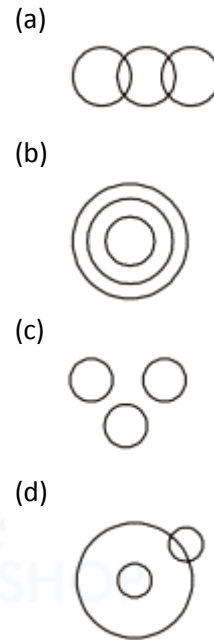
49. Indicate which figure will best represent the relationship amongst the three: Legumes Seeds, Peas, Kidney Beans
(a)

(b)

(c)

(d)
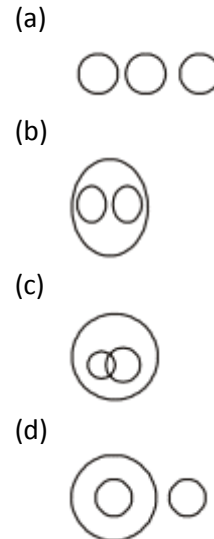
50. Find out the figure which best represents the relationship among Garden, Rose and Jasmine.

(a)   (b)   (c)   (d)
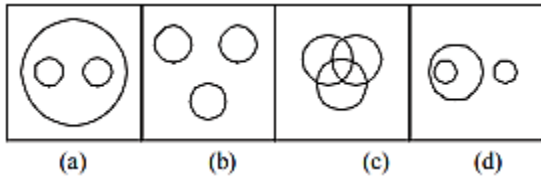
51. Identify the diagram that best represents the relationship among classes given below: Christians, Catholics, Pope

(a)

(b)

(c)

(d)

DIRECTIONS (Qs. 52-56): In each of the following questions, select the related word/letters/ number from the given alternatives.

52. Flexible : Rigid : : Confidence : ?
    (a) Diffidence
    (b) Indifference
    (c) Cowardice
    (d) Scare

53. Mirage : Desert : : ?
    (a) Sky : Illusion
    (b) Rainbow : Sky
    (c) Rain : Rainbow
    (d) Image : Mirror

54. Anemia : Blood : : Anarchy : ?
    (a) Disorder
    (b) Monarchy
    (c) Government
    (d) Lawlessness

55. Symphony : Composer : : Painter : ?
    (a) Fresco
    (b) Colours
    (c) Art
    (d) Leonardo

56. Influenza: Virus :: Ringworm: ?
    (a) Bacteria
    (b) Fungi
    (c) Parasite
    (d) Protozoa

DIRECTIONS (Qs. 57-61): In question, find the odd number/ letters/ number pair from the given alternatives.

57.
    (a) Annoy
    (b) Distress
    (c) Harass
    (d) Ravage

58.
    (a) Hurdle
    (b) Disease
    (c) Barrier
    (d) Obstacle

59.
    (a) Rooster
    (b) Buck
    (c) Gander
    (d) Peahen

60.
    (a) Fastidious
    (b) Firm
    (c) Grave
    (d) Agreeable

61.
    (a) Soldier – Barrack
    (b) Principal – School
    (c) Artist – Troupe
    (d) Singer – Chorous

62. Find the missing figure of the series from the given responses.
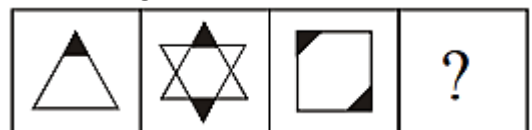
Question Figures:
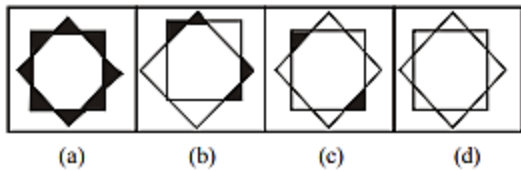
Answer Figures:

63. What comes next in the series?
Question Figures:

Answer Figures:
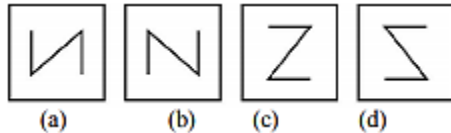
DIRECTIONS (Qs. 64-68): In each of the following questions, select a figure from amongst the four alternative, which satisfies the same conditions of placement of the dots as in figure (X):
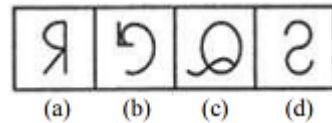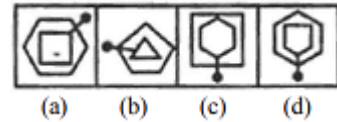
64.
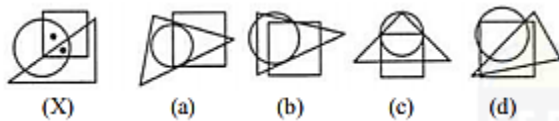
65.
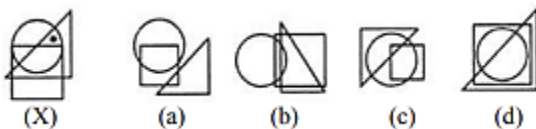
66.
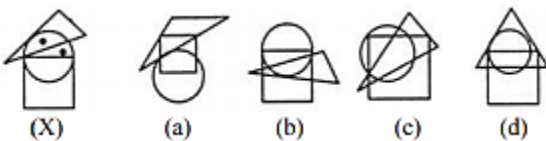
67.
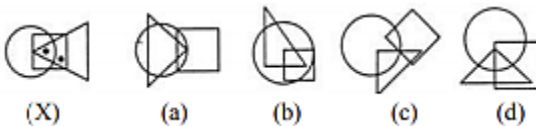
68.
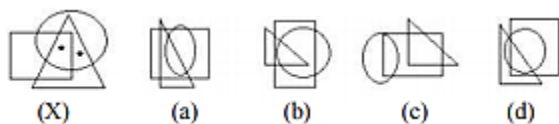
DIRECTIONS (Qs. 69-71): Each of the questions, out of the four figures marked (a), (b), (c) and (d). three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest:

69.

70.

71.
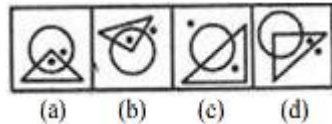
DIRECTIONS (Qs. 72-75): Each of the following questions consists of five figures marked A, B, C, D and E called the Problem Figures followed by five other figures marked (a), (b), (c), and (d) called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

72. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.
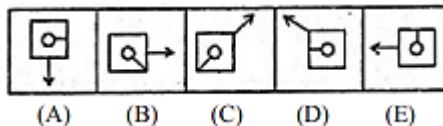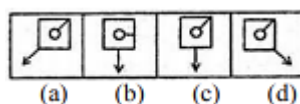Problem Figures:
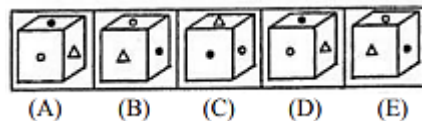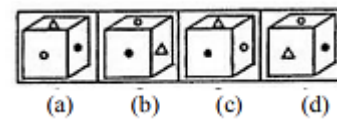
Answer Figures:

73. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.
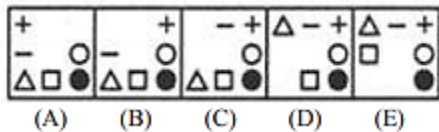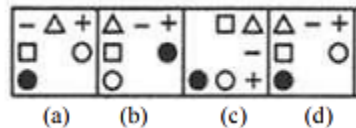Problem Figures:

Answer Figures:

74. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.
Problem Figures:

(A)   (B)   (C)   (D)   (E)

Answer Figures:

(a)   (b)   (c)   (d)

75. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.
Problem Figures:

(A)   (B)   (C)   (D)   (E)

Answer Figures:

(a)   (b)   (c)   (d)
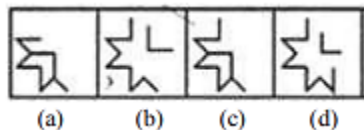
DIRECTIONS (Qs. 76-79): Read the following passage and answer the questions given after it.

Dr. Carver was an American Negro slave, who by dint of his ability became a scientist and educator of world-wide fame. A national monument has now been erected to honour him. This monument has been built at his birth place in the United States of America. Carver's life and achievements prove the American saying: "You can't keep a great man down." From childhood he showed qualities which gave promise of his genius. He would get up before sunrise to study the wonders of nature before the break of dawn in the east. His guardians wanted to educate him but were too poor to do so. So, he left home. He was hardly ten when he began to work at small jobs to earn a little money for his school expenses. He continued to do so even when he was at college. Thus, he passed his M.Sc. examination and became a professor. There he wrote several books on science subjects. His chief desire was to do the greatest good to the greatest number of people. He left all his life's savings to found scholarships for research in Agricultural Chemistry. He knows this research, was bound to benefit farmers all over the world. Though world famous, he never felt proud of his discoveries. "I discovered nothing," he once said, "I am God's agent—the instrument through which he works."

76. What can you say about the early life of Dr. Carver?
(a) He was born with silver spoon in his mouth.
(b) He was brought up in an orphanage.
(c) He had to struggle a lot as his parents were poor.
(d) He was brought up and educated by wealthy parents.

77. Which of the following statements show that he was a great lover of mankind?
(a) He offered charitable services to the poor.
(b) He desired to do the greatest good to the greatest number of people.
(c) He opened several colleges and institutes.
(d) He donated all his life savings.

78. Find out the statement that he was humble?
(a) He never felt proud of his discoveries.
(b) He always respected the women.
(c) He was very polite in his attitudes.
(d) He admired his own achievements.

79. What was of Dr. Carver by profession?
(a) Doctor
(b) Politician
(c) Scientist
(d) Professor

DIRECTIONS (Qs. 80-84): Select the word which means the opposite of the given word.

80. PROFANE
(a) Sacred
(b) Artless
(c) Rigid
(d) Aspersion

81. OBLIGATORY
(a) Doubtful
(b) Voluntary
(c) Sincerely
(d) Faithfully

82. OBSCURE
(a) Suitable
(b) Apt
(c) Thalamus
(d) Clear

83. MUTUAL
    (a) Reciprocal
    (b) Agreed
    (c) Common
    (d) Conjugal
84. EVIDENT
    (a) Prominent
    (b) Seen
    (c) Observed
    (d) Quite clear

DIRECTIONS (Q. 85-89): In the following passage there are some numbered blanks. Fill in the blanks by selecting the most appropriate word for each blank from the given options.

In tropical countries, certain crops are grown ....(85)............ the year. These countries have ....(86)............ rainfall for the crops. They also have plenty of sunshine what ....(87)............ the crops. More food than is ....(88)............ can be grown in these places. But there are other countries in the world where it is ....(89)............ to grow crops.

85.
    (a) Along
    (b) Over
    (c) Through out
    (d) Across
86.
    (a) Sufficient
    (b) Little
    (c) Plenty
    (d) Inadequate
87.
    (a) Opens
    (b) Gathers
    (c) Destroys
    (d) Ripens
88.
    (a) Cooked
    (b) Required
    (c) Planted
    (d) Used
89.
    (a) Difficult
    (b) Rough
    (c) Smooth

(d) Impossible

DIRECTIONS (Qs. 90-95): Select the meaning of the given phrases/idioms.

90. Man of letters
    (a) a person who writes letters
    (b) a person who receives letters
    (c) an illiterate person
    (d) a learned person
91. All Greek
    (a) totally classical
    (b) totally unintelligible
    (c) totally impressive
    (d) totally original
92. A live wire
    (a) a person who is full of energy
    (b) an eminent person
    (c) an unruly person
    (d) a critical person
93. Writing on the wall
    (a) graffiti
    (b) an event indicating impending danger
    (c) announcement of an event
    (d) a political slogan
94. A fool's paradise
    (a) paradise of idiots
    (b) a state of illusory happiness
    (c) to live in the past
    (d) to have happy dreams
95. Nip in the bud
    (a) destroy in the beginning
    (b) extremely good start
    (c) striving from the beginning
    (d) nurture the bud to grow into flower

DIRECTIONS (Qs. 96-100): In each of the following questions, choose the correctly spelt word.

96.
    (a) Properetry
    (b) Propriatory
    (c) Proprietary
    (d) Proprietory
97.
    (a) Reharsal
    (b) Rehersal
    (c) Rehearsal
    (d) Rehearsel
98.

(a) Millionare
(b) Millionaire
(c) Milionaire
(d) Millunaire

99.
(a) Fasist
(b) Facicl
(c) Facist
(d) Fascist

100.
(a) Legendry
(b) Legendary
(c) Legendery
(d) Legandery

Answer Key

1	B	13	A	25	A	37	C	49	B	61	B	73	C	85	C	97	C
2	C	14	C	26	C	38	B	50	A	62	C	74	D	86	A	98	B
3	D	15	B	27	A	39	C	51	B	63	C	75	C	87	D	99	D
4	C	16	A	28	D	40	D	52	A	64	D	76	C	88	B	100	B
5	A	17	A	29	A	41	B	53	C	65	C	77	B	89	A		
6	C	18	C	30	B	42	D	54	C	66	C	78	A	90	D		
7	B	19	B	31	B	43	C	55	A	67	D	79	C	91	B		
8	D	20	B	32	A	44	C	56	B	68	D	80	A	92	A		
9	A	21	C	33	C	45	C	57	D	69	B	81	B	93	B		
10	C	22	A	34	A	46	B	58	B	70	D	82	D	94	B		
11	C	23	B	35	C	47	A	59	B	71	A	83	A	95	A		
12	D	24	B	36	D	48	C	60	D	72	C	84	D	96	C		

1. **(B)** India's oldest political party, the Indian National Congress was founded on **December 28 in 1885**. The party was formed by the members of elite class such as Allan Octavian Hume, a prominent member of the Theosophical Society, Dadabhai Naoroji and Dinshaw Wacha.

2. **(C)** Pugilist is a fancy word for **boxer**, one who indulges in the noble art of pugilism, or fighting with one's fists.

3. **(D)** Theyyam is a famous ritual art form that originated in **North Kerala** which brings to life the great stories of our State. It encompasses dance, mime and music. It exalts the beliefs of the ancient tribals who gave a lot of importance to the worship of heroes and the spirits of their ancestors.

4. **(C)** 400 metre hurdles. Athletes run once around a 400m track and clear **ten** evenly-spaced hurdles in the process. They start from blocks placed in staggered positions and run in lanes.

5. **(A)** In 1951 and 1982.

6. **(C)** Kidambi Srikanth

7. **(B)** 6 April 1896

8. **(D)** Asia is subdivided into 48 countries, three of them (Russia, Kazakhstan and Turkey) having part of their land in Europe. Asia has extremely diverse climates and geographic features. Climates range from arctic and subarctic in Siberia to tropical in southern India and Southeast Asia.

9. **(A)** The first successful U.S. satellite, **Explorer I**, was launched into Earth orbit by the Army on

Jan. 31, 1958, at Cape Canaveral, Florida, four months after Russia orbited Sputnik.

10. **(C)** In India Tropic of Cancer passes through **8 States.** (Rajasthan, Gujarat, Madhya Pradesh, Chhattisgarh, Jharkhand, West Bengal, Tripura and Mizoram.)

11. **(C)** Rajendra Prasad

12. **(D)** The speed of that wind can be measured using a tool called an **anemometer**. An anemometer looks like a weather vane, but instead of measuring which direction the wind is blowing with pointers, it has four cups so that it can more accurately measure wind speed.

13. **(A) Ankit Sharma** (born 20 July 1992) is an Indian athlete who competes in the long jump event. He holds the long jump national record of 8.19 metres set in June 2016 at the G. Kosanov Memorial Meet in Almaty, Kazakhstan.

14. **(C)** Brussels, Belgium

15. **(B)** Tashkent Agreement, (Jan. 10, 1966), accord signed by India's prime minister Lal Bahadur Shastri (who died the next day) and Pakistan's president Ayub Khan.

16. **(A) Vishnu Sharm**a was an Indian scholar and author who is believed to have written the Panchatantra collection of fables. The exact period of the composition of the Panchatantra is uncertain, and estimates vary from 1200 BCE to 300 CE. Some scholars place him in the 3rd century BCE.

17. **(A)** The Ryder Cup is a biennial **men's golf competition** between teams from Europe and the United States. The competition is contested every two years with the venue alternating between courses in the United States and Europe. The Ryder Cup is named after the English businessman Samuel Ryder who donated the trophy.

18. **(C)** Salal Dam, also known as Salal Hydroelectric Power Station, is a run-of-the-river power project on the **Chenab River** in the Reasi district of the Indian state of Jammu and Kashmir.

19. **(B)** During this time ships belonging to the company arriving in India docked at Surat, which was established as a trade transit point in 1608. In the next two years, the company established its first factory in south India in the town of **Machilipatnam** on the Coromandel Coast of the Bay of Bengal.

20. **(B)** The 1930 FIFA World Cup was the inaugural FIFA World Cup, the world championship for men's national association football teams. It took place in Uruguay from **13 to 30 July 1930**.

21. **(C)** Guwahati lies between the banks of the **Brahmaputra River** and the foothills of the Shillong plateau.

22. **(A) Lord Dufferin** (1826-1902) was the Governor General and Viceroy of India from 1884 to 1888). He had succeeded Lord Ripon in December 1884 and was known as one of the most successful diplomats of his time.

23. **(B)** Anuradha Roy

24. **(B)** All except **Sarnath** are famous battlefields.

25. **(A)** On 1 November 1954, the four enclaves of **Pondichéry**, Yanam, Mahe, and Karikal were de facto transferred to the Indian Union and became the Union Territory of Puducherry. The de jure union of French India with India did not take place until 1962, when the French Parliament in Paris ratified the treaty with India.

26. **(C)** Let the numbers be 3x and 3y.

$\therefore 3x + 3y = 36$

$\Rightarrow x + y = 12 \ \dots (i)$

and $3xy = 105 \ \dots (ii)$

Dividing equation (i) by (ii), we have

$\dfrac{x}{3xy} + \dfrac{y}{3xy} = \dfrac{12}{105}$

$\Rightarrow \dfrac{l}{3y} + \dfrac{l}{3x} = \dfrac{4}{35}$

Shortcut Method:

$\dfrac{1}{x} + \dfrac{1}{y} = \dfrac{x+y}{xy}$

27. **(A)** If they are equal number of rows and columns then, $\sqrt{1369} = 37$

28. **(D)** According to the question,

$\dfrac{n}{2} + \dfrac{n}{4} + \dfrac{n}{5} + 7 = n$

$\Rightarrow \dfrac{10n + 5n + 4n}{20} + 7 = n$

$\Rightarrow \dfrac{19n}{20} + 7 \Rightarrow n \Rightarrow n - \dfrac{19n}{20} = 7$

$\Rightarrow \dfrac{n}{20} = 7 \Rightarrow n = 20 \times 7 = 140$

29. **(A)**

$2x - \dfrac{1}{2x} = 6$

$\Rightarrow x - \dfrac{1}{4x} = 3 \ [on \ dividing \ by \ 2]$

$\Rightarrow x^4 + \dfrac{1}{16x^2} - 2 \times x \times \dfrac{1}{4x} = 9$

[on squaring]

$$\Rightarrow x^4 + \frac{1}{16x^2} = 9 + \frac{1}{2} = \frac{19}{2}$$

30. (B)

Total distance = 100 km

$$\text{Total time} = \frac{50}{50} + \frac{40}{40} + \frac{10}{20} = 1 + 1 + \frac{1}{2} = \frac{5}{2}\,h$$

$$\therefore Average\ speed = \frac{100 \times 2}{5} = 40\ kmph$$

31. (B) Let total number of workers be n total salary of all workers = 8000 n total salary of 7 technicians = 7 × 12000 = 84,000 total salary of remaining workers = (n − 7) × 6000 84000 + (n − 7) × 6000 = 8000 n 84 + 6n − 42 = 8n 42 = 2n n = 21

32. (B) Let the monthly salary of A be x,, monthly salary of B is (40000 − x). Savings of A = (100 − 85)% of x = 0.15x Savings of B = (100 − 95)% of (40000 − x) = 0.05 (40000 − x) 0.15 x = 0.05 (40000 − x) 0.15x + 0.05x = 40000 × 0.05 0.2x = 2000 x = 10000 OR

$$A \times \frac{15}{100} = \times \frac{5}{100}$$

$$\therefore A:B = 1:3$$

Salary of $A = 40000 \times \frac{1}{4} = 10000$

33. (C)

$$Present\ price\ of\ table = \frac{32000}{\left(1 - \frac{20}{100}\right)^2}$$

$$= 32000 \times \frac{5}{4} \times \frac{5}{4} = 50000$$

34. (D)

$$Average\ cost\ of = \frac{10 + 14}{12} = 12$$

$$SP = 13$$

$$P\% = \frac{13 - 12}{12} \times 100 = 8\frac{1}{3}$$

35. (C) If the original price of article be Rs. x, then

$$x \times \frac{80}{100} \times \frac{130}{100} = 416$$

$$\Rightarrow x = \frac{416 \times 100 \times 100}{80 \times 130} = Rs.\ 400$$

36. (D)

$$A = P\left(1 + \frac{R}{100}\right)^T$$

$$\Rightarrow 24000 = 12000 \left(1 + \frac{R}{100}\right)^5$$

$$\Rightarrow 2 = \left(1 + \frac{R}{100}\right)^5$$

$$\Rightarrow 2^4 = \left(1 + \frac{R}{100}\right)^{20} = 16\ times$$

i.e. The sum amounts to Rs. 192000.

37. (C)

$$2916 = \left(1 + \frac{8}{100}\right)^2$$

$$P = \frac{2916}{(1.08)^2} = 2500$$

$$S.I. = \frac{2500 \times 9 \times 3}{100} = 675$$

38. (B)

A : B = 2 : 3 = 8 : 12

B : C = 4 : 5 = 12 : 15

A : B : C = 8 : 12 : 15

Sum of ratio = 35

$$\therefore A's\ share = \frac{8}{35} \times 700 = Rs.\ 160$$

$$B's\ share = \frac{12}{35} \times 700 = Rs.\ 240$$

$$C's\,share = \frac{15}{35} \times 700 = Rs.\ 300$$

39. (C)

(A + B)'s 1 day's work = 1/8

(B + C)'s 1 day's work = 1/12

(C + A)'s 1 day's work = 1/8

On adding, 2 (A + B + C)'s 1 day's work

$$= \frac{1}{8} + \frac{1}{12} + \frac{1}{8} = \frac{3 + 2 + 3}{24} = \frac{8}{24} = \frac{1}{3}$$

$$\therefore (A + B + C)'s\ 1\ day's\ work = \frac{1}{6}$$

Hence, the work will be completed in 6 days.

40. (D) Part of the tank filled by both pipes in two hours

$$= 2\left(\frac{1}{8} + \frac{1}{6}\right) = 2\left(\frac{3 + 4}{24}\right) = \frac{7}{12}$$

Remaining part $= 1 - \frac{7}{12} = \frac{5}{12}$

Time taken by B in filling the remaining part

$$= \frac{5}{12} \times 6 = \frac{5}{2} = 2\frac{1}{2}\ hours$$

41. (B) According to question, If P can complete a work in 1 day, Q can complete the same work in 4 days. Hence, if the difference is 3 days, Q can complete the work in 4 days.

⇒If the difference is 45 days, Q can complete the work in 60 days

$$\therefore Q's\ 1\ day's\ work = \frac{1}{60}$$

$$\therefore P's\ 1\ day's\ work = 4 \times \frac{1}{60} = \frac{1}{15}$$

∴ (P + Q)'s 1 day's work

$$= \left(\frac{1}{15} + \frac{1}{60}\right) = \frac{(4 + 1)}{60} = \frac{5}{60} = \frac{1}{12}$$

∴ P and Q together can do work in 12 days.

42. (D) Relative speed =

$(45 + 45) = 99 km/h = \dfrac{99 \times 5}{18} m/sec$

Distance covered in crossing each other = (108+112) = 220m

Required time $= \dfrac{220}{99} \times \dfrac{18}{5} = 8$ sec

43. (C)

Let speed of the boat in still water be x km/h and speed of current be y km/h. Then, upstream speed = (x – y) km/h and downstream speed = (x + y) km/h Now,

$\dfrac{15}{(x-y)} + \dfrac{21}{2(x+y)} = 3\dfrac{1}{4} \ \dots (i)$

$\dfrac{12}{(x-y)} + \dfrac{14}{(x+y)} = 3 \ \dots (ii)$

From Equation (i) and (ii) x = 10 km/hr and y = 4 km/hr.

44. (C)

45. (C)

46. (B) Option (b) is the hidden/ embedded figure.

47. (A)

48. (C) Sharks belong to class Pisces. Whale is a mammal and Turtle belongs to class reptiles.
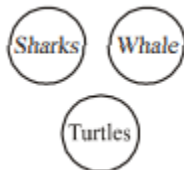
49. (B) Pea is different from kidney bean. But both are Leguminous seeds.
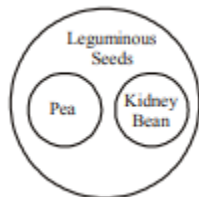
50. (A) Best representation of the relationship is:

51. (B)

52. (A) Flexible is antonym of Rigid. Similarly, Confidence is antonym of Diffidence.

53. (C) Mirage is an illusion caused by hot air conditions making one see something that is not there, especially the appearance of a sheet of water on a hot road or in a desert. Similarly, Rainbow is an arch of seven colours formed in the sky when the sun shines through rain.

54. (C) Anaemia is the lack of blood. Similarly, Anarchy is the lack of government.

55. (A) Fresco is an art of painting that is done on freshly spread moist lime plaster.

56. (B) As, Influenza is caused by virus. Similarly, Ring worm is caused by Fungi.

57. (D) Ravage is the different from the other words.

58. (B) Except disease, all other terms denote obstruction, hindrance or interruption.

59. (B) Rooster, Gander and Peahen are birds. Buck is an animal.

60. (D) Agreeable is different from the other three words. Agreeable (Adjective) means 'pleasant', 'giving pleasure', ready to agree'.

61. (B) Barrack is a large building or group of buildings where soldiers live. Principal is the head of school. Troupe is a group of artists. Chorous is a large group of singers.

62. (C)
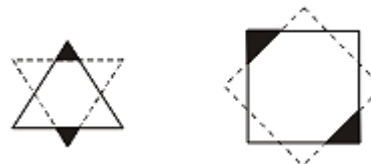
63. (C) The series represents continuous alphabets starting from K. Hence, N is the right answer.

64. D

65. C

66. C

67. D

68. D

69. (B) Each one of the figures except fig. (b), is obtained by the lateral inversion of an English alphabet.

70. (D) Only in fig. (d), the pin passes through a vertex of each one of the two elements.

71. (A) In all other figures, one of the dots lies outside the triangle as well as the circle.

72. (C) All the three symbols in the dice are rotating clockwise. So, option (c)

73. (C) the arrow and small line inside the small square are rotating constantly anti clockwise and

clockwise respectively by 90°, 45°, 90°, 45°,... and 45°, 90°, 45°, 90°. So next figure would be option (c).

74. (D) In each step, the CW-end element moves to the ACW end position.

75. (C) In each step, one-line segment is lost from the CW-end of the outer element and a new line segment appears at the ACW-end. Also, the inner 'L' shaped element rotates 90°CW in each step.

76. (C) His guardians wanted to educate him but were too poor to do so. So, he left home. He was hardly ten, when he began to work at small jobs to earn a little money for his school expenses. He continued to do so even when he was at college.

77. (B) His chief desire was to do the greatest good to the greatest number of people.

78. (A) Though world famous, he never felt proud of his discoveries.

79. (C) Dr. Carver was an American Negro slave, who by dint of his ability became a scientist and educator of worldwide fame.

80. (A) Profane means 'unholy, not devoted to holy or religious purposes'. So, option 'a' sacred would be the right antonym of this word.

81. (B) The word 'obligatory' means compulsory, mandatory, required whose opposite is optional or voluntary.

82. (D) The word 'obscure' means unclear whose opposite is clear.

83. (A) The word 'mutual' is used to describe feelings that two or more people have for each other

equally. Hence, reciprocal is similar word in meaning to it.

84. (D) The word 'evident' means obvious, clear, tangible, distinct etc. which is nearest in meaning to 'quite clear'.

85. C

86. A

87. D

88. B

89. A

90. (D) Man of letters means a person devoted to literary or scholarly activities.

91. B

92. (A) A live wire means an energetic and unpredictable person.

93. (B) The writing on the wall means the likelihood that something bad will happen.

94. (B) A fool's paradise means the state of being happy for foolish reasons.

95. (A) Nip in the bud means to end something before it develops into something larger.

96. C Proprietary

97. C Rehearsal

98. B Millionaire

99. D Fascist

100. B Legendary

AFCAT 2 2017 QUESTION PAPER

DIRECTIONS (Qs. 1-5) : Choose the word which is nearest in meaning to the given word:

1. Ameliorate
    - (a) Improve
    - (b) Disapprove
    - (c) Appreciate
    - (d) Discourage
2. Haggle
    - (a) Struggle
    - (b) Bargain
    - (c) Advise
    - (d) Acknowledge
3. Morose
    - (a) Ill-tampered
    - (b) Well-behaved
    - (c) Kind-hearted
    - (d) Cunning
4. Taciturn
    - (a) Talkative
    - (b) Uncommunicative
    - (c) Clever
    - (d) Bad-tampered
5. Cajole
    - (a) Deceive
    - (b) Kind
    - (c) Suspect
    - (d) Humor

DIRECTIONS (Qs. 6-10): Choose the most appropriate option that explains the correct meaning of the following idioms:

6. A man of straw
    - (a) A man with no means
    - (b) A generous man
    - (c) A man of character
    - (d) A man of no substance
7. To catch a tartar
    - (a) To catch a dangerous person
    - (b) To meet with disaster
    - (c) To make a deal
    - (d) To hurry up
8. To have an axe to grind
    - (a) To have a strong personal opinion
    - (b) To fail to arouse interest
    - (c) To have no result
    - (d) To work for both sides
9. To play second fiddle
    - (a) To be happy, cheerful and healthy
    - (b) To reduce importance of one's senior
    - (c) To support the role and view of another person
    - (d) To do back seat driving
10. To go to the wall
    - (a) To be ruined
    - (b) To be idle
    - (c) To be in grave trouble
    - (d) To go for a holiday

DIRECTIONS (Qs. 11-15): Choose the correctly spelt word:

11. (a) Varmillion   (b) Vermillion
    (c) Varmilion   (d) Vermilion
12. (a) Scraptorium   (b) Scriptorium
    (c) Screptorium   (d) Scriptoreum
13. (a) Thisaurus   (b) Thaesaurus
    (c) Thesaurus   (d) Thesaeurus
14. (a) Ultterior   (b) Ultereor
    (c) Ultarior   (d) Ulterior
15. (a) Reconnaissence (b) Reconnaisance
    (c) Reconnaissance (d) Reconaissance

DIRECTIONS (Qs. 16-20): Read the following passage and answer the following questions:

The most important reason for this state of affairs is that India was the only country in the world to truly recognise the achievements of the Soviet Union-rather than merely focus on the debilitating faults that Communism brought to its people. The people of India realised that the achievement of one hundred per cent literacy in a country much, much larger than its own and with similarly complicated ethnic and religious groupings, the rapid industrialization of a nation that was a primarily agrarian society when the Bolshevik revolution took place in 1917, the attendant revolutionary steps in science and technology, the accessibility of health care (primeval according to Western standards, perhaps, but not according to Indian ones) to the general population, and despite prohibition of the government of the time the vast outpourings in literature, music, art, etc. are momentous and remarkable feats in any country.

In contrast, all that the West focused on were the massive human rights violations by the Soviet State on its people, the deliberate uprooting and mass migrations of ethnic peoples from one part of the country to another in the name of industrialization, the end of religion. In short, all the tools of information were employed to condemn the ideology of Communism, so much at variance with capitalist thinking. The difference with the Indian perception, I think here is, that while the Indians reacted as negatively to what the Soviet governments did to its people in the name of good governance (witness the imprisonment of Boris Pasternak and the formation of an international committee to put pressure for his release with Jawaharlal Nehru at its head), they took the pain not to condemn the people of that broad country in black and white terms; they understood that mingled in the shades of grey were grains of uniqueness (The Russians have never failed that

characteristic in themselves; they have twice experimented with completely different ideologies, Communism and Capitalism both in the space of a century).

16. Which of the following statements is correct according to the passage?
    (a) India focused on the weak faults of Russian policies and system.
    (b) India seriously commended the achievement of Russia, i.e., 100% per cent literacy and rapid industrialization.
    (c) The process of industrialization had already started when Russian revolution took place in 1917.
    (d) The literature, art and music received a setback during the communist regime in Russia.

17. The West did not pay heed to:
    (a) Rapid growth of nuclear weapons in Russia
    (b) Massive human rights violation by the Soviet state on its people
    (c) Planned uprooting and mass migration of ethnic people in the name of industrialization.
    (d) Both b and c

18. India's perception towards USSR was always
    (a) Negative   (b) Counter-reactionary
    (c) Applauding   (d) Neutral

19. The passage given above is
    (a) Descriptive   (b) Paradoxical
    (c) Analytical   (d) Thought provoking

DIRECTIONS (Qs. 20-25): Choose the word which is nearly opposite in meaning to the given word:

20. Relinquish
    (a) Abdicate   (b) Renounce
    (c) Deny   (d) Possess

21. Quiescent
    (a) Active   (b) Dormant
    (c) Weak   (d) Unconcerned

22. Flagitious
    (a) Innocent   (b) Clever
    (c) Ignorant   (d) Frivolous

23. Gregarious
    (a) Antisocial   (b) Glorious
    (c) Horrendous   (d) Similar

24. Hirsute
    (a) Scaly   (b) Bald
    (c) Erudite   (d) Quiet

25. Urbane
    (a) Illiterate   (b) Backward
    (c) Discourteous   (d) Orthodox

DIRECTIONS (Qs. 26-50): Choose the most appropriate option.

26. Where is Lothal, a prominent city of the ancient Indus Valley Civilization, located?
    (a) Gujarat   (b) Rajasthan
    (c) Punjab   (d) Madhya Pradesh

27. Which of the following films won Oscar in the best film category in 2017?
    (a) Moonlight   (b) Captain Fantastic
    (c) Loving   (d) Nocturnal Animals

28. Which navy ship was decommissioned in 2017?
    (a) INS Tarangini   (b) INSV Mhadei
    (c) INS Viraat   (d) INS Tir

29. Which of the following places was chosen by Gandhiji to start his first Satyagrah?
    (a) Ahmedabad   (b) Champaran
    (c) Gaya   (d) Porbandar

30. Who won the Nobel Prize for the novel "Old Man and the Sea"?
    (a) Alice Munro   (b) Mo Yan
    (c) Bob Dylan   (d) Ernest Hemingway

31. What was the old name of Myanmar?
    (a) Burma   (b) Newar
    (c) Nippon   (d) Sarawak

32. Aladdin is the character of which of the following books?
    (a) The One Thousand and One Arabian Nights
    (b) Cinderella
    (c) Snow White
    (d) The Frog Prince

33. Where is the office of the International Court of Justice located?
    (a) Hague   (b) Washington
    (c) Moscow   (d) Venice

34. What is sin bin in ice hockey game?
    (a) Penalty box   (b) Hockey sticks
    (c) Dust bin   (d) Rest room

35. Which is the deepest trench in the world?
    (a) Tonga Trench   (b) Mariana Trench
    (c) Romanche Trench   (d) Kermadec Trench

36. Who was the first cricket player to be declared out in a test cricket match by third umpire?
    (a) Rahul Dravid   (b) Saurabh Ganguly
    (c) Sachin Tendulkar (d) VVS Laxman

37. Who was the first NSA of India?
    (a) Brajesh Mishra   (b) J N Dixit
    (c) M. K. Narayanan   (d) Shivshankar Menon

38. Satyajit Ray was a
    (a) Politician   (b) Dancer
    (c) Filmmaker   (d) Tabla player

39. Mandal Commission was established by which of the following Prime Ministers of India?
    (a) Jawahar Lal Nehru (b) Morarji Desai
    (c) Rajiv Gandhi   (d) VP Singh

40. Which Cuban athlete is called 'horse'?
    (a) Dayron Robles   (b) Iván García
    (c) Alberto Juantorena (d) Héctor Herrera

41. Michael Ferreira is related to which sports?
    (a) Car racing   (b) Badminton
    (c) Hockey   (d) Billiards

42. Where is headquarter of World Health Organization (WHO) located?
    (a) Hague   (b) Washington
    (c) Geneva   (d) Beijing

43. Who was named ice cricketer of the year 2016?
    (a) Viraat Kohli   (b) Ravichandran Ashwin
    (c) Steve Smith   (d) Mitchell Johnson

44. Which of the following states won Vijay Hazare Trophy 2016-17?
    (a) Tamil Nadu   (b) West Bengal
    (c) Kerala   (d) Delhi
45. Bharatanatyam is the classical dance of which state?
    (a) Kerala   (b) Andhra Pradesh
    (c) Tamil Nadu   (d) Karnataka
46. Who was the Indian Air Chief in November 2016?
    (a) Birender Singh Dhanoa (b) Arup Raha
    (c) Anil Kumar Browne   (d) Pradeep Vasant Naik
47. Keoladeo National Park is located in which state?
    (a) Punjab   (b) Tamil Nadu
    (c) Rajasthan   (d) Karnataka
48. Who won the Nobel Peace Prize in 2016?
    (a) Juan Manuel Santos
    (b) International Campaign to Abolish Nuclear Weapons
    (c) Tunisian National Dialogue Quartet
    (d) Malala Yousafzai
49. On which river the Baglihar Dam is built?
    (a) Brahmaputra   (b) Ganga
    (c) Chenab   (d) Godavari
50. The first meeting of Indian National Congress was held at which place?
    (a) Bombay   (b) Delhi
    (c) Nagpur   (d) Ahemdabad
51. A man whose speed is 4.5 kmph in still water rows to a certain upstream point and back to the starting point in a river which flows at 1.5 kmph, find his average speed for the total journey?
    (a) 8 kmph   (b) 4 kmph
    (c) 2 kmph   (d) 10 kmph
52. The ratio of the number of boys and girls in a school is 3:2. If 20% of the boys and 30% of the girls are scholarship holders, the percentage of the students who are not scholarship holders is:
    (a) 80   (b) 72
    (c) 58   (d) 76
53. A is thrice as efficient as workman as B and therefore is able to finish a job in 40 days less than B to complete a work. Working together, they can do it in:
    (a) 15 days   (b) 18 days
    (c) 24 days   (d) 12 days
54. A train moving at a cover a rate of 90 kmph. Crosses a tunnel in 36 seconds. and other train which is 100 metres shorter moving at a cover a rate of 45 kmph. How much time will it take to go through the tunnel?
    (a) 54 seconds   (b) 64 seconds
    (c) 50 seconds   (d) 58 seconds
55. A and B together can complete a piece of work in 12 days, B and C can do it in 15 days and A and C can do it in 20 days. A, B and C together can complete it in
    (a) 12 days   (b) 16 days
    (c) 10 days   (d) 8 days
56. If a number exceeds 40% of itself by 56, then what is the number?
    (a) 150   (b) 130
    (c) 160   (d) 140
57. Average weight of 15 students increased by 1.5 kg when one person of 40 kg is replaced by a new man. Then weight of the new man is
    (a) 62.5 kg   (b) 58.5 kg
    (c) 72.5 kg   (d) 54.5 kg
58. Average temperature of Tuesday to Thursday was 38 degree celsius and that Wednesday to Friday was 37 degree celsius. If the temperature on Friday was 39 degree celsius. The temperature on Tuesday was?
    (a) 38 degree celsius   (b) 36 degree celsius
    (c) 42 degree celsius   (d) 39 degree celsius
59. A shopkeeper sell a watch for Rs. 575 and makes a profit of 15%, he sells a different watch at a loss of 10%. Over all, he neither gains nor loses. What is cost price of the second watch?
    (a) 550   (b) 625
    (c) 650   (d) 675
60. A men spend 1/3 of his income on food, 1/4 of the rest on rent and 1/5 of the rest on clothes. He still has Rs.1760 left with him. Find his income?
    (a) 4400   (b) 4200
    (c) 4800   (d) 5200
61. A cloth merchant says that due to slump in the market, he sells the cloth at 10% loss but he uses a false meter scale and actually gains 15%. Find the actual length of the scale.
    (a) 78.25 cm   (b) 75 cm
    (c) 85 cm   (d) 72.25 cm
62. Two number are in the ratio 12 : 13. If 20 is subtracted from each, the new numbers are in the ratio 2 : 3. The smaller number is:
    (a) 26   (b) 24
    (c) 32   (d) 28
63. A train passes a man standing on a platform in 10 sec. and passes the platform in 22 sec. completely. If the platform is 150 meters long, how long is the train?
    (a) 125 m   (b) 115 m
    (c) 135 m   (d) 145 m
64. If 1/5th tank is full and if 22 litres fuel poured in it, then 3/4th tank is full. Find the capacity of tank?
    (a) 40 litres   (b) 35 litres
    (c) 50 litres   (d) 45 litres
65. A person distributes his pens among four friends A, B, C and D in the ratio 1/3 : 1/4 : 1/5 : 1/6. What is the minimum number of pens that the person should have?
    (a) 57   (b) 48
    (c) 62   (d) 38
66. A sum is lent at simple interest at a certain rate for 4 years. Had it been put at 3% more rate, it would have earned ₹ 78 more. Find the sum?
    (a) 750   (b) 650
    (c) 575   (d) 350

DIRECTIONS (Qs. 67-71): In each of the following questions, find the odd word /number/letters from the given alternatives.

67. (a) intimacy   (b) attachment,
     (c) Friendship   (d) Enmity
68. (a) Parrot   (b) Bat
     (c) Crow   (d) Sparrow
69. (a) Grapes   (b) Pomegranate
     (c) Cardamon   (d) Mango
70. (a) water   (b) pool
     (c) lake   (d) pond
71. (a) Eye   (b) Hand
     (c) Nose   (d) Ear

DIRECTIONS (Qs. 72-76): In each of the following questions, select the related letters/word/number from the given alternative.

72. Editor : Magazine : ? : ?
     (a) Novel : Writer   (b) Poem : Poet
     (c) Chair : Carpenter   (d) Director : Film
73. Taste : Tongue : : Walk : ?
     (a) Pavement   (b) Crutch
     (c) Legs   (d) Walking sticky
74. Chimney : Smoke : : _____ : ____
     (a) Gun : Bullet   (b) House : Roof
     (c) Clay : Ceramic   (d) Tea : Kettle
75. DCGH : LKQP : : FEJI : ?
     (a) MLSR   (b) NMRQ
     (c) ONTS   (d) QPUT
76. Paw : Cat :: Hoof : ?
     (a) Lamb   (b) Elephant
     (c) Lion   (d) Horse

DIRECTIONS (Qs.77-81): Each of the following questions consists of five figures marked 1, 2, 3, 4 and 5 called the Problem Figures followed by four other figures marked (a), (b), (c) and (d) called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

77. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:
(1) (2) (3) (4) (5)   (a) (b) (c) (d)

78. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:
(1) (2) (3) (4) (5)   (a) (b) (c) (d)

79. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:
(1) (2) (3) (4) (5)   (a) (b) (c) (d)

80. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:
(1) (2) (3) (4) (5)   (a) (b) (c) (d)

81. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:

| PASTE | TSAPO | AZTDP | DTZAV | ZODVA | | VDOZL | DOZAV | VODZL | DLZAV |
| (1) | (2) | (3) | (4) | (5) | | (a) | (b) | (c) | (d) |

DIRECTIONS (Qs. 82-86): In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.

82. Identify the figure that completes the pattern.

(X) (a) (b) (c) (d)

83. Identify the figure that completes the pattern.

(X) (a) (b) (c) (d)

84. Identify the figure that completes the pattern.

(X) (a) (b) (c) (d)

85. Identify the figure that completes the pattern.

(X) (a) (b) (c) (d)

86. Identify the figure that completes the pattern.

(X) (a) (b) (c) (d)

DIRECTIONS (Qs. 87–91): In each problem, out of the five figures marked (a), (b), (c) and (d), three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

87. Choose the figure which is different from the rest.
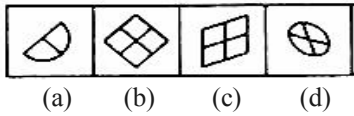
    (a)   (b)   (c)   (d)

88. Choose the figure which is different from the rest.

    (a)   (b)   (c)   (d)

89. Choose the figure which is different from the rest.

    (a)   (b)   (c)   (d)

90. Choose the figure which is different from the rest.

    (a)   (b)   (c)   (d)
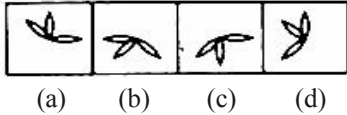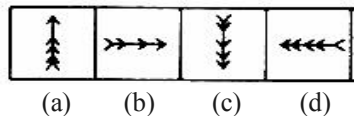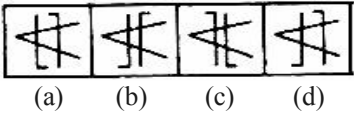
91. Choose the figure which is different from the rest.

    (a)   (b)   (c)   (d)
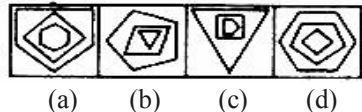
DIRECTIONS (Qs. 92-96): Each of these questions given below contains three elements. These elements may or may not have some inter linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c), and (d). You have to indicate the group of elements which correctly fits into the diagrams.

92. Which of the following diagrams indicates the best relation between India, Haryana and World ?

    (a)   (b)

    (c)   (d)

93. Which of the following diagrams indicates the best relation between Pigeon, Bird and Dog?

    (a)   (b)

    (c)   (d)

94. Which of the following diagrams indicates the best relation between Earth, Sea and Sun ?

    (a)   (b)

    (c)   (d)

95. Which of the following diagrams indicates the best relation between Hockey, Football and Cricket ?

    (a)   (b)

    (c)   (d)
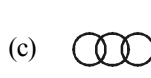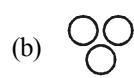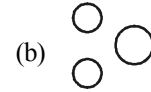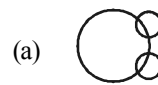
96. Which of the following diagrams indicates the best relation between Iron, Lead and Nitrogen?

    (a)   (b)

    (c)   (d)
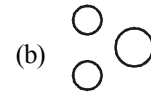
DIRECTIONS (Qs. 97-100): Each of the following questions consists of two sets of figures. Figures (1), (2), (3) and (4) constitute the Problem Set while figures (a), (b), (c), and (d) constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer Set that would replace the question mark (?) in fig. (4).

97. Select a suitable figure from the Answer Figures that would replace the question mark (?).

    Problem Figures: Answer Figures:

    (1)   (2)   (3)   (4)   (a)   (b)   (c)   (d)

98. Select a suitable figure from the Answer Figures that would replace the question mark (?).

    Problem Figures: Answer Figures:

    (1)   (2)   (3)   (4)   (a)   (b)   (c)   (d)

99. Select a suitable figure from the Answer Figures that would replace the question mark (?).

    Problem Figures: Answer Figures:

    (1)   (2)   (3)   (4)   (a)   (b)   (c)   (d)

100. Select a suitable figure from the Answer Figures that would replace the question mark (?).

    Problem Figures: Answer Figures:

    (1)   (2)   (3)   (4)   (a)   (b)   (c)   (d)
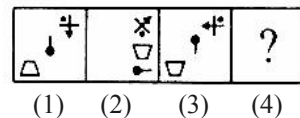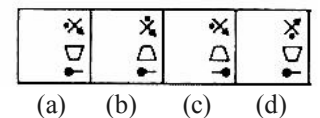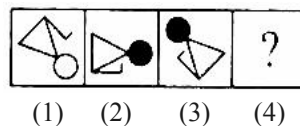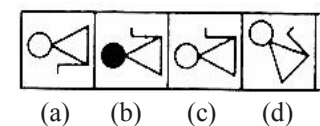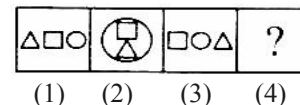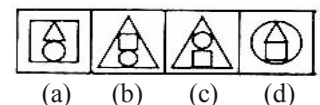
ANSWER KEY

1. (a)	2. (b)	3. (a)	4. (b)	5. (a)	6. (d)	7. (a)	8. (a)	9. (c)	10.(a)
11.(d)	12.(b)	13.(c)	14.(d)	15.(c)	16.(b)	17.(d)	18.(c)	19.(c)	20.(d)
21.(a)	22.(a)	23.(a)	24.(b)	25.(c)	26.(a)	27.(a)	28.(c)	29.(b)	30.(d)
31.(a)	32.(a)	33.(a)	34.(a)	35.(b)	36.(c)	37.(a)	38.(c)	39.(b)	40.(c)
41.(d)	42.(c)	43.(b)	44.(a)	45.(c)	46.(b)	47.(c)	48.(a)	49.(c)	50.(a)
51.(b)	52.(d)	53.(a)	54.(b)	55.(c)	56.(d)	57.(a)	58.(c)	59.(d)	60.(a)
61.(a)	62.(b)	63.(a)	64.(a)	65.(a)	66.(b)	67.(d)	68.(b)	69.(c)	70.(a)
71.(b)	72.(d)	73.(c)	74.(a)	75.(b)	76.(d)	77.(a)	78.(c)	79.(b)	80.(d)
81.(a)	82.(d)	83.(c)	84.(d)	85.(d)	86.(b)	87.(d)	88.(a)	89.(b)	90.(d)
91.(a)	92.(d)	93.(a)	94.(a)	95.(b)	96.(b)	97.(b)	98.(c)	99.(c)	100.(c)

1. (a) Ameliorate is a verb which means make something better.
2. (b) Haggle means dispute or bargain repeatedly, especially over the cost of something.
3. (a) Morose is an adjective which means bad-tempered and sulky.
4. (b) Taciturn is an adjective which means a person who remains reserved or is uncommunicative in speech.
5. (a) Cajole means persuade someone to do something by false promises.
6. (d) The idiom 'a man of straw' means a person undertaking a financial commitment without adequate means.
7. (a) The idiom 'to catch a tartar' means to nab a dangerous person.
8. (a) The idiom 'to have an axe to grind' means to have a strong personal opinion.
9. (c) The idiom 'To play second fiddle' means to have a subordinate role to someone or something; be treated as less important than someone or something.
10 (a) The idiom 'To go to the wall' means to be ruined.
11. (d) Varmillion means brilliant red pigment made from mercury sulphide (cinnabar).
12. (b) Scriptorium means a room set apart for writing, especially one in a monastery where manuscripts were copied.
13. (c) Thesaurus means a reference work that lists words grouped together according to similarity of meaning in contrast to a dictionary.
14. (d) Ulterior means existing beyond what is obvious or admitted; intentionally hidden.
15. (c) Reconnaissance means military observation of a region to locate an enemy or ascertain strategic features.
16. (b) India appreciated the achievement of Russia in the field of literacy and rapid industrialization.
18. (c) India was the only country in the world to truly recognise the achievements of the Soviet Union-rather than merely focus on the debilitating faults that Communism brought to its people.
19. (c) The passage given above is analytical as analytical thinking is required to answer the questions from the passage.
20. (d) Relinquish means voluntarily cease to keep or claim.
21. (a) Quiescent means to be in a state or period of inactivity or dormancy.
22. (a) Flagitious means criminal.
23. (a) Gregarious means sociable.
24. (b) Hirsute means having hair on the body.
25. (c) Urbane means a person who is polite and respectful.
26. (a) Lothal is one of the most prominent cities of the ancient Indus valley civilization, located in the Bh$\bar{a}$l region of the modern state of Gujarat. The city was discovered in 1954.
27. (a) Moonlight won Oscar in the best film category in 2017. The film is directed by Barry Jenkins, based on Tarell Alvin McCraney's unpublished semi-autobiographical play In Moonlight Black Boys Look Blue. It stars Trevante Rhodes, André Holland, Janelle Monáe, Ashton Sanders, Jharrel Jerome, Naomie Harris, and Mahershala Ali.
28. (c) INS Viraat was a Centaur-class aircraft carrier of the Indian Navy. The last British-built ship serving with the Indian Navy, the ship was the oldest aircraft carrier in service in the world. The ship was completed and commissioned in 1959 as the Royal Navy's HMS Hermes. Viraat was formally decommissioned on 6 March 2017.
29. (b) The Champaran Satyagraha of 1917, in the Champaran district of Bihar, India during the period of the British Raj, was the first Satyagraha movement started by Mohandas Gandhi and it was considered a major revolt in the Indian Independence Movement.

30. (d) Ernest Hemingway won the Nobel Prize in Literature for his novel "Old Man and the Sea" in 1954. The novel was published in 1952 which tells the story of Santiago, an aging Cuban fisherman who struggles with a giant marlin far out in the Gulf Stream off the coast of Florida.

31. (a) The ruling military changed Burma's name to Myanmar in 1989, a year after thousands were killed in the suppression of a popular uprising. Rangoon also became Yangon. Japan's old name was Nippon. Sarawak is a state in Malaysia. Nepalese are also called Newar.

32. (a) 'One Thousand and One Nights' is a collection of Middle Eastern folk tales compiled in Arabic during the Islamic Golden Age. It is often known in English as the Arabian Nights. Aladdin is a famous character of the book.

33. (a) The office of the International Court of Justice is located in Hague, the Netherlands.

34. (a) A penalty box or sin bin is the area in ice hockey where a player sits to serve the time of a given penalty.

35. (b) Mariana Trench or Marianas Trench is the deepest part of the world's oceans. It is located in the western Pacific Ocean, an average of 200 kilometres to the east of the Mariana Islands, in the Western Pacific East of Philippines.

36. (c) Sachin Tendulkar became the first batsman to be dismissed (run out) by using television replays in the second day of the test match in November 1992 between South Africa and India in Kingsmead, Durban. Karl Liebenberg was the third umpire with Cyril Mitchley the on-field umpire.

37. (a) Brajesh Mishra was the first National Security Advisor (NSA) of India who served from November 1998 to May 2004. Other former NSAs were J N Dixit (2004-2005), M. K. Narayanan (2005-2010) and Shivshankar Menon (2010-2014).

38. (c) Satyajit Ray (2 May 1921 - 23 April 1992) was an Indian filmmaker and author, widely regarded as one of the greatest filmmakers of the 20th century. He was born in the city of Calcutta into a Bengali Brahmo family.

39. (b) The Mandal Commission was established in India in 1979 by the Janata Party government under Prime Minister Morarji Desai, to identify the socially or educationally backward.

40. (c) Alberto Juantorena is a former Cuban racer who is called El Caballo (the horse). Juantorena had been born with flat feet that caused feet and back problems, and he had to have corrective surgery in 1977. At the 1976 Summer Olympics, he became the only athlete to win both the 400 and 800 m Olympic titles.

41. (d) Michael Ferreira, also called "the Bombay Tiger", is notable amateur player of English billiards from India, and a three-time Amateur World Champion. He participated in the Indian National Billiards Championship in 1960 for the first time, and in 1964 represented India in the World Amateur Billiards Championship (WABC) held in New Zealand, where he progressed to the semi-finals.

42. (c) The World Health Organization (WHO) is a specialized agency of the United Nations that monitors international public health. It was established on 7 April 1948, headquartered in Geneva, Switzerland.

43. (b) Indian bowler Ravichandran Ashwin won Sir Garfield Sobers Trophy for ICC Cricketer of the Year 2016. He has become the third India player and 12th player overall to win the prestigious Sir Garfield Sobers Trophy after being named as the ICC Cricketer of the Year 2016.

44. (a) 2016-17 Vijay Hazare Trophy was the 15th season of the Vijay Hazare Trophy. It was contested by the 28 domestic cricket teams of India. Tamil Nadu won the tournament, beating Bengal by 37 runs in the final.

45. (c) Bharatanatyam is a major genre of Indian classical dance that originated in Tamil Nadu. Traditionally, Bharatanatyam has been a solo dance that was performed exclusively by women, and expressed Hindu religious themes and spiritual ideas, particularly of Shaivism, but also of Vaishnavism and Shaktism.

46. (b) Arup Raha was the Indian Air Chief in November 2016. He served as Indian Air Chief from 31 December 2013 to 31 December 2016. He was also the Chairman of Chiefs of Staff Committee, a post occupied by India's senior-most military officer, who advises the government and ensures jointsmanship in the armed forces.

47. (c) Keoladeo National Park, also called Keoladeo Ghana National Park, is located in Bharatpur, Rajasthan. It is a famous avifauna sanctuary that hosts thousands of birds, especially during the winter season. Over 230 species of birds are known to be resident. It is also a major tourist centre with scores of ornithologists arriving here in the hibernal season.

48. (a) Juan Manuel Santos Calderón is a Colombian politician and the President of Colombia, in office since 2010. He was the sole recipient of the 2016 Nobel Peace Prize for his efforts negotiating a peace treaty with the FARC-guerilla in the country.

49. (c) Baglihar Dam, also known as Baglihar Hydroelectric Power Project, built on the Chenab River in the southern Doda district of the Indian state of Jammu and Kashmir. This project was conceived in 1992, approved in 1996 and construction began in 1999. The first phase of the Baglihar Dam was completed in 2004.

50. (a) Under the Presidentship of Vyomesh Chandra Banerjee, the first meeting of Indian National Congress was held in Bombay in 1885. The meeting was attended by 72 English-educated people that included advocates, traders and zamindars.

51. (b) Here, Speed of man = 4.5 km/hr
Speed of current = 1.5 km/hr
∴ Speed of man in downstream = (4.5 + 1.5) = 6km/hr
Speed of man in upstream = (4.5 – 1.5) = 3km/hr

∴ Average speed = $\dfrac{2 \times 6 \times 3}{(6 + 3)}$

$= \dfrac{2 \times 6 \times 3}{9} = 4$ km/hr

52. (d) Let the number of boys and girls be 3x and 2x.
Number of those who are not scholarship holders

$= \left(3x \times \dfrac{80}{100} + 2x \times \dfrac{70}{100}\right) \Rightarrow \left(\dfrac{12x}{5} + \dfrac{7x}{5}\right) = \dfrac{19x}{5}$

∴ Required percentage $= \left(\dfrac{19x}{5 \times 5x} \times 100\right)$

$= 76\%$

53. (a) Ratio of times by A and B = 1 : 3
The time difference is (3 – 1) = 2 days while B takes 3 days and A takes 1 day.
If difference of time is 2 days, B takes 3 days

If difference of time is 40 days, B takes $\left(\dfrac{3}{2} \times 40\right) = 60$ days

So, A takes 20 days to do the work.

A's 1 day's work = $\dfrac{1}{20}$

B's 1 day's work = $\dfrac{1}{60}$

(A + B)'s 1 day's work $= \left(\dfrac{1}{20} + \dfrac{1}{60}\right) = \left(\dfrac{3+1}{60}\right)$

$= \dfrac{4}{60} = \dfrac{1}{15}$

∴ A and B together can do the work in 15 days.

54. (b) Speed of 1st train = 90 km/hr $= 90 \times \dfrac{5}{18} = 25$ m/sec

Time taken by 1st train = 36 seconds
∴ Distance = speed × time
= 25 × 36 = 900m
Now
2nd train is 100 meters shorter, then
∴ Distance (900 – 100) = 800m

Speed of 2nd train = $45 \times \dfrac{5}{18} = 12.5$ m/sec

∴ Time $= \dfrac{800}{12.5} = 64$ seconds.

55. (c) According to question,

(A + B)'s 1 day's work = $\dfrac{1}{12}$

(B + C)'s 1 day's work = $\dfrac{1}{15}$

(A + C)'s 1 day's work = $\dfrac{1}{20}$

∴ $(A+B)+(B+C)+(A+C) = \left(\dfrac{1}{12} + \dfrac{1}{15} + \dfrac{1}{20}\right)$

∴ $2(A+B+C) = \left(\dfrac{5+4+3}{60}\right) = \left(\dfrac{12}{60}\right) = \left(\dfrac{1}{5}\right)$

∴ (A + B + C)'s 1 day's work = $\dfrac{1}{10}$

∴ A, B and C together can do the work in 10 days.

56. (d) Let number be x, then

$x + \left(\dfrac{x \times 40}{100}\right) - x = 56$

$x + \dfrac{2x}{5} - x = 56$

$\dfrac{2x}{5} = 56$

∴ $x = \dfrac{56 \times 5}{2} = 140$

57. (a) Total weight increase by = 15 × 1.5 = 22.5 kg
∴ Weight of new man = 40 + 22.5 = 62.5 kg

58. (c) Let temperature of tuesday = a, temperature of wednesday = b and temperature of thursday = c
Sum of temperatures of tuesday to thursday = 38 × 3
=114
∴ a + b + c = 114
Sum of temperatures of wednesday to friday = 37 × 3
=111
b + c + friday = 111
∴ Temperature of friday = 39
∴ b + c + 39 = 111
∴ b + c = (111 – 39) = 72
∴ a + b + c = 114
a + 72 = 114
∴ a = (114 – 72) = 42
∴ Temperature on tuesday = 42°C

59. (d) Let CP = x

According to question

$\Rightarrow \quad 575 + x = 500 + x\left(\dfrac{100}{90}\right)$

$\Rightarrow \quad 575 + x = 500 + \dfrac{10x}{9}$

$75 = \dfrac{x}{9}$

$\therefore \quad x = 75 \times 9 = 675$

60. (a) Let total amount be x

Amount spent on food = $\dfrac{x}{3}$

Amount left = $\dfrac{2x}{3}$

Amount spent on rent = $\dfrac{2x}{3} \times \dfrac{1}{4} = \dfrac{2x}{12}$

Amount left = $\dfrac{6x}{12}$

Amount spent on cloth = $\dfrac{6x}{12} \times \dfrac{1}{5} = \dfrac{6x}{60} = \dfrac{x}{10}$

Therefore,

$x = \dfrac{x}{3} + \dfrac{2x}{12} + \dfrac{x}{10} + 1760$

$\dfrac{x}{1} - \dfrac{x}{3} - \dfrac{2x}{12} - \dfrac{x}{10} = 1760$

$\dfrac{24x}{60} = 1760$

$\therefore \quad x = 4400$

61. (a) Here, cost price is not equal to selling price because he sells the cloth at 10% loss
Using formula;

$\dfrac{100 + G}{100 + X} = \dfrac{\text{True Scale}}{\text{False Scale}}$

Here, overall gain (G) = 15% and Loss (X) = –10% (–ve sign for loss)
Let false scale length = l cm

$\therefore \quad \dfrac{100 + 15}{100 - 10} = \dfrac{100}{l}$

$\therefore \quad \ell = \dfrac{90}{115} \times 100 = 78.25$ cm

$\therefore$ Actual length of scale is 78.25 cm instead of 1 meter.

62. (b) Let the numbers be 12x and 13x

Then, $\dfrac{12x - 20}{13x - 20} = \dfrac{2}{3}$

$\Rightarrow \quad 3(12x - 20) = 2(13x - 20)$
$\Rightarrow \quad 36x - 60 = 26x - 40$
$\Rightarrow \quad 10x = 20$
$\therefore \quad x = 2$
$\therefore \quad$ Smallest number = 12x
$\qquad = 12 \times 2 = 24$

63. (a) According to question
Let the length of train = x meter.
Therefore,

$\dfrac{x + 150}{22} = \dfrac{x}{10}$

$12x = 1500$

$x = \dfrac{1500}{12} = 125$ meters.

$\therefore \qquad\qquad$ So, length of the train = 125 meters.

64. (a) Let capacity of tank = x
According to question,

$\dfrac{3x}{4} - \dfrac{x}{5} = 22$

$\dfrac{15x - 4x}{20} = 22$

$\dfrac{11x}{20} = 22$

$\therefore \quad x = \dfrac{22 \times 20}{11} = 40$

$\therefore \quad$ Capacity of tank is 40 liters

65. (a) Ratio among A, B, C and D = $\dfrac{1}{3} : \dfrac{1}{4} : \dfrac{1}{5} : \dfrac{1}{6}$

$= 20 : 15 : 12 : 10$

So, minimum number of pens = 20 + 15 + 12 + 10 = 57

66. (b) Let sum be x
Original Rate = R
1st Condition:
Rate of interest = R
Time = 4 years
2nd Condition:
Rate of interest increased by 3 = (R + 3)%
Time = 4 years
Therefore,

$$\frac{P \times (R+3) \times 4}{100} - \frac{P \times R \times 4}{100} = 78$$

$$4PR + 12P - 4PR = 7800$$

$$12P = 7800$$

$$P = \frac{7800}{12} = 650$$

67. (d) Except Enmity, all other words represent Cordial relationship.

68. (b) All except Bat belong to the class of Aves (Birds), while bat is a mammal.

69. (c) Except Cardamom, all other are fruits.

70. (a) Pool, Lake and Pond are water bodies.

71. (b) Except Hand, all others are sense organs.

72. (d) Editor is responsible for preparing a Magazine. Similarly, director is responsible for making a film.

73. (c) Tongue is used to taste something. Similarly, leg is used to walk.

74. (a) Smoke is emitted through chimney. Similarly, bullet is fired from gun.

76. (d) As cat has Paw similarly Horse has Hoof.

82. (d)
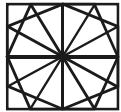
83. (c)
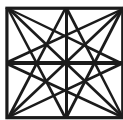
84. (d)

85. (d)
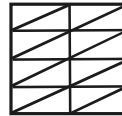
86. (b)
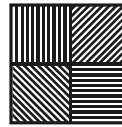
87. (d) All other figures are divided into equal parts.

88. (a) All other figures can be rotated into each other.

89. (b) Each one of the figures except fig. (b), consists of five arrowheads.

90. (d) Only in fig. (d), both the parallel lines are bent in the same direction {i.e. towards the left}.

91. (a) In all other figures, as we move from the innermost to the outermost element, the numbers of sides of the elements either increase or decrease in a sequence.

92. (d) Haryana is in India and India is in the World.

93. (a) All the pigeons are birds while dog is different from these.

94. (a) Sea is a part of Earth while Sun is different from these two.

95. (b) All these three games are different from each other.

96. (b) All these three elements are different from each other

97. (b) The figure gets rotated through 180°.

98. (c) The trapezium gets vertically inverted and move to the middle right position; the pin rotates 90°CW and moves to the lower-right position; the third element rotates 135°ACW.

99. (c) The figure rotates 45°ACW; the circle changes colour (turns black if initially white and vice-versa). The 'L'-shaped element shifts to the other side of the main figure.

100. (c) The rightmost element enlarges to become the outer element; the leftmost element becomes the inner-lower element and the middle element becomes the inner-upper element.

AFCAT 1 2017 QUESTION PAPER

INSTRUCTIONS: TIME LIMIT : 2 HOURS

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1-3) : Choose the word which is nearest in meaning to the given word:

1. Idiocy
   (a) Madness   (b) Happiness
   (c) Wisdom   (d) Repentance
2. Harbinger
   (a) Remarkable   (b) Omen
   (c) Meritorious   (d) Overwhelming
3. Passe
   (a) Out of date   (b) Forthcoming
   (c) Fashionable   (d) Predictable

DIRECTIONS (Qs. 4-6) : Choose the most appropriate option that explains the meaning of the following idioms:

4. To hit the nail on head
   (a) Find exactly the right answer
   (b) To scold someone
   (c) To show correct path to someone
   (d) To be harsh in behaviour
5. Halycon days
   (a) Bad days   (b) Sunny days
   (c) Cloudy days   (d) Happy days
6. To keep the wolf from the door
   (a) To remain alert
   (b) To question others in case of doubt
   (c) To have enough money to avert hunger or starvation
   (d) To chase others to get something

DIRECTIONS (Qs. 7-10): Choose the correctly spelt word:

7. (a) Accreditation   (b) Acreditation
   (c) Accredtation   (d) Accrediation
8. (a) Vicarrious   (b) Viccarious
   (c) Vecarious   (d) Vicarious
9. (a) Abbreviate   (b) Abreviate
   (c) Abrrviate   (d) Abbreviat
10. (a) Acquainttance (b) Acqquaintance
    (c) Accquaintance (d) Acquaintance

DIRECTION (Qs. 11-13): Read the following passage and answer the following questions:

At this stage of civilisation, when many nations are brought in to close and vital contact for good and evil, it is important, as never before, that their gross ignorance of one another should be diminished, that they should begin to understand a little of one another's historical experience and resulting mentality. It is the fault of the English to expect the people of other countries to react as they do, to political and international situations.

Our goodwill and good intentions are often brought to nothing, because we expect other people to be like us. This would be corrected if we knew the history, not necessarily in detail but in broad outlines, of the social and political conditions which have given to each nation its present character.

11. According to the author, 'Mentality' of a nation is mainly product of its
    (a) Present character   (b) International position
    (c) Politics   (d) History
12. According to the author, his countrymen should
    (a) read the story of other nations
    (b) not react to other actions
    (c) have a better understanding of other nations
    (d) have vital contacts with other nations
13. The need for a greater understanding between nations
    (a) is more today than ever before
    (b) was always there
    (c) is no longer there
    (d) will always be there

DIRECTION (Qs. 14-15): Choose the word which is nearly opposite in meaning to the given word:

14. Amending
    (a) Alter   (b) Ameliorate
    (c) Better   (d) Debase
15. Entangle
    (a) Untwist   (b) Twist
    (c) Hook   (d) Impede

DIRECTION (Qs. 16-50): Choose the most appropriate option:
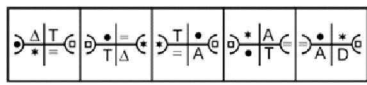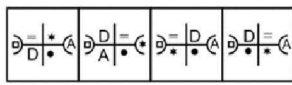
16. What is the old name of USA?
    (a) United Colonies
    (b) Turtle Islands
    (c) Americas
    (d) Great America
17. Which religion was founded by Akbar?
    (a) Bahai   (b) Taoism
    (c) Shintoism   (d) Din-e-Ilahi
18. Who was the Indian Army Chief in October 2016?
    (a) Bipin Rawat   (b) Dalbir Singh
    (c) Bikram Singh   (d) V K Singh
19. Who was the Indian Navy Chief in October 2016?
    (a) Nirmal Kumar Verma
    (b) Devendra Kumar Joshi
    (c) Robin K Dhowan
    (d) Sunil Lanba

20. Yarlung Zangbo is the name of which river?
    (a) Brahmaputra   (b) Ganga
    (c) Narmada   (d) Mahanadi
21. Which is the highest tower in the world?
    (a) Tokyo Skytree   (b) KVLY-TV mast
    (c) Burj Khalifa   (d) Abraj Al Bait Towers
22. Who was elected as the Prime Minister of India in the election held after the death of Rajiv Gandhi?
    (a) V. P. Singh   (b) Chandra Shekhar
    (c) P. V. Narasimha Rao (d) H. D. Deve Gowda
23. Who defeated PV Sindhu in the final in Rio Olympics?
    (a) Carolina Marin   (b) Michelle Li
    (c) Akane Yamaguchi   (d) None of these
24. Which is the largest diamond producing country in the world?
    (a) Russia
    (b) Botswana
    (c) Democratic Republic of Congo
    (d) Australia
25. In which South Korean city the Asian Games 2014 were concluded?
    (a) Incheon   (b) Jecheon
    (c) Jeongeup   (d) Namwon
26. Who was the first Governor General of India after Independence?
    (a) C. Rajagopalachari
    (b) Lord Mountbatten
    (c) Viscount Wavell
    (d) Marquess of Linlithgow
27. What was the score of Dipa Kamarakar in the final round in Rio Olympics?
    (a) 15.253   (b) 15.966
    (c) 15.066   (d) 15.216
28. On which of the following rivers the Salal project was launched?
    (a) Narmada   (b) Godavari
    (c) Chenab   (d) Mahanadi
29. Which port in Iran has been built by India?
    (a) Chabahar Port   (b) Bandar Abbas
    (c) Bandar Anzali   (d) Bandar Khomeini
30. Which port in Pakistan has been built by China?
    (a) Karachi Port
    (b) Gwadar Port
    (c) Port Muhammad Bin Qasim
    (d) None of these
31. Which of the following is a classical dance of Kerala?
    (a) Bharatanatyam   (b) Kuchipudi
    (c) Sattriya   (d) Mohiniyattam
32. Which Indian state is the largest producer of banana?
    (a) Tamil Nadu   (b) Gujarat
    (c) Maharashtra   (d) Andhra Pradesh
33. Which Indian sportsperson has been appointed as a member of the International Olympic Committee?
    (a) Devendra Jhajharia   (b) Saina Nehwal
    (c) Abhinav Bindra   (d) Sakshi Malik

34. Who was the first tirthankara of Jainism?
    (a) Rishabhanatha   (b) Mahavira
    (c) Parshvanatha   (d) Sambhavanatha
35. Who was the 23rd tirthankara of Jainism?
    (a) Mahavira   (b) Neminatha
    (c) Sambhavanatha   (d) Parshvanatha
36. Who wrote the epic poem 'Padmavat'?
    (a) Malik Muhammad Jayasi
    (b) Tulsidas
    (c) Kalidas
    (d) Asaga
37. Who was the first governor general of India?
    (a) Warren Hastings   (b) John Macpherson
    (c) John Shore   (d) Alured Clarke
38. Which is the oldest active volcano of the world?
    (a) Chimborazo   (b) Mount Kilimanjaro
    (c) Mt. Etna   (d) Mount Buninyong
39. Which of the following is not an inert gas?
    (a) Argon   (b) Helium
    (c) Hydrogen   (d) Xenon
40. Which is the oldest refinery in India?
    (a) Guwahati Refinery
    (b) Vishakhapatnam Refinery
    (c) Digboi Refinery
    (d) Barauni Refinery
41. What was the old name of Myanmar?
    (a) Burma   (b) Newar
    (c) Nippon   (d) Sarawak
42. Aladdin is the character of which of the following books?
    (a) The One Thousand and One Arabian Nights
    (b) Cinderella
    (c) Snow White
    (d) The Frog Prince
43. Where is the office of the International Court of Justice located?
    (a) Hague   (b) Washington
    (c) Moscow   (d) Venice
44. What is sin bin in ice hockey game?
    (a) Penalty box   (b) Hockey sticks
    (c) Dust bin   (d) Rest room
45. Which is the deepest trench in the world?
    (a) Tonga Trench   (b) Mariana Trench
    (c) Romanche Trench   (d) Kermadec Trench
46. Who was the first cricket player to be declared out in a test cricket match by third umpire?
    (a) Rahul Dravid   (b) Saurabh Ganguly
    (c) Sachin Tendulkar   (d) VVS Laxman
47. Who was the first NSA of India?
    (a) Brajesh Mishra   (b) J N Dixit
    (c) M. K. Narayanan   (d) Shivshankar Menon
48. Satyajit Ray was a
    (a) Politician   (b) Dancer
    (c) Filmmaker   (d) Tabla player

49. Mandal Commission was established by which of the following Prime Ministers of India?
   (a) Jawahar Lal Nehru   (b) Morarji Desai
   (c) Rajiv Gandhi   (d) VP Singh

50. Which Cuban athlete is called 'horse'?
   (a) Dayron Robles   (b) Iván García
   (c) Alberto Juantorena   (d) Héctor Herrera

51. A man rows 1 km in 10 minutes, along the stream and 1 km in 20 minutes against the stream. The speed of the stream is
   (a) 1 km/hr   (b) 1.5 km/hr
   (c) 3 km/hr   (d) 2.5 km/hr

52. 10 years ago the average age of a family of 4 members was 24 years. Now two more babies were born with age difference of 2 years and average age of the family is still 24. What is the present age of the youngest child?
   (a) 4 years   (b) 6 years
   (c) 3 years   (d) 5 years

53. 3 years back the average age of a family of 4 members was 24 years. A baby having been born, the average age of the family is still same. What is the present age of the baby?
   (a) 14 years   (b) 16 years
   (c) 12 years   (d) 10 years

54. If A/B = 4/3 then what is the value of (9A–3B)/(9A+3B) is
   (a) 3/5   (b) 5/3
   (c) 2/5   (d) 3/7

55. The speed of a boat in standing water is 8 km/hr and the speed of the stream is 2 km/hr. If boat takes 3 hr 12 minutes to a place and come back, then what is the distance?
   (a) 14 km   (b) 10 km
   (c) 24 km   (d) 12 km

56. A train 110 m long running at the speed of 60 km/hr, how long it will take to cross a man running in the opposite direction at the speed if 10 km/hr.
   (a) 6 seconds   (b) 8 seconds
   (c) 12 seconds   (d) 10 seconds

57. If a sum of money placed at compound interest doubles itself in 4 years, In how many years will it amount to 4 times?
   (a) 6   (b) 8
   (c) 10   (d) 12

58. A man bought 240 chocolates at 9 per dozen. If he sold all of them at ₹ 1 each, what was his loss or gain percent?
   (a) $33\frac{1}{3}\%$ (b) 25%
   (c) 20%   (d) 15%

59. A shopkeeper sold two articles at ₹ 12000 each. One sold at a loss of 25% and another one at a gain 20%. What is net total loss and gain?
   (a) 4%   (b) 8.5 %
   (c) 6.5%   (d) 7.6%

60. If one student got 77/100, 96/150 and 103/350 in various subjects, what is the percentage average?
   (a) 15.33%   (b) 12.25%
   (c) 16.33%   (d) 18.15%

61. In an election between two candidates, Biku got 55% votes of the total valid votes, 25% of the votes were declared invalid. If total populations of the village were 6000. Find the valid votes that Mahtre got, was
   (a) 1575   (b) 2025
   (c) 2075   (d) 2175

62. If 30% of a number is subtracted from 91 gives the same number, find the number.
   (a) 80   (b) 90
   (c) 70   (d) 60

63. If 50% of a number is added to 84 gives the same number, what is the number?
   (a) 178   (b) 174
   (c) 158   (d) 168

64. If 381A is divisible by 9, what is the least natural number A?
   (a) 6   (b) 1
   (c) 9   (d) 4

65. A shopkeeper sell a T.V for ₹ 3000 and makes a profit of 15%, he sells a different T.V at a loss of 10%. Over all, he neither gains nor loses. What is cost price of the second T.V?
   (a) 3913   (b) 3923
   (c) 3833   (d) 3723

DIRECTIONS (Qs. 66-70): In each of the following questions, find the odd word /number/letters from the given alternatives.

66. (a) Cow   (b) Hen
    (c) Lioness   (d) Horse

67. (a) Chennai   (b) Hyderabad
    (c) Mohali   (d) Kolkata

68. (a) Red   (b) Yellow
    (c) Blue   (d) Green

69. (a) Australia   (b) Asia
    (c) Africa   (d) USA

70. (a) Assam   (b) Mizoram
    (c) West Bengal   (d) Nagaland

DIRECTION (Qs. 71-75): In each of the following questions, select the related letters/word/number from the given alternative.

71. Coconut : Shell : Letter : ?
    (a) Envelope   (b) Post
    (c) Postal Stamp   (d) Letter Box

72. Bismilla Khan : Clarinetist : : Birju Maharaj : ?
    (a) Kathak   (b) Bharatnatayam
    (c) Music   (d) Sitar

73. 678 : U : : 456 : ?
    (a) P   (b) O
    (c) Q   (d) R

74. CALL : ACLL :: COOL : ?
    (a) LOOC   (b) LCOO
    (c) OOLC   (d) OCLO

75. Punjab : Chandigarh :: Assam
    (a) Dispur   (b) Guwahati
    (c) Shillong   (d) Imphal
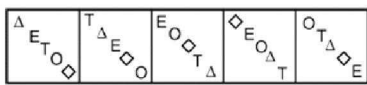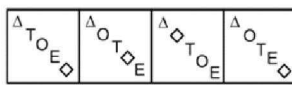
DIRECTION (Qs. 76-80): Each of the following questions consists of five figures marked 1, 2, 3, 4 and 5 called the Problem Figures followed by four other figures marked (a), (b), (c) and (d) called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

76. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:
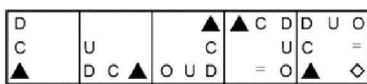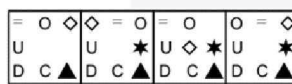
(1)   (2)   (3)   (4)   (5)   (a)   (b)   (c)   (d)

77. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:

(1)   (2)   (3)   (4)   (5)   (a)   (b)   (c)   (d)

78. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:
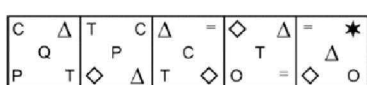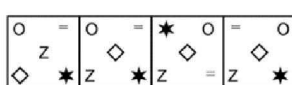
(1)   (2)   (3)   (4)   (5)   (a)   (b)   (c)   (d)

79. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:

(1)   (2)   (3)   (4)   (5)   (a)   (b)   (c)   (d)

80. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures: Answer Figures:

(1)   (2)   (3)   (4)   (5)   (a)   (b)   (c)   (d)

DIRECTION (Qs. 81-85): In each of the following questions, find out which of the answer figures (a), (b), (c) and (d) completes the figure matrix?

81. Select a suitable figure from the four alternatives that would complete the figure matrix.

(a)   (b)   (c)   (d)
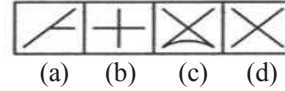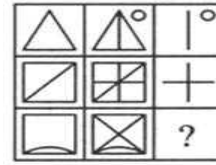
82. Select a suitable figure from the four alternatives that would complete the figure matrix.

(a)   (b)   (c)   (d)
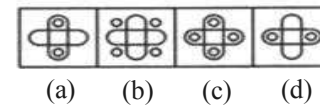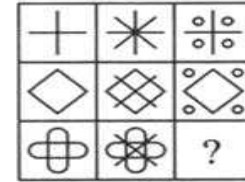
83. Select a suitable figure from the four alternatives that would complete the figure matrix.

(a)   (b)   (c)   (d)
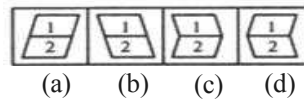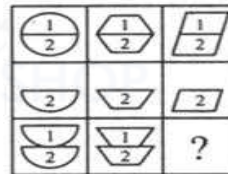
84. Select a suitable figure from the four alternatives that would complete the figure matrix.

(a)   (b)   (c)   (d)
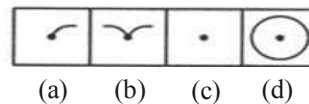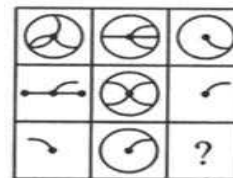
85. Select a suitable figure from the four alternatives that would complete the figure matrix.

(a)   (b)   (c)   (d)
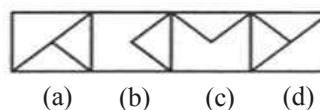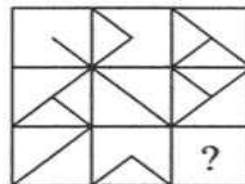
DIRECTION (Qs. 86-90): In each problem, out of the five figures marked (a), (b), (c) and (d), three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

86. Choose the figure which is different from the rest.
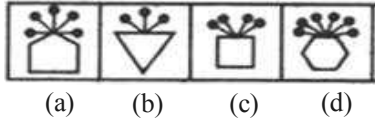
(a)   (b)   (c)   (d)

87. Choose the figure which is different from the rest.

(a)   (b)   (c)   (d)

88. Choose the figure which is different from the rest.

(a)   (b)   (c)   (d)

89. Choose the figure which is different from the rest.

(a)   (b)   (c)   (d)

90. Choose the figure which is different from the rest.

(a)   (b)   (c)   (d)
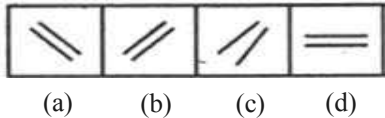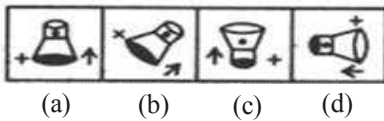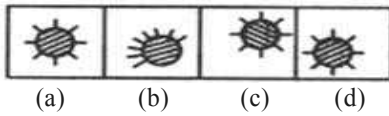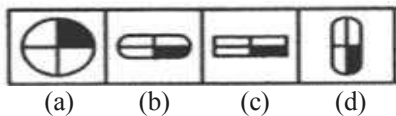
DIRECTION (Qs. 91-95): Each of these questions given below contains three elements. These elements may or may not have some inter linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c), and (d). You have to indicate the group of elements which correctly fits into the diagrams.

91. Which of the following diagrams indicates the best relation between Travelers, Train and Bus?
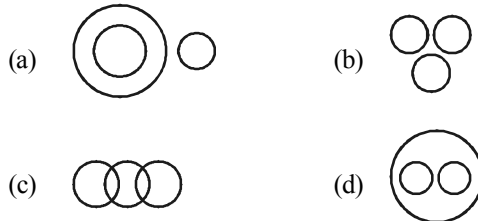
92. Which of the following diagrams indicates the best relation between Profit, Dividend and Bonus?
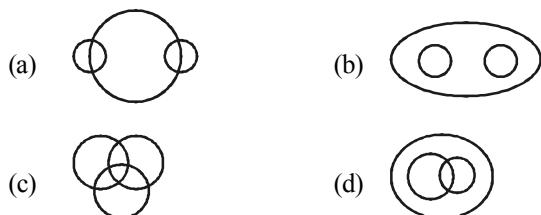
93. Which of the following diagrams indicates the best relation between Women, Mothers and Engineers?
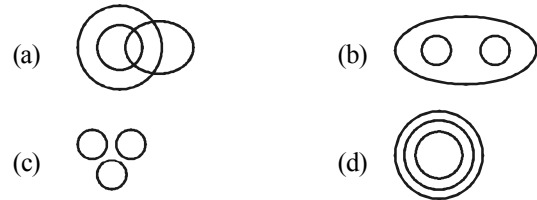
94. Which of the following diagrams indicates the best relation between Author, Lawyer and Singer?
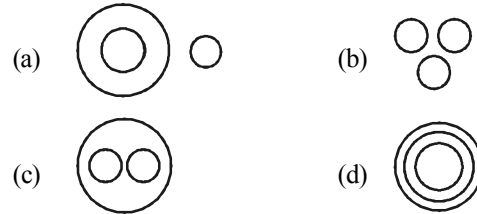
95. Which of the following diagrams indicates the best relation between Judge, Thieves and Criminals?
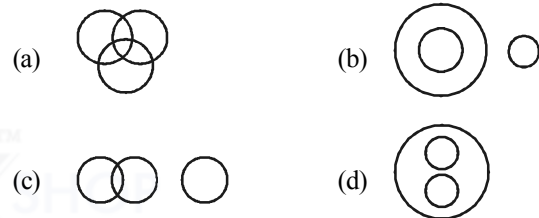
DIRECTION (Qs. 96-100): Each of the following questions consists of two sets of figures. Figures (1), (2), (3) and (4) constitute the Problem Set while figures (a), (b), (c), and (d) constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer Set that would replace the question mark (?) in fig. (4).

96. Select a suitable figure from the Answer Figures that would replace the question mark (?).
     Problem Figures: Answer Figures:

(1) (2) (3) (4)   (a) (b) (c) (d)

97. Select a suitable figure from the Answer Figures that would replace the question mark (?).
     Problem Figures: Answer Figures:

(1) (2) (3) (4)   (a) (b) (c) (d)

98. Select a suitable figure from the Answer Figures that would replace the question mark (?).
     Problem Figures: Answer Figures:
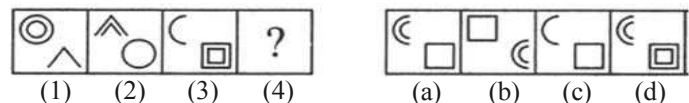
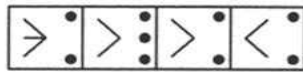(1) (2) (3) (4)   (a) (b) (c) (d)

99. Select a suitable figure from the Answer Figures that would replace the question mark (?).
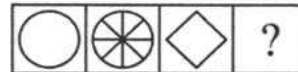
Problem Figures:

(1) (2) (3) (4)

Answer Figures:
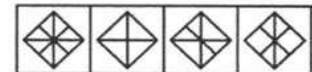

(a) (b) (c) (d)

100. Select a suitable figure from the Answer Figures that would replace the question mark (?).

Problem Figures:

(1) (2) (3) (4)

Answer Figures:

(a) (b) (c) (d)

AFCAT 1 2017 QUESTION PAPER

ANSWER KEY									
1. (a)	2. (a)	3. (b)	4. (a)	5. (d)	6. (c)	7. (a)	8. (d)	9. (a)	10.(d)
11.(d)	12.(c)	13.(d)	14.(d)	15.(a)	16.(a)	17.(d)	18.(b)	19.(d)	20.(a)
21.(c)	22.(c)	23.(a)	24.(a)	25.(a)	26.(b)	27.(c)	28.(c)	29.(a)	30.(b)
31.(d)	32.(a)	33.(b)	34.(a)	35.(d)	36.(a)	37.(a)	38.(c)	39.(c)	40.(c)
41.(a)	42.(a)	43.(a)	44.(a)	45.(b)	46.(c)	47.(a)	48.(c)	49.(b)	50.(c)
51.(b)	52.(c)	53.(c)	54.(a)	55.(d)	56.(a)	57.(b)	58.(a)	59.(d)	60.(a)
61.(b)	62.(c)	63.(c)	64.(a)	65.(a)	66.(d)	67.(c)	68.(b)	69.(d)	70.(c)
71.(a)	72.(a)	73.(b)	74.(d)	75.(a)	76.(c)	77.(d)	78.(d)	79.(c)	80.(b)
81.(d)	82.(b)	83.(c)	84.(d)	85.(b)	86.(a)	87.(c)	88.(d)	89.(b)	90.(a)
91.(c)	92.(b)	93.(a)	94.(b)	95.(b)	96.(c)	97.(a)	98.(b)	99.(c)	100.(a)

1. (a) Idiocy is a noun which means madness or extremely unusual behaviour.

2. (a) Passe is an adjective which means no longer fashionable or out of date.

3. (b) Harbinger is a person or thing that announces or signals the approach of something. Omen also means a phenomenon that is believed to foretell the future.

4. (a) The idiom "To hit the nail on head" means to find the correct answer of something.

5. (d) The idiom "Halycon days" means a period of peace and happiness.

6. (c) The idiom "To keep the wolf from the door" means to have enough money to prevent hunger.

7. (a) Accreditation is a process of validation in which colleges, universities and other institutions of higher learning are evaluated.

8. (d) Vicarious means experienced in the imagination through the feelings or actions of another person.

9. (a) Abbreviate is a verb which means to put shorten a word, phrase or text.

10. (d) Acquaintance is a noun which means to have knowledge or experience of something.

11. (d) Mentality of a nation is reflected by the historical experience of that nation. For better relation, countries should understand one another's historical experience and resulting mentality.

12. (c) According to the author, his countrymen should have a better understanding of other nations. Better understanding averts political tension between nations and promote peaceful atmosphere.

13. (d) There will always be need for understanding between nations for better relations.

14. (d) Amending means to make changes for improvement and debase means degrade in value or quality.

15. (a) Entangle means twisted, opposite to the word untwist.

16. (a) In 1776, the Continental Congress formally declared the name of the new nation to be the "United States" of America, replacing the term "United Colonies," which had been in general use. Americas is the term used for the continents of North and South America. Turtle Islands is a group of seven islands in the province of Tawi-Tawi in the Southern Philippines.

17. (d) Din-e-Ilahi was founded by Mughal emperor Akbar in 1582 AD, intending to merge the best elements of the religions of his empire. Bahaullah was the founder of the Bahai faith. There is no known founder of Shintoism. Lao-Tzu was a Chinese philosopher credited with founding the philosophical system of Taoism.

18. (b) Dalbir Singh served as the Chief of the Indian Army from 1 August 2014 to 31 December 2016. Current Army Chief is Bipin Rawat (31 December 2016-present). Other former chiefs were Bikram Singh (1 June 2012-31 July 2014) and V K Singh (1 April 2010-31 May 2012).

19. (d) Sunil Lanba is the current Indian Navy Chief (31 May 2016-present). Other former chiefs were Robin K Dhowan (17 April 2014-31 May 2016), Devendra Kumar Joshi (31 August 2012-26 February 2014) and Nirmal Kumar Verma (31 August 2009-31 August 2012).

20. (a) The Brahmaputra is a trans-boundary river which flows through China, India and Bangladesh. It is also known by its Chinese name (Yarlung Zangbo) and by other local Tibetan names. Ganga is a trans-boundary river of Asia which flows through India and Bangladesh. Narmada, also called the Rewa, is a river in central India and the fifth longest river in the Indian subcontinent. Mahanadi is a major river in East Central India, which flows through the states of Chhattisgarh and Odisha.

21. (c) Burj Khalifa in Dubai (828 mts) is the tallest building in the world followed by Tokyo Skytree in Tokyo (643 mts), KVLY-TV mast in Blanchard (628.8 mts) and Abraj Al Bait Towers in Mecca (601 mts).

22. (c) P. V. Narasimha Rao (21 June 1991-16 May 1996) was elected as the 9th Prime Minister of India in the election held after the death of Rajiv Gandhi on 21 May 1991. Narasimha Rao succeeded Prime Minister Chandra Shekhar.

23. (a) Spanish badminton player Carolina Marin defeated PV Sindhu in the final in Rio Olympics to win Gold medal. PV Sindhu won a silver medal. Canadian player Michelle Li was defeated by PV Sindhu in the round of 16 in the women's singles badminton playdowns at the 2016 Summer Olympics.

24. (a) Russia is the largest diamond producing country of the world. In 2015, Russian miners extracted an estimated 41.9 million carats of diamonds.

25. (a) The 2014 Asian Games were held in Incheon, South Korea from September 19 - October 4, 2014, featuring 439 events in 36 sports. Incheon was the third city in South Korea after Seoul (1986) and Busan (2002) to host the Asian Games.

26. (b) Lord Mountbatten was the last Viceroy of India (1947) and the first Governor-General of independent India (1947-48). Marquess of Linlithgow (1936-43) and Viscount Wavell (1943-47) served as Governor Generals before independence. C. Rajagopalachari served as second Governor General of Independent India from 1948-50.

27. (c) Dipa Kamarakar's score was 15.066 in the final round in Rio Olympics. Scores of artistic gymnasts- Simone Biles (USA), Maria Paseka (Russia) and Giulia Steingruber (Switzerland)-were 15.966, 15.253 and 15.216, respectively.

28. (c) Salal Dam, also known as Salal Hydroelectric Power Station, is a power project on the Chenab River in the Reasi district of Jammu and Kashmir. Sardar Sarovar Dam is built on the Narmada River near Navagam, Gujarat. Upper Indravati hydro power station is located on Godavari. Hirakud Dam is built across the Mahanadi River in Odisha.

29. (a) Chabahar Port is a seaport in Chabahar located in southeastern Iran, on the Gulf of Oman. The port will make way for India to bypass Pakistan in transporting goods to Afghanistan using a sea-land route.

30. (b) Gwadar Port is a deep-sea port situated on the Arabian Sea at Gwadar in Balochistan province of Pakistan. The port features prominently in the China-Pakistan Economic Corridor (CPEC) plan, and is considered to be a link between the ambitious One Belt, One Road and Maritime Silk Road projects.

31. (d) Mohiniyattam is a classical dance of Kerala. Sattriya, Kuchipudi, and Bharatanatyam are classical dances of Assam, Andhra Pradesh, and Tamil Nadu, respectively.

32. (a) Tamil Nadu is the largest banana producing state in India followed by Gujarat, Maharashtra and Andhra Pradesh.

33. (b) Indian shuttler Saina Nehwal has been appointed as a member of the International Olympic Committee's (IOC) Athletes' Commission. The Athletes' Commission is chaired by Angela Ruggiero and it comprises nine vice presidents and 10 other members.

34. (a) Tirthankara is a saviour and spiritual teacher of the dharma. Rishabhanatha was the first tirthankara of Jainism. Mahavira, Parshvanatha and Sambhavanatha were 24th, 7th and 3rd tirthankara, respectively.

35. (d) Parshvanatha was the 23rd tirthankara of Jainism. He is the earliest Jain Tirthankara who is generally acknowledged as a historical figure. Mahavira, Parshvanatha and Sambhavanatha were 24th, 7th and 3rd tirthankara, respectively.

36. (a) Padmavat is an epic poem written in 1540 CE by Malik Muhammad Jayasi in the Awadhi language. The poem describes the historic siege of Chittor by Alauddin Khalji in 1303 CE.

37. (a) Warren Hastings (20 October 1773- 1 February 1785) was the first governor general of British-ruled India. Other governor generals were John Macpherson (1 February 1785-12 September 1786), John Shore (28 October 1793-18 March 1798) and Alured Clarke (18 March 1793-18 May 1798).

38. (c) Mt. Etna is the oldest active volcano of the world, located in Sicily, Italy. It lies above the convergent plate margin between the African Plate and the Eurasian Plate. It is the tallest active volcano in Europe. All other given volcanoes are dead.

39. (c) Hydrogen is the lightest reactive gas. All other gas-helium, argon and xenon-are passive gases as they have low affinity for chemical reaction.

40. (c) Digboi is a town in Tinsukia district in the north-eastern part of the state of Assam, India. Crude oil was discovered here in late 19th century. Guwahati Refinery was set up at Noonmati in Guwahati on January 1, 1962. Barauni Refinery was established in July 1964 in Barauni istrict of Bihar.

41. (a) The ruling military changed Burma's name to Myanmar in 1989, a year after thousands were killed in the suppression of a popular uprising. Rangoon also became Yangon. Japan's old name was Nippon. Sarawak is a state in Malaysia. Nepalese are also called Newar.

42. (a) 'One Thousand and One Nights' is a collection of Middle Eastern folk tales compiled in Arabic during the Islamic Golden Age. It is often known in English as the Arabian Nights. Aladdin is a famous character of the book.

43. (a) The office of the International Court of Justice is located in Hague, the Netherlands.

44. (a) A penalty box or sin bin is the area in ice hockey where a player sits to serve the time of a given penalty.

45. (b) Mariana Trench or Marianas Trench is the deepest part of the world's oceans. It is located in the western Pacific Ocean, an average of 200 kilometres to the east of the Mariana Islands, in the Western Pacific East of Philippines.

46. (c) Sachin Tendulkar became the first batsman to be dismissed (run out) by using television replays in the second day of the test match in November 1992 between South Africa and India in Kingsmead, Durban. Karl Liebenberg was the third umpire with Cyril Mitchley the on-field umpire.

47. (a) Brajesh Mishra was the first National Security Advisor (NSA) of India who served from November 1998 to May 2004. Other former NSAs were J N Dixit (2004-2005), M. K. Narayanan (2005-2010) and Shivshankar Menon (2010-2014).

48. (c) Satyajit Ray (2 May 1921 - 23 April 1992) was an Indian filmmaker and author, widely regarded as one of the greatest filmmakers of the 20th century. He was born in the city of Calcutta into a Bengali Brahmo family.

49. (b) The Mandal Commission was established in India in 1979 by the Janata Party government under Prime Minister Morarji Desai, to identify the socially or educationally backward.

50. (c) Alberto Juantorena is a former Cuban racer who is called El Caballo (the horse). Juantorena had been born with flat feet that caused feet and back problems, and he had to have corrective surgery in 1977. At the 1976 Summer Olympics, he became the only athlete to win both the 400 and 800 m Olympic titles.

51. (b) Speed of current = $\frac{1}{2}$ (Rate of downstream – Rate of upstream)

$$= \frac{1}{2} \times (6-3)$$

$$= \frac{1}{2} \times 3$$

$$= 1.5 \text{ km/hr}$$

52. (c) Let total age of family be G years.
10 years ago, total age = $G - 10 \times 4 = G - 40$
According to question

$$\frac{G-40}{4} = 24$$

$G = 24 \times 4 + 40 = 136$ years
Let present age of youngest child = x

Present age of older child = x + 2

$$\frac{G + x + x + 2}{6} = 24$$

$$\frac{136 + x + x + 2}{6} = 24$$

$2x + 138 = 24 \times 6$
$2x = 144 - 138 = 6$
$\therefore$ x = 6/2 = 3 years
$\therefore$ Present age of youngest child = 3 years

53. (c) Let total age of family be G years.
3 years back, total age = $G - 3 \times 4 = G - 12$
According to question,

$$\frac{G-12}{4} = 24$$

$\therefore$ $G = 24 \times 4 + 12 = 108$ years
Let present age of baby = x

$$\frac{G + x}{5} = 24$$

$$\frac{108 + x}{5} = 24$$

$\Rightarrow 108 + x = 120$
$\therefore$ x = 120 – 108 = 12 years

54. (a) Here, $\frac{A}{B} = \frac{4}{3}$

$$\therefore \frac{(9A - 3B)}{(9A + 3B)} = \frac{(9 \times 4 - 3 \times 3)}{(9 \times 4 + 3 \times 3)}$$

$$= \frac{36-9}{36+9} = \frac{27}{45} = \frac{3}{5}$$

55. (d) According to question

$$\frac{d}{(8+2)} + \frac{d}{(8-2)} = 3\frac{12}{60}$$

$$\frac{d}{10} + \frac{d}{6} = 3\frac{1}{5}$$

$$\frac{3d + 5d}{30} = \frac{16}{5}$$

$$\frac{8d}{30} = \frac{16}{5}$$

$$\therefore d = \frac{16 \times 30}{8 \times 5} = 12 \text{km}$$

56. (a) Distance = 110m
Relative speed = 60 + 10 = 70 kmph (since both the train and the man are moving in opposite direction)

$$= 70 \times \frac{5}{18} = \frac{350}{18} \text{m / sec}$$

$\therefore$ Time taken to pass the man

$$= 110 \times \frac{18}{350} = 5.65 \cong 6 \text{ seconds}$$

57. (b) Let principal $= 100$
Amount $= 200$
Rate $= r\%$
Time $= 4$ years
Now,

$$A = P\left(1 + \frac{r}{100}\right)^t$$

$$200 = 100\left(1 + \frac{r}{100}\right)^4$$

$$2 = \left(1 + \frac{r}{100}\right)^4 \quad \text{............(i)}$$

If sum become 4 times in the time n years

then, $4 = \left(1 + \frac{r}{100}\right)^n$

$$2^2 = \left(1 + \frac{r}{100}\right)^n \quad \text{.............(ii)}$$

Using eqn (i) and (ii) we get

$$\left[\left(1 + \frac{r}{100}\right)^4\right]^2 = \left(1 + \frac{r}{100}\right)^n$$

$$\left(1 + \frac{r}{100}\right)^8 = \left(1 + \frac{r}{100}\right)^n$$

Thus, n = 8 years

58. (a) CP of 12 chocolates $= ₹ 9$

CP of 1 chocolate $= \dfrac{9}{12} = 0.75$

Now,
SP $= ₹ 1$, Profit $= 0.25$

Profit% $= \dfrac{0.25}{0.75} \times 100 = 33\dfrac{1}{3}\%$

59. (d) $SP_1 = 12,000$

$CP_1 = \dfrac{12,000}{0.75} = 16,000$

$SP_2 = 12,000$

$CP_2 = \dfrac{12,000}{1.2} = 10,000$

So, total CP $= 16000 + 10000 = 26,000$
total SP $= 24,000$
So loss $= 2000$

$\therefore$ loss percentage $= \dfrac{2000}{26,000} \times 100$

$= 7.6\%$

60. (a) Total marks in all subjects $= (100 + 150 + 350) = 600$
Total marks obtained by student $= 77 + 96 + 103 = 276$

$\therefore$ Obtain marks in percentage $= \dfrac{276 \times 100}{600}$

$= 46\%$

$\therefore$ Percentage average $= \dfrac{46}{3} = 15.33\%$

61. (b) Total valid votes $= 6000 - 6000 \times \dfrac{25}{100}$

$= 4500$

Votes obtained by Biku $= 4500 \times \dfrac{55}{100} = 2475$

Votes obtained by Mahtre $= (4500 - 2475) = 2025$.

62. (c) Let the number be x
According to question,

$91 - \dfrac{x \times 30}{100} = x$

$9100 - 30x = 100x$
$130x = 9100$

$\therefore x = \dfrac{9100}{130} = 70$

63. (d) Let the number be x
According to question,

$84 + \dfrac{x \times 50}{100} = x$

$8400 + 50x = 100x$
$100x - 50x = 8400$
$50x = 8400$

$\therefore x = \dfrac{8400}{50} = 168$

64. (a) A number is divisible by 9 when the sum of its digit is divisible by 9.
So, $(3 + 8 + 1 + A) =$ must be divisible by 9.
Thus smallest natural number be 6.
or, $(3 + 8 + 1 + 6) = 18$, this is divisible by 9.

65. (a) CP of 1st TV $= 3000 \times \dfrac{100}{115} = 2608.69$

Profit $=$ SP $-$ CP $= 3000 - 2608.69 = 391.31$
Loss on 2nd TV $= 391.31$
Loss percentage $= 10\%$

Loss percentage $= \dfrac{\text{Loss}}{\text{CP}} \times 100$

$10 = \dfrac{391.31}{\text{CP}} \times 100$

$\therefore$ CP $= \dfrac{391.31 \times 100}{10}$

$= 3913.10 \cong 3913$

66. (d) Except (d), all animals are females.
67. (c) Except (c), all are capital cities.

68. (b) Except (b), every colour is a primary colour.
69. (d) Except (d), all are continents.
70. (c) Except (b), all are North-Eastern states of India.
71. (a) As 'Coconut' is inside the 'Shell', similarly, 'Letter' is inside the "Envelope'.
72. (a) As 'Bismillah Khan' is a famous 'Clarinetist', similarly, 'Birju Maharaj' is a famous 'Kathak' dancer.
73. (b) $687 = 6 + 7 + 8 = 21$ is the place value of U in alphabetical sequence. Similarly, $456 = 4 + 5 + 6 = 15$ is the place value of O.
74. (d) In CALL, first two letters are interchanged among themselves and last two letters are interchanged among themselves to get ACLL. Similarly, COOL can be rearranged as OCLO.
75. (a) Punjab's capital is Chandigarh. Similarly, Assam's capital is Dispur
81. (d) The third figure in each row comprises of parts which are not common to the first two figures.
82. (b) In each row, the second figure is obtained from the first figure by adding two mutually perpendicular line segments at the centre and the third figure is obtained from the first figure by adding four circles outside the main figure.
83. (c) In each column, the second figure (middle figure) is obtained by removing the upper part of the first figure (uppermost figure) and the third figure (lowermost figure) is obtained by vertically inverting the upper part of the first figure.
84. (c) The third figure in each row comprises of the parts common to the first two figures.
85. (b) The third figure in each row comprises of parts which are not common to the first two figures.
86. (a) The pins, equal in number to the number of sides in the main figure are attached to the midpoint of a side of the main figure in case of figures (b), (c), and (d). In fig. (a), these pins are attached to a vertex of the main figure
87. (c) In all other figures, the two line segments are parallel to each other.
88. (d) In all other figures, the arrow and the V sign lie towards the black end of the main figure.
89. (b) The lines outside the shaded circle are not equally distributed along the circumference in fig. (b).
90. (a) In all other figures, the lower-right quarter portion is shaded.
91. (c) Bus and Train are different from each other but some travelers travel by bus and some travel by train.
92. (b) Bonus and Dividend are different from each other. But both these are parts of profit.
93. (a) All mothers are women and some mothers and some women may be engineers.
94. (b) All the three are different professions.
95. (b) All the thieves are criminals while judge is different from these.
96. (c) The half-shaded leaf rotates 135°ACW and the unshaded leaf rotates 135°CW.
97. (a) The upper element is converted to an element similar to the lower elements and each one of the lower elements is converted to an element similar to the upper element.
98. (b) Each one of the upper elements is replaced by an element similar to the lower element(s) and each one of the lower elements is replaced by an element similar to the upper element(s).
99. (c) Except for the dots, the remaining part of the figure rotates through 180° and shifts to the opposite side of the square boundary.
100. (a) The figure gets divided into eight equal parts.

AFCAT 2 2016 QUESTION PAPER

INSTRUCTIONS: TIME LIMIT : 2 HOURS

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1 to 5) Which word or words explains the meaning of the following idioms:

1. All Agog
   - (a) Almighty
   - (b) Unmoved
   - (c) Praise someone
   - (d) Full of interest and excitement

2. To the manner born
   - (a) One of low birth
   - (b) Naturally at ease
   - (c) Place of one's birth
   - (d) Caesarean birth

3. Lose one's marbles
   - (a) Lose something dear to you
   - (b) Suffer a setback
   - (c) Become insane
   - (d) Become drunk

4. Bolt from the blue
   - (a) Sea swimming
   - (b) Complete surprise
   - (c) Reckless
   - (d) Careless

5. Be like a bear with a sore head
   - (a) Be in a foul mood
   - (b) Have headache
   - (c) Powerful and arrogant
   - (d) Restless

DIRECTIONS (Qs. 6 to 9) Choose the word which is nearly opposite in meaning to the given word:

6. Beguile
   - (a) Deceive
   - (b) Honest
   - (c) Charm
   - (d) Cheat

7. Ameliorate
   - (a) Deteriorate
   - (b) Procrastinate
   - (c) Stagnate
   - (d) Deviate

8. Feckless
   - (a) Spotted
   - (b) Fatuous
   - (c) Strong
   - (d) Fawning

9. Cacophonous
   - (a) Tamed
   - (b) Harmonious
   - (c) Silent
   - (d) Domestic

DIRECTIONS (Qs. 10 to 14): Select the most appropriate word from the options against each number:

About sixty percent of the human body is water. If you could (10) out a human being like a (11). you would obtain about fifty litres of water. This water which is not like (12) water because of the substance it (13) is necessary to the life of the human being. About a gallon of it is in the blood vesseis and is (14) circulating by temperature.

10. (a) work   (b) wrench
    (c) press   (d) squeeze

11. (a) mango   (b) lemon
    (c) fruit   (d) banana

12. (a) usual   (b) ordinary
    (c) common   (d) normal

13. (a) dissolves (b) carries
    (c) contains   (d) includes

14. (a) continued (b) made
    (c) got   (d) kept

DIRECTIONS (Qs. 15 to 18) Choose the correctly spelt word:-

15. (a) Ascendancy (b) Ascendncy
    (c) Ascandency (d) Acsendancy

16. (a) Hegamony   (b) Hegemony
    (c) Hegemoney   (d) Hegamoney

17. (a) Parpetuate (b) Perpetuete
    (c) Perpetuate (d) Perpatuate

18. (a) Apocaleptic (b) Apocalaptic
    (c) Apocalyptic (d) Apacalyptic

DIRECTIONS (Qs 19 to 22) Choose the word which is nearest in meaning to the given word:

19. Preposterous
    - (a) Formal   (b) Judicious
    - (c) Ridiculous (d) Ceremonious

20. Dissemble
    - (a) Disagree (b) Shake
    - (c) Impeccable (d) Conceal

21. Raucous
    - (a) Flavourful (b) Jarring
    - (c) Boisterous (d) Evil

22. Abrogate
    - (a) Put an end to (b) Elope
    - (c) Gatecrash   (d) Send away

Read the following passage carefully and answer the questions given below it:

The great Acharyas have said that having discovered a great goal, surrender yourself to that goal and act towards it, **drawing your inspiration from that goal** whereby you will get a new column of energy. Do not allow this energy to be dissipated in the futile memories of past regrets of failure, not in the excitement of the present, and thus bring that entire energy focussed into activity. That is the highest creative action in the world outside. Thereby the individual who is till now considered as most inefficient finds his way to the highest achievement and success. This is said very easily in a second. But in order to train our mind to this attitude needs considerable training because we have already trained the mind wrongly to such an extent that we have **become perfect in imperfections.** Not knowing the art of action, we have become master artist in doing wrong things. The totality of activity will bring the country to a wrong end, indeed. The point is, intellect is very powerful and everyone is driving but nobody seems to know how to control the mental energy and direct it properly, or guide it to the proper destination.

23. Which of the following is the source of energy?
    (a) A column that supports a building.
    (b) Stimulation obtained from a set aim.
    (c) Highest creative action.
    (d) Proper training of the mind to achieve perfection.

24. The author's chief concern is
    (a) Establishment of socialistic pattern.
    (b) Discovery of great goal in the life.
    (c) Regulation of energy in the proper direction.
    (d) Training of the mind.

25. What is the effect of training of the wrong mind?
    (a) We have become perfect in all aspects.
    (b) Art of action is too much emphasized.
    (c) Each of us could become a master artist.
    (d) None of these.

DIRECTIONS (Qs. 26 to 68) Choose the most appropriate answer:

26. The book, 'On My Terms: From the Grassroots to the Corridors of Power,' is the autobiography of
    (a) Lal Thanhawla   (b) Ram Jethmalani
    (c) Sharad Pawar   (d) Okram Ibobi Singh

27. 21st Conference of Parties (COP21) on Climate Change was held in Nov-Dec 2015 at
    (a) London   (b) Singapore
    (c) Paris   (d) New York

28. Artificial rain is produced by seeding clouds with
    (a) Silver Iodide   (b) Potassium Nitrate
    (c) Copper Sulphate   (d) Silver Nitrate

29. Which of the following parts of India receives rainfall from retreating monsoon?
    (a) North East India   (b) Tamil Nadu Coast
    (c) Mahanadi Delta   (d) Malabar Coast

30. Who was honoured with the Order of Australia, the highest civilian award in January this year?
    (a) Yashwant Sinha   (b) Vashu Bhagnani
    (c) Sajeev Koshy   (d) Sanjeev Kapoor

31. Who among the following was awarded India's highest peacetime gallantry award, Ashoka Chakra posthumously on 26 January 2016?
    (a) Lance Naik Mohan Nath Goswami
    (b) Lance Naik Albert Ekka
    (c) Lance Naik Hanamanthappa Koppad
    (d) Lance Naik Hemraj

32. Which one of the following best explains the occurrence of the solar eclipse?
    (a) Position of the Moon between Sun & Earth
    (b) Position of the Moon between Sun & Earth on a new moon
    (c) Both (a) & (b)
    (d) None of these

33. Highest Civilian Award, Bharat Ratna was conferred in 2015 to
    (a) Atal Bihari Bajpayee (b) LK Advani
    (c) Jai Prakash Narain   (d) Madan Mohan Malviya

34. The indigenously developed Navigational Satellite system is known as
    (a) IRGPS   (b) Galileo
    (c) IRNSS   (d) GLONASS

35. Bajirao was appointed as Peshwa at the age of 20 yrs under the reign of
    (a) Sambhaji   (b) Chhatrapati Shahu
    (c) Rajaram II of Satara (d) Rajaram Chhatrapati

36. Which cricketer has been conferred with Col C K Naidu life time achievement award in 2015?
    (a) Bishen Singh Bedi   (b) Kapil Dev
    (c) Mohinder Amarnath   (d) Syed Kirmani

37. Besides the Qutab Mosque and Qutab Minar, Qutab-ud-din Aibak is said to have built
    (a) Adhai-din-ka jhopra mosque at Ajmer
    (b) Khirki masjid at Jahan-Panath
    (c) Mausoleum of Khan-i-Jahan Tilangani
    (d) Kila-i-Kuhna mosque at Delhi

38. Indian Ruler who defeated British in their early stage of rule in India was.
    (a) Maharaja Ranjit Singh (b) Mahadaji Scindhia
    (c) Hyder Ali   (d) Tipu Sultan

39. Who among the following will head the Judicial Committee on 'One Rank One Pension (OROP)' scheme?
    (a) Y V Reddy   (b) L Narasimha Reddy
    (c) Sanjay Mishra   (d) N S Reddy

40. The mascot of the South Asian Games conducted in February 2016 was
    (a) Chikor   (b) Shera
    (c) Tikhor   (d) Appu

41. Who among the following shooters clinched the 50 m pistol gold at the ISSF World Cup in Bangkok in Mar 2016?
    (a) Jitu Rai   (b) Pang Wei
    (c) Wang Zhiwei   (d) Potent Warren

42. Which country will host Commonwealth Games in 2018?
    (a) New Zealand   (b) Australia
    (c) Scotland   (d) Malaysia

43. The largest concentration of Harappan sites has been found along the
    (a) Sutlej   (b) Ghaggar- Hakra
    (c) Indus   (d) Ravi

44. Heavy water is called heavy because
    (a) It is denser than ordinary water
    (b) It is an oxide of deuteron
    (c) It has a heavy (or bad) taste
    (d) It has a heavier isotope of hydrogen

45. Which of the following soils is most conducive for the growth of cotton?
    (a) Alluvial   (b) Red
    (c) Laterite   (d) Black

46. India has inked a deal with France to acquire fighter aircraft, Dassault Rafale. Which is the other French fighter aircraft in the inventory of Indian Air Force?
    (a) MiG 21   (b) Mirage 2000
    (c) AJT Hawk   (d) Su-30 Mkl

47. Resolution of Purna Swaraj was passed on 26 January 1930 at
    (a) Haripur   (b) Lahore
    (c) Karachi   (d) Calcutta

48. Deepika Padukone has received Filmfare award 2016 for the Best Actress in the movie
    (a) Bajirao Mastani   (b) Happy New Year
    (c) Tamasha   (d) Piku

49. The largest Oil Field of Gujarat is in
    (a) Senand   (b) Kadi
    (c) Ankleshwar   (d) Kalol

50. Fundamental Rights are enshrined in the Constitution of India in
    (a) Part I   (b) Part III
    (c) Part IV   (d) Part V

51. A worker may claim ₹ 1.5 for each km which he travels by taxi and 50 paise for each km he drives his own car. If in one week he claimed ₹ 50 for travelling 80 km, how many kms did he travel by taxi?
    (a) 20 km   (b) 14 km
    (c) 12 km   (d) 10 km

52. In an examination, a student was asked to find $\dfrac{3}{14}$ of a certain number. By mistake, he found $\dfrac{3}{4}$ of it. His answer was 150 more than the correct answer. Find the number.
    (a) 180   (b) 280
    (c) 380   (d) 480

53. An amount of ₹ 735 was divided between A, B and C. If each of them had received ₹ 25 less, their shares would have been in the ratio of 1 : 3 : 2. The money received by C was
    (a) ₹ 195   (b) ₹ 200
    (c) ₹ 225   (d) ₹ 245

54. 20 litres of a mixture contains milk and water in the ratio 5 : 3. If 4 litres of this mixture is replaced by 4 litres of milk, the ratio of milk to water in the new mixture would be
    (a) 2:1   (b) 7:3
    (c) 8:3   (d) 4:3

55. A man rows upstream a distance of 9 km or downstream a distance of 18 km taking 3 hours each time. The speed of the boat in still water is
    (a) $7\dfrac{1}{2}$ km/h   (b) $6\dfrac{1}{2}$ km/h
    (c) $5\dfrac{1}{2}$ km/h   (d) $4\dfrac{1}{2}$ km/h

56. A can do a piece of work in 10 days. He works at it for 4 days and then B finishes it in 9 days, in how many days can A and B together finish the work?
    (a) 6 days   (b) 8 days
    (c) $8\dfrac{1}{2}$ days   (d) $7\dfrac{1}{2}$ days

57. A crate of mangoes contains one bruised mango for every 30 mangoes in the crate. If 3 out of every 4 bruised mangoes are considered unsalable, and there are 12 unsalable mangoes in the crate, how many mangoes are there in the crate?
    (a) 480   (b) 500
    (c) 420   (d) 520

58. A man can row 30 km upstream and 44 km downstream in 10 hours. He can also row 40 km upstream and 55 km downstream in 13 hours. Find the rate of current,
    (a) 3 km/h   (b) 2 km/h
    (c) 4 km/h   (d) 5 km/h

59. How long will it take for a sum of money invested at 5 % p.a. at simple interest to increase its value by 40 %?
    (a) 5 years   (b) 6 years
    (c) 7 years   (d) 8 years

60. The mean of 50 observations was 36. It was found later that an observation 48 was wrongly taken as 23. The corrected new mean is
    (a) 35.2   (b) 34.1
    (c) 36.5   (d) 39.1

61. The average score of a cricketer for ten matches is 38.9 runs. If the average for the first six matches is 42, the average for the last four matches is
    (a) 33.25   (b) 33.5
    (c) 34.25   (d) 35

62. On a certain sum, the simple interest at the end of $6\frac{1}{4}$ years becomes $\frac{3}{8}$ th of the sum. The rate percent is
   (a) 7%
   (b) 6%
   (c) 5%
   (d) $5\frac{1}{2}\%$

63. A horse is sold at a profit of 25 %. If both the cost price and selling price are ₹ 200 less, the profit will be 5 % more. The cost price is
   (a) ₹ 1100
   (b) ₹ 1200
   (c) ₹ 1000
   (d) ₹ 900

64. Two trains travel in opposite directions at 36 km/h and 45 km/h respectively. A man sitting in slower train passes the faster train in 8 seconds. The length of the faster train is
   (a) 80 m
   (b) 120 m
   (c) 160 m
   (d) 180 m

65. By selling a chair for ₹ 368. a man lost 8 %. For how much should he have sold it to gain 15 %?
   (a) ₹ 450
   (b) ₹ 475
   (c) ₹ 460
   (d) ₹ 500

66. A train 110 metres long is running with a speed of 60 km/h. In what time will it pass a man who is running at 6 km/h in the direction opposite to that of train?
   (a) 5 sec
   (b) 6 sec
   (c) 7 sec
   (d) 10 sec

67. If 3 men or 4 women can plough a field in 43 days, in how many days 7 men and 5 women can plough the same field?
   (a) 18 days
   (b) 10 days
   (c) 12 days
   (d) 15 days

68. A man sold two watches for ₹ 3750 each; on one he gained 5 % and on the other he lost 5 %. What was his total gain or loss as a percentage?
   (a) 0.25 % loss
   (b) 2.5 % loss
   (c) 25 % gain
   (d) 12.5 % gain

DIRECTIONS (Qs. 69 to 73) In each of the following questions, figure (X) is given followed by four alternative figures (a), (b), (c) and (d). Figure (X) is embedded in one of the alternative figures. Trace out the alternative which contains figure (X) as its part.

69.

(X)

(a)   (b)   (c)   (d)

70.

(X)

(a)   (b)   (c)   (d)

71.

(X)   (a)   (b)   (c)   (d)

72.

(X)   (a)   (b)   (c)   (d)

73.

(X)   (a)   (b)   (c)   (d)
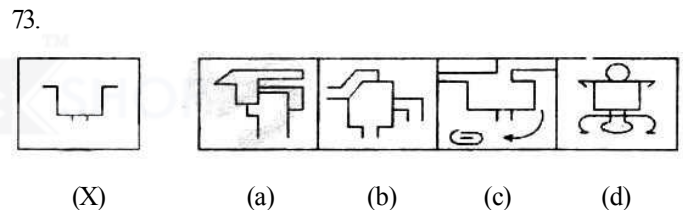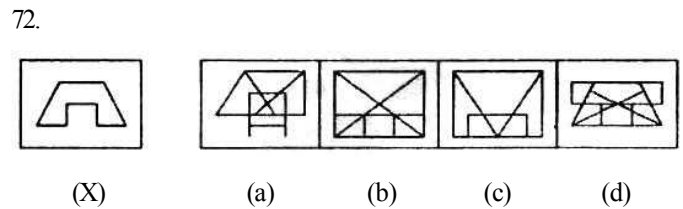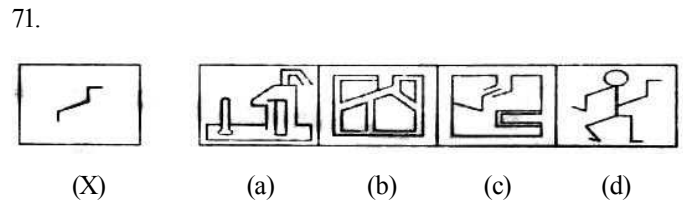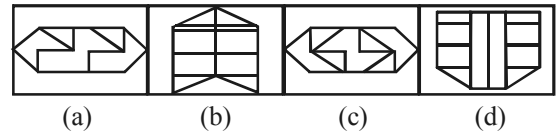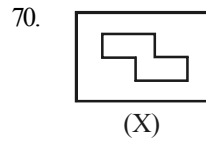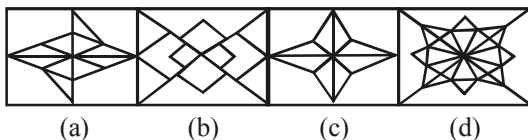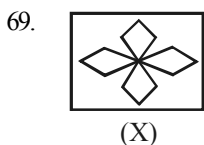
Directions (Qs. 74 to 77): Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams:-

74. Which of the following diagrams indicates the best relation between Mountains, Earth and Forests?

(a)   (b)   (c)   (d)
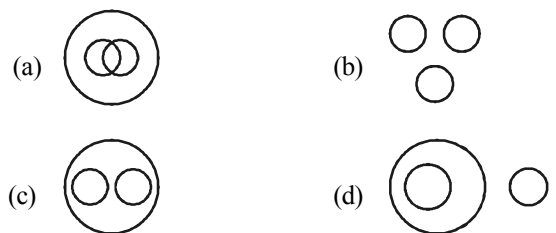
75. Which of the following diagrams indicates the best relation between Sun, Planets and Earth?

(a)   (b)   (c)   (d)
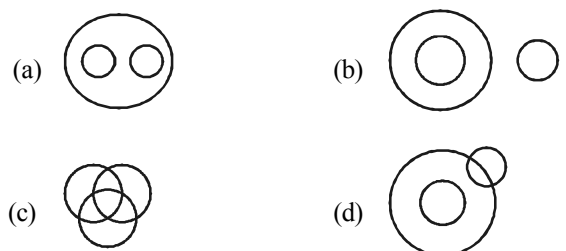
76. Which of the following diagrams indicates the best relation between Graduate, Teacher and Player?

(a)

(b)

(c)

(d)
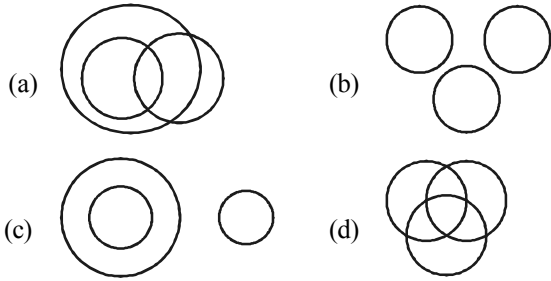
77. Which of the following diagrams indicates the best relation between Leaf, Seed and Root?

(a)

(b)

(c)

(d)
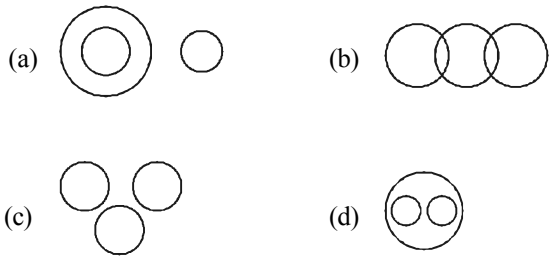
DIRECTIONS (Qs. 78 to 80) In each problem, out of the four figures marked (a) (b) (c) and (d), three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest:

78.

    (a)   (b)   (c)   (d)

79.

    (a)   (b)   (c)   (d)

80.

    (a)   (b)   (c)   (d)
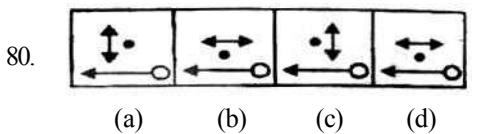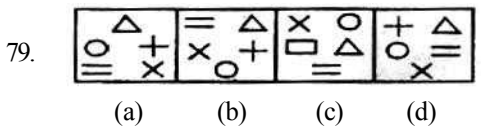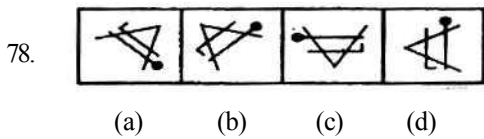
DIRECTIONS (Qs. 81 to 85) In each of the following questions, four words have been given out of which three are a like in some manner, while the fourth one is different. Choose the word which is different from the rest:

81. (a) Bogota   (b) Sydney
    (c) Doha   (d) Brussels

82. (a) Retina   (b) Pupil
    (c) Vision   (d) Cornea

83. (a) Udayagiri and Khandagiri
    (b) Badami
    (c) Elephanta
    (d) Doddabetta

84. (a) Tibia   (b) Cortex
    (c) Cranium   (d) Cerebellum

85. (a) Saltoro Kangri   (b) Kongka
    (c) Zoji La   (d) Kumbharli Ghat

DIRECTIONS (Qs. 86 to 90) In each of the following questions, select a figure from amongst the four alternatives, which satisfies the same conditions of placement of the dots as in figure (X):

86.

    (X)   (a)   (b)

    (c)   (d)

87.

    (X)   (a)   (b)

    (c)   (d)

88.

    (X)   (a)   (b)

    (c)   (d)

89.

    (X)   (a)   (b)

    (c)   (d)

90.

    (X)   (a)   (b)

    (c)   (d)
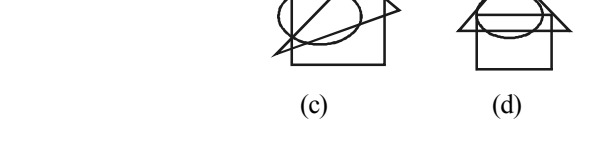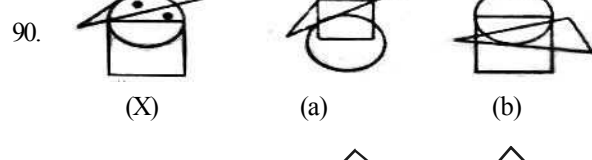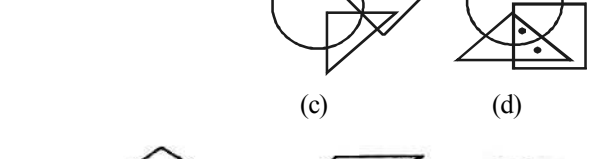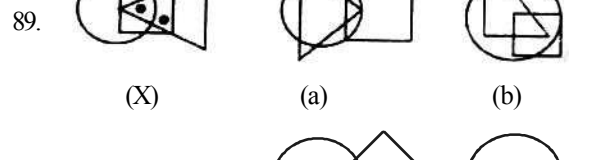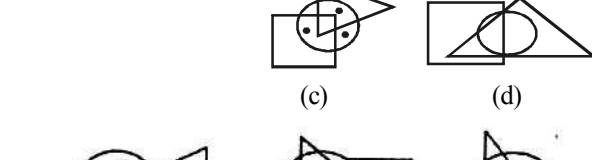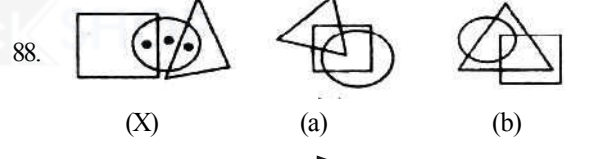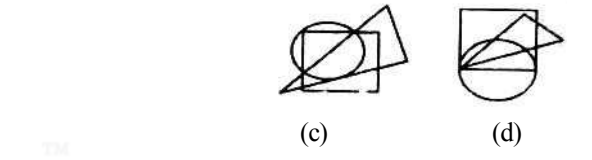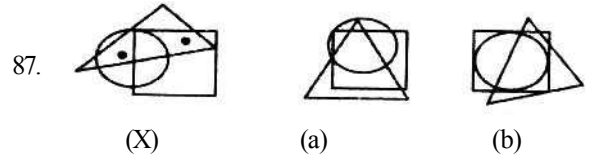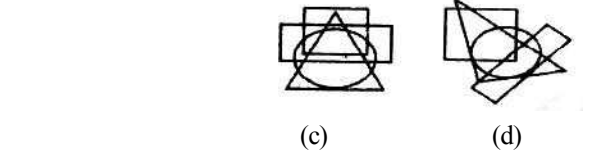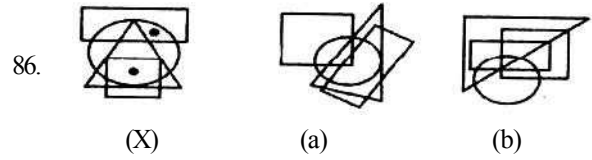
DIRECTIONS (Qs. 91 to 95) Each of the following questions consists of five figures marked 1, 2, 3, 4 and 5 called the Problem Figures followed by four other figures marked (a), (b), (c) and (d) called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures:

91.   Problem Figures:
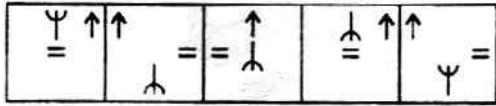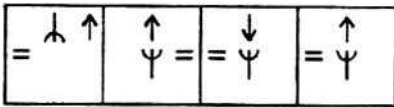
(1)   (2)   (3)   (4)   (5)

Answer Figures:

(a)   (b)   (c)   (d)
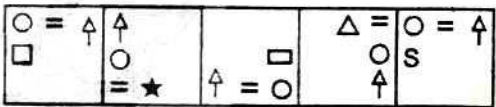
92.   Problem Figures:

(1)   (2)   (3)   (4)   (5)
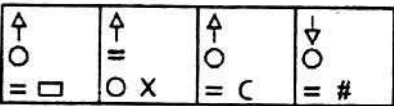
Answer Figures:

(a)   (b)   (c)   (d)
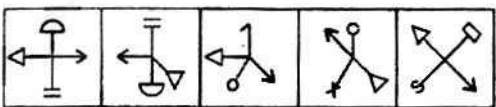
93.   Problem Figures:

(1)   (2)   (3)   (4)   (5)
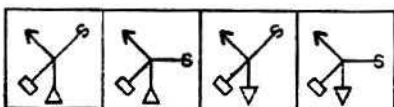
Answer Figures:

(a)   (b)   (c)   (d)

94.   Problem Figures:
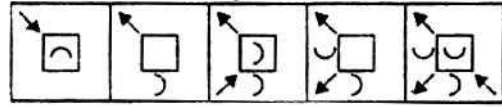
(1)   (2)   (3)   (4)   (5)
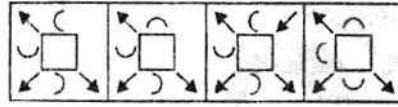
Answer Figures:

(a)   (b)   (c)   (d)

95.   Problem Figures:
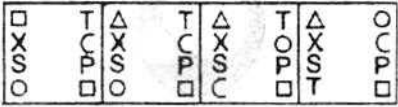
(1)   (2)   (3)   (4)   (5)

Answer Figures:

(a)   (b)   (c)   (d)

Directions (Qs. 96-100) : In each of the following questions, find out the alternative which will replace the question mark:-

96.   Anatomy : Zoology :: Paediatrics : ?
(a)   Chemistry   (b)   Medicine
(c)   Palaeontology   (d)   Mechanics

97.   Eccrinology : Secretions :: Selenography : ?
(a)   Sun   (b)   Mantle
(c)   Crust   (d)   Moon

98.   Virology : Virus :: Semantics : ?
(a)   Amoeba   (b)   Language
(c)   Nature   (d)   Society

99.   Tectonics : Building :: Taxidermy : ?
(a)   Classification   (b)   Conserving
(c)   Stuffing   (d)   Collecting

100.   Annihilation : Fire :: Cataclysm : ?
(a)   Emergency   (b)   Tribulation
(c)   Anxiety   (d)   Flood

ANSWER KEY									
1. (d)	2. (b)	3. (c)	4. (b)	5. (a)	6. (b)	7. (a)	8. (c)	9. (c)	10.(d)
11.(b)	12.(d)	13.(c)	14.(d)	15.(a)	16.(b)	17.(c)	18.(c)	19.(c)	20.(d)
21.(c)	22.(a)	23.(b)	24.(c)	25.(d)	26.(c)	27.(c)	28.(a)	29.(b)	30.(c)
31.(a)	32.(b)	33.(a,d)	34.(c)	35.(b)	36.(d)	37.(a)	38.(c)	39.(b)	40.(c)
41.(a)	42.(b)	43.(b)	44.(d)	45.(d)	46.(b)	47.(b)	48.(d)	49.(c)	50.(b)
51.(d)	52.(b)	53.(d)	54.(b)	55.(d)	56.(a)	57.(a)	58.(a)	59.(d)	60.(c)
61.(c)	62.(b)	63.(b)	64.(d)	65.(c)	66.(b)	67.(c)	68.(a)	69.(d)	70.(c)
71.(d)	72.(d)	73.(d)	74.(a)	75.(b)	76.(a)	77.(c)	78.(a)	79.(a)	80.(d)
81.(d)	82.(c)	83.(d)	84.(a)	85.(a)	86.(d)	87.(a)	88.(c)	89.(d)	90.(c)
91.(d)	92.(b)	93.(c)	94.(a)	95.(d)	96.(b)	97.(d)	98.(b)	99.(c)	100.(d)

1. (d) The idiom 'all agog' means in high spirits or in eager expectation.

2. (b) The idiom 'to the manner born' means naturally at ease in a specified job or situation.

3. (c) The idiom 'lose one's marbles' means to lose one's mind.

4. (b) The idiom 'bolt from the blue' means something important or unusual that happens suddenly or unexpectedly.

5. (a) The idiom 'be like a bear with a sore head' means to be in a bad mood that causes you to treat other people badly.

6. (b) Beguile means to attract or delight someone, often in a deceptive way. So, the antonym of beguile is honest.

7. (a) Ameliorate means to make something better. So, the antonym of ameliorate is to deteriorate.

8. (c) Feckless means lacking initiative or strength of character; irresponsible. So, the antonym of feckless is to be strong.

9. (c) Cacophonous means producing a harsh, discordant mixture of sounds. So, the antonym of cacophonous is to be silent.

10. (d) Sueeze means to take out something forcefully.

11. (b) Lemon can be squeezed to take out juice.

12. (d) Normal water means water not having anything dissolved in it.

13. (c) Water contains essential elements required by the human body.

14. (d) Water is kept circulating by temperature.

15. (a) Ascendancy means occupation of a position of dominant power or influence.

16. (b) Hegemony means leadership or dominance quality of a person.

17. (c) Perpetuate means to make something continue indefinitely.

18. (c) Apocalyptic means describing or prophesying the complete destruction of the world.

19. (c) Both preposterous and ridiculous mean contrary to reason or common sense; utterly absurd.

20. (d) Dissemble means conceal or disguise one's true feelings or beliefs.

21. (c) Both raucous and boisterous mean making or constituting a disturbingly harsh and loud noise.

22. (a) Abrogate means repeal or do away with.

23. (b) The source of energy is the stimulation obtained from a set aim.

24. (c) The author is concerned about using energy in right direction, bringing positive result.

26. (c) Indian politician Sharad pawar is the author of the book 'On My Terms: From the Grassroots to the Corridors of Power'. Through his five- decade-long career, during which he has never lost an election, he has served as chief minister of Maharashtra four times. He has often bucked the trend, preferring policy and pragmatism over populism.

27. (c) 21st Conference of Parties (COP21) on Climate Change was held in Paris, France, from 30 November to 12 December 2015. It was the 21st yearly session of the Conference of the Parties (COP) to the 1992 United Nations Framework Convention on Climate Change (UNFCCC) and the 11th session of the Conference of the Parties (CMP) to the 1997 Kyoto Protocol. The Conference negotiated the Paris Agreement.

28. (a) Cloud seeding is a form of weather modification, aimed at increasing precipitation. The most common chemicals used for cloud seeding include silver iodide, potassium iodide and dry ice (solid carbon dioxide).

29. (b) When the retreating monsoon blows from the northeast across the Bay of Bengal, it picks up a significant amount of moisture, which is subsequently released after moving back onto the peninsula. Thus, from October to December the coast of Tamil Nadu state receives at least half of its roughly 40 inches (1,000 mm) of annual precipitation.

30. (c) Sajeev Koshy, a dentist in Melbourne, received the Order of Australia medal for the year 2016 announced on the Australia Day. Other two recipients of the award were Chennupati Jagadish, an eminent professor at Australian National University (ANU) in Canberra, and Jay Chandra, an eye doctor in New South Wales.

31. (a) President Pranab Mukherjee has conferred the country's highest peacetime gallantry award Ashok Chakra to Lance Naik Mohan Nath Goswami in January 2016. He belonged to 9 PARA (Special Force) and laid down his life while fighting LeT militants in Kupwara district of Jammu and Kashmir.

32. (b) A solar eclipse is a type of eclipse that occurs when the Moon passes between the Sun and Earth, and when the Moon fully or partially blocks the Sun. This can happen only at new moon when the Sun and the Moon are in conjunction.

33. (a & d) Bharat Ratna in 2015 was given to freedom fighter and educationist Madan Mohan Malviya and former Indian Prime Minister Atal Bihari Bajpayee.

34. (c) The Indian Regional Navigation Satellite System (IRNSS) with an operational name of NAVIC is an autonomous regional satellite navigation system that provides accurate real-time positioning and timing services. The system at-present has a constellation of 7 satellites, with two additional satellites on ground as stand-by.

35. (b) Bajirao served as Peshwa to the fifth Maratha Chhatrapati Shahu from 1720 until his death. Bajirao is credited with expanding the Maratha Empire, especially in North India, which contributed to its reaching a zenith during his son's reign twenty years after his death.

36. (d) Former India stumper Syed Kirmani was chosen for the prestigious Col. C.K. Nayudu Lifetime Achievement award for 2015. He has served as chairman of the senior national selection committee and vice-president of the Karnataka State Cricket Association (KSCA).

37. (a) Adhai Din Ka Jhonpra is a mosque in the Ajmer city of Rajasthan, India. It was commissioned by Qutb-ud-Din-Aibak, on orders of Muhammad Ghori, in 1192 CE. It was completed in 1199 CE, and further beautified by Iltutmish of Delhi in 1213 CE. The mosque was constructed on the remains of a Sanskrit college, with materials from destroyed Hindu and Jain temples.

38. (c) In the First Anglo-Mysore War (1767-69), the British were defeated by Hyder Ali in a number of battles. This was followed by the Second Anglo-Mysore War (1780-84), which resulted in stalemate but also included the Battle of Pollilur, where the British first encountered the hugely effective Mysorean rockets.

39. (b) Justice (Retd.) L Narasimha Reddy, former Chief Justice of Patna High Court, headed the Judicial Committee which looked into the implementation of One Rank One Pension (OROP) scheme.

40. (c) Tikhor, the baby Indian Rhino, was unveiled to the public as the official mascot for the 2016 South Asian Games. According to the organising committee, Tikhor carried the message of Peace, Progress, and Prosperity in the South Asian region. This was in line with the official motto, "Play for Peace, Progress and Prosperity".

41. (a) Jitu Rai won gold medal at the ISSF World Cup held in Bangkok in March 2016. Jitu reached the final by finishing third at the end of the 60 shot qualifying series with a score of 562.

42. (b) The 2018 Commonwealth Games, commonly known as Gold Coast 2018 will be held on the Gold Coast, Queensland, Australia, between 4 and 15 April 2018. It will be the fifth time Australia has hosted the Commonwealth Games.

43. (b) The largest concentration of Harappan site has been found along Ghaggar-Hakra River, which is an intermittent, endorheic river in India and Pakistan that flows only during the monsoon season. Over 530 Harappan sites (of the more than 800 known sites, not including Late Harappan or OCP) are located on the Ghaggar-Hakra.

44. (d) Heavy water or deuterium oxide is called heavy water because it is composed of heavier isotope of hydrogen called deuterium.

45. (d) Most conducive soil for cotton is blacks soil because black oils are highly argillaceous, very fine grained and dark, and contain a high proportion of calcium and magnesium carbonates.

46. (b) Dassault Mirage 2000 is a French multirole, single-engine fourth-generation jet fighter manufactured by Dassault Aviation. It was designed in the late 1970s as a lightweight fighter to replace the Mirage III for the French Air Force. The sale of US F-16s to Pakistan prompted India to enter talks with France regarding the purchase of the Mirage 2000. In October 1982, the country placed an order with Dassault for 36 single-seat Mirage 2000Hs and 4 twin-seat Mirage 2000THs.

47. (b) Resolution of Purna Swaraj was passed on 26 January 1930 at Lahore. Purna Swaraj declaration, or Declaration of the Independence of India, was promulgated by the Indian National Congress under the influence of Bhagat Singh and other revolutionaries on 19 December 1929, resolving the Congress and Indian nationalists to fight for Purna Swaraj, or complete self-rule independent of the British Empire.

48. (d) Indian actress Deepika Padukone received Filmfare Award 2016 in the Best Actress category for her film 'Piku'.

49. (c) The largest oil field of Gujarat is Ankleshwar. Oil at this field is available at depths varying from 1,000 to 1,200 metres. It has a capacity of 2.8 million tonnes per annum.

50. (b) Fundamental rights are contained in Part III of Constitution of India. It guarantees civil liberties such that all Indians can lead their lives in peace and harmony as citizens of India.

51. (d) Let Distance travelled by taxi x km and by our car be y km
ATQ
$x + y = 80$ ......(i)
$1.5x + .5y = 50$ .....(ii)
Multiplying Eq(i) by .5 and subtracting Eq(ii) from (i)
$x = 10$
Distance travelled by taxi is 10 Km

52. (b) Let the number be x
ATQ
$$\frac{3}{4}x - \frac{3x}{14} = 150$$

$$\frac{3x}{2}\left[\frac{1}{2} - \frac{1}{7}\right] = 150$$

$$x\left[\frac{7-2}{14}\right] = 100$$

$$x\left[\frac{5}{14}\right] = 100$$

$x = 280$

53. (d) Let A got $= x + 25$
  B got $= 3x + 25$
  C got $= 2x + 25$
ATQ
$x + 25 + 3x + 25 + 2x + 25 = 735$
$6x = 735 - 75$
$6x = 660$
$x = 110$
Money received by $C = 2x + 25$
     $= 2 \times 110 + 25 = ` 245$

54. (b) Amount of water in mixture $= \frac{3}{3+5} \times 20 = 7.5 l$

amount of Milk in mixture $= \frac{5}{8} \times 20 = 12.5 l$

When 4 litre is drawn out of mixture remaining Mixture $= 16 l$

Water amount $= \frac{3}{8} \times 16 = 6 l$

Milk amount $= \frac{5}{8} \times 16 = 10 l$

After adding 4 litre of milk
Total mixture $= 20 l$
Milk $= 10 + 4 = 14 l$
Water $= 6 l$

Ratio $= \frac{M}{W} = \frac{14}{6} = 7 : 3$

55. (d) Speed of boat upstream $= \frac{9}{3} = 3$ km/hr

Speed of boat down stream $= \frac{18}{3} = 6$ km/hr

Let speed of boat be $= x$ km/hr
Let speed of stream be $= y$ km/hr
ATQ
  $x + y = 6$
  $x - y = 3$
By subtracting
  $2x = 9$

$x = \frac{9}{2}$ or $4\frac{1}{2}$ km / hr

56. (a) A can do a work in 10 day

A can do work in 1 day $= \frac{1}{10}$ part of work

Let B can do in x days

in 1 day he can do $= \frac{1}{x}$ part of work

A working for 4 day and B for 9 days work is completed

ie $\frac{4}{10} + \frac{9}{x} = 1$

$\frac{9}{x} = \frac{6}{10}$

$x = 15$ days

Then Both A and B can do in 1 day $= \frac{1}{10} + \frac{1}{15}$ part of

work $= \frac{1}{6}$

Or they both will complete work in 6 days

57. (a) Let the total no. of Mangoes in the crate be x. Then the

no. of bruised Mango $= \frac{x}{30}$

$\left[as \frac{1}{30} th \text{ Mango is bruised}\right]$ and every $\frac{3}{4}th$ is unsalable of brused.

Then the unsalable Mangoes $= \frac{3}{4}\left(\frac{x}{30}\right) = \frac{x}{40}$

$\frac{x}{40} = 12$

$x = 480$

58. (a) Let rate of upstream $= x$ kmph and rate of downstream $= y$ kmph
Then

$\frac{30}{x} + \frac{44}{y} = 10$

and $\frac{40}{x} + \frac{55}{y} = 13$

On solving we get x = 5, y = 11
So, rate of upstream = 5 Km/hr and rate of downstream = 11 Km/hr

Rate of current $= \frac{1}{2}[11 - 5] = 3$ km / hr

59. (d) Let the sum be x. then SI = 40% of x = $\dfrac{2x}{5}$ Rate = 5%.

$$\text{Time} = \left[\dfrac{100 \times 2x}{5} \times \dfrac{1}{5x}\right] \qquad \left[T = \dfrac{100 \times S.I}{P \times R}\right]$$

= 8 years

60. (c) Correct sum = $(36 \times 50 + 48 - 23) = 1825$.

$$\text{Correct mean} = \dfrac{1825}{50} = 36.5$$

61. (c) Average score of 10 matches = 38.9

Total score = $38.9 \times 10 = 389$

Average score of 6 matches = 42

Total score = $42 \times 6 = 252$

Total score for remaining 4 matches = $389 - 252 = 137$

$$\text{Average for 4 matches} = \dfrac{137}{4} = 34.25$$

62. (b) Let principal be = P, SI = $\dfrac{3P}{8}$

R = R, T = $6\dfrac{1}{4}$ year

$$SI = \dfrac{PTR}{100}$$

$$\dfrac{3P}{8} = \dfrac{P \times 25 \times R}{100 \times 4}$$

R = 6% P. a

63. (b) Let CP of Horse be = ` x

Then SP after getting 25% profit = $\dfrac{125}{100}x$

When CP is 200 Less CP = ` (x – 200)
Profit = 30%

$$SP = \dfrac{130}{100}(x - 200)$$

ATQ

$$\dfrac{130}{100}(x - 200) = \dfrac{125}{100}x - 200$$

$$\dfrac{130}{100}x - 260 = \dfrac{125}{100}x - 200$$

$$\dfrac{5x}{100} = 60$$

x = ` 1200

64. (d) Relative speed of both trains = (36 + 45) km/hr

$$= \left(81 \times \dfrac{5}{18}\right) m / sec$$

$$= \dfrac{45}{2} m / sec$$

Distance travelled by train while passing man = length of train.

$$\text{Length of train} = \dfrac{45}{2} \times 8 = 180m \quad \because \ (D = ST)$$

65. (c) SP of chair = ` 368, \qquad Let CP = ` x
Loss% = 8%

$$\left[\dfrac{100 - 8}{100}\right]x = 368$$

$$x = \dfrac{368}{92} \times 100 = 400$$

When, profit = 15%

$$\therefore \quad SP = \dfrac{115}{100} \times 400 = ₹ 460$$

66. (b) Relative speed of train for man = speed of train + speed of man = (60 + 6) km/hr

$$= \left(66 \times \dfrac{5}{18}\right) m / sec$$

$$= \dfrac{55}{3} m / sec$$

Distance travelled by train while crossing man = length of train.
Length of train = 110 metres

$$\text{Time taken} = \dfrac{D}{S}$$

$$= \dfrac{110}{55} \times 3 = 6 \ sec$$

67. (c) 3 men can Plough Field in 43 days, 1 man will plough in 43×3
4 women can plough in 43 days 1 women will plough in
= 4×43 days.
Work done by 1 men and 1 women in 1 day

$$= \dfrac{1}{43 \times 3} + \dfrac{1}{43 \times 4}$$

Work done by 7 men and 5 women in 1 day

$$= \dfrac{7}{43 \times 3} + \dfrac{5}{43 \times 4}$$

$$= \dfrac{1}{43}\left[\dfrac{28 + 15}{12}\right] = \dfrac{\cancel{43}}{\cancel{43} \times 12} = \dfrac{1}{12}$$

They will do work in 12 days.

68. (a) CP of first watch $= \dfrac{3750}{105} \times 100$

CP of second watch $= \dfrac{3750}{95} \times 100$

Total CP $= \dfrac{3750 \times 100}{5}\left(\dfrac{1}{21}+\dfrac{1}{19}\right)$

$= \dfrac{375000}{5}\left(\dfrac{40}{21 \times 19}\right)$

$= \dfrac{3000000}{21 \times 19} = 7518.80$

Total SP $= 3750 + 3750 = 7500$
Loss $= 18.80$

Loss% $= \dfrac{18.80}{7500} \times 100 \approx .25\%$ loss

69. (d)

71. (d)

73. (d)

74. (a)

∵ There are some forest at mountains also and they both are on earth

75. (b)

∵ Earth belongs to the class of Planets. But, Sun is entirely different from the two.

76. (a)

∵ Every teacher is graduate and there are some graduate teacher who are also player

77. (c)
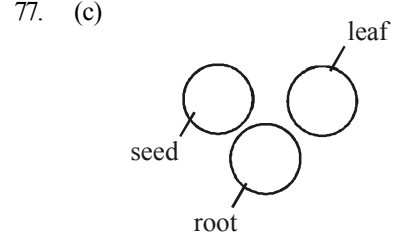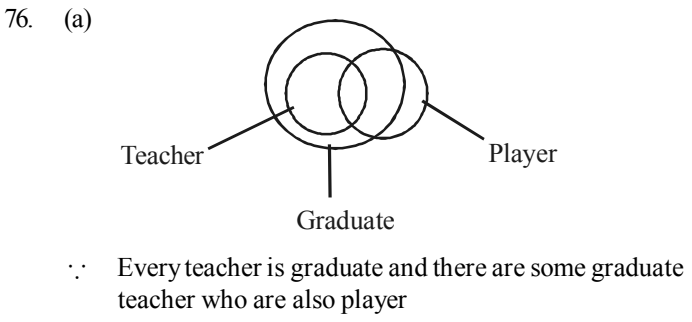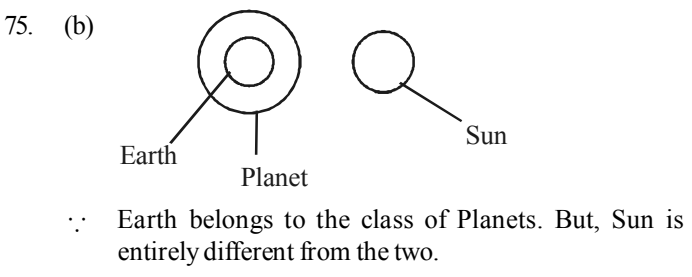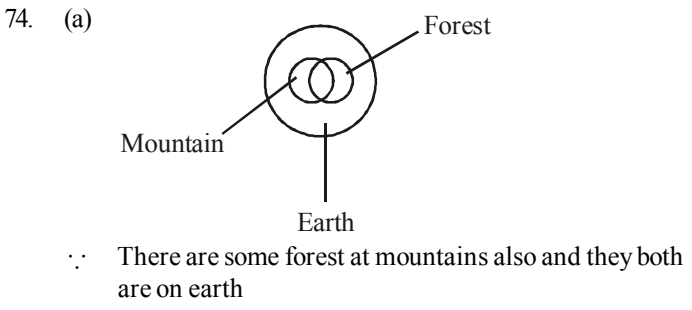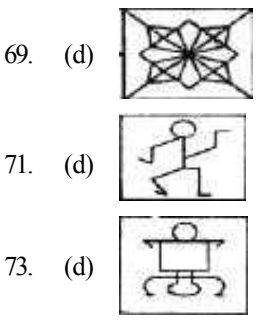
Seed, leaf and root are unrelated to each other, hence the relationship is as shown in the figure above.

78. (a)

∵ ⌐___ in all the three diagram except (a) is like ____⌐ toward ____•

79. (a)

∵ Figure in Middle is in upward direction where as figure in Middle is in downward direction in remaining 3 figure.

80. (d)

↔ is Rotating Clockwise around in Remaining 3.
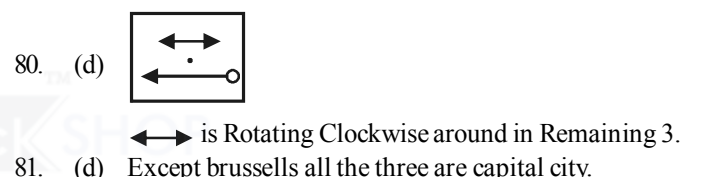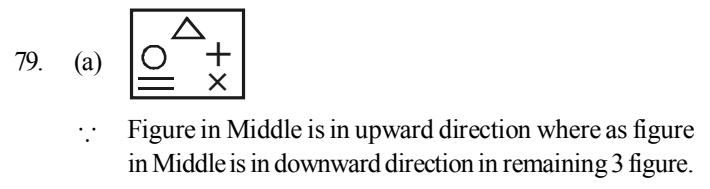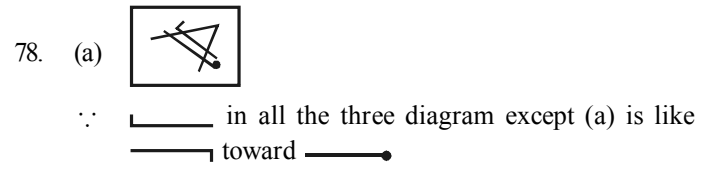
81. (d) Except brussels all the three are capital city.
82. (c) Except vision all the three are parts of eyes.
83. (d) doddabetta is the mountain peak whereas all the three are caves.
84. (a) Except tibia all the three are related to brain.
85. (a) Saltoro kangri is the mountain peak where as all the three are mountain pass.

86. (d)

Since one point is in circle and Rectangle while other point is in square, triangle and Circle.

87. (a)

Since one point is in triangle and Circle and other in triangle and square answer figure is (a).

88. (c)

Since First Point is in Circle and square second is in circle only and third is in circle and triangle. answer figure is (c).
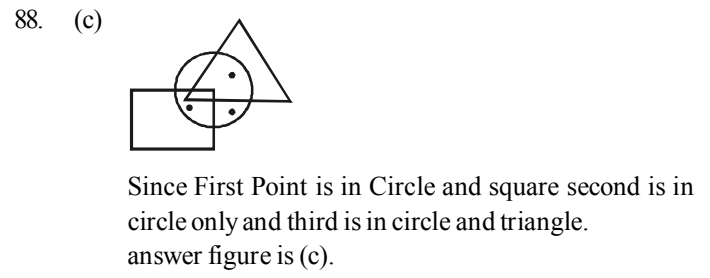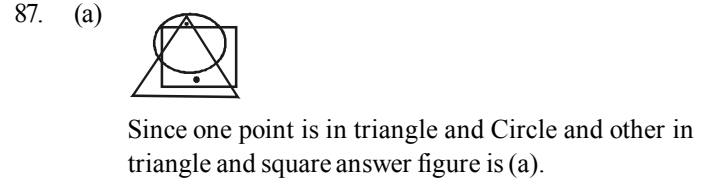
89. (d)
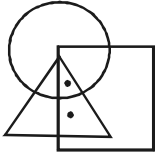
One point in the figure liesin triangle, square and circle, while other point lies in triangle and square.

∴ Answer figure is (d).

90. (c)
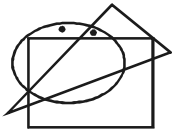
One point is in circle and other in circle and triangle.

∴ Answer figure is (c).

92. (b)
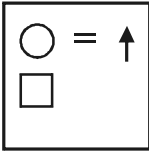
↑ → In each step, it moves one side in anti-clockwise direction.

= → It moves allernate one-half side and half side in each option.

◯ → It moves alternate half side and one-half side in each option.

▢ → It moves one side and change into new element.

So, answer is option (b).

94. (a) Step - I → Arrow and curve are added.
Step - II → Arrow rotates oppasite direction and curve moves outside. So, answer is option (a).

96. (b) Anatomy is a branch of Zoology.
Similarly, Paediatrics is a branch of medicine.

97. (d) Eccrinology is the study of secretions similarly, selenography is the study of moon.

98. (b) Virology deals with the effects of virus.
Similarly, semantics deals with the effects of language.

99. (c) Tectonics is the science dealing with the art of building.
Similarly, taxidermy is the art of stuffing animals.

100. (d) First is result of second.

AFCAT 1 2016 QUESTION PAPER

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1-4) : *Choose the word/words that best defines the given phrases :*

1. Beats me
   (a) To hit someone   (b) To quarrel with a person
   (c) To not understand   (d) To be silent
2. Cloak and dagger
   (a) To fight to a finish
   (b) To get into unexpected trouble
   (c) To end the hostility
   (d) Like a spy
3. To be at the end of one's tether
   (a) To feel offended
   (b) To draw moral attention
   (c) To have no resources left
   (d) To think deeply
4. I Don't Buy it
   (a) To refuse to purchase something
   (b) To give up
   (c) To decline an offer
   (d) To not be convinced

DIRECTIONS (Qs. 5-10) : *Select the most appropriate word from the options against each number:*

Life is an (5) series of challenges and opportunities to be seized. You have to plan for exercising the right career choices and (6) the right opportunities. Planned (7) rather than a hasty decision is (8) as far as your career is concerned. You need to (9) what occupational groups, (10) and type of organizations are suitable for you.

5. (a) enticing   (b) exciting
   (c) encharming   (d) enhancing
6. (a) catching   (b) offsetting
   (c) grabbing   (d) conceiving
7. (a) delay   (b) hindrance
   (c) application   (d) execution
8. (a) desirable   (b) deciphered
   (c) inevitable   (d) acceptable
9. (a) check   (b) classify
   (c) divide   (d) analyse
10. (a) specifications   (b) limitations
    (c) qualifications   (d) identification

DIRECTIONS (Qs. 11-14): *Choose the correct spelt word:*

11. (a) Omminous   (b) Omineous
    (c) Ominous   (d) Omenous
12. (a) Hindrance   (b) Hinderance
    (c) Hindrence   (d) Hinderence
13. (a) Perjery   (b) Perjury
    (c) Purjury   (d) Perjary
14. (a) Reminiscene   (b) Reminiscence
    (c) Reminicence   (d) Remeniscence

DIRECTIONS (Qs. 15-17) : *Read the following passage carefully and answer the questions given below it*

Recently, a newspaper article mourned the total disappearance of the common house sparrow.

This was a comment on the city's perceptible move towards edging out the flora and fauna of the city. In the rapid urbanization, multi-storied apartments grew and large scale felling of trees became necessary. Last week, however, seven pairs of these sparrows were spotted in a suburb. Possibly the greenery of this place has created a new habitat for these birds which like their proximity to human beings, and have made a comeback. A systematic development of trees and shrubs all over the city could woo the absentee house sparrow to our midst.

15. In the passage the term "urbanisation" has been used to refer to
    (a) the destruction of the greenery in the city
    (b) construction of concrete structures on a large scale
    (c) a change over from the rural life to the city life
    (d) the movement of people from villages to cities
16. The phrase "absentee house sparrow" refers to
    (a) the sparrow that makes infrequent visits
    (b) the sparrow that has forgotten its habitat
    (c) the sparrow that has gone away from the urban areas
    (d) the sparrow that has become extinct
17. According to the passage, the birds have made a comeback to the suburb because they
    (a) have been hunted down by the village people
    (b) Love to be amidst human beings
    (c) get food only where human beings live
    (d) they have been deliberately brought back by biologists

DIRECTIONS (Qs. 18-21): *Choose the word which is nearest in meaning to the given word:-*

18. Abdicate
    (a) Join   (b) Search
    (c) Advance   (d) Renounce

19. Acrimony
    (a) Spleen   (b) Courtesy
    (c) Oriented   (d) Scarce
20. Embellish
    (a) Employ   (b) Arrange
    (c) Decorate   (d) Design
21. Damp Squib
    (a) Insignificant happening
    (b) An old technique
    (c) Unsuccessful attempt
    (d) Short, shrill cry

DIRECTIONS (Qs. 22-25) : *Choose the word which is nearly opposite in meaning to the given word:-*

22. Sporadic
    (a) Rare   (b) Frequent
    (c) Sharp   (d) Coordinated
23. Exonerate
    (a) Reject   (b) Contract
    (c) Accuse   (d) Admit
24. Exodus
    (a) Home-coming (b) Influx
    (c) Restoration (d) Return
25. Relinquish
    (a) Cede   (b) Abdicate
    (c) Deny   (d) Possess

DIRECTIONS (Qs. 26-30) : *Choose the word explains the meaning of the following idioms:*

26. All and Sundry
    (a) Everybody without distinction
    (b) only rich person
    (c) together
    (d) selected people
27. To play second fiddle
    (a) To be happy, cheerful and healthy
    (b) To be in a subordinate position to someone
    (c) To do back seat driving
    (d) To reduce importance of one's senior
28. A wolf in sheep's clothing
    (a) A hypocrite
    (b) A wolf in woolen clothes
    (c) A coward
    (d) A proud man
29. A blue stocking
    (a) Stocking which is blue in colour
    (b) A clean cheat
    (c) An unreliable person
    (d) a woman having literary tastes and learning
30. Yeoman's service
    (a) lip-service
    (b) to serve like a slave
    (c) to play god father
    (d) efficient or useful help

DIRECTIONS (Qs. 31-50) : *Choose the most appropriate answer:*

31. The book, "A China Passage' was written by
    (a) MJ Akbar   (b) Jagmohan
    (c) Anees Jung   (d) John Kenneth Galbraith

32. Global 500 awards are given for outstanding achievement in which of the following fields?
    (a) Population Control
    (b) Elimination of illiteracy
    (c) Campaigning against AIDS
    (d) Protection of environment
33. Pulitzer Prize is awarded for the outstanding work in the field of
    (a) Science and Technology
    (b) Environmental Studies
    (c) Literature and Journalism
    (d) International Understanding
34. The national emblem. viz four lions standing back to back is an adaptation from which of the following:-
    (a) Sarnath lions   (b) Gir lions
    (c) Khajurao   (d) Ajanta caves
35. Which of the following books is written by Arnold Toynbee?
    (a) Mankind and Mother Earth
    (b) Tom Sawyer
    (c) The Future of Freedom
    (d) The Moon's Last Sigh
36. Which one of the following is the petroleum wax?
    (a) Paraffin wax   (b) Jonoba wax
    (c) Carnauba wax   (d) Bees wax
37. Who among the following is not a recipient of the 'Bharatiya Jnanpith' Award'?
    (a) Ashapurna Devi (b) MF Hussain
    (c) Raghupati Sahay (d) VK Gokak
38. Which city will host the 2022 Common Wealth Games?
    (a) Gold Coast, Australia
    (b) Durban, South Africa
    (c) Lusaka, Zambia
    (d) Nairobi, Kenya
39. Who was the person behind conversion of East India Company from a trading company into a regional power?
    (a) Lord Warren Hastings
    (b) Lord Clive
    (c) Lord Dalhousie
    (d) Lord Wellesley
40. Which of the following Asian countries celebrates its Independence Day on 4th February?
    (a) Sri Lanka   (b) Bahrain
    (c) Cambodia   (d) Bangladesh
41. Natural radioactivity was discovered by
    (a) Marie Curie   (b) Earnest Rutherford
    (c) Henry Bacquerel (d) Enrico Fermi
42. The present chairman of ISRO is
    (a) MYS Prasad   (b) Shailesh Nayak
    (c) AS Kiran Kumar (d) K Radhakrishnan
43. Who was the Viceroy when the Simon Commission visited India?
    (a) Lord Chelmsford
    (b) Lord Reading
    (c) Lord Irwin
    (d) Lord Wellington

44. Mahatma Gandhi left South Africa to return to India in
   (a) 1911   (b) 1915
   (c) 1917   (d) 1919

45. The Battle of Plassey was fought in
   (a) 1757   (b) 1782
   (c) 1748   (d) 1764

46. Mangalyan, Mars Orbiter Mission (MOM) was launched in
   (a) Jan 2013   (b) Oct 2012
   (c) Oct 2013   (d) Nov 2013

47. 'Ruhr of India" known for its rich coal deposits is in the State of
   (a) Uttar Pradesh   (b) Jharkhand
   (c) West Bengal   (d) Bihar

48. The Indian space programme began in
   (a) 1961   (b) 1962
   (c) 1965   (d) 1 969

49. 'Bachpan Bachao Andolan (BBA), an organisation to protect the rights of children was founded by
   (a) Amir Khan   (b) Kailash Satyarthi
   (c) Om Prakash Gurjar   (d) Santa Sinha

50. The language of discourses of Gautama Buddha was
   (a) Bhojpuri   (b) Magadhi
   (c) Pali   (d) Sanskrit

51. Anmol sold two items for ₹ 1000 each. On one, he gained 10% and on other, he lost 10%. How much did he gain or lose in the whole transaction?
   (a) profit,0.95%   (b) loss,1%
   (c) profit,10%   (d) loss,10%

52. The price of an item is decreased by 25%. What percent increase must be done in new price to get the original price?
   (a) $33\frac{1}{3}\%$ (b) $43\frac{3}{4}\%$
   (c) $55\frac{2}{3}\%$ (d) $65\frac{1}{4}\%$

53. A's salary is 50% more than B's. How much percent is B's salary less than A's?
   (a) $63\frac{1}{4}\%$ (b) $43\frac{1}{4}\%$
   (c) $53\frac{1}{3}\%$ (d) $33\frac{1}{3}\%$

54. In Arun's opinion, his weight is greater than 65 kg but less than 72 kg. His brother doest not agree with Arun and he thinks that Arun's weight is greater than 60 kg but less than 70 kg. His mother's view is that his weight cannot be greater than 68 kg. If all are them are correct in their estimation, what is the average of different probable weights of Arun?
   (a) 67 kg   (b) 68 kg
   (c) 69 kg   (d) data inadequate

55. A train 150 m long is running with a speed of 68 km/h. In what time will it pass a man who is running at 8 km/ h in the same direction in which the train is going?
   (a) 8 sec   (b) 8.5 sec
   (c) 9 sec   (d) 9.5 sec

56. A and B can do a piece of work in 30 days, while B and C can do the same work in 24 days and C and A in 20 days. They all work together for 10 days when B and C leave. How many days more will A take to finish the work?
   (a) 18 days   (b) 24 days
   (c) 30 days   (d) 36 days

57. A sum was invested for 3 years at simple interest at a certain rate. Had it been invested at 4% higher rate of interest, it would have fetched ₹600 more. The sum is
   (a) ₹ 4000   (b) ₹ 4950
   (c) ₹ 5000   (d) ₹ 5150

58. The difference between simple and compound interests compounded annually on a certain sum of money for 2 years at 4% per annum is ₹1. The sum (in ₹) is:
   (a) 625   (b) 630
   (c) 640   (d) 650

59. A man rows to a place 48 km distant and come back in 14 hours. He finds that he can row 4 km with the stream in the same time as 3 km against the stream. The rate of the stream is:
   (a) 1 km/hr   (b) 1.5 km/hr
   (c) 2 km/hr   (d) 2.5 km/hr

60. If the incomes of Ram & Shyam are in the ratio of 3:4 and their expenditures in the ratio of 4:5, find the ratio of their savings, given that Shyam saves a third of his income.
   (a) 10:15   (b) 13:20
   (c) 15:20   (d) 13:15

61. A does 1/2 as much work as B and C does 1/2 as much work as A and B together. If C alone can finish the work in 40 days, then together all will finish the work in
   (a) 30 days   (b) 13 1/3 days
   (c) 15 days   (d) 20 days

62. A container contains 40 litres of milk. From this container 4 litres of milk was taken out and replaced by water. This process was repeated further two times. How much milk is now contained by the container?
   (a) 26.34 litres   (b) 27.36 litres
   (c) 28 litres   (d) 29.16 litres

63. A boat travels upstream from B to A and downstream from A to B in 3 hours. If the speed of the boat in still water is 9 km/h and the speed of the current is 3 km/h, the distance between A and B is
   (a) 9 km   (b) 10 km
   (c) 11 km   (d) 12 km

64. A sum of money lent out at simple interest amounts to ₹ 720 after 2 years and to ₹ 1020 after a further period of 5 years. The sum is
   (a) ₹ 500   (b) ₹ 600
   (c) ₹ 700   (d) ₹ 750

65. Present age of X and Y are in the ratio 7:5 respectively. Four years hence, the ratio of their ages will become 11:9 respectively. What is the present age of Y?
   (a) 1 year   (b) 7 year
   (c) 5 year   (d) None of these

DIRECTIONS (Qs. 66-70): *In each of the following questions find out the alternative which will replace the question mark.*

66. Cerebrum : Brain :: ?:?
    (a) Aorta : Hand
    (b) Ligament : Blood
    (c) Ventricle : Heart
    (d) Country : Universe

67. Wife : Marriage :: ?:?
    (a) Bank : Money
    (b) Nationality : Citizenship
    (c) Service : Qualification
    (d) Attendance : Register

68. Sadist : Injury :: ?:?
    (a) Opportunist : Generosity
    (b) Priest : Church
    (c) Dentist : Teeth
    (d) Thief : Robbery

69. Lecherous : Carnal :: ?:?
    (a) Virile : Feeble
    (b) Diatribe : Abuse
    (c) Impede : Begin
    (d) Sunder : Link

70. lgnominy : Disloyalty :: ?:?
    (a) Death : Victory
    (b) Martyr : Man
    (c) Fame : Heroism
    (d) Destruction : Victory

DIRECTIONS (Qs. 71-75): *In each of the following questions, four words have been given out of which three are alike in some manner. while the fourth one is different. Choose the word which is different from the rest.*

71. (a) Moth
    (b) Bee
    (c) Lizard
    (d) Aphid

72 (a) Tomato
    (b) Gourd
    (c) Brinjal
    (d) Potato

73. (a) Gold
    (b) Silver
    (c) Bronze
    (d) Iron

74. (a) Mendicant
    (b) Ascetic
    (c) Pious
    (d) Hermit

75. (a) Bardoli
    (b) Bhadravati
    (c) Porbandar
    (d) Champaran

DIRECTIONS (Qs. 76-80): *Each of the following questions consists of five figures marked 1,2,3,4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.*

76. Problem Figures:

(1) (2) (3) (4) (5)

Answer Figures:

(a) (b) (c) (d)

77. Problem Figures:

(1) (2) (3) (4) (5)

Answer Figures:

(a) (b) (c) (d)

78. Problem Figures:

(1) (2) (3) (4) (5)

Answer Figures:

(a) (b) (c) (d)

79. Problem Figures:

(1) (2) (3) (4) (5)

Answer Figures:

(a) (b) (c) (d)

80. Problem Figures:

(1) (2) (3) (4) (5)

Answer Figures:

(a) (b) (c) (d)

DIRECTIONS (Qs. 81-85): Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.
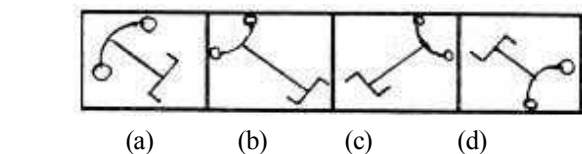
81. Which of the following diagrams indicates the best relation between Biology, Zoology and Physics?

(a) (b)

(c) (d)
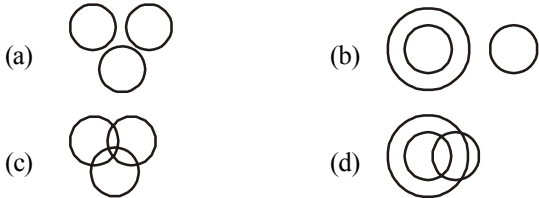
82. Which of the following diagrams indicates the best relation between Stamp, Pen and Chalk?
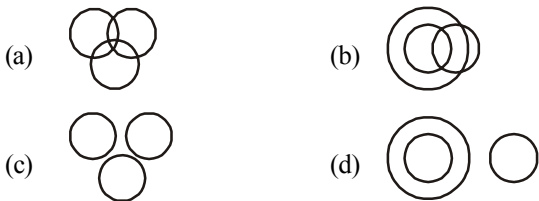
(a) (b)

(c) (d)

83. Which of the following diagrams indicates the best relation between Doctors, Human Beings and Married People'?

(a) (b)

(c) (d)
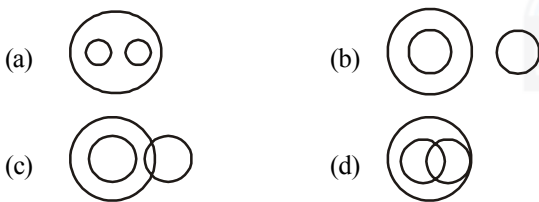
84. Which of the following diagrams indicates the best relation between Factory, Product and Machinery ?

(a) (b)

(c) (d)
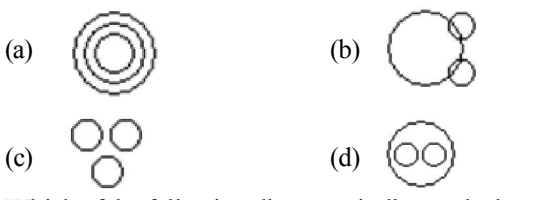
85. Which of the following diagrams indicates the best relation between Singers, Athletes and Girls?

(a) (b)

(c) (d)

DIRECTIONS (Qs. 86-90): In each problem, out of the four figures marked (a), (b) (c) and (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

86.

(a)   (b)   (c)   (d)

87.

(a)   (b)   (c)   (d)

88.

(a)   (b)   (c)   (d)

89.

(a)   (b)   (c)   (d)

90.

(a)   (b)   (c)   (d)

DIRECTIONS (Qs. 91-95): Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in figures.

91.

(1)   (2)   (3)   (4)

(a)   (b)   (c)   (d)

92.

(1)   (2)   (3)   (4)

(a)   (b)   (c)   (d)

93.

(1)   (2)   (3)   (4)

(a)   (b)   (c)   (d)

94.

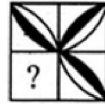(1)   (2)   (3)   (4)

(a)   (b)   (c)   (d)

95.

(1)   (2)   (3)   (4)

(a)   (b)   (c)   (d)

DIRECTIONS (Qs. 96-100): In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.
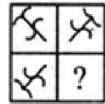
96.

(X)   (a)   (b)   (c)   (d)
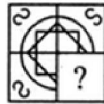
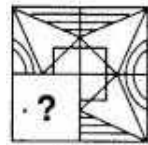97.

(X)   (a)   (b)   (c)   (d)

98.

(X)   (a)   (b)   (c)   (d)

99.

(X)   (a)   (b)   (c)   (d)

100.

(X)   (a)   (b)   (c)   (d)

AFCAT I 2016 QUESTION PAPER

1. (c) Beats me: To not know; to not understand. Ex: "It beats me how they finished before us."

2. (d) Like a spy - Involving secrecy and plotting. Ex: Why all these cloak-and-dagger (= secretive) meetings? We should discuss the issues openly.

3. (d) To be so tired, worried, or annoyed by something that you feel unable to deal with it any more
Ex: After a day's hard work in the office, she was at the end of her tether.

4. (d) To not be convinced or disagree. Ex: I just don't buy the idea that you can swim that far.

5. (b) Exciting means creating or arousing excitement. Ex: After coming back from Switzerland, she gave an exciting account of her trip.

6. (c) Grab means get hold of or seize quickly and easily. Ex: She grabbed the opportunity that came her way.

7. (d) Execution means the act of performing; of doing something successfully; Ex: He executed the plan successfully.

8. (a) Desirable means worth having, seeking or achieving; Ex: a desirable job.

9. (a) Check means be careful or certain to do something; make certain of something; Ex: Check the door if it is closed.

10. (c) Qualifications

11. (c) Ominous means giving the worrying impression that something bad is going to happen; threateningly inauspicious.

12. (a) Hindrance means something that interferes with (or delays) action or progress.

13. (b) Perjury means criminal offence of making false statements under oath.

14. (b) Reminiscence means the act or process of recollecting past experiences or events.

15. (b) Urbanization refers to construction of concrete structures on a large scale.

16. (c) Absentee house sparrow here refers to the sparrow that has gone away from the urban areas.

17. (b) According to the passage, the birds have made a comeback to the suburb because they love to be amidst human beings.

18. (d) Abdicate means to give up or renounce from one's position.

19. (a) Acrimony means bitterness or ill feeling; spleen means bad temper.

20. (c) Embellish means make more attractive by adding ornament, colour, etc.

21. (a) Damp squib means an event which people think will be exciting but which is disappointing when it happens.

22. (b) Sporadic means recurring in scattered and irregular or unpredictable instances while its opposite is frequent.

23. (c) Exonerate means pronounce not guilty of criminal charges, its opposite is accuse.

24. (b) Exodus means mass departure; it opposite is influx

25. (d) Relinquish means to give up; its opposite is possess.

26. (a) All and Sundry means everybody without discrimination.

27. (b) To play second fiddle means to have a subordinate role to someone or something.

28. (a) A wolf in sheep's clothing denotes a person or thing that appears friendly or harmless but is really hostile.

29. (d) A blue stocking denotes an intellectual or literary woman.

30. (d) Yeoman's service means efficient or useful help in need.

31. (d) The book "A China Passage" was written by John Kenneth Galbraith in which he wrote about his visit to China between September 4th to September 23rd 1972.

32. (d) Global 500 awards are the awards given by Global 500 Environment Forum for outstanding performance in the environment protection.

33. (c) The Pulitzer Prize is an award for achievements in newspaper and online journalism, literature, and musical composition in the United States.

34. (a) The National emblem, viz four lions standing back to back is an adaptation from Sarnath Lion Capital of Ashoka on 26th January 1950.

35. (a) The famous book Mankind and Mother Earth is written by prominent world historian Arnold Joseph Toynbee which summarizes his Magnum Opus earlier in his career with an afterword cautioning against Nuclear Proliferation.

36. (a) Paraffin wax is obtained from petroleum by dewaxing light lubricating oil stocks. It is used in candles, wax paper, polishes, cosmetics, and electrical insulators. It assists in extracting perfumes from flowers, forms a base for medical ointments, and supplies a waterproof coating for wood. In wood and paper matches, it helps to ignite the matchstick by supplying an easily vaporized hydrocarbon fuel.

37. (b) MF Hussain did not get Bharatiya Jnanpith award.

38. (b) Durban, South Africa will be the host of 2022 commonwealth game.

39. (b) Lord Clive converted the East India Company into regional power after winning the battle of Plassey.

40. (a) Sri Lanka celebrates its independence day on 4th February.

41. (a) Natural Radio activity was discovered by Henry Becquerel in 1895.

42. (c) The present chairman of ISRO is Alur Seelin Kiran Kumar.

43. (c) The Simon commission was established under the guidance of the then vice president Lord Irwin by the council of India.

44. (c) Mahatma Gandhi returned to India from South Africa permanently in 1917.

45. (a) The Battle of Plassey, 23 June 1757, was a decisive British East India Company victory over the Nawab of Bengal and his French allies, establishing Company rule in South Asia which expanded over much of the Indies for the next 190 years. The battle took place at Palashi, Bengal, on the river banks of the Bhagirathi River, about 150 km north of Calcutta, near Murshidabad, then capital of undivided Bengal. The belligerents were Siraj-ud-daulah, the last independent Nawab of Bengal, and the British East India Company.

46. (d) Mangalayan. Mars Orbit Mission was launched on 5 November 2013 by the Indian Space Research Organisation (ISRO).

47. (b) Ruhr of India is known for its rich coal deposits in Jharkhand.

48. (b) Indian Space programmes began in 1962.

49. (b) Bachpan Bachao Andolan was founded by Kailash Satyarthi to protect the right of children

50. (c)

51. (b) Net loss% = $\dfrac{(10)^2}{100} = \dfrac{100}{100} = 1$

52. (a) Since price of an item is decreased by $\dfrac{1}{4}$ times. So it must be increased by $\dfrac{1}{3}$ times to get the original price.

$\dfrac{1}{3} = 33\dfrac{1}{3}\%$

53. (d) A' salary is $\dfrac{1}{2}$ times more than B'salary. So B' salary would be $\dfrac{1}{1+2}$ times, less than A.

i.e., $\dfrac{1}{3} = 33\dfrac{1}{3}\%$

54. (a) Let Arun's weight by X kg.
According to Arun, 65 < X < 72
According to Arun's brother, 60 < X < 70.
According to Arun's mother, X < = 68
The values satisfying all the above conditions are 66, 67 and 68.

$\therefore$ Required average = $\left(\dfrac{66+67+68}{3}\right) = \left(\dfrac{201}{3}\right) = 67$ kg.

55. (c) Net relative speed = $(68 - 8)$ km/h
$= 60$ km/h
$= 60 \times \dfrac{5}{18}$ m/s
$= \dfrac{50}{3}$ m/s

Time = $\dfrac{150}{\frac{50}{3}} = 9$ sec.

56. (a) 2(A + B + C)'s 1 day's work
$= \left(\dfrac{1}{30} + \dfrac{1}{24} + \dfrac{1}{20}\right) = \dfrac{15}{120} = \dfrac{1}{8}$

Therefore, (A + B + C)'s 1 day's work = $\dfrac{1}{2\times 8} = \dfrac{1}{16}$

Work done by A, B, C in 10 days = $\dfrac{10}{16} = \dfrac{5}{8}$

Remaining work = $\left(1 - \dfrac{5}{8}\right) = \dfrac{3}{8}$

A's 1 day's work = $\left(\dfrac{1}{16} - \dfrac{1}{24}\right) = \dfrac{1}{48}$

Now, $\dfrac{1}{48}$ work is done by A in 1 day.

So, $\dfrac{3}{8}$ work will be done by A in $\left(48 \times \dfrac{3}{8}\right) = 18$ days.

57. (c) for 3 years $\Rightarrow$ ₹600 more
for 1 years $\Rightarrow$ ₹ 200 more
Now 4% of principal = 200

Principal = $\dfrac{200 \times 100}{4}$

Principal = ₹5000

58. (a) Let the sum be Rs. x. Then,

$$\text{C.I.} = \left[x\left(1 + \frac{4}{100}\right)^2 - x \right] = \left(\frac{676}{625}x - x\right) = \frac{51}{625}x$$

$$\text{S.I.} = \left(\frac{x \times 4 \times 2}{100}\right) = \frac{2x}{25}.$$

$$\therefore \quad \frac{51x}{625} - \frac{2x}{25} = 1$$

$$\Rightarrow \quad x = 625$$

59. (a) Suppose he move 4 km downstream in x hours. Then,

Speed downstream $= \left(\dfrac{4}{x}\right)$ km/hr.

Speed upstream $= \left(\dfrac{3}{x}\right)$ km/hr.

$$\therefore \quad \frac{48}{(4/x)} + \frac{48}{(3/x)} = 14 \text{ or } x = \frac{1}{2}$$

So, Speed downstream = 8 km/hr, Speed upstream = 6 km/hr.

Rate of the stream $= \dfrac{1}{2}(8 - 6)$ km/hr = 1 km/hr.

60. (b)

	Income	Expenditure
Ram	3x	4y
Shyam	4x	5y

$\because$ Shyam's saving $= \dfrac{1}{3}$ of his income

$$4x - 5y = \frac{1}{3} \times 4x$$

$$4x - \frac{4}{3}x = 5y$$

$$\frac{8}{3}x = 5y$$

$$x = \frac{15}{8}y \qquad \qquad ...(i)$$

Now, $\dfrac{\text{Ram's Savings}}{\text{Shyam's Savings}} = \dfrac{3x - 4y}{4x - 5y}$

$$= \frac{3 \times \dfrac{15}{8}y - 4y}{4 \times \dfrac{15}{8}y - 5y} = \frac{13}{20}$$

Hence ratio of their savings = 13 : 20.

61. (b) C alone can finish the work in 40 days

$\because$ C does $\dfrac{1}{2}$ as much as A and B together

So, A and B can finish the work in 20 days.
So, together they will finish in

$$\frac{40 \times 20}{40 + 20} = \frac{40}{3} \text{ days}$$

$$= 13\frac{1}{3} \text{ days}$$

62. (d) Amount of milk after 3 operations

$$= \left[40\left(1 - \frac{4}{40}\right)^3 \right] \text{litres}$$

$$= \left(40 \times \frac{9}{10} \times \frac{9}{10} \times \frac{9}{10}\right) = 29.16 \text{ litres}$$

63. (d) Let the distance = d
Speed of upstream = 9 − 3 = 6 km/h
Speed of down stream = 9 + 3 = 12 km/h

Now, $\dfrac{d}{6} + \dfrac{d}{12} = 3$

$$\frac{3d}{12} = 3$$

$$d = 12 \text{ km}$$

Hence distance = 12 km

64. (b) Principal + S.I for 2 years = ₹720   ...(1)
Principal + S.I for 7 years = ₹1020   ...(2)
Clearly S.I for 5 years = 1020 − 720 = ₹300

Now S.I for 2 years $= 300 \times \dfrac{2}{5} = ₹120$

from (1)
Principal = 720 − 120 = ₹600

65. (c) Let present age of X and Y are 7x and 5x respectively

Now, $\dfrac{7x + 4}{5x + 4} = \dfrac{11}{9}$

$$63x + 36 = 55x + 44$$

$$8x = 8$$

$$x = I$$

So, present age of y = 5 × 1 = 5 year.

66. (c) First is the part of second.
67. (c) Second is necessary to acquired the first.
68. (d) First indulges in the second.
69. (b) Second is the synonym of first.
70. (c) First is the result of second.
71. (c) All except lizard are insects, while lizard is a reptile.
72. (d) Potato is the only vegetable in the group which grows underground.
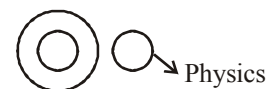73. (c) Bronze – All others are metals.
74. (c) Pious – All others are synonyms.
75. (b) All except Badravati are places related to Gandhi ji.
81. (b) Zoology is a branch of Biology
So Outer circle representing Biology and Inner circle representing Zoology.
Now, Biology and Physics are different branch of science.

Above diagram indicates the best relation b/w Biology, Zoology and Physics.

82. (c) All are three different ways to write something.

83. (d) Doctors can be married people and both Doctors and married people belong to Human Beings.
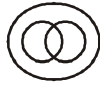

84. (d) Product and Machinery are different from each other but both are found in Factory.

85. (c) Some girls may be athletes and vice versa similarly some girls may be singers and vice versa. Some athletes may be singers and vice versa.

86. (a) All except in option (a) are in the same direction.

87. (a) The pins, equal in number to the number of sides in the main figure are attached to the midpoint of a side of the main figure in case of figures (2), (3), (4) and (5). In fig. (1), these pins are attached to a vertex of the main figure.

89. (d) Clearly every figure except (d) has pointed arrow in the direction of curve.

Ex. (a) arrow in the direction of curve.
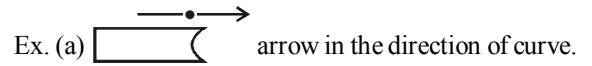
91. (d) All the diagonals of the figure have been drawn. View answer workspace report discuss in forum.

92. (d) Diagram shifted 45° anti-clock wise and every thing got reversed.

Ex. and
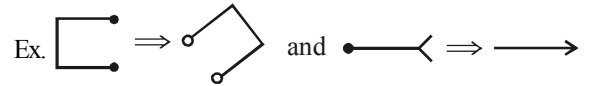
93. (d) The black leaf rotates 135° ACW and the white leaf rotates 135°CW.

94. (d) Arrow of first figure goes to position of pointed arrow while the pointed arrow moves to the position of arrow with 180° change in angle.

95. (c) Figure got reversed with one more line-segment adding in figure (2) and one-circle changes into two circle.

AFCAT 2 2015 QUESTION PAPER

DIRECTIONS (Qs. 1-4) : *Which word or words explains the meaning of the following idioms:*

1. A fool's errand
   - (a) A blunder
   - (b) An impossible task
   - (c) A useless undertaking
   - (d) None of these
2. To flog a dead horse
   - (a) To act in a foolish way
   - (b) To waste one's efforts
   - (c) To revive into rest in an old subject
   - (d) To revive old memories
3. The alpha and the omega
   - (a) The begining and the end
   - (b) A nice act
   - (c) The starts and the moon
   - (d) Very costly
4. A bull in a china shop
   - (a) A person who is very ugly but loves the beautiful things of life
   - (b) A person who takes a sadistic delight in harming innocent people
   - (c) A person who becomes too excited where no excitement is warranted
   - (d) A rough and clumsy person at a place where skill and care are required.

DIRECTIONS (Qs. 5-8) : *Choose the word that best defines the given phrases:*

5. To hold something in leash
   - (a) To restrain
   - (b) To disappoint
   - (c) To dismiss
   - (d) To discourage
6. To talk through one's hat
   - (a) To speak fluently
   - (b) To talk nonsense
   - (c) To talk wisdom
   - (d) To speak at random
7. To throw up the sponge
   - (a) To surrender or give up a contest
   - (b) To offer a challenge
   - (c) To become utterly disappointed
   - (d) To maintain grit and enthusiasm until the end
8. To get into hot waters
   - (a) To be impatient
   - (b) To suffer a huge financial loss
   - (c) To get into trouble
   - (d) To be in a confused state of mind

DIRECTIONS (Qs. 9-13) : *Choose the correctly spelt word :*

9. (a) Dolorous
   (b) Dolurous
   (c) Doloreus
   (d) Delorious
10. (a) Condiut
    (b) Conduit
    (c) Connduit
    (d) Condeut
11. (a) Gragarious
    (b) Gragerious
    (c) Gregarious
    (d) Grigareous
12. (a) Intrensic
    (b) Intrinsic
    (c) Entrensic
    (d) Entrinsec
13. (a) Sepulchral
    (b) Sepalchrle
    (c) Sepalchral
    (d) Sepulchrle

DIRECTIONS (Qs. 14-16) : *Read the following passage carefully and answer the questions given below it :*

Patience is better than wisdom; An ounce of patience is worth a pound of brains. All men praise patience, but few can practise it. It is a medicine which is good for all diseases, but it is not every garden that grows the herbs to make it with. Many people are born crying, live complaining and die disappointed. They think every other person's burden to be light and their own feathers to be heavy as lead, and yet if the truth were known, it is their fancy rather than their fate that makes things go so hard with them. Many would be well off than what they think of.

14. Which of the following is the most suitable explanation to the author's remark that "anounce of patience is worth a pound of brains"?
    - (a) Wisdom can only be attained by practising patience
    - (b) Patience comes first wisdom next
    - (c) Patience is essential for every achievement
    - (d) Without patience wisdom cannot be used in like property
15. Which one is the most likely explanation, among the following, of the author's metaphorical statement that "It is not every garden that grows the herbs to make it with"?
    - (a) Patience is a must for solving all our problems in life
    - (b) Patience is a rare herb that cures all diseases
    - (c) Patience is virtue of a highest order
    - (d) It is only a small number of people that are found observing patience in life
16. The writer's remarks, "They think every person's burden to be light and their own feathers to be as heavy as lead" is very significant. It means
    - (a) They are always worried and dejected
    - (b) They consider their own problems to be difficult to solve as compared with problems of other people
    - (c) They feel that they alone face serious problems while others have a nice time
    - (d) They remain very much worried about their own problem.

Choose the word which is nearest in meaning to the given word :

17. Anathema
    (a) Religious Chant   (b) Pun
    (c) Musical Subject   (d) Curse
18. Debilitate
    (a) Weaken   (b) Attack
    (c) Surmount   (d) Destroy
19. Penchant
    (a) Liking   (b) Eagerness
    (c) Disability   (d) Keenness
20. Nebulous
    (a) Tiny   (b) Vague
    (c) Insignificant   (d) Inadequate

DIRECTIONS (Qs. 21-24) : *Choose the word which is nearly opposite in meaning to the given word :*

21. Insolent
    (a) Sutten   (b) Affable
    (c) Determined   (d) Rich
22. Sceptic
    (a) Cryptic   (b) Believer
    (c) Support   (d) Eminent
23. Refractory
    (a) Refreshing   (b) Burdensome
    (c) Privileged   (d) Manageable
24. Acrimonious
    (a) Legal   (b) Severe
    (c) Cursive   (d) Harmonious

DIRECTIONS (Qs. 25-30) : *Select the most appropriate word from the options against each number:*

Life is an (25) series of challenges and opportunities to be seized. You have to plan for exercising the right career choices and (26) the right opportunities. Planned (27) rather than a hasty decision is (28) as far as your career is concerned. You need to (29) what occupational groups, (30) and type of organisation are suitable for you.

25. (a) enticing   (b) exciting
    (c) encharming   (d) enhancing
26. (a) catching   (b) offsetting
    (c) grabbing   (d) conceiving
27. (a) delay   (b) hindrance
    (c) application   (d) execution
28. (a) desirable   (b) deciphered
    (c) inevitable   (d) acceptable
29. (a) check   (b) classify
    (c) divide   (d) analyse
30. (a) specifications   (b) limitations
    (c) qualifications   (d) identification

DIRECTIONS (Qs. 31-65) : *Choose the most appropriate answer:*

31. Todar Mal was associated with _____ in Akbar's durbar.
    (a) Music   (b) Literature
    (c) Finance   (d) Law Reforms
32. Mahatma Gandhi left South Africa to return to India in
    (a) 1911   (b) 1915
    (c) 1917   (d) 1919
33. Who was the Viceroy when the Simon Commission visited India?
    (a) Lord Chelmsford   (b) Lord Reading
    (c) Lord Irwin   (d) Lord Wellington
34. Think-tank of Government of India that replaced Planning Commission on 01 January 2015 is
    (a) NITI Vakya   (b) NITI Dharma
    (c) NITI Vajpayee   (d) NITI Aayog
35. What is the name of 'Innovative Council' proposed in the Rail Budget 2015 to promote innovation?
    (a) Rail Tech   (b) Sankalp
    (c) Kayakalp   (d) Navachar
36. Animals active at night are called
    (a) Diurnal   (b) Nocturnal
    (c) Parasites   (d) Nacto-diurnal
37. Which city will host the 2022 CommonWealth Games?
    (a) Gold Coast, Australia   (b) Durban, South Africa
    (c) Lusaka, Zambia   (d) Nairobi, Kenya
38. Serena Williams defeated _____ to win the women's singles title of Australian Open 2015.
    (a) Venus Williams   (b) Sania Mirza
    (c) Maria Sharapova   (d) Ana Ivanovic
39. Lines joining places of equal temperature are called
    (a) Isotherms   (b) Isohyets
    (c) Isomers   (d) Isobars
40. Sir C.V. Raman was awarded Noble Prize for his work connected with which of the following phenomenon of radiation?
    (a) Scattering   (b) Diffraction
    (c) Interference   (d) Polarization
41. Natural radioactivity was discovered by
    (a) Marie Curie   (b) Earnest Rutherford
    (c) Henry Bacquerel   (d) Enrico Fermi
42. Recently tested Agni-V missile is capable of carrying nuclear payload of
    (a) 1000 Kg.   (b) 1500 Kg.
    (c) 2000 Kg.   (d) 2500 Kg.
43. How many days moon takes to revolve around the earth?
    (a) $26\frac{1}{3}$ (b) $27\frac{1}{3}$
    (c) $28\frac{2}{3}$ (d) $29\frac{1}{2}$
44. In which atmospheric layer are the communication satellites located?
    (a) Stratosphere   (b) Ionosphere
    (c) Troposphere   (d) Mesosphere
45. Vinod Mehta an eminent Indian journalist and founder editor-in-chief of 'Outlook' published his autobiography by the name of
    (a) Lucknow Boy A Memoir
    (b) One Life is Not Enough
    (c) Accidental Prime Minister
    (d) The Substance and the Shadow
46. The book, 'Born Again on the Mountain' is authored by
    (a) Pooja Rani   (b) Arunima Sinha
    (c) Bachendri Pal   (d) Urbashi Lal

47. Which of the following Asian countries celebrates its Independence Day on 4th February?
(a) Sri Lanka   (b) Bahrain
(c) Cambodia   (d) Bangladesh

48. Who has been awarded the DadaSaheb Phalke Award for the year 2014?
(a) Pran   (b) Shashi Kapoor
(c) Dilip Kumar   (d) Amitabh Bachhan

49. The Russian name of INS Vikramaditya is
(a) Admiral Groshkov
(b) Admiral Gorbachev
(c) Admiral Nakhimov
(d) Admiral Petr Bezobrazov

50. The present chairman of ISRO is
(a) MYS Prasad   (b) Shailesh Nayak
(c) AS Kiran Kumar   (d) K Radhakrishnan

51. Indian-American music composer, Ricky Kej has won the Grammy Award for the album
(a) In the Lonely Hour   (b) Morning Phase
(c) Beyonce   (d) Winds of Samsara

52. A train covers a distance of 12 km in 10 min. If it takes 6 sec to pass a telegraph post, the length of the train is
(a) 90 m   (b) 100 m
(c) 120 m   (d) 140 m

53. The average weight of 50 boys in a class is 45 kg. When one boy leaves the class, the average reduces by 100g. Find the weight of the boy who left the class.
(a) 50 kg.   (b) 50.8 kg
(c) 49 kg   (d) 49.9 kg

54. A train 150 m long is running with a speed of 68 km/h. In what time will it pass a man who is running at 8 km/h in the same direction in which the train is going?
(a) 8 sec   (b) 8.5 sec
(c) 9 sec   (d) 9.5 sec

55. The price of an item is decreased by 25%. What percent increase must be done in new price to get the original price?
(a) $33\frac{1}{3}\%$ (b) $43\frac{3}{4}\%$
(c) $55\frac{2}{3}\%$ (d) $65\frac{1}{4}\%$

56. A sum was invested for 3 years at simple interest at a certain rate. Had it been invested at 4% higher rate of interest, it would have fetched ₹ 600 more. The sum is
(a) ₹ 4000   (b) ₹ 4950
(c) ₹ 5000   (d) ₹ 5150

57. A's salary is 50% more than B's. How much percent is B's salary less than A's?
(a) $63\frac{1}{4}\%$ (b) $43\frac{1}{4}\%$
(c) $53\frac{1}{3}\%$ (d) $33\frac{1}{2}\%$

58. A man lent a sum of money at the rate of simple interest of 4%. If the interest for 6 years is ₹ 340 less than the principal, the principal is
(a) ₹ 500   (b) ₹ 520
(c) ₹ 540   (d) ₹ 580

59. A does $\frac{1}{4}$ as much work as B and C does $\frac{1}{2}$ as much work as A and B together. If C alone can finish the work in 40 days then together all will finish the work in
(a) 30 days   (b) $13\frac{1}{3}$ days
(c) 15 days   (d) 20 days

60. In a mixture of 35 litres, the ratio of milk and water is 4:1. If 7 litres of water is added to the mixture, the ratio of milk and water of the new mixture will be
(a) 2 : 1   (b) 1 : 2
(c) 4 : 3   (d) 5 : 4

61. Anmol sold two items for ₹ 1000 each. On one he gained 10% and on other, he lost 10%. How much did he gain or lose in the whole transaction?
(a) profit 0.95%   (b) loss 1%
(c) profit 10%   (d) loss 10%

62. A can do $\frac{1}{2}$ of a piece of work in 8 days while B can do the $\frac{1}{3}$ of the same work in 8 days. In how many days can both do it together?
(a) 9.6 days   (b) 10.5 days
(c) 1.2 days   (d) 16 days

63. A boat travels upstream from B to A and downstream from A to B in 3 hours. If the speed of the boat in still water is 9 km/h and the speed of the current is 3 km/h, the distance between A and B is
(a) 9 km   (b) 10 km
(c) 11 km   (d) 12 km

64. If the selling price is doubled, the profit triples. The profit percent is
(a) $66\frac{1}{3}\%$ (b) 150%
(c) 100%   (d) 90%

65. A steamer moves with a speed of 4.5 km/h in still water to a certain upstream point and comes back to the starting point in a river which flows at 1.5 km/h. The average speed of steamer for the total journey is
(a) 12 km/h   (b) 9 km/h
(c) 6 km/h   (d) 4 km/h

DIRECTIONS (Qs. 66-70) : *In each of the following questions find out the alternative which will replace the question mark.*

66. Zenith : Nadir :: ?:?
(a) Indigent : Poverty   (b) Zeal : Eagerness
(c) Success : Peak   (d) Genuine : Phony

67. Graceful : Clumsy :: ?:?
(a) Horror : Sympathy   (b) Laugh : Cry
(c) Recapitulate : Synopsis   (d) Encumber : Burden

68. Blizzard : Freeze :: ?:?
(a) Insult : Humiliation   (b) Bad : Immoral
(c) Caution : Careless   (d) Jealousy : Respect

69. Capriciousness : Reliability :: ?:?
(a) Heated : Boiling
(b) Tenacious : Practicality
(c) Arbitrary : Whimsical
(d) Extemporaneous : Predictability

(a) Telepathy : Emotions   (b) Radiology : Sound
(c) Mycology : Fossils   (d) Entomology : Insects

DIRECTIONS (Qs. 71-75) : *In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the test:*

71. (a) Brass   (b) Bronze
    (c) Silver   (d) Steel
72. (a) Documentary   (b) Puppet
    (c) Commentary   (d) Feature
73. (a) Deccan   (b) Kaas
    (c) Chhota Nagpur   (d) Nanda Devi
74. (a) Niagara   (b) Alamere
    (c) Kempty   (d) Andes
75. (a) Small Betrayals   (b) We Indians
    (c) Shooting from the Hip   (d) Surviving Men

DIRECTIONS (Qs. 76-80) : *Each of the following questions consists of five figures marked 1, 2, 3, 4 and 5 called the Problem Figures followed by four other figures marked (a), (b), (c) and (d) called the answer. Select a figure from amongst the answer figures which will continue the some series as established by the five Problem Figures:*

76. **Problem Figures:**

(1)   (2)   (3)   (4)   (5)

Answer Figures:

(a)   (b)   (c)   (d)

77. **Problem Figures:**

(1)   (2)   (3)   (4)   (5)

Answer Figures:

(a)   (b)   (c)   (d)

78. **Problem Figures:**

(1)   (2)   (3)   (4)   (5)

Answer Figures:

(a)   (b)   (c)   (d)

79. **Problem Figures:**

(1)   (2)   (3)   (4)   (5)

Answer Figures

(a)   (b)   (c)   (d)

80. **Problem Figures:**

(1)   (2)   (3)   (4)   (5)

Answer Figures:

(a)   (b)   (c)   (d)

DIRECTIONS (Qs. 81-85) : *Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams (a), (b), (c) and (d). You have to indicate the group of elements which correctly fits into the diagrams.*

81. Which of the following diagrams indicates the best relation between Females, Doctors, and Patients?

(a)   (b)

(c)   (d)

82. Which of the following diagrams indicates the best relation between Doctors, Teachers and Engineers?

(a)   (b)

(c)   (d)

83. Which of the following diagrams indicates the best relation between Steel, Wood and Building Material?
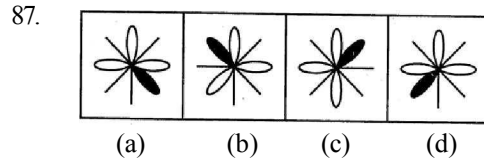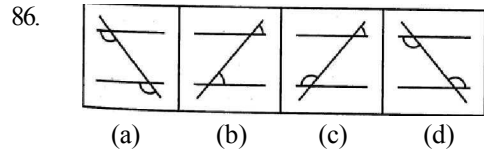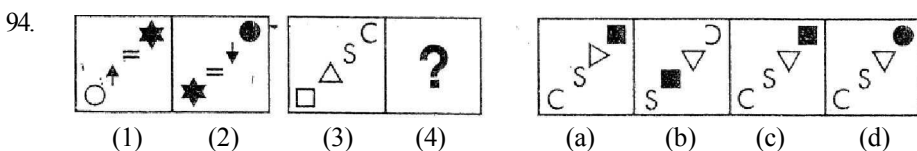
(a)

(b)

(c)

(d)
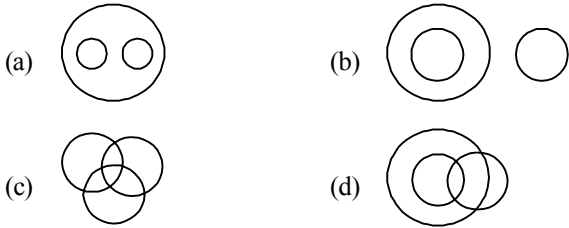
84. Which of the following diagrams indicates the best relation between Males, Fathers and Human Being?
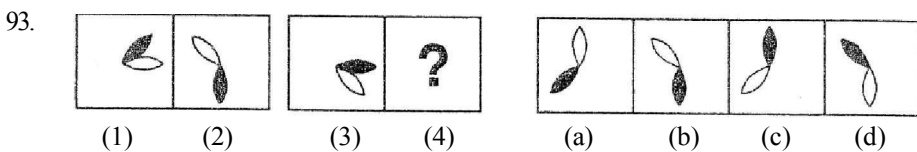
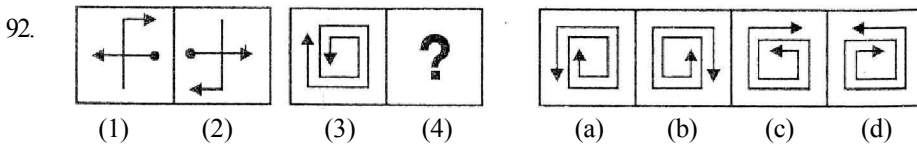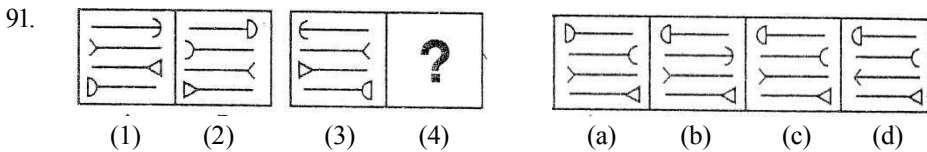(a)

(b)

(c)

(d)
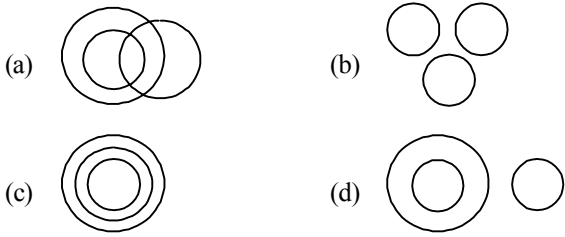
85. Which of the following diagrams indicates the best relation between Detectives, Spies and Men with Beards?

(a)

(b)

(c)

(d)

DIRECTIONS (Qs. 86-90) : *In each problem, out of the four figures marked (a) (b), (c) and (d), three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.*

86.

(a)   (b)   (c)   (d)

87.

(a)   (b)   (c)   (d)

88.

(a)   (b)   (c)`   (d)

89.

(a)   (b)   (c)   (d)

90.

(a)   (b)   (c)   (d)

DIRECTIONS (Qs. 91-95) : *Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures (a), (b), (c) and (d) constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer Set that would replace the question mark (?) in fig (4).*

91.

(1)   (2)   (3)   (4)   (a)   (b)   (c)   (d)

92.

(1)   (2)   (3)   (4)   (a)   (b)   (c)   (d)

93.

(1)   (2)   (3)   (4)   (a)   (b)   (c)   (d)

94.

(1)   (2)   (3)   (4)   (a)   (b)   (c)   (d)

95.

(1) (2) (3) (4)   (a) (b) (c) (d)

DIRECTIONS (Qs. 96-100) : *In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.*

96.

(X)   (a)   (b)   (c)   (d)

97.

(X)   (a)   (b)   (c)   (d)

98.

(X)   (a)   (b)   (c)   (d)

99.

(X)   (a)   (b)   (c)   (d)

100.

(X)   (a)   (b)   (c)   (d)

ANSWER KEY

1. (c)	2. (b)	3. (a)	4. (d)	5. (a)	6. (b)	7. (a)	8. (c)	9. (a)	10.(b)
11.(c)	12.(b)	13.(a)	14.(d)	15.(d)	16.(c)	17.(d)	18.(a)	19.(a)	20.(b)
21.(b)	22.(b)	23.(d)	24.(d)	25.(b)	26.(c)	27.(d)	28.(a)	29.(d)	30.(a)
31.(c)	32.(b)	33.(c)	34.(d)	35.(c)	36.(b)	37.(b)	38.(c)	39.(a)	40.(a)
41.(c)	42.(b)	43.(b)	44.(b)	45.(a)	46.(b)	47.(a)	48.(b)	49.(a)	50.(c)
51.(d)	52.(c)	53.(d)	54.(c)	55.(a)	56.(c)	57.(d)	58.(a)	59.(b)	60.(a)
61.(b)	62.(a)	63.(d)	64.(c)	65.(d)	66.(d)	67.(b)	68.(a)	69.(d)	70.(d)
71.(c)	72.(b)	73.(d)	74.(d)	75.(b)	76.(a)	77.(a)	78.(a)	79.(d)	80.(c)
81.(c)	82.(d)	83.(a)	84.(c)	85.(d)	86.(c)	87.(b)	88.(d)	89.(a)	90.(b)
91.(d)	92.(b)	93.(a)	94.(c)	95.(d)	96.(d)	97.(c)	98.(d)	99.(b)	100.(c)

1. (c) The idiom "a fool's errand" means an attempt to do something that has no chance of success.
2. (b) 'To flog a dead horse' means to waste effort on something where there is no chance of succeeding.
3. (a) 'The alpha and the omega' means the beginning and the end.
4. (d) 'A bull in a China shop' means a person who breaks things or who often makes mistakes or causes damage in situations that requires careful thinking or behaviour.
5. (a) 'To hold something in leash' means to provide very little freedom to someone.
6. (b) "To talk through one's hat" means to talk nonsense.
7. (a) 'To throw up the sponge' means to give up a contest or to acknowledge defeat.
8. (c) 'To get into hot waters' means to be in trouble or a difficult situation.
9. (a) 'Dolorous' is the correctly spelt word which means feeling or expressing great sorrow or distress.
10. (b) 'Conduit' is the correctly spelt word which means a channel for conveying water or other fluid.
11. (c) 'Gregarious' is the correctly spelt word which means fond of company or sociable.
12. (b) 'Intrinsic' is the correctly spelt word which means belonging naturally or essential.
13. (a) 'Sepulchral' is the correctly spelt word which means relating to a tomb.
17. (d) Anathema means a formal curse by a pope or a council of the church. Therefore, 'curse' is the nearest meaning or synonym of Anathema.
18. (a) Debilitate means to make someone weak and infirm. Therefore, weaken is the nearest in meaning to Debilitate.
19. (a) Penchant means a strong or habitual liking for something. Therefore, liking is the nearest in meaning to Penchant.
20. (b) Nebulous means vague or ill-defined. Therefore, vague is the closest in meaning to Nebulous.
21. (b) Insolent means showing a rude and arrogant behaviour or lack of respect. Affable means good natured or easy to talk to. Therefore, Affable is the nearly opposite meaning of Insolent.
22. (b) Sceptic means a person who questions or doubts accepted opinions. Therefore, Believers which means a person who believes in the truth or existence of something is the nearly opposite in meaning to Sceptic.

23. (d) Refractory means stubborn or unmanageable. Therefore, manageable is nearly the opposite in meaning to Refractory.
24. (d) Acrimonious means full of anger and bitter feelings. Whereas, Harmonious means friendly and free from disagreement. Therefore, Harmonious is the antonym of Acrimonious.
31. (c) Raja Todar Mal was the finance minister of the Mughal empire during Akbar's reign.
32. (b) Mahatma Gandhi returned to India from South Africa in 1915.
33. (c) Lord Irwin was the viceroy of India when Simon Commission visited India.
34. (d) NITI Aayog is the Government of India think tank established by PM Narendra Modi to replace Planning Commission.
35. (c) 'Kayakalp' is the innovative council of Indian Railways for innovation, technology development and manufacturing.
36. (b) Animals active at night are called Nocturnal.
37. (b) Durban, South Africa will host the 2022 Commonwealth Games.
38. (c) Serena Williams won the 2015 Australian Open (Women's singles) by defeating Maria Sharapova.
39. (a) Isotherm is a line on the map connecting points having the same temperature at a given time.
40. (a) Sir C. V. Raman's ground breaking work in the field of light scattering for which he was awarded the 1930 Nobel Prizes for physics.
41. (c) Henry Becquerel is associated with the discovery of Radioactivity.
43. (b) The Moon taken $27\frac{1}{3}$ days to revolve around the earth.
46. (b) Arunima Sinha wrote the book "Born again on the mountain", which was launched by PM Narendra Modi in 2014.
47. (a) Sri Lanka celebrates its Independence Day of 4th February.
48. (b) Indian actor and producer Shashi Kapoor was awarded the DadaSaheb Phalke Award for the year 2014.
49. (a) Admiral Gorshkov is the Russian name of INS Vikramaditya.

50. (c) A. S. Kiran Kumar is the current chairman of Indian Space Research Organisation (ISRO).

51. (d) Ricky Kej won the Grammy at the 57th Annual Grammy awards for his album Winds of Samsara, a collaboration with South African flautish Wouter Kellerman.

52. (c) Let length of the train is x.
Distance = 12 km = 12000 m
Time = 10 min = 10×60 = 600 sec
Speed of train = $\dfrac{12000}{600}$ = 20 m / sec
when train passes a telegraph post it covers distance equal to its length.
using distance = time × speed
$x = 6 \times 20 = 120$ m

53. (d) Let the weight of the boy who left the class is x.
Total weight = 50×45 = 2250 kg
when one boy left the class total weight is $(2250 - x)$ and no. of student left is 49.
According to question –
$\dfrac{2250 - x}{49} = \left(45 - \dfrac{100}{1000}\right)$ kg
$\dfrac{2250 - x}{49} = 44.9$
$2250 - x = 2200.1$
$x = 2250 - 2200.1$
$x = 49.9$ kg

54. (c) Relative speed between man and train = 68 – 8
= 60 km /h = $60 \times \dfrac{5}{10}$ m / sec = $\dfrac{50}{3}$ m/s
time taken to cross the man = $\dfrac{150}{50/3}$ = 9 sec

55. (a) Let the price of item be ₹100.
price after 25% decrement = 75 ₹
Now % change to achieve 100 ₹ again
$= \dfrac{(100 - 75)}{75} \times 100$
$= \dfrac{25}{75} \times 100 = 33\dfrac{1}{3}\%$

56. (c) Let the sum be 'P' and rate be 'r' simple interest (S.I.)
$= \dfrac{P.r.t}{100}$
$\text{S.I.} = \dfrac{P.r.3}{100} = \dfrac{3\,Pr}{100}$ ...(1)
again.
$(\text{S.I.} + 600) = \dfrac{P.(r+4).3}{100}$
putting S.I. value from eq. ...(1)
$\dfrac{3\,Pr}{100} + 600 = \dfrac{3P(r+4)}{100}$
$\dfrac{3\,Pr}{100} + 600 = \dfrac{3\,Pr}{100} + \dfrac{12\,P}{100}$
$600 = \dfrac{12\,P}{100}$
P = 5000 ₹

57. (d) Let salary of B is 100 ₹
So salary of A is 150 ₹
The percentage B's salary is less than to A's
salary $= \dfrac{150 - 100}{150} \times 100 = \dfrac{50}{150} \times 100 = 33\dfrac{1}{3}\%$

58. (a) Let the principle amount be 'P'
$\text{S.I.} = \dfrac{P.r.t}{100}$
According to question –
$P - 340 = \dfrac{P.4.Q}{100}$
$P - 340 = \dfrac{QP}{25}$
$P - \dfrac{QP}{25} = 340 \Rightarrow \dfrac{17P}{25} = 340$
P = 500 ₹

59. (b) Let A, B and C can work x, y, z units work daily
According to question –
2x = y + z
2z = x + y
total work = No. of days taken by 'c' × unit work of 'c'
= 40z
time taken when A, B and C working together
$= \dfrac{\text{total work}}{\text{total unit work daily}} = \dfrac{40z}{x + y + z}$
as x + y = 2z so,
time taken $= \dfrac{40z}{2z + z} = \dfrac{40z}{3z} = \dfrac{40}{3} = 13\dfrac{1}{3}$ days.

60. (a) In 35 litre mixture
water is $= 35 \times \dfrac{1}{5} = 7$ litre
milk is = 35 – 7 = 28 litre
after adding 7 litre of more water, water is 7+7 = 14 litre.
so ratio of milk and water in new mixture is $= \dfrac{28}{14} = \dfrac{2}{1} = 2 : 1$

61. (b) Cost price of item where Anmol gained 10% is $= \dfrac{1000}{1.1}$
$= \dfrac{10000}{11}$ ₹
Cost price of item where Anmol lost 10% is $= \dfrac{1000}{0.9}$
$= \dfrac{10000}{9}$ ₹
Amount Anmol received is = 1000 + 1000 = 2000 ₹
Amount Anmol paid is $= \dfrac{10000}{11} + \dfrac{10000}{9}$
$= 10000 \times \dfrac{20}{99}$ ₹
profit or loss % $= \left(\dfrac{2000 - 10000 \times \dfrac{20}{99}}{10000 \times \dfrac{20}{99}}\right) \times 100$

$$=\left(\dfrac{1-\dfrac{100}{99}}{\dfrac{100}{99}}\right)\times100=-1\%$$

(–ve sign represents the loss)

62. (a) If A is doing half of the work is 8 days then he will complete it in 16 days.

If B is doing $\dfrac{1}{3}$ rd of the work in 8 days then he will complete it is $8\times3=24$ days.

days required $=\dfrac{16\times24}{16+24}$

(when A & B both are working)

$=\dfrac{16\times24}{40}=9.6$ days

63. (d) speed of boat in upstream $= 9 – 3 = 6$ km/h
speed of boat in downstream $= 9 + 3 = 12$ km/h
According to question –

$$\dfrac{AB}{6}+\dfrac{AB}{12}=3$$

$$\dfrac{3AB}{12}=3$$

$AB=12\,km$

64. (c) Profit (P) = Selling price (S) – Cost price (C)

$\boxed{P = S – C}$ ...(1)

According to question –
$3P = 2S – C$ ...(2)
Subtracting eq (1) from eq (2)

$\boxed{2\,P = S}$

Putting S in eq (1)
$P = 2\,P – C \Rightarrow C = P$ ....(3)

profit % $=\dfrac{(\text{Selling price } –\text{Cost price})}{\text{Cost price}}\times100$

$=\left(\dfrac{S-C}{C}\right)\times100=\dfrac{(2P-P)}{P}\times100=100\%$

65. (d) Speed of steamer in down stream $= 4.5 + 1.5 = 6km$
speed of steamer in up stream $= 4.5 – 1.5 = 3km$
let the distance be x.
time taken in down stream $= x / 6$
time taken in up stream $= x / 3$

Avg. speed $=\dfrac{\text{total distance}}{\text{total time}}$

$$\dfrac{x + x}{\dfrac{x}{6}+\dfrac{x}{3}}\Rightarrow\dfrac{2x}{(3x / 6)}$$

$=4\,km/h$

66. (d) First is the antonym of second.
67. (b) Both are opposites.
68. (a) First is the cause of second.
69. (d) Capricious behaviour is not characterized by reliability. Extemporaneous actions are not characterized by predictability.

70. (d) Pedagogy is art of teaching and Entomology is study of insects.

71. (c) Silver -All except silver are alloys.

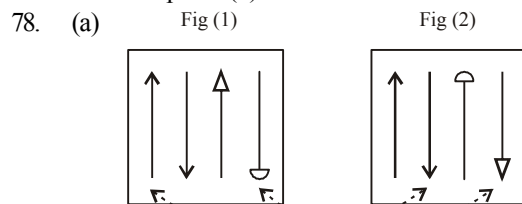72. (b) Puppet because except that all are media and News related.

73. (d) Nanda devi - All except Nanda devi are plateaus.

74. (d) Andes - All except Andes are waterfalls.

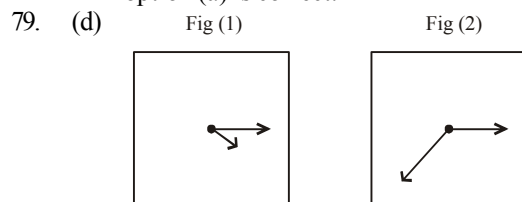75. (b) We Indians - All except We Indians are the books written by 'Shobhaa De'.

76. (a)
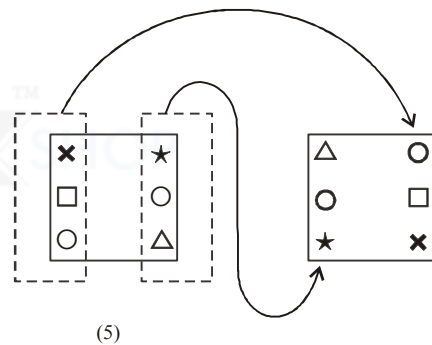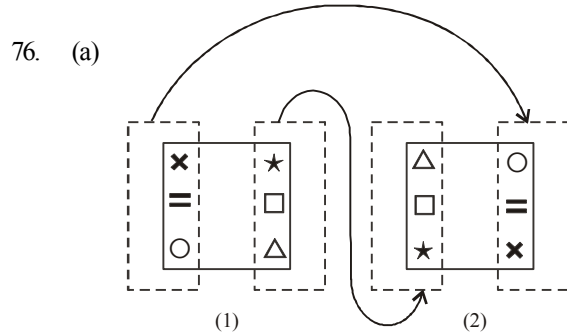
Same shifting pattern is following in fig (3) & fig (4) so option (a) is correct

78. (a)

Interchanging Position with reverse in direction
Same pattern is following in fig (3) & fig (4) so for fig (5) option (a) is correct.

79. (d)

longer needle is rotating 135° clockwise and shorter needle is rotating 45° anticlockwise. Same pattern is following in fig (3) and fig (4). So for fig (5) option (d) is correct.
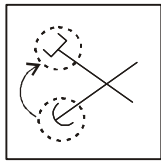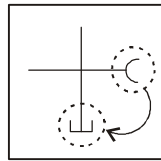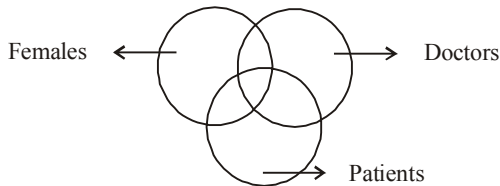
80. (c)

Fig (1)   Fig (2)

In the figures 'x' is converting into '+' sign and there is a interchange of circled design in clock-wise direction. Same pattern is following in fig (3) and fig (4) also. So for figure (5) option (c) is correct.

81. (c)

Females ← → Doctors
→ Patients

Femals, Doctors and Patients are connected to some extent so option (c) is correct.

82. (d) Doctors, Teachers and Engineers are different to each other in their profession. So option (d) is correct.


Teachers ← → Doctors
→ Engineers
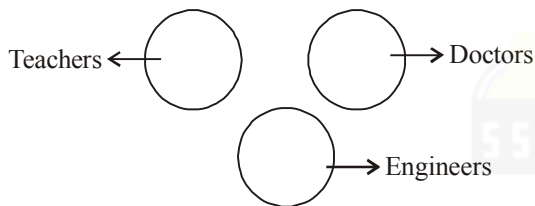
83. (a) Steel and wood both are used as building material and there is no relation between steel and wood .

building material
wood ← → steel
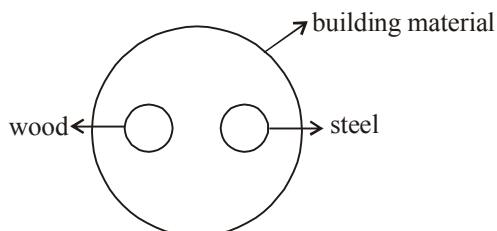
84. (c) All father are males but some human beings may not be males or father. So option (a) is correct.

Males ← → Human being
→ Fathers
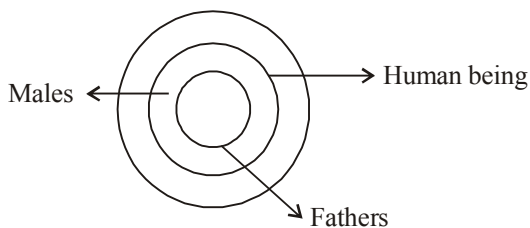
85 (d) Detectives, spies can be both men or women. Men detectives or spies can be both men with beard or men with beard so option (d) is correct.

Detectives ← → Spies
→ Men with beards
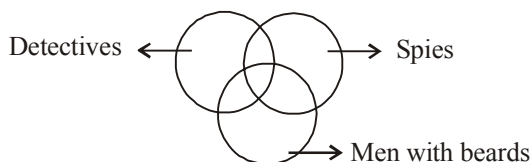
86. (c) In figure (a), (b), (d) marked angles are equal. Only in option (c) marked angles are not equal.

87. (b) All the three leaves (except dark one) are placed right angled to each other in fig (a), (c) and (d). So option (b) is different from others.

88. (d) In option (a), (b) and (c), the first dot (.) is adjacent to darken triangle and second dot (.) is one step behind. So option (d) is different.

89. (a) Option (a) is different from others.

90. (b) In option (a), (c) and (d) dots (.) are placed on the midpoints of the edges but in option (b) dots are placed at the corners.
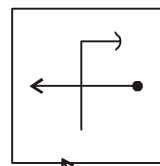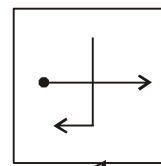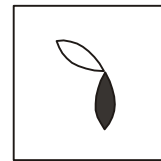
92. (b)

Fig (1)   Fig (2)
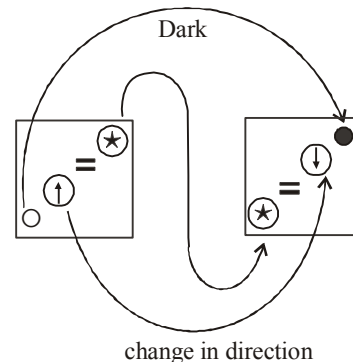180° rotation

So option (b) is correct.

93. (a)

Fig (1)   Fig (2)

Rotation of dark leaf is 135° (clock wise). Rotation of white leaf in 135° (anticlockwise). So for fig (3) option (a) is correct.

94. (c)

Dark
change in direction

according to above explaination option (c) is correct.

95. (d) From figure (1) to (2)

○— symbol moves 90° clockwise

➤— symbol moves 90° anticlockwise

◁— symbol moves 180° clockwise or anticlockwise

●— symbol moves 180° clockwise or anticlockwise and is replaced by another symbol.

sequence occurs from figure (3) to (4) so, (d) is the correct answer.

AFCAT 1 2015 QUESTION PAPER

INSTRUCTIONS:

TIME LIMIT : 2 HOURS

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1-4) : *Which word or words explains the meaning of the following idioms :*

1. In a jiffy
   (a) Outstanding   (b) Suddenly
   (c) In a fix   (d) Appropriate
2. Upto the hilt
   (a) Completely   (b) upto the mark
   (c) Upto the final decision   (d) None of these
3. Man of Letters
   (a) Who writes too many letters
   (b) An important person
   (c) A politician
   (d) A literary person
4. Sangfroid
   (a) Composure   (b) Go on leave
   (c) Changed suddenly   (d) Make an attempt

DIRECTIONS (Qs. 5-10) : *Select the most appropriate word from the options against each number :*

As home entertainment, television is rapidly becoming more (5) than any other form. A news broadcast becomes more immediate when people (6) actually see the scene (7) question and the movement of the figures. Films could be viewed in the (8) of the home and a variety of shows are also available. One of the advantages of travel programmes is the (9) of faraway places which many viewers would not (10) see.

5. (a) interesting   (b) popular
   (c) powerful   (d) purposeful
6. (a) could   (b) would
   (c) might   (d) shall
7. (a) of   (b) with
   (c) as   (d) in
8. (a) surroundings   (b) assistance
   (c) comfort   (d) privilege
9. (a) glimpses   (b) image
   (c) portrait   (d) picture
10. (a) possible   (b) rather
    (c) else   (d) otherwise

DIRECTIONS (Qs. 11-14) : *Choose the word which is nearest in meaning to the given word :*

11. Sporadic
    (a) Epidemic   (b) Whirling
    (c) Occasional   (d) Stagnant
12. Genesis
    (a) Style   (b) Beginning
    (c) Movement   (d) Relevant
13. Intransigent
    (a) Authoritative   (b) Impersonal
    (c) Strenuous   (d) Unbending
14. Intimidate
    (a) Mislead   (b) Misplace
    (c) Frighten   (d) Demoralise

DIRECTIONS (Qs. 15-18) : *Choose the word which is nearly opposite in meaning of the given word:*

15. Clemency
    (a) Corporal   (b) Intolerance
    (c) Compromise   (d) Sensibility
16. Cajole
    (a) Nestle   (b) Secede
    (c) Bully   (d) Moisten
17. Malevolent
    (a) Kindly   (b) Vacuous
    (c) Ambivalent   (d) Primitive
18. Purgatory
    (a) Reward   (b) Celestial
    (c) Flawless   (d) Proximity

DIRECTIONS (Qs. 19-21) : *Read the following passage carefully and answer the questions given below it :*

In spring, polar bear mothers emerge from dens with three months old cubs. The mother bear has fasted for as long as eight months but that does not stop the young from demanding full access to her remaining reserves. If there are triplets, the most persistent stands to gain an extra meal at the expense of others. The smallest of the cubs forfeits many meals to stronger siblings. Females are protective of their cubs but tend to ignore family rivalry over food. In 21 years of photographing polar bears. I have only once seen the smallest of triplets survive till autumn.

19. With reference to the passage, the following assumptions have been made :
    I. Polar bears fast as long as eight months due to non availability of prey.
    II. Polar bears always give birth to triplets.
    Which of the assumptions given above is/are true?
    (a) I only   (b) II only
    (c) Both I and II   (d) Neither I nor II

20. Female polar bears give birth during
    (a) Spring   (b) Summer
    (c) Autumn   (d) Winter
21. Mother bear
    (a) Takes sides over cubs
    (b) Lets the cubs fend for themselves
    (c) Feeds only their favourites
    (d) Sees that all cubs get an equal share

DIRECTIONS (Qs. 22-25) : *Choose the word that best defines the given phrases :*

22. A Curtain Lecture
    (a) To speak plainly
    (b) Vulgar ideas
    (c) Private scolding of a husband by his wife
    (d) Hate others
23. Square pegs in round holes
    (a) A genuinely helpful person
    (b) A clever person
    (c) People in the wrong jobs
    (d) To be perplexed
24. In weal and woe
    (a) By hook or crook
    (b) During illness
    (c) In prosperity and adversity
    (d) During the operation
25. Globetrotters
    (a) People against global philosophy
    (b) People indulging in treachery
    (c) Intelligent minds
    (d) Travellers around the world

DIRECTIONS (Qs. 26-29) : *Choose the correctly spelt word :*

26. (a) Konnoisseur   (b) Conoisseur
    (c) Connoisseur   (d) Konoisseur
27. (a) Munifisent   (b) Muneficent
    (c) Munifent   (d) Munificient
28. (a) Equanmity   (b) Equannimity
    (c) Equanimmisty   (d) Equinimity
29. (a) Vetarinary   (b) Veterinary
    (c) Vetennary   (d) Vetniary

DIRECTIONS (Qs. 30-65) : *Choose the most appropriate answer :*

30. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?
    (a) 12 days   (b) 15 days
    (c) 16 days   (d) 18 days

31. A man can row $9\frac{1}{3}$ Kmph in still water and finds that it takes him thrice as much time to row up than as to row down the same distance in the river. The speed of the current is
    (a) $3\frac{1}{3}$ Kmph   (b) $3\frac{1}{9}$ Kmph
    (c) $4\frac{2}{3}$ Kmph   (d) $4\frac{1}{3}$ Kmph

32. The speed of a boat in still water is 10 Kmph. If it can travel 26 Km downstream and 14 Km upstream in the same time, the speed of the stream is
    (a) 2 Kmph   (b) 2.5 Kmph
    (c) 3 Kmph   (d) 4 Kmph
33. If a sum becomes double in 16 years, how many times will it be in 8 years?
    (a) $1\frac{1}{2}$ times   (b) $1\frac{1}{3}$ times
    (c) $1\frac{3}{4}$ items   (d) $1\frac{1}{4}$ times
34. In how many years will a sum of Rs 800 at 10% per annum compounded semi-annually become Rs 926.10?
    (a) $1\frac{1}{3}$ (b) $1\frac{1}{2}$
    (c) $2\frac{1}{3}$ (d) $2\frac{1}{2}$
35. A sell 2 TV sets, one at a loss of 15% and another at a profit of 15%. Find the loss/gain percentage in the overall transaction?
    (a) 2.25%   (b) 3%
    (c) 4%   (d) No profit, no loss
36. A man travelled from a point A to B at the rate of 25 Kmph and walked back at the rate of 4 Kmph. If the whole journey took 5 hrs 48 minutes, the distance between A and B is
    (a) 30km   (b) 24km
    (c) 20km   (d) 51.6km
37. A train travelling at a uniform speed clears a platform 200 m long in 10 seconds and passes a telegraph post in 5 seconds. The speed of the train is
    (a) 36 km/h   (b) 39 km/h
    (c) 72 km/h   (d) 78 km/h
38. The price of sugar increases by 20% due to the festive season. by what percentage should a family reduce the consumption of sugar so that there is no change in the expenditure ?
    (a) 20%   (b) $18\frac{1}{3}\%$
    (c) $16\frac{2}{3}\%$ (d) $16\frac{1}{3}\%$
39. A's salary is 20% lower than B's salary, which is 15% lower than C's salary. By how much percent is C's salary more than A's salary?
    (a) 44.05%   (b) 45.05%
    (c) 46.05%   (d) 47.05%
40. The average weight of 5 men is increased by 2 Kg when one of the men whose weight is 60 Kg is replaced by a new man. The weight of the new man is
   (a) 50 Kg   (b) 65 Kg
    (c) 68 Kg   (d) 70 Kg

41. A and B can do a piece of work in 18 days; B and C can do it in 24 days, A and C can do it in 36 days. In how many days B alone can finish the work?
   (a) 48 days
   (b) 45 days
   (c) $28\frac{4}{5}$ days
   (d) 144 days

42. The opposition part status is accorded to a political party in the Lok Sabha only if it captures at least
   (a) 5% Seats
   (b) 10% Seats
   (c) 15% Seats
   (d) 20% Seats

43. Who amongst the following in the author of the book 'A Bend in the River'?
   (a) Chetan Bhagat
   (b) VS Naipaul
   (c) Kiran Desai
   (d) Anita Desai

44. 'Long Walk to Freedom' is a book written by
   (a) Sonia Gandhi
   (b) LK Advani
   (c) Nelson Mandela
   (d) Benazir Bhutto

45. Which sports personality has been awarded the honorary rank of Group Captain by the IAF?
   (a) Kapil Dev
   (b) Sania Mirza
   (c) Saina Nehwal
   (d) Sachin Tendulakr

46. Which county among the following has been declared Ebola-free by WHO?
   (a) Sierra leone
   (b) Liberia
   (c) Nigeria
   (d) Guinea

47. How many Gold medals did India win in the Incheon Asian Games held in Oct 2014?
   (a) 10
   (b) 11
   (c) 12
   (d) 8

48. Who has been appointed as the new Finance Secretary of India?
   (a) Arvind Mayaram
   (b) Rajiv Mehrishi
   (c) Kaushik Basu
   (d) Dinesh Gupta

49. Which among the following is India's first long range subsonic cruise missile?
   (a) Agni II
   (b) Prithvi
   (c) Dhanush
   (d) Nirbhay

50. The branch of science that studies cells is called
   (a) Cytology
   (b) Entomology
   (c) Homoplastic
   (d) Hormonolgy

51. How many Vice Presidents are elected at the start of its each regular session of UN General Assembly?
   (a) Nine
   (b) Fifteen
   (c) Two
   (d) Twenty one

52. The highest civilian award of India 'Bharat Ratna' has been awarded to only two foreigners so far. One of them is Nelson Mandela. The other is
   (a) Marshal Tito
   (b) Mikhail Gorbachev
   (c) Khan Abdul Ghaffar Khan
   (d) Abdul Wali Khan

53. Sir CV Raman was awarded Nobel Prize for his work connected with which of the following phenomenon of radiation?
   (a) Scattering
   (b) Diffraction
   (c) Interference
   (d) Polarisation

54. In which city is headquarters of Asian Development Bank located?
   (a) Manila
   (b) Singapore
   (c) Bangkok
   (d) Jakarta

55. K-15 missile is
   (a) Submarine launched Ballistic Missile (SLBM)
   (b) Inter Continental Ballistic Missile (ICBM)
   (c) Medium Range Ballistic Missile (MRBM)
   (d) Short Range Ballistic Missile (SRBM)

56. India agreed to UN Chief Ban ki-Moon's offer to remain as a member of the advisory board of one of the following recently.
   (a) UNCCT
   (b) UNICEF
   (c) UNEP
   (d) UNCTAD

57. Kaziranga National Park is famous for
   (a) One-horned Rhinos
   (b) Tigers
   (c) Swamp Dears (Barasingha)
   (d) Elephants

58. Who was the first Indian to win an individual medal in Olympics?
   (a) Milkha Singh
   (b) PT Usha
   (c) Karnam Malleshwari
   (d) KD Jadhav

59. Who among the following was the Congress President at Madras Session of 1927 when it boycotted the Simon Commission?
   (a) Maulana Abul Kalam Azad
   (b) MA Ansari
   (c) Lala Lajpat Rai
   (d) Subhash Chandra Bose

60. Why did Kalinga prove to be a turning point in the life of Ashoka?
   (a) Ashoka annexed Kalinga
   (b) It was the starting point of the expansion of his empire
   (c) Ashoka became a zealous Buddhist
   (d) It enabled Mauryan Empire to reach its climax.

61. Which of the following wings was not part of the espionage system described by Kautilya?
   (a) Crime Branch
   (b) Special Branch
   (c) Political Branch
   (d) None of these

62. Alauddin Khilji did not build
   (a) Siri Fort
   (b) Tomb of Jalaluddin
   (c) Hauz-i-Alai
   (d) Jamaat Khana Masjid

63. Which of the following dynasties was ruling over North India at the time of Alexander's invasion?
   (a) Nanda
   (b) Maurya
   (c) Sunga
   (d) Kanva

64. Which of the following Intercontinental Ballistic Missiles (ICBMs) is under development in India?
   (a) Agni-I
   (b) Agni-II
   (c) Agni-IV
   (d) Agni-VI

65. Who among the following was adjudged as the Most Valuable Plaer of the 17th Asian Games held at Incheon, South Korea?
   (a) Mary Kom of India
   (b) Kosuke Hagino of Japan
   (c) Ning Zetao of China
   (d) None of these

66. East : Orient ::?:?
    (a) North : Polar   (b) North : Tropic
    (c) South : Capricorn   (d) West : Occident

67. Ignominy : Disloyalty ::?:?
    (a) Dealth : Victory   (b) Martyr : Man
    (c) Fame : Heroism   (d) Destruction : Victory

68. Loath : Coercion :: ? : ?
    (a) Detest : Caressing   (b) Irritate : Caressing
    (c) Irate : Antagonism   (d) Reluctant : Persuasion

69. Trilogy : Novel :: ? : ?
    (a) Rice : Husk   (b) Milk : Cream
    (c) Serial : Episode   (d) Gun : Cartridge

70. Wife : Marriage :: ? : ?
    (a) Bank : Money
    (b) Nationality : Citizenship
    (c) Service : Qualification
    (d) Attendance : Register

DIRECTIONS (Qs. 71-75) : *Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) or (d). You have to indicate the group of elements which correctly fits into the diagrams.*

71. Which of the following diagrams indicates the best relation between Doctors. Human Beings and Married People?
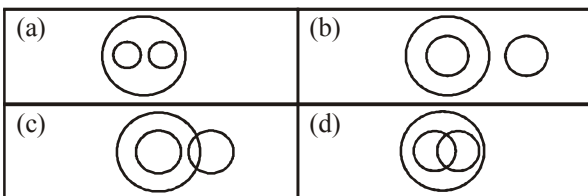
72. Which of the following diagrams indicates the best relation Children, Naughty and Studious?
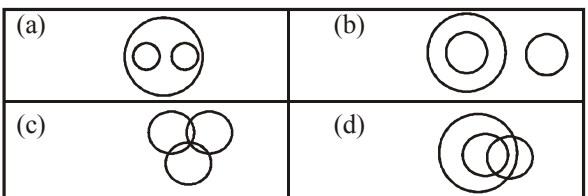
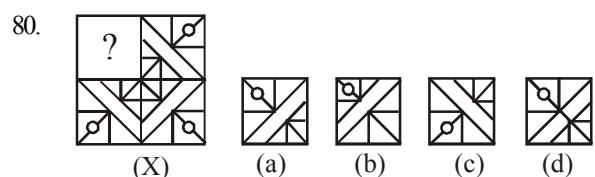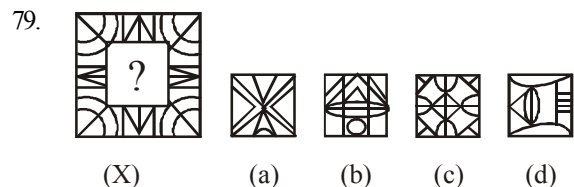73. Which of the following diagrams indicates the best relation between Thief, Criminal and Police ?
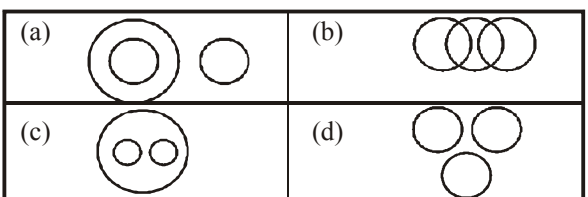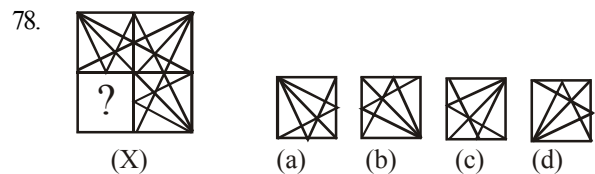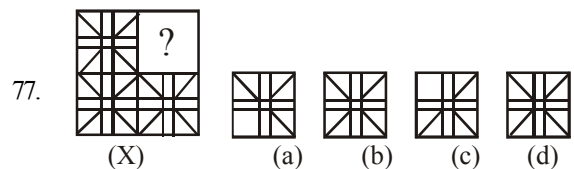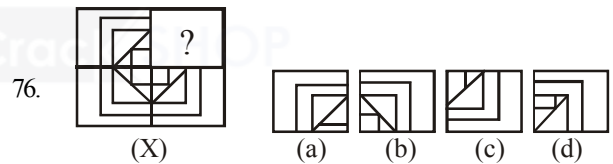

74. Which of the following diagrams indicates the best relation between Man, Worker and Garden?
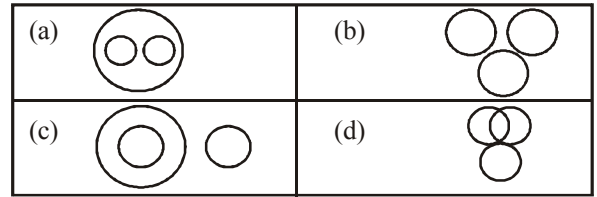
75. Which of the following diagrams indicates the best relation between Males, Cousins and Nephews?
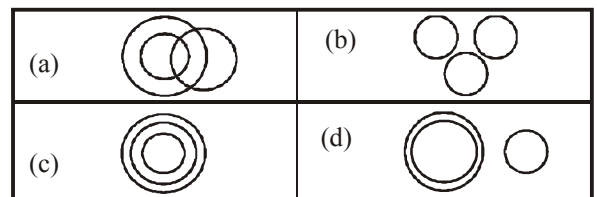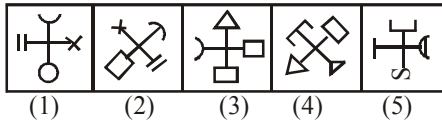

DIRECTIONS (Qs. 76-80) : *In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.*
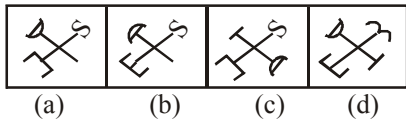
76.

(X)   (a)   (b)   (c)   (d)

77.

(X)   (a)   (b)   (c)   (d)

78.

(X)   (a)   (b)   (c)   (d)

79.

(X)   (a)   (b)   (c)   (d)

80.

(X)   (a)   (b)   (c)   (d)

DIRECTIONS (Qs. 81-85) : *Each of the following questions consists of five figures marked 1, 2, 3, 4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figurs. Select a figure from amongst the Answer Figures which will continue the same series as established by the Five Problem Figures.*
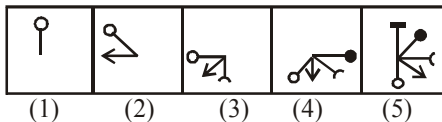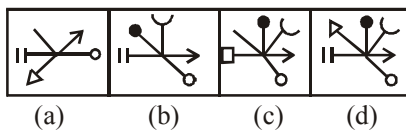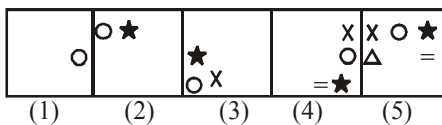
81. **Problem Figures :**

(1)   (2)   (3)   (4)   (5)

Answer Figures :

(a)   (b)   (c)   (d)

82. **Problem Figures :**

(1)   (2)   (3)   (4)   (5)

Answer Figures :

(a)   (b)   (c)   (d)

83. **Problem Figures :**

(1)   (2)   (3)   (4)   (5)

Answer Figures :

(a)   (b)   (c)   (d)
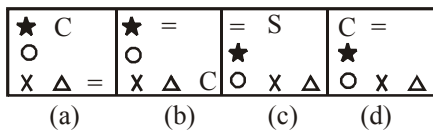
84. **Problem Figures :**

(1)   (2)   (3)   (4)   (5)

Answer Figures :

(a)   (b)   (c)   (d)
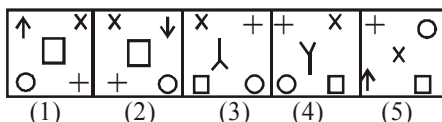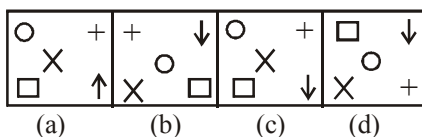
85. **Problem Figures:**

(1)   (2)   (3)   (4)   (5)

Answer Figures :

(a)   (b)   (c)   (d)
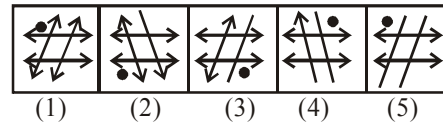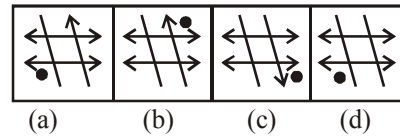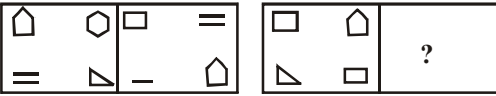
DIRECTIONS (Qs. 86-90) : *In each of the following questions, four words have been given out of which three are alike in some manner, while the fourth one is different. Choose the word which is different from the rest.*

86. (a) Othello (b) King Lear
    (c) Oliver Twist (d) Macbeth
87. (a) Nimitz (b) Yamamoto
    (c) Nelson (d) Montgomery
88. (a) Blaze (b) Glint
    (c) Simmer (d) Shimmer
89. (a) Aravalli hills (b) Shivalik hills
    (c) Mole hills (d) Satpura hills
90. (a) Beaver (b) Alpaca
    (c) Walrus (d) Koala

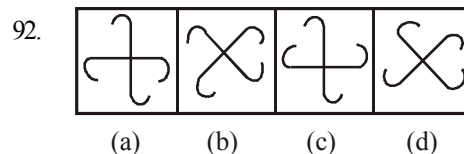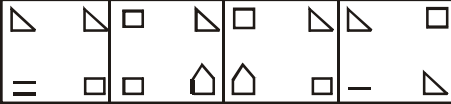**DIRECTIONS (Qs. 91-95) :** *In each problem, out of the four figures marked (a) (b) (c) and (d) three are smililar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.*

91.

(a)   (b)   (c)   (d)

92.

(a)   (b)   (c)   (d)

93.

(a)   (b)   (c)   (d)

94.

(a)   (b)   (c)   (d)

95.

(a)   (b)   (c)   (d)
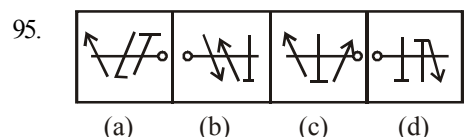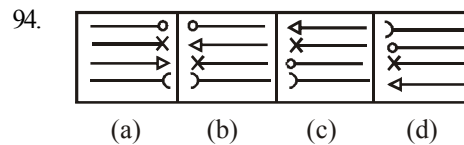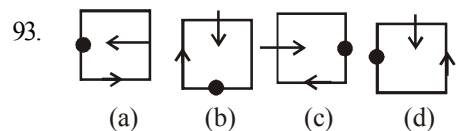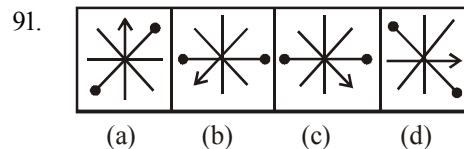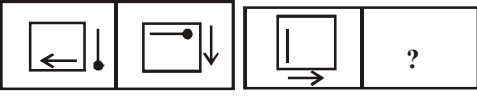
DIRECTIONS (Qs. 96-100) : *Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the Problem Set while figures a, b, c and d constitute the Answer Set. There is a definite relationship between figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig. (4).*

96.

(1) (2) (3) (4)

(a) (b) (c) (d)

97.

(1) (2) (3) (4)

(a) (b) (c) (d)

98.

(1) (2) (3) (4)

(a) (b) (c) (d)

99.

(1) (2) (3) (4)

(a) (b) (c) (d)

100.

(1) (2) (3) (4)

(a) (b) (c) (d)

AFCAT 1 2015 QUESTION PAPER

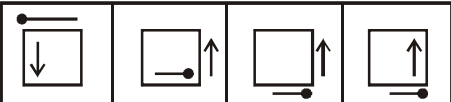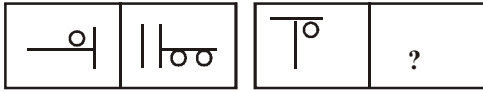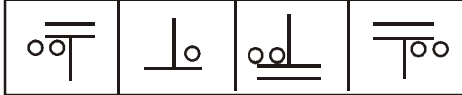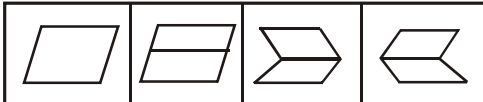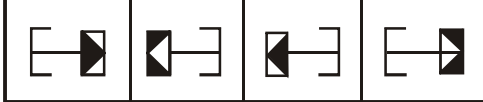| ANSWER KEY									
1. (b)	2. (a)	3. (d)	4. (a)	5. (b)	6. (a)	7. (d)	8. (c)	9. (a)	10.(d)
11.(c)	12.(b)	13.(d)	14.(c)	15.(b)	16.(c)	17.(a)	18.(b)	19.(a)	20.(d)
21.(b)	22.(c)	23.(c)	24.(c)	25.(d)	26.(c)	27.(c)	28.(a)	29.(c)	30.(b)
31.(c)	32.(c)	33.(a)	34.(b)	35.(d)	36.(c)	37.(c)	38.(c)	39.(d)	40.(d)
41.(c)	42.(b)	43.(b)	44.(c)	45.(d)	46.(c)	47.(b)	48.(b)	49.(d)	50.(a)
51.(d)	52.(c)	53.(a)	54.(a)	55.(a)	56.(a)	57.(a)	58.(d)	59.(b)	60.(c)
61.(c)	62.(d)	63.(a)	64.(d)	65.(b)	66.(d)	67.(a)	68.(d)	69.(c)	70.(b)
71.(d)	72.(a)	73.(a)	74.(d)	75.(a)	76.(b)	77.(d)	78.(d)	79.(c)	80.(c)
81.(d)	82.(c)	83.(c)	84.(c)	85.(d)	86.(c)	87.(d)	88.(c)	89.(c)	90.(c)
91.(c)	92.(d)	93.(a)	94.(a)	95.(d)	96.(a)	97.(d)	98.(c)	99.(d)	100.(c)

1. (b) Jiffy means-a very short time, a moment which is used in an informal way in English. Ex. I we'll be back in a jiffy. The other options are not appropriate.

2. (a) Upto the hilt means completely.
Ex. The building was mortgaged up to the hilt.
Other options give different meaning.

3. (d) Literary persons are scholars or male authors known as–man of letters. Ex. He wished to fashion for himself a career as a man of letters.
Other options are not correct as they express different meanings.

4. (a) Sangfroid means composure or coolness shown in danger or under trying circumstances.
Ex. Offering the most welcoming stage for the talented, the city with equal sangfroid accepts the misery of millions who fail to flourish. Other options are simply irrelevat so far the meaning is concerned.

5. (b) The word rapidly can match popular, not with other options.

6. (a) Could shows the ability

7. (d) In question' means being discussed or considered ex. On the days in question there were several serious questions.

8. (c) In the comfort of home' defines in the home atmosphere without going out for the purpose of entertainment.

10. (d) Otherwise television this would not have possible.

11. (c) Sporadic means, occuring at irregular intervals or any in a few places. Ex. A sporadic fighting broke out.

12. (b) Genesis is the origin or mode of formation of something. The nearest meaning is beginning.

13. (d) Intransigent defines unwilling or refusing to change one's views or to agree about something. Therefore unbending is the nearest meaning.

14. (c) Intimidate means frighten or overawe someone, in order to make them do what one wants.

15. (b) The word clemency means mercy or lenience. Here intolerance is the nearly opposite meaning.

16. (c) The word cajole means to persuade someone to do something by sustained coaxing or flattery. Bully is the nearly opposite meaning.

17. (a) Malevolent defines, showing a wish to do evil to others. Kindly is the most appropriate opposite.

18. (b) Purgatory means a place or state of suffering inhabited by the souls of sinners who are expiating their sins before going to heaven. Therefore celestial is the right opposite word.

21. (b) The sentence means, Mother Bear never interfers in the food sharing of her cubs.

22. (c) The phrase a curtain Lecture means an instance of a wife reprimanding her husband in private.

23. (c) Square pegs in round holes means a misfit. So, people in the wrong jobs is the correct option.

24. (c) The phrase means good and bad day. E.g., Weal and woe comes in everybody's life. Therefore, in prosperity and adversity is the correct option.

25. (d) Globetrotter is a person who travels widely.

26. (c) Connoisseur is an expert judge in matters of taste. E.g., A connoisseur of music.

27. (c) Munificent in its adjective form means characterised by or displaying great generosity.

28. (a) Equanimity means calmness and composure, especially in a difficult situation.

29. (c) Veterinary : Relating to the diseases, injuries and treatment of farm and domestic animals.

30. (b) Work done by A in 2 days $= \dfrac{1}{20} \times 2 = \dfrac{1}{10}$

Work done by A, B and C in one day $= \dfrac{1}{20} + \dfrac{1}{30} + \dfrac{1}{60}$

$= \dfrac{3+2+1}{60} = \dfrac{6}{60} = \dfrac{1}{10}$

Work done in three days (When A is assisted by B and C on every third day) $= \dfrac{1}{10} + \dfrac{1}{10} = \dfrac{2}{10} = \dfrac{1}{5}$

Hence required number of days $= 5 \times 3 = 15$ days.

31. (c) Distance covered by man = D km
Speed of Man in still water = x kmph

Speed of current $= \dfrac{28}{3}$ kmph

According to question,

$$\dfrac{D}{\dfrac{28}{3} - x} = 3 \left(\dfrac{D}{\dfrac{28}{3} + x} \right)$$

$$\Rightarrow \dfrac{28}{3} + x = 3 \left(\dfrac{28}{3} - x \right)$$

$$\Rightarrow 4x = 2 \times \dfrac{28}{3}$$

$$\Rightarrow x = \dfrac{14}{3} \text{ or } 4\dfrac{2}{3} \text{ Kmph}$$

32. (c) Let speed of stream be x Kmph.
Then,

$$\dfrac{26}{10 + x} = \dfrac{14}{10 - x}$$
$$260 - 26x = 140 + 14x$$
$$40x = 120$$
$$x = 3$$

Speed of stream is 3 Kmph.

33. (a) S.I. = 2P − P = P

$$P = \dfrac{P \times R \times 16}{100}$$

$$R = \dfrac{25}{4} \%$$

(S.I) For 8 years $= \dfrac{P \times \dfrac{25}{4} \times 8}{100} = \dfrac{P}{2}$

Amount $= P + \dfrac{P}{2} = \dfrac{3P}{2}$

Amount increased by 1½ times.

34. (b) $926.1 = 800 \left(1 + \dfrac{\dfrac{10}{2}}{100} \right)^{2t}$

$$\dfrac{9261}{8000} = \left(\dfrac{21}{20} \right)^{2t}$$

$$\left(\dfrac{21}{20} \right)^3 = \left(\dfrac{21}{20} \right)^{2t} \Rightarrow t = \dfrac{3}{2} \text{ years or } 1\dfrac{1}{2} \text{ years.}$$

35. (d) Let x be the cost price of T.V.
loss = 15%
then, S.P.$_1$ = x − 15% of x = 0.85x
Profit = 15%
then, S.P$_2$ = x + 15% of x = 1.15x
total S.P = 0.85x + 1.15x = 2x
Profit = 2x − 2x = 0
No profit, no loss

36. (c) Let D Km be the distance between A and B.

$$\dfrac{D}{25} + \dfrac{D}{4} = 5\dfrac{48}{60}$$

$$\dfrac{4D + 25D}{100} = \dfrac{29}{5}$$

$$\dfrac{29D}{100} = \dfrac{29}{5}$$

$$D = 20 \text{ Km}$$

37. (*) Let 'x' be the length of the train.
Let 'S' be the speed of train.
Distance travelled by train to cross the platform
$= (x + 200)$ m
According to question
$(x + 200) = S \times 10$ sec.   ...(1)
Distance travelled by train to cross he telegraph post
$= x$ m
According to question
$x = S \times 5$ sec.   ...(2)
Puting 'x' value in (1) from (2)
$(5S + 200) = 10S$
$200 = 10S − 5S = 5S$
$S = 40$ m/s

$$S = \dfrac{\overset{8}{\cancel{40}} \times 18}{\cancel{5}} = 144 \text{ km/hr.}$$

None of the option is matching.

38. (c) Let x and y be the rate of sugar per Kg and quantity of sugar.

$$xy = \left(x + \dfrac{20}{100} \times x \right) y'$$

$$xy = \dfrac{6x}{5} y'$$

$$y' = \dfrac{5}{6} y = y - \dfrac{y}{6}$$

Reduction in consumption $= \dfrac{100}{6} = 16\dfrac{2}{3}\%$

39. (d) A = B − 20% of B = 0.8 B
B = C − 15% of C = 0.85 C
A = 0.8 × 0.85 C = 0.68 C

$$\dfrac{C - A}{A} \times 100 = \dfrac{C - 0.68C}{0.68C} \times 100 = \dfrac{32}{68} \times 100 = 47.05\%$$

40. (d) Let total weight of 5 men be x kg and weight of new man y kg.

$$\frac{x - 60y + y}{5} = \frac{x}{5} + 2$$

$$\Rightarrow \frac{x}{5} - 12 + \frac{y}{5} = \frac{x}{5} + 2$$

$$\Rightarrow y = 70 \, kg$$

weight of new man = 70 kg

41. (c)
$$\frac{1}{A} + \frac{1}{B} = \frac{1}{18} \qquad ...(1)$$

$$\frac{1}{B} + \frac{1}{C} = \frac{1}{24} \qquad ...(2)$$

$$\frac{1}{C} + \frac{1}{A} = \frac{1}{36} \qquad ...(3)$$

Adding eqn. (1), (2) and (3)

$$2\left(\frac{1}{A} + \frac{1}{B} + \frac{1}{C}\right) = \frac{1}{18} + \frac{1}{24} + \frac{1}{36}$$

$$\frac{1}{A} + \frac{1}{B} + \frac{1}{C} = \frac{1}{16} \qquad ...(4)$$

Subtract eqn. (3) from (4)

$$\frac{1}{B} = \frac{1}{16} - \frac{1}{36} = \frac{5}{144}$$

B alone can finish work in $\frac{144}{5} = 28\frac{4}{5}$ days

42. (b) A political party is officially accorded the status of an opposition party in Lok Sabha, only if it secures at least 10 percent of the seats.

46. (c) Nigeria is considered free of Ebola transmission by WHO.

47. (b) India won 57 medals (11 gold, 10 silver, 36 bronze).

49. (d) Nirbhay is the first Indian long-range subsonic cruise missile developed by Defence Research & Development Organisation (DRDO). This missile can be launched from multiple platforms like, air, land. Nirbhay missile's flight test was successfully completed in October 2014.

50. (a) The branch of science that studies cells is called Cytology.

51. (d) Twenty one Vice Presidents are elected at the start of each regular session of General Assembly.

52. (c) Khan Abdul Gaffar Khan was another foreigner who received Bharat Ratna. He was the foremost 20th-century leader of the Pashtuns (a Muslim ethnic group of Pakistan and Afghanistan), who became a follower of Mahatma Gandhi and was called the "Frontier Gandhi."

53. (a) Sir Chandrasekhara Venkata Raman, was an Indian physicist, whose ground breaking work in the field of light scattering earned him the 1930 Nobel Prize for Physics. He discovered that, when light traverses a transparent material, some of the deflected light changes in wavelength. This phenomenon is now called Raman scattering and is the result of the Raman Effect.

54. (a) The Asian Development Bank is a regional development bank established on 22 August 1966 which is headquartered in Metro Manila, Philippines, to facilitate economic development in Asia.

55. (a) K-15 Sagarika is a nuclear-capable submarine-launched ballistic missile with a range of 700 kilometres (435 mi). It belongs to the K Missile family and forms a part of India's nuclear triad, and will provide retaliatory nuclear strike capability.

56. (a) India agreed to remain a member of the UNCCT at the offer of UN Chief Ban Ki Moon. The UNCCT was established in 2011 within the United Nations Counter-Terrorism Implementation Task Force (CTITF), under the leadership of the CTITF, to assist in meeting capacity-building needs of Member States, and to strengthen United Nations' counter-terrorism expertise. The Centre engages with the over 30 CTITF entities with expertise on a broad spectrum of counter terrorism related issues.

57. (a) Kaziranga National Park is a national park in the Golaghat and Nagaon districts of the state of Assam, India. A World Heritage Site, the park hosts two-thirds of the world's great one-horned rhinoceroses.

58. (d) Khashaba Dadasaheb Jadhav (born January 15, 1926-August 14, 1984) was an Indian athlete. He is best known as a wrestler who won a bronze medal at the 1952 Summer Olympics in Helsinki.

59. (b) M. A. Ansari was the Congress President at the Madras session of 1927, when it boycotted the Simon Commission.

60. (c) Ashoka invaded Kalinga in 261 B. C. In this war more than 2 lakh people died, wounded and made prisoners in war. Such a huge carnage and massacre of human lives and the sufferings of the wounded made a deep impression on Ashoka's mind. So he decided to spare his life to the spread of Buddhism around the world.

62. (d) The Jama 'at-Khana-Masjid or Khilji mosque was built in 1325 by Khizr Khan, son of Alauddin Khilji while all the other monuments were built by Allauddin Khilji.

63. (a) During the invasion Alexander, Nanda dynasty was ruling the North India in the Magadha empire.

64. (d) Agni-VI is an intercontinental ballistic missile being developed by the Defence Research and Development Organisation (DRDO) for the use of the Indian Armed Forces. Agni-VI will be a three-stage intercontinental ballistic missile, which is in the hardware development phase, after its design phase was completed.

65. (b) Kosuke Hagino, 20, won medals in all seven events he competed in, winning gold in the men's 200m freestyle, 200m and 400m individual medleys, and the 800m freestyle relay, in addition to one silver in the 400m freestyle and two bronze medals in the 100m and 200m backstroke events.

66. (d) Second is another name for the first.

67. (a) Ignominy is the result of disloyalty. Fame is the result of heroism.

68. (d) Loath and Reluctant are synonyms. Coercion and Persuasion are synonyms.

69. (c) Second is the past of first.

71. (d) Some doctors may be married people. All doctor, married people are human being.

73. (a) All thiefs are criminal. No criminal is police.

74. (d) Some workers are man. No man is garden.

75. (a)
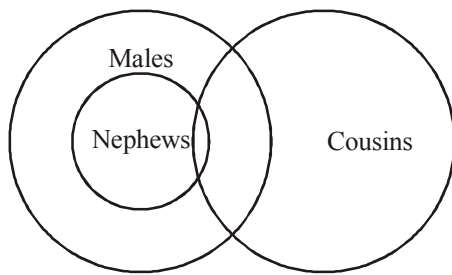
81. (d) • (⊩—✗) line is rotating 135° anticlockwise.

    • (⊻) line is rotating 45° clockwise.

    • (⊩—✗) line is changing its design at third and fifth step.

82. (c) Each branch is rotating 45° anticlock-wise and new branch is added in each step.

83. (c) Form (1) to (2)
    Small circle shifts three steps anticlockwise. New image gets added behind small circle.
    from (2) to (3).
    Small circle and star shifts two steps anticlockwise. New image gets added ahead of small circle.
    From (3) to (4)
    Small circle, star and cross shifts three steps anticlockwise and new image added behind of small circle.
    From (4) to (5)
    Small circle, star, cross and eual to shifts two steps anticlockwise and new image added ahead of small circle.
    From (5) to answer will be
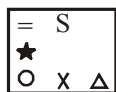
84. (c) From (1) to (2), all images change their position as well as gets inverted.
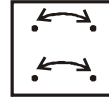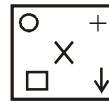

From fig. (2) to (3), pattern follows Image gets inverted as well as change their position.

Same pattern follows till (5).
Now, from figure (5) to Answer figure. Pattern follows.

85. (d) Dots shifts two steps clockwise in each step, everytime one arrow gets reduced in Horizontally and lines changes its position also.

86. (c) All except Oliver Twist are works of Shakespeare, while Oliver Twist is a work of Charles Dickens.

87. (d) All except Montgomery were Admirals. Nimitz was U.S. Admiral, Yamamoto was Japanese Admiral and Nelson was British Admiral, while British Admiral, while Montgomery was British Field Marshal.

88. (c) All except Simmer are connected with light, while simmer is a way of cooking.

89. (c) All others are hills located in India.

90. (c) All except Walrus are fur-bearing animals.

91. (c) In all other options line with arrow is shifting three steps forward clockwise, while in option (c) it is shifting two steps forward clockwise.

92. (d) In option (d) curves in vertical line are not following pattern.

93. (a) In all other options arrow cuts on the line and dot is shifting 90° anti clockwise.

94. (a) Designs are not following the pattern.

96. (a)

Pattern follows (1) to (2)
and after they change the diagonal of the respective image have one less than shapes.

99. (d) Lower portion of the figure (1) remains same while upper portion gets inverted in the figure (2).

100. (c) Figure (1) gets inverted by 180° then its mirror image is formed in 2nd figure. Hence (c) is the correct choice.

AFCAT 2 2014 QUESTION PAPER

INSTRUCTIONS: TIME LIMIT : 2 HOURS

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1-6) : *Select the most appropriate word from the options against each number.*

Science has made an _1_ contribution to the relief of human suffering and humanity _2_ a deep _3_ of gratitude to scientists whose _4_ and sacrifices have led to many _5_ discoveries and inventions which have done so much to _6_ human pain and misery.

1. (a) excessive   (b) enormous
    (c) intensive   (d) active
2. (a) feels   (b) offers
    (c) owes   (d) acknowledges
3. (a) amount   (b) fund
    (c) loan   (d) debt
4. (a) labours   (b) discoveries
    (c) achievements   (d) successes
5. (a) strange   (b) useful
    (c) advantageous   (d) profitable
6. (a) decrease   (b) disappears
    (c) alleviate   (d) belittle

DIRECTIONS (Qs. 7-9) : *Read the following passage carefully and answer the questions given below it.*

Language is often used for one of the following three purposes, namely, to inform, to convince and to persuade. The first requiring talent of telling what we know, is a matter of little difficulty. The second demands reasoning. The third, besides reasoning, demands all the aid that we can obtain from the use of figures of speech or figures of rhetoric, which means the power of persuasion.

7. Rhetoric is the
    (a) art of reasoning
    (b) use of figure of speech
    (c) power of persuasion
    (d) means of communicating information
8. The art of persuasion requires the use of
    (a) information and talent feels
    (b) reasoning and information
    (c) figure of speech
    (d) reasoning and figure of speech
9. The above passage is
    (a) informative   (b) persuasive
    (c) convincing   (d) rhetorical

DIRECTIONS (Qs. 10-13) : *Choose the word which is nearest in meaning to the given word.*

10. 'LIBERALISE'
    (a) Resist   (b) Change
    (c) Function   (d) Malfunction
11. 'PRAGMATIC'
    (a) Theoretical   (b) Suitable
    (c) Realistic   (d) Productive
12. 'PRISTINE'
    (a) Fresh   (b) Old
    (c) Preserve   (d) Dirty
13. 'INTREPID'
    (a) Middle   (b) Tolerant
    (c) Rude   (d) Fearless

DIRECTIONS (Qs. 14-17) : *Choose the word which is nearly opposite in meaning to the given word.*

14. 'ANGELICAL'
    (a) Magnanimous   (b) Benlvolent
    (c) Diabolical   (d) Critical
15. 'HAUGHTINESS'
    (a) Affability   (b) Unskilled
    (c) Adduce   (d) Abject
16. 'Bellow'
    (a) Tout   (b) Whisper
    (c) Stupour   (d) Down
17. 'INEQUITY'
    (a) Law   (b) Illegal
    (c) Slander   (d) Libel

DIRECTIONS (Qs. 18-21) : *Choose the word that best defines the given phrase.*

18. Tickled pink
    (a) Greatly pleased   (b) Coloured
    (c) Deeply upset   (d) Embarrassed
19. Split one's side
    (a) Intense pain   (b) To laugh a lot
    (c) To be hurt   (d) None of the above
20. Building castles in the air
    (a) Making impossible plans
    (b) Making tall promises
    (c) Building skyscrapers
    (d) Structures without strong foundation

21. At the drop of a hat
    (a) Willingly and softly
    (b) Willingly and immediately
    (c) Willingly and silently
    (d) Slowly and silently

DIRECTIONS (Qs. 22-25) : *Choose the correctly spelt word.*

22. (a) Parentheses   (b) Parenthsis
    (c) Parentesis   (d) Parenthses
23. (a) Verstile   (b) Versatile
    (c) Versetile   (d) Versatele
24. (a) Hemmorrhage   (b) Hemorrhage
    (c) Haemorrhage   (d) Hemmorrage
25. (a) Vetnerinarian   (b) Veternarian
    (c) Vetrinarian   (d) Veterinarian

DIRECTIONS (Qs. 26-29) : *Which word or words explains the meaning of the following idioms :*

26. Airy- Fairy
    (a) Most important   (b) Nervous
    (c) Not practical   (d) Confident
27. Be given the axe
    (a) To move fast   (b) Carpenter
    (c) Woodcutter   (d) To lose job
28. To go like a bomb
    (a) Loud explosion   (b) To move fast
    (c) Terrorism   (d) Not practical
29. Bolt from the blue
    (a) Unexpected   (b) Lighting
    (c) Nervous   (d) Sudden

DIRECTIONS (Qs. 30-65) : *Choose the most appropriate answer:*

30. Which of the following rulers had the title 'Kaviraja'
    (a) Kumaragupta   (b) Chandragupta
    (c) Skandagupta   (d) Samudragupta
31. The Viceroy who divided Bengal by following the divide and rule policy was:-
    (a) Lord Curzon   (b) Lord Ripon
    (c) Lord Lytton   (d) Lord Mayo
32. The right to vote in the national elections in India is based on the principle of
    (a) Restricted franchise
    (b) Hereditary privileges
    (c) Property qualifications
    (d) Universal adult suffrage
33. Algae often float on surface of water during day but sink during night due to :
    (a) evolution and trapping of oxygen bubbles during the day in their photosynthesis process
    (b) Becoming light as they consume most of their food in the night
    (c) warming action of sun during the day
    (d) Release of absorbed air by warming of water
34. Who is the author of 'Train to Pakistan':-
    (a) Arun Shourie   (b) J.N. Dixit
    (c) Khushwant Singh   (d) Ismat Chugtai
35. On which river is Berlin city situated ?
    (a) Potomac   (b) Irrawaddy
    (c) Rhine   (d) Spree

36. The commonwealth Games Relay Baton has traditionally contained ?
    (a) sand from the last host city
    (b) a message from the Head of the Commonwealth
    (c) The commonwealth Games Motto
    (d) sand from each competing nation
37. Who was the first woman to climb Mount Everest ?
    (a) Junko Tabei   (b) Tenzing Norgay
    (c) Aarti Pradhan   (d) Bachendri Pal
38. Who founded the Asiatic Society of Bengal in Kolkata?
    (a) Warren Hastings   (b) John Shore
    (c) Sir William jones (d) Lord Cornwallis
39. When is the World Poetry Day recognized by the UNESCO observed ?
    (a) 02 February   (b) 30 December
    (c) 21 March   (d) 14 February
40. In which respect have the Centre-State relations been specifically termed as municipal relations ?
    (a) Centre's control of the State in the legislative sphare
    (b) Centre's control of the State in Financial matter
    (c) Centre's control of the State in the administrative sector
    (d) Centre's control of the State in the planning process
41. The youngest mountain range in the world is:-
    (a) Himalayas   (b) Alps
    (c) Andes   (d) Rockies
42. Who was the first Commander in chief of Indian Air Force in Independent India ?
    (a) Gen KM Kariyappa
    (b) Field Marshal Sam Manekshaw
    (c) Major Stringer Lawrence
    (d) Thomas Walker Elmhirst
43. What is the splash and burn agriculture' in Indonesia called as ?
    (a) Jhoom cultivation (b) Roke cultivation
    (c) Milpa cultivation (d) Ladang cultivation
44. Which theory gave birth to the French Revolution and the Revolution in America ?
    (a) Legal theory of rights
    (b) Theory of natural rights
    (c) Social welfare theory
    (d) Historical theory of rights
45. 38th parallel is a boundary line between _____
    (a) United States and Canada
    (b) Pakistan and India
    (c) Turkey and Cyprus (d) South and North Korea
46. 'Satyameva Jayate' is borrowed from which of the following ?
    (a) Mundaka Upanishad (b) Mahabharat
    (c) Ramayana   (d) Arthshashtra
47. Two-third of a consignment was sold at a profit of 5% and the remainder at a loss of 2% if the total profit was ₹400, what was the value of the consignment ?
    (a) ₹13,000/-   (b) ₹17,000/-
   (c) ₹15,000/-   (d) ₹40,000/-

48. 7 is added to a certain number, the sum is multiplied by 5; the product is divided by 9 and 3 is subtracted from the quotient. The remainder left is 12. What is the number ?
(a) 20 (b) 30
(c) 40 (d) 5

49. A train covers a distance of 10 km in 12 minutes. If its speed is decreased by 5 kmph, what is the time taken train to cover the same distance ?
(a) 14 min. 33 sec (b) 13 min. 33 sec
(c) 13 min. 20 sec (d) 15 min. 20 sec

50. 'A' is thrice as good a workman as 'B' and takes 10 days less to do a piece of work than 'B' takes. How many days will 'B' take to complete if he works alone ?
(a) 21 days (b) 15 days
(c) 18 days (d) 24 days

51. In Arun's opinion his weight is greater than 65 kg but less than 72 kg. His brother does not agree with Arun and he thinks that Arun's weight is greater than 60 kg but less than 70 kg. His mother's view is that his weight cannot be greater than 68 kg. If all of them are correct in their estimation, what is the average of different probable weights of Arun ?
(a) 71 kg (b) 66 kg
(c) 66 kg (d) 68 kg

52. In three annual examinations' of which the aggregate marks of each was 500, a student secured average marks 45% and 55% in the first and the second yearly examinations respectively. To secure 60% average total marks, it is necessary for him in third yearly examination to secure___ marks.
(a) 300 (b) 350
(c) 355 (d) 400

53. A towel was 50 cm broad and 100 cm long. When bleached , it was found to have lost 20% of its length and 10% of its breadth. Find the percentage of decrease in area ?
(a) 32% (b) 28%
(c) 33% (d) 24%

54. How many digits will be there to the right of the decimal point in the product of 95.75 and 0.02554?
(a) 5 (b) 6
(c) 7 (d) Insufficient data

55. 'A' and 'B' can do a piece of work in 30 days while 'B' and 'C' can do the same work in 24 days and 'C' and 'A' in 20 days. They all work for 10 days and 'B' and 'C' leave. How many days more will 'A' take to finish the work ?
(a) 12 days (b) 18 days
(c) 20 days (d) 22 days

56. A factory employs skilled workers, unskilled workers and clerks in the proportion 8: 5 : 1 and the wages of a skilled worker as unskilled worker and a clerk are in the ratio 5 : 2 : 3. When 20 unskilled workers are employed, the total daily wages of all, amount to ₹ 318. What is the daily wages in ₹ paid to each category of employees ?
(a) 240,57,19 (b) 210,70,13
(c) 230,65,12 (d) 240,60,18

57. A cat takes 5 leaps for every 4 leaps of a dog, but 3 leaps of the dog are equal to 4 leaps of the cat. What is the ratio of the speed of the cat to that of the dog ?
(a) 13 : 14 (b) 15 : 11
(c) 17 : 15 (d) 15 : 16

58. Ram Shiv and Ganesh assemble for a contributory party. Ram brings 3 apples while Shiv brings 5. Since Ganesh did not bring any, he contributed ₹8/-. How many rupees should Ram and Shiv respectively get, assuming each of the three consumes an equal portion of the apples ?
(a) 1, 7 (b) 2, 5
(c) 5, 3 (d) 2, 6

59. A man deposited a total sum of ₹ 88400/- in the name of his two sons aged 19 and 17 years so that at the age of 21, both will get equal amounts. If the money is invested at the rate of 10% compound interest per annum what are the shares of his two sons ?
(a) ₹48200/- (b) ₹48400
(c) ₹42600/- (d) ₹44200

60. A train is moving at a speed of 132 kmph. If the length of the train is 110 meters, how long will it take to cross a railway platform 165 m long ?
(a) 6.0 secs (b) 7.5 secs
(c) 7.0 secs (d) 8.5 secs

61. The sum of the number of boys and girls in a school is 150. If the number of boys is x, then the number of girls becomes x% of the total number of students. How many boys are there in the school ?
(a) 51 (b) 65
(c) 60 (d) 95

62. 'A' scored 30% marks and failed by 15 marks. 'B' scored 40% marks and obtained 35 marks more than those required to pass what is the pass percentage ?
(a) 33% (b) 40%
(c) 34% (d) 48%

63. A banker lent ₹6000/- at 10% and ₹5000/- at 12% at the same time and for same period of time. The banker received ₹2400 as total interest on both loans. Find the period for which the banker had lent the amount.
(a) 3 years 6 months (b) 3 years
(c) 2 years 6 months (d) 2 years

64. Two pipes 'A' and 'B' can fill a tank in 20 and 30 minutes respectively. If both the pipes are used together, then how long are will it take to fill the tank ?
(a) 12 min. (b) 15 min.
(c) 25 min. (d) 50 min.

65. Speed of a boat in still water is 9 Kmph and the speed of the stream is 1.5 Kmph. A man rows to a place at a distance of 105 Kms and comes back to the starting point. What will be the total time taken by him ?
(a) 16 Hrs (b) 18 Hrs
(c) 24 Hrs (d) 28 Hrs

66. Which of the following diagrams indicates the best relation between Judge, Thieves and Criminals ?

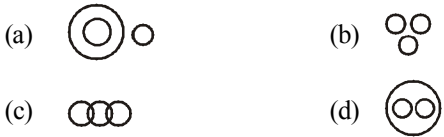(a)   (b)

(c)   (d)

67. Which of the following diagrams indicates the best relation between India, Haryana and World ?

(a)   (b)

(c)   (d)
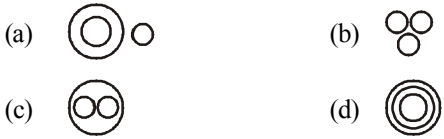
68. Which of the following diagrams indicates the best relation between Pigeon, Bird and Dog ?

(a)   (b)

(c)   (d)

69. Which of the following diagrams indicates the best relation between Earth, Sea and Sun ?

(a)   (b)

(c)   (d)

70. Which of the following diagrams indicates the best relation between Hockey, Football and Cricket ?

(a)   (b)

(c)   (d)
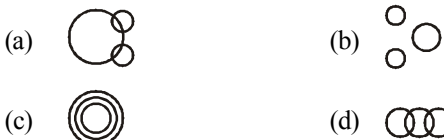
DIRECTIONS (Qs. 71-75) : *In each of the following questions find out the alternative which will replace the question mark :*

71. Carbon : Diamond : Corundum : ...... ? ......
   (a) Garnet   (b) Ruby
   (c) Pukhraj   (d) Pearl

72. Architect : Building : Sculptor : ...... ? .....
   (a) Museum   (b) Stone
   (c) Chisel   (d) Statue

73. Eye : Myopia : Teeth : ..... ?.......
   (a) Pyorrhoea   (b) Cataract
   (c) Trachoma   (d) Eczema

74. Conference : Chairman : Newspaper : ..... ?......
   (a) Reporter   (b) Distributor
   (c) Printer   (d) Editor

75. Safe : Secure : Protect : ..... ?......
   (a) Lock   (b) Sure
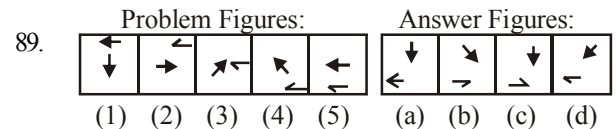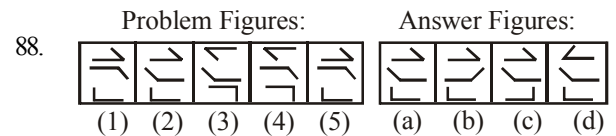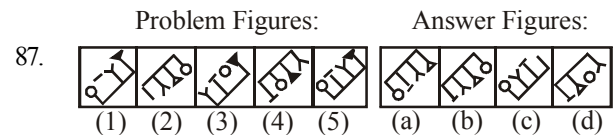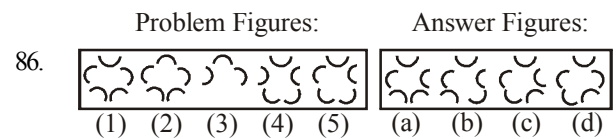   (c) Guard   (d) Conserve

DIRECTIONS (Qs. 76-80) : *In each of the following questions, five words have been given out of which four are alike in some manner, while the different fifth one is choose the word which is different from the rest :*

76. (a) Potassium   (b) Silicon
   (c) Zirconium   (d) Gallium

77. (a) Tea   (b) Cinchona
   (c) Rubber   (d) Chalk

78. (a) Hanger   (b) Platform
   (c) Dock   (d) Park

79. (a) Deck   (b) Quay
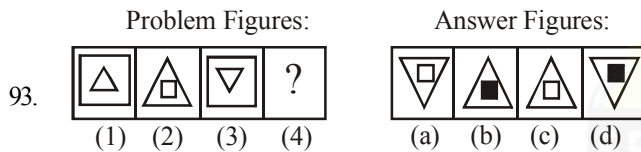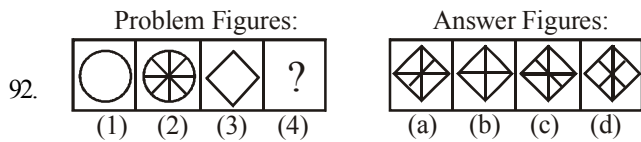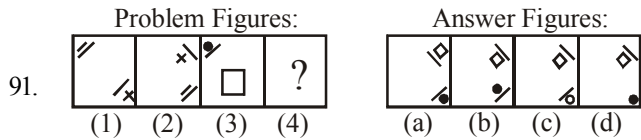   (c) Stern   (d) Bow

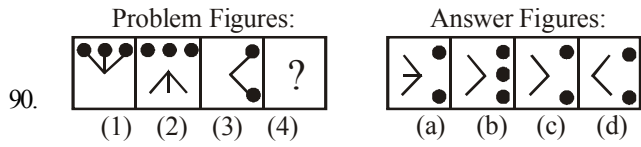80. (a) Tall   (b) Huge
   (c) Thin   (d) Sharp

DIRECTIONS (Qs. 81-85) : *Choose the most appropriate answer.*

81. Which one of the following is always with 'Bargain'?
   (a) Exchange   (b) Sumptuousness
   (c) Triviality   (d) Eloquence

82. Which one of the following a 'Drama' must have?
   (a) Actors   (b) Story
   (c) Sets   (d) Director

83. A boy is sitting at the back seat of a car. When the driver suddenly start moving the car (in forward direction) the boy experiences a backward force ?
   (a) Always   (b) Never
   (c) Often   (d) Sometimes

84. Which one of the following is always found in 'Wonder'?
   (a) Crowd   (b) Lumber
   (c) Astonishment   (d) Rustic

85. 'Disclosure' always involves
   (a) Agents   (b) Display
   (c) Exposition   (d) Secrets

DIRECTIONS (Qs. 87-89) : *Each of the following questions consists of five figures marked 1, 2, 3, 4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. select a figure from amongst the answer Figures which will continue the same series as established by the five Problem Figures.*

86.
Problem Figures: Answer Figures:

(1) (2) (3) (4) (5)   (a) (b) (c) (d)

87.
Problem Figures: Answer Figures:

(1) (2) (3) (4) (5)   (a) (b) (c) (d)

88.
Problem Figures: Answer Figures:

(1) (2) (3) (4) (5)   (a) (b) (c) (d)

89.
Problem Figures: Answer Figures:

(1) (2) (3) (4) (5)   (a) (b) (c) (d)

DIRECTIONS (Qs. 90-93) : *Each of the following questions consists of two sets of figures. Figures 1, 2, 3 and 4 constitute the problem set while figures (1) and (2). Establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the Answer set that would replace the question mark (?) in fig. (4).*

90.

Problem Figures:

(1) (2) (3) (4)

Answer Figures:

(a) (b) (c) (d)

91.

Problem Figures:

(1) (2) (3) (4)

Answer Figures:

(a) (b) (c) (d)

92.

Problem Figures:

(1) (2) (3) (4)

Answer Figures:

(a) (b) (c) (d)

93.

Problem Figures:

(1) (2) (3) (4)

Answer Figures:

(a) (b) (c) (d)

DIRECTIONS (Qs. 94-97) : *In each problem, out of the four figures marked (a) (b) (c) (d) three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.*

94.

(a) (b) (c) (d)

95.

(a) (b) (c) (d)

96.

(a) (b) (c) (d)

97.

(a) (b) (c) (d)
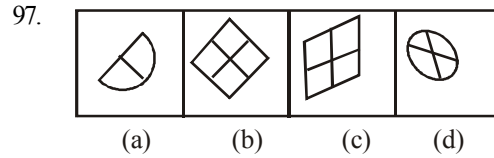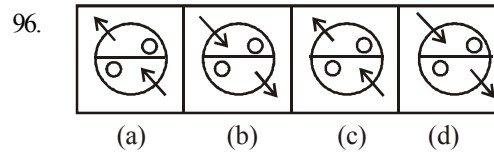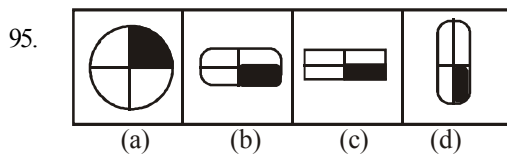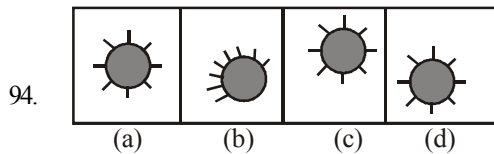
DIRECTIONS (Qs. 98-100) : *In each of the following questions, select a figure from amongst the four alternatives which when placed in the blank space of figure (X) would complete the pattern :*

98.

(X) (a) (b) (c) (d)

99.

(X) (a) (b) (c) (d)

100.

(X) (a) (b) (c) (d)
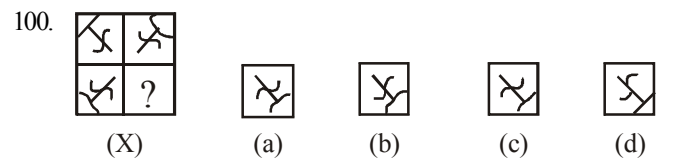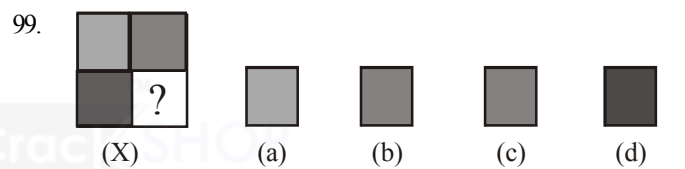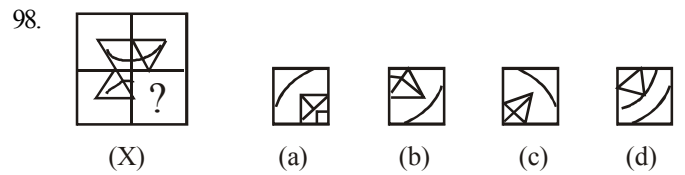
ANSWER KEY

1. (b)	2. (c)	3. (d)	4. (a)	5. (b)	6. (c)	7. (c)	8. (d)	9. (d)	10.(b)
11.(c)	12.(a)	13.(d)	14.(c)	15.(d)	16.(b)	17.(a)	18.(a)	19.(b)	20.(a)
21.(b)	22.(a)	23.(b)	24.(c)	25.(d)	26.(c)	27.(d)	28.(b)	29.(d)	30.(d)
31.(a)	32.(d)	33.(a)	34.(c)	35.(d)	36.(b)	37.(a)	38.(c)	39.(9)	40.(d)
41.(a)	42.(d)	43.(a)	44.(b)	45.(d)	46.(a)	47.(c)	48.(a)	49.(c)	50.(b)
51.(c)	52.(d)	53.(b)	54.(b)	55.(b)	56.(d)	57.(d)	58.(a)	59.(b)	60.(b)
61.(c)	62.(a)	63.(d)	64.(a)	65.(c)	66.(b)	67.(d)	68.(a)	69.(a)	70.(b)
71.(b)	72.(d)	73.(a)	74.(d)	75.(d)	76.(a)	77.(d)	78.(d)	79.(b)	80.(d)
81.(a)	82.(b)	83.(a)	84.(c)	85.(d)	86.(d)	87.(b)	88.(a)	89.(a)	90.(c)
91.(b)	92.(a)	93.(d)	94.(c)	95.(a)	96.(b)	97.(a)	98.(b)	99.(b)	100.(d)

7. (c) Rhetoric is the power of persuasion.

8. (d) The art of persuasion requires the use of reasoning and figure of speech.

10. (b) Liberalise - remove or loosen restrictions on something. Hence, option (b) is correct choice.

11. (c) Pragmatic - of or relating to a practical point of view or practical considerations.Hence, option (c) is correct choice.

12. (a) Pristine - in its original condition; unspoilt;clean and fresh as if new; spotless.Hence, option (a) is correct choice.

13. (d) Intrepid means fearless; adventurous. Hence, option (d) is correct choice.

14. (c) Meaning of angelical - having a sweet nature befitting an angel or cherub. Meaning of Diabolical - concerning, or characteristic of the devil; satanic.Hence, antonym of angelical is diabolical.

15. (d) Meaning of haughtiness- the appearance or quality of being arrogantly superior and disdainful.

16. (b) Meaning of bellow - a deep roaring shout or sound. Meaning of whisper - a soft or confidential tone of voice. Hence, antonym of bellow is whisper.

17. (a) Meaning of inequity- lack of fairness or justice.Antonym for inequity is law according to given options.

18. (a) Tickled pink -very much pleased or entertained.So, (a) is the correct choice.

19. (b) Split one's sides or laugh one's head off- be extremely amused, laugh uproariously. So, (b) is the correct choice.

20. (a) Build castles in the air or build castles in Spain- to daydream; to make plans that can never come true. So, (a) is the correct choice.

21. (b) At the drop of a hat - immediately; instantly; on the slightest signal or urging.So, (b) is the correct choice.

22. (a) Parentheses. It's a plural form of parenthesis.

26. (c) Airy-fairy means not practical or not useful in real situations. Hence, (c) is the correct choice.

27. (d) Get the axe or also be given the axe means if a person gets the axe, they lose their job. Hence, (d) is the correct choice.

28. (b) Go like a bomb means if a vehicle goes like a bomb, it can move very fast. Hence, (b) is the correct choice.

29. (d) A bolt from the blue or also a bolt out of the blue means something that not expected to happen and that surprises someone very much. Hence, (d) is the correct choice.

30. (d) Samudragupta, ruler of the Gupta Empire (c. 335 - c. 375 CE), and successor to Chandragupta I, is considered to be one of the greatest military geniuses in Indian history. He was the third ruler of the Gupta Dynasty, who ushered in the Golden Age of India.His title of Kaviraja (King of poets) is justified by various poetical compositions.

31. (a) The decision to effect the Partition of Bengal was announced in July 1905 by the Viceroy of India, Lord Curzon. The partition took place in October 1905 and separated the largely Muslim eastern areas from the largely Hindu western areas.

32. (d) The democratic system in India is based on the principle of Universal Adult Suffrage. All citizens of India who are 18 years of age as on 1st January of the year for which the electoral roll is prepared are entitled to be registered as a voter in the constituency where he or she ordinarily resides. Only persons who are of unsound mind and have been declared so by a competent court or disqualified due to 'Corrupt Practices' or offences relating to elections are not entitled to be registered in the electoral rolls. The right to vote is irrespective of caste, creed, religion or gender.

33. (a) The reason of algae float to the surface during the day & sink at night is due to photosynthesis. In Day time, the algae is producing oxygen. When enough Oxygen is produced during the day , it gets trapped in bubbles and it can lift the clumps up to the surface. In night, this oxygen is consumed and CO_2 is produced. So algae sinks.

34. (c) Train to Pakistan is a historical novel by Khushwant Singh, published in 1956. It recounts the Partition of India in August 1947. Instead of depicting the Partition in terms of only the political events surrounding it, Singh digs into a deep local focus, providing a human dimension which brings to the event a sense of reality, horror, and believability.

35. (d) Berlin is the capital city of Germany. Berlin is located in northeastern Germany on the River Spree, it is the center of the Berlin-Brandenburg Metropolitan Region.

36. (b) The Queen's Baton Relay is one of the great traditions of the Commonwealth Games, having started at the Games in Cardiff, Wales, in 1958. The Baton is now as much a part of the Commonwealth Games tradition as the torch is part of the Olympics. The relay traditionally begins with a commencement ceremony at Buckingham Palace, London, which coincides with the city's Commonwealth Day festivities. There Her Majesty Queen Elizabeth II entrusts the baton containing Her 'message to the athletes' to the first honorary relay runner. The relay concludes at the Opening Ceremony, as the final relay runner hands the baton back to Her Majesty, or Her representative, and the message is read aloud. At that moment the Games begin.

37. (a) Junko Tabei is a Japanese mountain-climber who, on May 16 , 1975, became the first woman to reach the summit of Mount Everest.

38. (c) The Asiatic Society was founded by Sir William Jones on 15 January 1784 in a meeting presided over by Sir Robert Chambers, the Chief Justice of the Supreme Court at the Fort William in Calcutta, then capital of the British Raj, to enhance and further the cause of Oriental research.

39. (c) In November 1999, UNESCO designated World Poetry Day to be held on March 21 each year. The organization recognized the important role of poetry in the arts and in cultures throughout the world and over time. It also wanted the day to promote the efforts of small publishers with regard to publishing poetry.

40. (d) Centres control of the State in the planning process.

41. (a) Himalayas is one of the youngest mountain ranges in the world, situated in the northern border of India and spread across six Asian countries -India, Pakistan, Bhutan, Afghanistan, China and Nepal. The Himalayas contains some of the highest peaks in the world that includes Mount Everest, Karakoram and Kanchenjunga.

42. (d) Air Marshal Sir Thomas Walker Elmhirst was the first Commander-in-Chief of the Indian Air Force. He was Air Chief from 15 August 1947 to 21 February 1950. It was Air Marshal Elmhirst, who insisted that the Indian Air Force be an independent service under no control of the Army.

43. (a) In Indonesia the 'splash and burn agriculture' is called as jhoom cultivation.

44. (b) Theory of natural rightsgave birth to the French Revolution and the Revolution in America.

45. (d) The 38th parallel north is a circle of latitude that is 38 degrees north of the Earth's equatorial plane. It crosses Europe, the Mediterranean Sea, Asia, the Pacific Ocean, North America, and the Atlantic Ocean. The 38th parallel north formed the border between North and South Korea prior to the Korean War.

46. (a) Satyamev Jayateis a mantra from the ancient Indian scripture Mundaka Upanishad. Upon independence of India, it was adopted as the national motto of India. It is inscribed in Devanagari script at the base of the national emblem. The emblem and the words "Satyamev Jayate" are inscribed on one side of all Indian currency. The emblem is an adaptation of the Lion Capital of Ashoka which was erected around 250 BC at Sarnath, near Varanasi in the north Indian state of Uttar Pradesh.

47. (c) Let value of consignment was ₹ x

$\left(\dfrac{2}{3}\right)^{rd}$ consignment costs $\dfrac{2x}{3}$

Selling price of $\left(\dfrac{2}{3}\right)^{rd}$ consignment

$= \dfrac{2x}{3} + \dfrac{5}{100} \times \dfrac{2x}{3} = \dfrac{7}{10}x$

S.P of $\left(\dfrac{1}{3}\right)^{rd}$ consignment $= \dfrac{x}{3} - \dfrac{2}{100} \times \dfrac{x}{3} = \dfrac{49}{150}x$

Total S.P $= \dfrac{49x}{150} + \dfrac{7x}{10} = \dfrac{49x + 105x}{150} = \dfrac{154x}{150}$

Profit $=$ S.P $-$ C.P

$400 = \dfrac{154x}{150} - x = \dfrac{4x}{150}$

$x = \dfrac{400 \times 150}{4} = 15000$

Value of consignment was ₹ 15,000

48. (a) Let the number be x

$\dfrac{5(7+x)}{9} - 3 = 12$

$\dfrac{5(7+x)}{9} = 15$

$7 + x = \dfrac{15 \times 9}{5} = 27$

$x = 27 - 7 = 20$

49. (c) Speed of train = $\dfrac{10\,\text{km}}{12/60\,\text{h}} = 50\,\text{km/h}$

Speed is decreased by 5 kmph then new Speed of the train will be 45 kmph

Time taken to cover 10 km, $t = \dfrac{10}{45} = \dfrac{2}{9}\,\text{h}$

Time taken = 13 min. 20 sec

50. (b) Let A finish the work in x days
B finish same work in $3x$ days
$3x - x = 10 \Rightarrow x = 5$ days
B finish the work in $3 \times 5 = 15$ days

51. (c) Let Arun's weight be x kg
According to Arun, $65 < x < 72$
According to Arun's brother, $60 < x < 70$
According to Arun's mothers, $x < 68$
The value satisfying all the above Conditions are 66 and 67

∴ Required average $= \left(\dfrac{66 + 67}{2}\right) = 66.5\,\text{kg}$

52. (d) Let in third yearly examination he Secure x %

Then, $\dfrac{45 + 55 + x}{3} = 60$

$100 + x = 180$

$x = 80$

To secure 60% average, he has to get 80%

80% of 500 $= \dfrac{80}{100} \times 500 = 400\,\text{marks}$

53. (b) Area of towel $= l \times b = 100\,\text{cm} \times 50\,\text{cm} = 5000\,\text{cm}^2$
Now, length decreased by 20% and breadth decreased by 10%
$l = 100 - 20\%$ of $100 = 80\,\text{cm}$
$b = 50 - 10\%$ of $50 = 45\,\text{cm}$
New area $= l \times b = 80\,\text{cm} \times 45\,\text{cm} = 3600\,\text{cm}^2$
Change in area $= (5000 - 3600)\,\text{cm}^2 = 1400\,\text{cm}^2$

% change in area $= \dfrac{1400}{5000} \times 100 = 28\%$

54. (b) $95.75 \times 0.02554 = 2.445455$
There are 6 digits to the right of the decimal point in the product of 95.75 and 0.02554.

55. (b) Let A, B and C individualy complete the work in x, y and z days respectively.

$$\dfrac{1}{x} + \dfrac{1}{y} = \dfrac{1}{30} \qquad \dots(1)$$

$$\dfrac{1}{y} + \dfrac{1}{z} = \dfrac{1}{24} \qquad \dots(2)$$

$$\dfrac{1}{z} + \dfrac{1}{x} = \dfrac{1}{20} \qquad \dots(3)$$

$2\left(\dfrac{1}{x} + \dfrac{1}{y} + \dfrac{1}{z}\right) = \dfrac{1}{8} \Rightarrow \dfrac{1}{x} + \dfrac{1}{y} + \dfrac{1}{z} = \dfrac{1}{16} \qquad \dots(4)$

A, B and C together complete the work in 16 days.

In 10 days they completed $\dfrac{10}{16} = \dfrac{5}{8}$ Part

Remaining work $= 1 - \dfrac{5}{8} = \dfrac{3}{8}$

Subtracting equ (2) from (4)

we get, $\dfrac{1}{x} = \dfrac{1}{48}$ or $x = 48$

A alone can finish the Remaining work in

$\dfrac{3}{8} \times 48 = 18\,\text{days}$

56. (d) Skilled workers : Unskilled workers : Clerks = 8 : 5 : 1
Ratio of the respective wages = 5 : 2 : 3
Hence, the amount must be paid in the ratio
$8 \times 5 : 5 \times 2 : 1 \times 3 = 40 : 10 : 3$
Sum of the ratios $= 40 + 10 + 3 = 53$
If the total amount is ₹ 53, the skilled workers get ₹ 40.
If the total amount is ₹ 318, the skilled worker will get

$= \dfrac{40}{53} \times 318$ ₹ 240

Unskilled workers get $= \dfrac{10}{53} \times 318 = ₹ 60$

and clerk get $= \dfrac{3}{53} \times 318 = ₹ 18$

57. (d) 3 leaps of dog = 4 leaps of cat

∴ 4 leaps of dog $= \dfrac{16}{3}$ leaps of cat

∴ the rate of dog : rate of cat $= \dfrac{16}{3} : 5 = 16 : 15$

rate of cat : rate of dog = 15 : 16

58. (a) Each one receive $\dfrac{8}{3}$ apple

Ram gave $= 3 - \dfrac{8}{3} = \dfrac{1}{3}$ apple

Shiv gave $= 5 - \dfrac{8}{3} = \dfrac{7}{3}$ apples

∴ Ram : Shiv $= \dfrac{1}{3} : \dfrac{7}{3} = 1 : 7$

Ram got $= 8 \times \dfrac{1}{8} = ₹ 1$

Shiv got $= 80 \times \dfrac{7}{8} = ₹ 7$

59. (b) Let son aged 19 years getting ₹x and son aged 17 years getting $(88400 - x)$.

At the age of 21, both will get equal amount

$$x\left(1+\frac{10}{100}\right)^2 = (88400-x)\left(1+\frac{10}{100}\right)^4$$

$$\Rightarrow \quad \frac{121x}{100} = (88400-x) \times \frac{121}{100} \times \frac{121}{100}$$

$$\Rightarrow \quad 100x = 88400 \times 121 - 121x$$

$$\Rightarrow \quad 221x = 88400 \times 121$$

$$\Rightarrow \quad x = \frac{88400 \times 121}{221} = 48400$$

$$x = ₹48400$$

60. (b) Speed of train = 132 kmph = $132 \times \frac{5}{18}$ m/s = $\frac{110}{3}$ m/s

Total distance = 110m + 165m = 275m

Time taken to cover the distance = $\frac{275 \times 3}{110}$ = 7.5s.

61. (c) If number of boys is x, then number of girls is $(150-x)$

$(150 - x) = x$ % of 150

$$150 - x = \frac{x}{100} \times 150 = \frac{3x}{2}$$

$$\Rightarrow \frac{5x}{2} = 150$$

$$\Rightarrow x = \frac{150 \times 2}{5} = 60$$

Number of boys is 60

62. (a) Difference in percentage of A and B = $(40-30)$ = 10%

Difference in marks = 50

Let maximum marks be x

10% of x = 50 x = $\frac{50 \times 100}{10}$ = 500

A scored 30% of 500 means 150 marks
minimum marks required to pass = 150 + 15 = 165

Pass % = $\frac{165}{500} \times 100 = 33\%$

63. (d) Let time period be x years

$$\frac{6000 \times 10 \times t}{100} + \frac{5000 \times 12 \times t}{100} = 2400$$

$$\Rightarrow 600t + 600t = 2400$$

$$\Rightarrow t = \frac{2400}{1200} = 2$$

Time period is 2 years.

64. (a) In one minute A can fill $\left(\frac{1}{20}\right)^{th}$ Part

In one minute B can fill $\left(\frac{1}{30}\right)^{th}$ Part

In one minute A and B together can fill

$$\frac{1}{20} + \frac{1}{30} = \left(\frac{1}{12}\right)^{th} \text{ Parts}$$
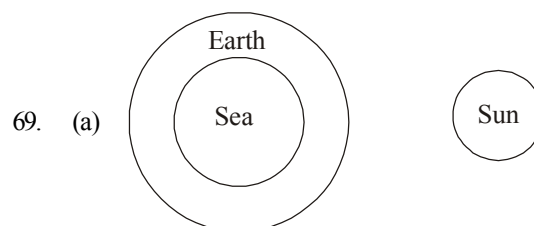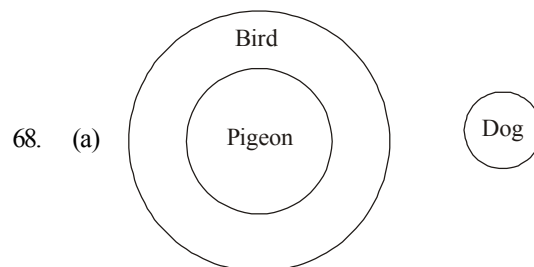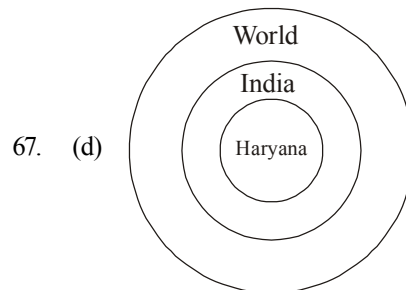
A and B together can fill the tank in 12 minutes
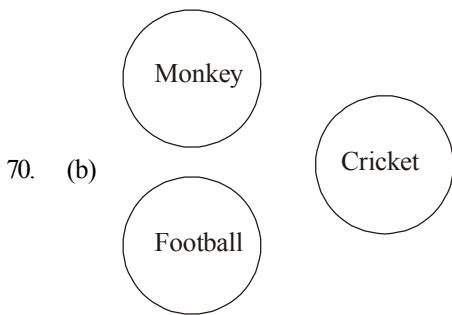
65. (c) Speed of upstream = 9 – 1.5 = 7.5 Kmph
Speed of down stream = 9 + 1.5 = 10.5 Kmph

Time taken for up stream = $\frac{105}{7.5} = 14$h

Time taken for down stream = $\frac{105}{7.5} = 10$h

Total time taken = 10 + 14 = 24 hours

66. (b)

67. (d)

68. (a)

69. (a)

70. (b)

Monkey

Cricket

Football

71. (b) Carbon is a chemical element found in diamond.
    Similarly, corundum is a form of alumina found in ruby.

72. (d) An archietect is a person whose job is designing building similarly,
    sculptor is a person whose job is creating statue.

73. (a) Myopia is a disease of eye.
    Similarly, Pyorrhoea is a disase of teeth.

74. (d) A chairman is a person who is in charge of a conference.
    Similarly, an editor is a person who is in charge of a Newspaper.

76. (a) All except potassium are metal used in semiconductor devices.

77. (d) All except chalk are abtained from crops.

78. (d) All others, except park are halting places where aeroplanes, ships and trains are kept.

79. (b) All except quay are parts of a ship.

80. (d) All except sharp are related to dimension

81. (a) Bargain is a thing bought for less than the usual price.

82. (b) A drama can not be performed without a story.

83. (a) It oceurs due to inertia of rest. When a car suddenly starts the lower part of the boy's body will be in the motion while his upper will be at rest.

84. (c) Astonishment is a feeling of very great surprise.

85. (d) A disclosure always has secrets.

87. (b) The whole figures inverts alternatively upside and downside
    • ♀ figure which is 4th position in problem figure 1 change its position 1st, 2nd, 3rd, 4th and again 1st places.
    • T figure shifts 1st and 2nd place alternatively.
    • Y figure goes from 2nd to 3rd, 3rd to 4th, 4th to 1st and 1st to 2nd
    • T figurer shifts 3rd and 4th place alternatively.

88. (a)
    ⌐• change its directions after 2nd step, so (d) is eliminated.
    ⌐• changes its direction after 1st step and then 2nd step so, (b) is eliminated.
    ⌐• changs its direction after 2nd step so (c) is eliminated.
    Hence, (a) is the answer.

89. (a) Upper arrow becomes half and rotates clockwise by 45° middle arrow rotates anticlockwise by 45°.

90. (c) Dots remain on the same place, the rest figures becomes invert.

91. (b) Upper figure (=) shifts diagnally opposite direction.
    Bottom figure (m) shifts 90° antinclockwise and becomes invert.

92. (a) The whole figure is devided into eight sections.

93. (d) The inner figure becomes outer and outer becomes inner and got shading.

94. (c)

95. (a) In all other figures bottom right corners have been shaded.

96. (b) Arrows are not in the same direction.

97. (a) All others have four parts.

AFCAT 1 2014 QUESTION PAPER

INSTRUCTIONS: TIME LIMIT : 2 HOURS

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1–4) : *Read the following passage carefully and answer the questions given below it:*

And then Gandhi came. He was like a powerful current of fresh air that made us stretch ourselves and take deep breaths, like a beam of light that pierced the darkness and removed the scales from our eyes, like a whirlwind that upset many things but most of all the working of people's minds. He did not descend from the top; he seemed to emerge from the millions of India, speaking their language and incessantly drawing attention to them and their appalling condition. Get off the backs of these peasants and workers, he told us, all of you who live by their exploitation; get rid of the system that produces this poverty and misery.

1. Gandhi came like a powerful current of fresh air and
    (a) awakened us to the plight of the masses in the grip of oppressors
    (b) made us patriotic
    (c) emboldened us to attack and destroy the oppressors
    (d) praised our culture
2. The rise of Gandhi
    (a) shocked people
    (b) made India powerful
    (c) made the condemnation of the exploiter final
    (d) made women feel secure
3. Gandhi fought the
    (a) rich   (b) oppressor
    (c) apathetic masses   (d) unjust system
4. The conspicuous role of Gandhi is that of a
    (a) father   (b) reformer
    (c) teacher   (d) liberator

DIRECTIONS (Qs. 5-10) : *Select the most appropriate word from the options against each number :*

Those living in the slums are **5** and tough because they are totally **6** to the vagaries and hardships of life. The rising sun **7** the day and the setting sun closes the day for them. It is like a drama where the curtain **8** up in the morning and comes down in the evening. They don't **9** hypertension and heart attacks because there is, after all **10** to worry about.

5. (a) Poor   (b) Sick   (c) Hardy   (d) Weak
6. (a) Dependent   (b) Independent
    (c) Exposed   (d) Tried

7. (a) Heralds   (b) Herald
    (c) Bring   (d) Brings
8. (a) Hangs   (b) Hand
    (c) Goes   (d) Shines
9. (a) Know   (b) Get   (c) Think   (d) Have
10. (a) Everything   (b) Something
    (c) Somewhere   (d) Nothing

DIRECTIONS (Qs. 11 – 12) : *Choose the word which is nearest in meaning to the given word :*
11. 'TRANSGRESSOR'
    (a) Passenger   (b) Law-breaker
    (c) Protector   (d) Comrade
12. 'EGREGIOUS'
    (a) Common   (b) Social
    (c) Plain   (d) Atrocious

DIRECTIONS (Qs. 13 – 15) : *Choose the word which is nearly opposite in meaning to the given word:*
13. 'PREDILECTION'
    (a) Oblivion   (b) Objectivity
    (c) Aversion   (d) Defeat
14. 'CACOPHONOUS'
    (a) Tamed   (b) Harmonious
    (c) Domestic   (d) Silent
15. 'CALUMNY'
    (a) Apology   (b) Eulogy
    (c) Enjoyment   (d) Reservation

DIRECTIONS (Qs. 16 – 20) : *Choose the word that best defines the given phrase:*
16. 'Able to use both hands alike'
    (a) Dexterous   (b) Ambidextrous
    (c) Skilful   (d) Expert
17. 'A written account of the life of an individual'
    (a) Autobiography   (b) Epigraph
    (c) Biography   (d) Novel
18. 'The identification of a disease by its symptoms'
    (a) Prescription   (b) Prognosis
    (c) Diagnosis   (d) Biopsy
19. 'Prolonged inability to sleep'
    (a) Amnesia   (b) Utopia
    (c) Nausea   (d) Insomnia

(a) Verbose   (b) Pedantic
(c) Ornate   (d) Pompous

DIRECTIONS (Qs. 21–25) : *Choose the correctly spelt word:*

21. The school alumni gathering put us in a _____ mood.
    (a) Remniscent   (b) Reminisent
    (c) Reminiscent   (d) Reminicent

22. 'God is Dead' is a _____ statement.
    (a) Blasphemus   (b) Blaphemous
    (c) Blasphemous   (d) Blosphemos

23. The threat of an epidemic caused great alarm and _____.
    (a) Trepidation   (b) Terpidation
    (c) Trepidition   (d) Trepidattion

24. The din caused by the children howling is enough to ____ the dead.
    (a) Ressurect   (b) Resurrect
    (c) Resurect   (d) Resurecct

25. Can you ___ the car into that parking spot?
    (a) Manuer   (b) Manever
    (c) Manoeuvre   (d) Manuver

DIRECTIONS (Qs. 26 – 47) : *Choose most appropriate answer:*

26. Who was the Governor-General of India during the 'Sepoy Mutiny'?
    (a) Lord Dalhousie   (b) Lord Harding
    (c) Lord Canning   (d) Lord Lytton.

27. Which of the following statements is incorrect?
    (a) Goa attained full statehood in 1987
    (b) Diu is an island in the Gulf of Khambhat
    (c) Daman & Diu were separated from Goa by the 56th Amendment of the Constitution of India
    (d) Dadar & Nagar Haveli were under French colonial rule till 1954.

28. On which river is Washington DC situated?
    (a) Potomac   (b) Irrawaddy
    (c) Mississippi   (d) Hudson

29. When body is accelerated:
    (a) Its velocity never changes
    (b) Its speed will always changes
    (c) Its direction always changes
    (d) Its speed may or may not change

30. Which of the following is not an agency of UN?
    (a) World Bank
    (b) International Atomic Energy Agency
    (c) Universal Postal Union
    (d) None of the above

31. Which kind of missile is BRAHMOS?
    (a) Medium range ballistic missile
    (b) Supersonic cruise missile
    (c) Short range tactical missile
    (d) Ultrasonic cruise missile

32. Which of the following is not a unit of energy?
    (a) Calorie   (b) Joule
    (c) Electron volt   (d) Watt

of India'?
    (a) Ashoka   (b) Samudragupta
    (c) Chandragupta   (d) Harshavardhana

34. Who is known as the 'Grand Old Man of India'?
    (a) Dadabhai Naoroji   (b) Gopal Krishna Gokhale
    (c) Bal Gangadhar Tilak   (d) A.O. Hume

35. Which amongst the following has the power to regulate the right of citizenship in India?
    (a) Union Cabinet   (b) Parliament
    (c) Supreme Court   (d) Law Commission

36. The Baglihar Hydroelectric power project in J & K is built across the river.
    (a) Beas   (b) Chenab
    (c) Jhelum   (d) Sutlej

37. Which Indian sportsperson was appointed as 'Messenger of Peace' in 2001 by the UN?
    (a) Prakash Padukone   (b) Vishwanathan Anand
    (c) Sachin Tendulkar   (d) Vijay Amritraj

38. Indian Women's hockey team secured which of the following position in Asian Champions Trophy 2013?
    (a) First   (b) Second
    (c) Third   (d) Fourth

39. Which is the longest bone in the human body?
    (a) Fibula   (b) Radius
    (c) Stapes   (d) Femur

40. A US team of scientists has found that the mechanism responsible for the ageing process is located
    (a) inside the face   (b) inside the skin
    (c) inside the brain   (d) inside the heart

41. The outer most layer of the Sun is known as
    (a) Corona   (b) Photosphere
    (c) Chromosphere   (d) Granule

42. Indian Institute of Science, Bangalore was founded by
    (a) CV Raman   (b) Jamsetji Tata
    (c) Vikram Sarabhai   (d) None of these

43. Which among the following is not a gallantry medal?
    (a) Ashok Chakra   (b) Arjuna Award
    (c) Param Vir Chakra   (d) Shaurya Chakra

44. Which one of the following pairs of water bodies are connected by the Suez Canal?
    (a) Indian Ocean- Pacific Ocean
    (b) Mediterranean sea- Black Sea
    (c) Mediterranean Sea-Red Sea
    (d) Atlantic Ocean- Pacific Ocean

45. Kalhana's 'Rajatarangini' is a history of
    (a) Kashmir   (b) Harsha's reign
    (c) Rajasthan   (d) Chandragupta's reign

46. The Constitution of India was promulgated on January 26, 1950 because
    (a) This day was being celebrated as the Independence Day since 1929
    (b) This was desired by the farmers of India
    (c) The British did not want to leave India earlier than this date
    (d) It was an auspicious day

47. Which of the following is not correctly matched?
    (a) Indonesia - Jakarta   (b) Maldives - Male
    (c) North Korea - Seoul   (d) Zimbabwe - Harare

DIRECTIONS (Qs. 48 – 50) : *Complete the series*

48. A, B, D, G, ?, P
    (a) I
    (b) J
    (c) K
    (d) L
49. Z , S , W, O ,T ,K, Q, G, ?, ?
    (a) N,D
    (b) N,C
    (c) O,C
    (d) O,D
50. BCD , RQP , LMN, TS?
    (a) U
    (b) V
    (c) R
    (d) T

DIRECTIONS (Qs. 51) *: If A = C , B = D , C = E and so on, code the following:*

51. 'STUDENT'
    (a) VWVFGPV
    (b) UUWFGPV
    (c) UVWFGPV
    (d) UVVFGPV

DIRECTIONS (Qs. 52) *: If A = Z, B = Y and so on , code the following:*

52. 'EDITOR'
    (a) VWRGLI
    (b) VWRGVI
    (c) VWVGLI
    (d) VWRLLI

DIRECTIONS (Qs.53–55). *Choose the most appropriate word:*

53. 'RUSTLE' is to 'LEAVES' as 'PATTER' is to_____
    (a) Snow
    (b) Wind
    (c) Rain
    (d) Storm
54. 'INDISCREET' is to 'IMPRUDENT' as 'INDISPOSED' is to
    _____
    (a) Concerned
    (b) Reluctant
    (c) Crucial
    (d) Clear
55. 'ACCIDENT' is to 'CAREFULNESS' as 'DISEASE' is to
    _____
    (a) Sanitation
    (b) Treatment
    (c) Medicine
    (d) Doctor

DIRECTIONS (Qs.56–58). *Each of the following questions has four statements. Three are logically correct. Some of which may look factually absurd. Ignore this absurdity and look to the logical corrections. Choose the statement which is wrong or doubtful:*

56. (a) Birds fly in the air. Trees are birds. Therefore, trees fly in the air.
    (b) Some boys steal. All who steal are naughty. All naughty are honest. Therefore, some boys are honest
    (c) All girls like dance. Some girls are Indian. All Indians are artists. Therefore, some artists like dance.
    (d) All liars are not thieves. All thieves are criminals. Therefore, all liars are criminals.
57. (a) Ramesh is tall. Ramesh is a boy. Therefore, boys are tall.
    (b) All who can fly are animals. Some birds can fly. Therefore, some birds are animals.

    (c) Men live in houses. Houses grow on trees. Trees float in water. Therefore, men float in water.
    (d) All living things are mobile. Some non- living things are mobile. Therefore, some mobile are living and some non-living.
58. (a) All books can read. Some pencils are books. All pencils are clever. Therefore, all clever cannot read.
    (b) Some who fail are stupid. Some criminals are stupid. Therefore, all criminals fail.
    (c) Some liar are thieves. All thieves are criminals. Therefore, some liars are criminals.
    (d) All that is given is black. Trees are green. Therefore, trees are black.

DIRECTIONS (Qs.59–60) : *Consider the statement and assumptions that follow. Which of these assumptions is/are implicit in the statement:*

59. **Statement:** "You won't get sweets at any cost. I will not let you eat things that are not good for your teeth" — a mother tells her child
    Assumption:
    (i) The mother cares for her child.
    (ii) Sweets are not good for her child.
    (iii) The mother has the authority to decide what her child is to eat.
    (a) (i) & (ii) are implicit
    (b) (ii) & (iii) are implicit
    (c) (i) & (iii) are implicit
    (d) All are implicit
60. **Statement:** "Clearly, the judiciary cannot provide all answers. But it seems the public, weary of an inactive Executive, is turning to the Supreme Court as a last resort"—an article.
    Assumption :
    (i) The Supreme Court is above the Executive.
    (ii) The Supreme Court is more active than the Executive.
    (iii) The Executive does not have sufficient powers.
    (a) (i) & (ii) are implicit
    (b) (ii) & (iii) are implicit
    (c) (i) & (iii) are implicit
    (d) Only (ii) is implicit

DIRECTIONS (Qs. 61 to 62) : *Choose the word which is least like the other words in the group.*

61. (a) Tsangpo
    (b) Hazaribagh
    (c) Kanha
    (d) Bandipur
62. (a) Wheat
    (b) Rice
    (c) Mustard
    (d) Gram

DIRECTIONS (Qs. 63 to 67) : *The following questions consist of two words that have a certain relationship to each other, followed by four alternatives. Select the best alternative that has same relationship as the original pair of words*

63. Crèche : Infants
    (a) School : Pupils
    (b) Deck : Sailors
    (c) Cottage : Guests
    (d) Aircraft : Crew
64. Pesticide : Plant
    (a) Injection : Disease
    (b) Vaccination : Body
    (c) Medicine : Cure
    (d) Teacher : Student
65. Stare : Glance
    (a) Gulp : Sip
    (b) Confide : tell
    (c) Hunt : Stalk
    (d) Step : Walk

66. Ecstasy : Pleasure
   (a) Hatred : Affection   (b) Rage : Anger
   (c) Joy : Grief   (d) Mumble : Speak
67. Necromancy : Ghosts
   (a) Romance : Stories   (b) Magic : Amulets
   (c) Alchemy : Gold   (d) Sorcery : Spirit

DIRECTIONS (Qs.68–70). *There is certain relationship between two given words on one side of : : and one word is given on another side of : : while another word is to be found from the given alternatives, having the same relation with this word as the given pair has. Select the best alternatives/ relationship.*

68. Firm : Flabby : : Piquant : ?
   (a) Salty   (b) Pleasant
   (c) Bland   (d) Smell
69. Funk : Vitamins : : Curie : ?
   (a) Uranium   (b) Radioactivity
   (c) Photography   (d) Radium
70. Contamination : Food : : Infection : ?
   (a) Diseases   (b) Body
   (c) Germs   (d) Microbes

DIRECTIONS (Qs.71–85). *Choose the most appropriate answer.*

71. An article costs ₹ 50 presently. The rate of inflation is 300%. What will be cost of this article after two years?
   (a) ₹ 200   (b) ₹ 600
   (c) ₹ 800   (d) ₹ 1000

72. A dishonest shopkeeper professes to sell his groceries at his cost price, but uses a false weight of 900 grams for each kilogram. Find his gain percentage.
   (a) 91/9 %   (b) 100/9%
   (c) 100/11%   (d) 95/9%

73. A man purchased a bullock and a cart for ₹ 1800. He sold the bullock at a profit of 20% and the cart at a profit of 30%. His total profit was 155/6 %. Find the cost price of bullock.
   (a) ₹ 650   (b) ₹ 750
   (c) ₹ 900   (d) ₹ 800

74. There were 35 students in a hostel. If the number of students be increased by 7, the expenditure on food increases by ₹ 42 per day while the average expenditure of students is reduced by ₹ 1. What was the initial expenditure on food per day?
   (a) ₹ 432   (b) ₹ 442
   (c) ₹ 420   (d) ₹ 400

75. There were 24 students in a class. One of them, who was 18 years old, left the class and his place was filled up by a new comer. If the average of the class was thereby lowered by 1 month, the age of new comer is
   (a) 14 years   (b) 15 years
   (c) 16 years   (d) 17 years

76. Find two natural numbers whose sum is 85 and the least common multiple is 102.
   (a) 30 and 55   (b) 17 and 68
   (c) 35 and 55   (d) 51 and 34

77. In a fort there was sufficient food for 200 soldiers for 31 days. After 27 days, 120 soldiers left the fort. For how many extra days will the rest of the food last for the remaining soldiers?
   (a) 12 days   (b) 10 days
   (c) 8 days   (d) 6 days

78. 10 is added to a certain number, the sum is multiplied by 7, the product is divided by 5 and 5 is subtracted from the quotient. The remainder left is half of 88. What is the number?
   (a) 21   (b) 20
   (c) 25   (d) 30

79. 19 persons went to a hotel for a combined dinner party. 13 of them spent ₹ 79 each on their dinner and the rest spent ₹ 4 more than the average expenditure of all the 19. What was the total money spent by them?
   (a) 1628.4   (b) 1534
   (c) 1492   (d) None of these

80. Two typists of varying skills can do a typing job in 6 minutes if they work together. If the first typist typed alone for 4 minutes and then the second typist typed alone for 6 minutes, they would be left with 1/5 of the whole work. How many minutes would it take the slower typist to complete the typing job working alone?
   (a) 10 minutes   (b) 15 minutes
   (c) 12 minutes   (d) 20 minutes

81. A bag contains 25 paise, 50 paise and 1 ₹ coins. There are 220 coins in all and the total amount in the bag is ₹ 160. If there are thrice as many 1 ₹ coins as there are 25 paise coins, then what is the number of 50 paise coins?
   (a) 60   (b) 40
   (c) 120   (d) 80

82. The sum of two numbers is equal to thrice their difference. If the smaller of the numbers is 10 find the other number.
   (a) 15   (b) 30
   (c) 40   (d) None of these.

83. If a person repaid ₹ 22500 after 10 years of borrowing a loan, at 10% per annum simple interest find out what amount did he take as a loan?
   (a) 11,225   (b) 11,250
   (c) 10,000   (d) 7,500

84. A sum of money invested at simple interest triples itself in 8 years. How many times will it become in 20 years time?
   (a) 8 times   (b) 7 times
   (c) 6 times   (d) 9 times.

85. Simplify: $\dfrac{69 \times 69 \times 69 - 65 \times 65 \times 65}{69 \times 69 + 69 \times 65 + 65 \times 65}$
   (a) 1   (b) 4
   (c) 0.216   (d) 0.164

DIRECTIONS (Q86-89): *In these tests you will find an Incomplete Figure and four Answer Figures. You have to select one diagram from the Answer Figures which fits into the blank column in Incomplete Figure in order to complete it:*
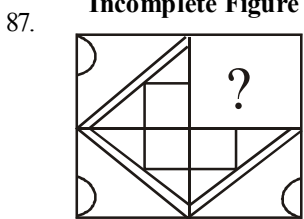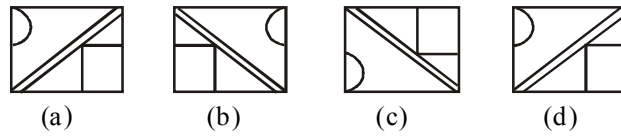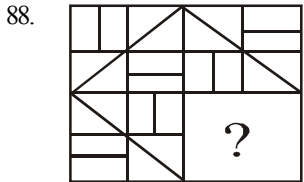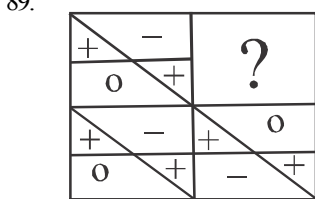
Incomplete Figure
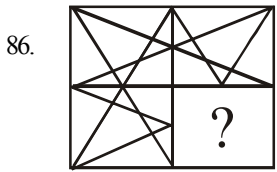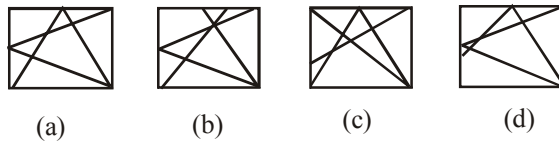
86.

Answer Figures

(a)   (b)   (c)   (d)

87. **Incomplete Figure**

Answer Figures

(a)   (b)   (c)   (d)

Incomplete Figure

88.

Answer Figure

(a)   (b)   (c)   (d)
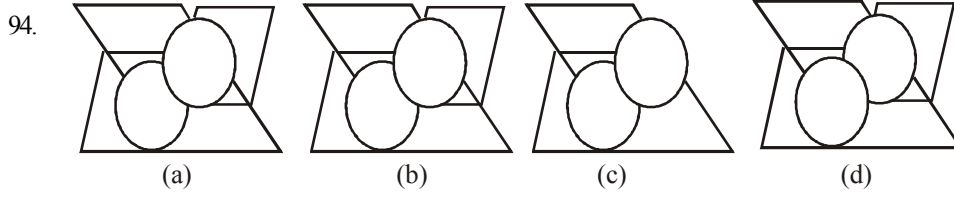
89. **Incomplete Figure**

Answer Figures

(a)   (b)   (c)   (d)
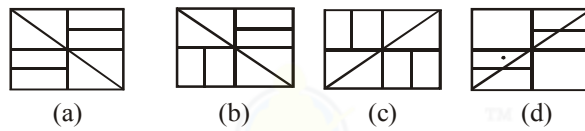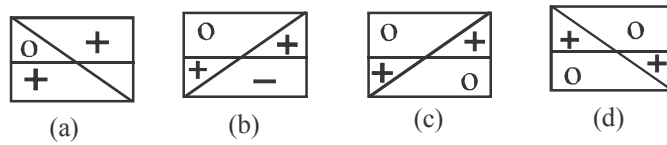
DIRECTIONS (Qs.90-93) : *In these tests find which code matches the shape or pattern given at the end of each questions.*

90.

JS   RM   LM   JQ   RS   ?

LS	RQ	LM	LQ
(a)	(b)	(c)	(d)

91.

DM   KN   KZ   SZ   DN   ?

SN	DZ	SM	SZ
(a)	(b)	(c)	(d)

92.

GR   PK   JS   GK   PS   ?

PR	JR	GS	JK
(a)	(b)	(c)	(d)

93.

AF   BG   AH   CG   CH   ?

BF	GB	BG	CG
(a)	(b)	(c)	(d)
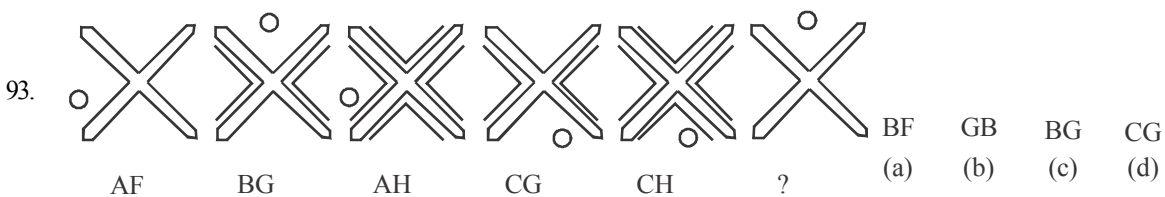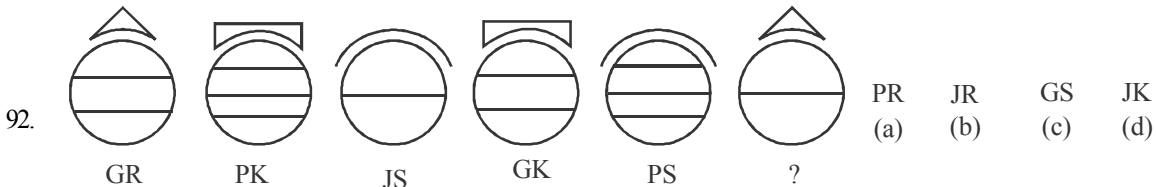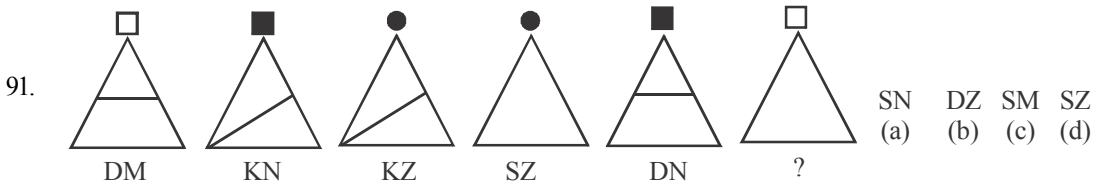
DIRECTIONS (Qs. 94 - 97) : *In these tests find the odd figure out:*

94.

(a)   (b)   (c)   (d)

95.

(a)   (b)   (c)   (d)

96.

(a)   (b)   (c)   (d)

97.

(a)   (b)   (c)   (d)
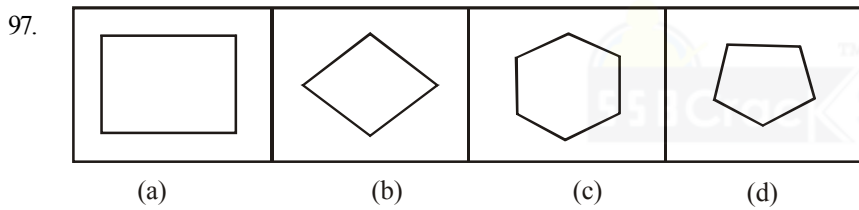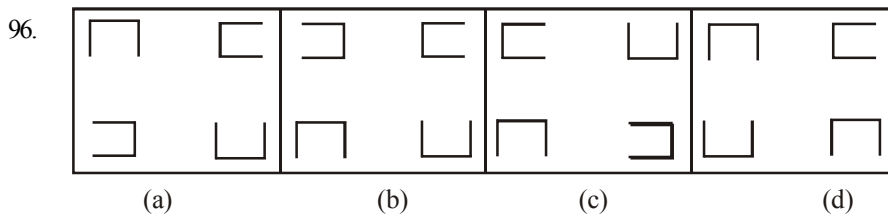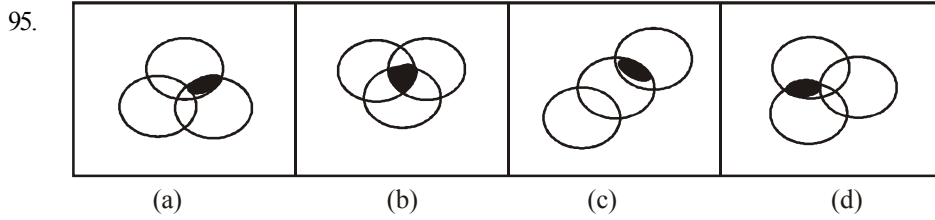
DIRECTIONS (Q.98-100) : *In these tests Figure X is Hidden in the option figures. Find the correct option.*

98.

X   (a)   (b)   (c)   (d)

99.

X   (a)   (b)   (c)   (d)

100.

X   (a)   (b)   (c)   (d)
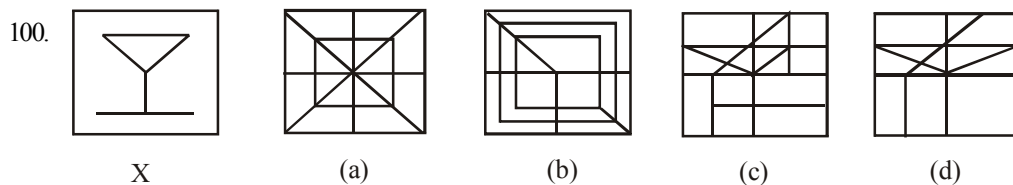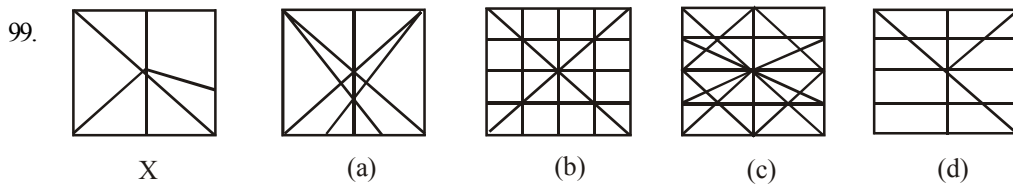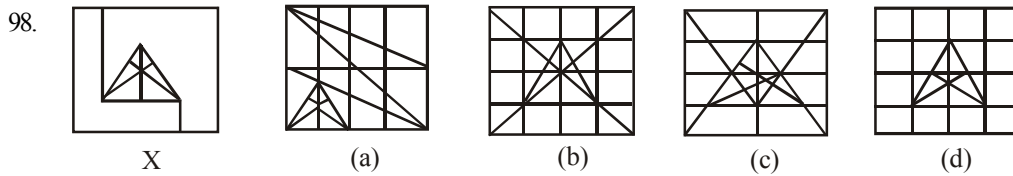
ANSWER KEY

1. (a)	2. (b)	3. (c)	4. (d)	5. (c)	6. (c)	7. (d)	8. (c)	9. (d)	10.(d)
11.(b)	12.(d)	13.(c)	14.(d)	15.(b)	16.(b)	17.(c)	18.(c)	19.(d)	20.(b)
21.(c)	22.(c)	23.(b)	24.(b)	25.(c)	26.(c)	27.(d)	28.(a)	29.(b)	30.(b)
31.(b)	32.(d)	33.(b)	34.(a)	35.(b)	36.(b)	37.(d)	38.(b)	39.(d)	40.(c)
41.(b)	42.(b)	43.(b)	44.(c)	45.(a)	46.(a)	47.(c)	48.(c)	49.(b)	50.(c)
51.(c)	52.(a)	53.(c)	54.(b)	55.(a)	56.(d)	57.(a)	58.(b)	59.(d)	60.(d)
61.(a)	62.(b)	63.(d)	64.(b)	65.(a)	66.(b)	67.(d)	68.(c)	69.(d)	70.(b)
71.(c)	72.(b)	73.(b)	74.(c)	75.(c)	76.(d)	77.(b)	78.(c)	79.(d)	80.(b)
81.(a)	82.(d)	83.(b)	84.(c)	85.(b)	86.(a)	87.(b)	88.(c)	89.(d)	90.(d)
91.(c)	92.(b)	93.(a)	94.(c)	95.(b)	96.(d)	97.(d)	98.(d)	99.(c)	100.(a)

1. (a) The author states how Gandhi showed the mirror to the masses on how the cruel system is deteriorating the country and urged them to stand up for themselves.

2. (b) The rise of Gandhi empowered the people which thus made the country strong.

3. (c) Gandhi fought the unjust system that was exploiting the peasants and workers.

4. (d) As seen in the paragraph, Gandhi is seen as a liberator. A liberator is a person who liberates a person or place from imprisonment or oppression.

5. (c) Hardy. In the sentence, hardy is used along with the word tough to describe the people living in slums.

6. (c) Exposed. In the sentence, the author tells how slum people are subject to uncertainties and hardships of life.

7. (d) Brings. Using the third person singular present form of bringinstead of infinitive form.

8. (c) goes. In the sentence, comes is used with evening. And goes is the opposite of come which will thus come along morning.

9. (d) have. It is the most appropriate word from the given options.

10. (d) nothing. The sentence begins with don't, which means negation.

11. (b) transgressor is a person who breaks the law i.e. a law breaker.

12. (d) Egregious means outstandingly bad and atrocious means outrageous.

13. (c) Predilection means preference toward something whereas aversion means opposition.

14. (d) Cacophonous means harsh sounding, whereas quiet is calm and noiseless.

15. (b) Calumny is the making of false statements that damage another's reputation whereas eulogy means praise and acclamation.

16. (b) Ambidextrousmeans both hands. The ambidextrous person can perform anaction with either hand having equal dexterity in the action.Writing is themost striking of these actions.

17. (c) A written account of the life of an individual by himself is called a autobiography. And when it is written by other person, then it is called biography.

18. (c) Diagnosis refers to both the process of attempting to determine or identify a possible disease and to the opinion reached by this process.

19. (d) Insomnia, or sleeplessness, is a sleep disorder in which there is an inability to fall asleep or to stay asleep as long as desired.

20. (b) Pedantic mean overly concerned with minute details or formalisms, especially in teaching.

21. (c) Reminiscent

22. (c) Blasphemous

23. (b) trepidation

24. (b) resurrect

25. (c) manoeuvre.

26. (c) A major cause of resentment that arose ten months prior to the outbreak of the Rebellion was the General Service Enlistment Act of 25 July 1856. As noted above, men of the Bengal Army had been exempted from overseas service. Specifically they were enlisted only for service in territories to which they could march. Governor-General Lord Dalhousie saw this as an anomaly, since all sepoys of the Madras and Bombay Armies and the six "General Service" battalions of the Bengal Army had accepted an obligation to serve overseas if required. As signed into effect by Lord Canning, Dalhousie's successor as Governor-General, the Act required only new recruits to the Bengal Army to accept a commitment for general service. However, serving high-caste sepoys were fearful that it would be eventually extended to them, as well as preventing sons following fathers into an Army with a strong tradition of family service.

27. (d) To keep the British at bay and to enlist their support against the Moghuls, the Marathas, who had founded their own empire/kingdom made friends with the Portuguese and signed with them a treaty in 1779. Under this, the Maratha-Peshwa agreed that the Portuguese

would be allowed to collect revenues from Dadra and Nagar Haveli which consisted of 72 villages (then known as parganas, now referred to as district places).It was annexed by India from Portugal on 2 August 1954. The people of the territory established free administration of Dadra and Nagar Haveli, which was finally merged into the Union of India in 1961.

28. (a) The Potomac River is located along the mid-Atlantic coast of the United States and flows into the Chesapeake Bay. The river (main stem and North Branch) is approximately 405 miles (652 km) long, with a drainage area of about 14,700 square miles (38,000 km²). The river forms part of the borders between Maryland and Washington, D.C., on the left descending bank and West Virginia and Virginia on the river's right descending bank.

30. (b) The World Bank is a United Nations international financial institution that provides loans to developing countries for capital programs. The World Bank is a component of the World Bank Group, and a member of the United Nations Development Group.
The International Atomic Energy Agency (IAEA) is an international organization that seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons. The IAEA was established as an autonomous organization on 29 July 1957. Though established independently of the United Nations through its own international treaty, the IAEA Statute, the IAEA reports to both the United Nations General Assembly and Security Council.
The Universal Postal Union is a specialized agency of the United Nations that coordinates postal policies among member nations, in addition to the worldwide postal system.

31. (b) BrahMos is a supersonic cruise missile that can be launched from submarines, ships, aircraft or land. It is a joint venture between Republic of India's Defence Research and Development Organisation (DRDO) and Russian Federation's NPO Mashinostroeyenia who have together formed BrahMos Aerospace Private Limited.It is the world's fastest cruise missile in operation. The missile travels at speeds of Mach 2.8 to 3.0. The land-launched and ship-launched versions are already in service, with the air and submarine-launched versions currently in the testing phase.

32. (d) The watt is a derived unit of power in the International System of Units, named after the Scottish engineer James Watt. The unit defined as one joule per second, measures the rate of energy conversion or transfer.

33. (b) Samudragupta, ruler of the Gupta Empire (c. 335 - c. 375 CE), and successor to Chandragupta I, is considered to be one of the greatest military geniuses in Indian history. He was the third ruler of the Gupta Dynasty, who ushered in the Golden Age of India. He was perhaps the greatest king of Gupta dynasty. He was a benevolent ruler, a great warrior and a patron of arts. His name appears in the Javanese text `Tantrikamandaka'.

34. (a) Dadabhai Naoroji (4 September 1825 - 30 June 1917), known as the Grand Old Man of India, was a Parsi intellectual, educator, cotton trader, and an early Indian political and social leader. He was a Member of Parliament (MP) in the United Kingdom House of Commons between 1892 and 1895, and the first Asian to be a British MP. Naoroji is also credited with the founding of the Indian National Congress, along with A.O. Hume and Dinshaw Edulji Wacha. His book Poverty and Un-British Rule in India brought attention to the draining of India's wealth into Britain.

35. (b) Nothing in the foregoing provisions of this Part shall derogate from the power of Parliament to make any provision with respect to the acquisition and termination of citizenship and all other matters relating to citizenship.

36. (b) Baglihar Dam, also known as Baglihar Hydroelectric Power Project, is a run-of-the-river power project on the Chenab River in the southern Doda district of the Indian state of Jammu and Kashmir.The project is estimated to cost USD $1 billion. The first phase of the Baglihar Dam was completed in 2004. With the second phase completed on 10 October 2008, Prime Minister Manmohan Singh of India dedicated the 900-MW Baglihar hydroelectric power project to the nation.

37. (d) On 9 February 2001 Vijay Amritraj was appointed UN Messenger of Peace. He has been a committed advocate to people in need, devoting his time to raising awareness on the issues of drugs and HIV/AIDS and in raising funds to fight the spread of AIDS worldwide.

38. (b) Indian women's hockey team had to be content with a silver medal in third Asian Champions Trophy after losing to hosts Japan by a solitary goal in the summit clash of the event at Kakamigahara, Japan.

39. (d) The head of the femur articulates with the acetabulum in the pelvic bone forming the hip joint, while the distal part of the femur articulates with the tibia and patella forming the knee joint. By most measures the femur is the strongest bone in the body. The femur is also the longest bone in the body.

40. (c) The US team of scientists found the mechanism in the hypothalamus- which is located deep inside the brain- and showed that it is responsible for the ageing process. Scientists carried out a series of experiments to find that they could extend the lives of mice by a fifth, without the problems such as animals suffering from muscle weakness, bone loss or memory problems associated with old age.

41. (b) The visible surface of the Sun, the photosphere, is the layer below which the Sun becomes opaque to visible light. Above the photosphere visible sunlight is free to propagate into space, and its energy escapes the Sun entirely.

42. (b) Indian Institute of Science (IISc) is a public university for scientific research and higher education located in Bengaluru (formerly Bangalore), India. Established in 1899 with active support from Jamshetji Tata it is also locally known as the "Tata Institute".[3] It acquired the status of a Deemed University in 1958. IISc is widely regarded as India's finest institution in its field, and has made significant contribution to advanced computing, space, and nuclear technologies.

43. (b) The Arjuna Awards were instituted in 1961 by the government of India to recognize outstanding achievement in National sports. The award carries a cash prize of ₹ 500,000, a bronze statuette of Arjuna and a scroll.

44. (c) The Suez Canal is an artificial sea-level waterway in Egypt, connecting the Mediterranean Sea and the Red Sea.

45. (a) Rajatarangini is a metrical historical chronicle of north-western Indian subcontinent, particularly the kings of Kashmir, written in Sanskrit by Kashmiri Brahman Kalhana in 12th century CE. The work generally records the heritage of Kashmir, but 120 verses of Rajatarangini describe the misrule prevailing in Kashmir during the reign of King Kalash, son of King Ananta Deva of Kashmir. Although the earlier books are inaccurate in their chronology, they still provide an invaluable source of information about early Kashmir and its neighbors in the north western parts of the Indian subcontinent, and are widely referenced by later historians and ethnographers.

46. (a) This day was being celebrated as the Independence Day since 1929

47. (c) Seoul is the capital of South Korea. Pyongyang is the capital of North Korea.

48. (c) A, B, D, G, [K], P with +1, +2, +3, +4, +5

49. (b) Z S W O T K Q G [N] [C] with −4, −4, −4, −4 and −3, −3, −3, −3

50. (c) B C D, R Q P, L M N, T S [R] with +1 +1, +1 +1, +1 +1, +1 +1

51. (c) S T U D E N T ↓ ↓ ↓ ↓ ↓ ↓ ↓ U V W F G P V

52. (a) E D I T O R ↓ ↓ ↓ ↓ ↓ ↓ V W R G L I

53. (c) Rustle is sound of leaves and Patter is the sound of rain.

54. (b) The words in each pair are synonyms of each other.

55. (a) Lack of carefulness causes accident similarly lack of sanitation causes disease.

61. (a) All expect Tsangpo are national parks.

62. (b) All except rice are rabi crops.

63. (d)

64. (b) Plant is given pesticide for cure and body is given vaccination.

65. (a) First is of higher intensity than the second.

66. (b) First is more intense form of second.

67. (d) Necromancy deals with ghosts. Similarly sorcery deals with spirits.

68. (c) Words in each pair are antonym to each other.

69. (d) Funk discovered vitamins and curie discoverd radium.

70. (b) Food is contained by germs and body is infected by germs.

71. (c) Cost of article = ₹ 50
Inflation = 300%

$$\text{After 2 years cost} = 50\left(1+\frac{300}{100}\right)^2 = 50 \times 16 = ₹\ 800$$

72. (b) $$\text{Gain \%} = \frac{1000-900}{900} \times 100 = \frac{100}{900} \times 100 = \frac{100}{9}\%$$

73. (b) Let CP of bullock = ₹ x

$$SP = \frac{x \times 120}{100}$$

CP of cart = (1800 − x)
P = 30%

$$SP = \frac{(1800-x) \times 130}{100}$$

$$\text{Total SP} = \frac{1800 \times \left(100+\frac{155}{6}\right)}{100} = ₹\ 226500$$

$$\therefore \quad \frac{120}{100} + \frac{(1800-x) \times 130}{100} = 226500$$

$$\therefore \quad x = 750$$

Reset sequence property
Hence, cost price of bullock = ₹ 750

74. (c) Let expenditure per day = x

$$\therefore \quad \frac{x}{35} = \frac{x+42}{42} + 1$$

$$\therefore \quad x = 420$$

Hence, the initial expenditure on food per day = ₹ 420

75. (c) Age of new comer = $18 - 24 \times \frac{1}{12} = 16$ years.

76. (d) By using option (d) is correct answer in which
51 + 34 = 85
and LCM of 51 & 34 is 102.

77. (b) Let rest of the food last for the x days.
$$\therefore \quad 200 \times 4 = (200-120) \times x$$
$$200 \times 4 = 80 \times x$$

$$x = \frac{800}{80} = 10\ \text{days}.$$

78. (c) Let the number be $= x$

$\therefore \quad \dfrac{(x+10)\times 7}{5} - 5 = \dfrac{88}{2}$

$7x + 70 - 25 = 220$

$7x = 220 - 55$

$7x = 175$

$x = 25$

$\therefore$ Number is 25.

79. (d) Let average of all persons $= x$

$\therefore \quad (13 \times 79) + 6(x+4) = 19 \times x$

$13 \times 79 + 6x + 24 = 19x$

$13 \times 79 + 24 = 13x$

$x = \dfrac{13 \times 79 + 24}{13} = 80.25$

Total money spent $= 1536$

80. (b) Let first complete the job in $= x$ minutes

Second complete the job in $= y$ minutes

$\therefore \quad \dfrac{1}{x} + \dfrac{1}{y} = \dfrac{1}{6}$ ...(1)

and $\dfrac{4}{x} + \dfrac{6}{y} = 1 - \dfrac{1}{5} = \dfrac{4}{5}$ ...(2)

By (1) and (2)

$x = 10, y = 15$

Hence slower typist complete the jobs in 15 minutes.

81. (a) Let 25 paise coins $= x$

$1\,₹ : 50\,P : 25\,P$

$3x : 220 - 4x : x$ Ratio in number of coins

$3x : \dfrac{220 - 4x}{2} : \dfrac{x}{4}$ Ratio in amount

$\therefore \quad 3x + 110 - 2x + \dfrac{x}{4} = 160$

$x + 110 - 2x + \dfrac{x}{4} = 160$

$x + 110 + \dfrac{x}{4} = 160$

$4x + 440 + x = 640$

$5x = 200$

$x = 40$

$\therefore$ 50 paise coins $= 220 - 40yx = 220 - 160 = 60$

82. (d) Let largest no. $= x$

$\therefore \quad x + 10 = 3(x - 10)$

$10 + 30 = 3x - x$

$40 = 2x$

$x = 20$

$\therefore$ other number $= 20$

83. (b) Let $P = ₹\,x$

$SI = \dfrac{x \times 10 \times 10}{100} = x$

$A = P + SI$

$22500 = x + x$

$2x = 22500$

$x = 11250$

$\therefore$ He took 11,250 as a lone.

84. (c) Let $P = x$

$A = 3x$

$SI = 2x$

$T = 8$ years

$R = \dfrac{2x \times 100\ \overset{25}{}}{x \times 8\ \underset{4}{}} = 25\%$

Now $SI = \dfrac{x \times 25\ \overset{5}{} \times 20}{100\ \underset{5}{}} = 5x$

$A = 5x + x = 6x$

$\therefore$ In 6 years is becomes 6 times

85. (b) $\dfrac{69 \times 69 \times 69 - 65 \times 65 \times 65}{69 \times 69 + 69 \times 65 + 65 \times 65}$

Using $\dfrac{a^3 - b^3}{a^2 + ab + b^2} = a - b$

$\therefore \quad 69 - 65 = 4$

90. (d)

91. (c)
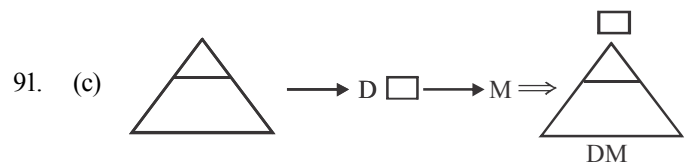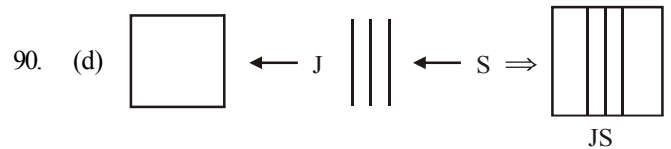
95. (b) In this figure shaded regios covers all the three circles and in rest figures only two circles.

AFCAT 1 2013 QUESTION PAPER

INSTRUCTIONS: TIME LIMIT : 2 HOURS

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1-5) : *Read the following passage carefully and answer the questions given below:*

We shall go on the end, we shall fight in France, we shall fight on the seas and oceans, we shall fight with the growing confidence and strength in the air, we shall defend our island, whatever the cost may be, we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills. We shall never surrender, and even if this island or a large part of it was subjugated and starving, then our empire beyond the seas would carry on the struggle, until the New World steps forth to the rescue and the liberation of the Old.

1. On the basis of the passage which of the following statements may be said to be correct?
   (a) The speaker is encouraging his men for the conquest of France
   (b) The speaker is an aggressive and maniacal war-monger
   (c) The speaker is not satisfied with the conquest of the island
   (d) The speaker is a patriot urging the defence of his motherland

2. The speaker in the passage wants to go on fighting because
   (a) he is a raving lunatic
   (b) he is in a state of utter despair
   (c) he expects help from other quarters
   (d) he is the leader of a suicide squad

3. Which of the following pair of the phrases helps best to bring out the intension of the speaker?
   (a) "Go on to the end", "shall never surrender"
   (b) "Growing confidence", "subjugated and starving"
   (c) "Subjugated and starving", "fighting and landing around"
   (d) "Fighting in the streets", "subjugated and starving"

4. The passage consists of repetitive patterns in syntax and vocabulary. The effect of this style is that it
   (a) reveals the speaker's defects in giving a speech
   (b) produces the impression of bad poetry
   (c) conveys the speaker's helpless situation
   (d) reinforces the speaker's basic intention

5. The tone of the speaker is
   (a) pleading and urging
   (b) inspiring and encouraging
   (c) discouraging and gloomy
   (d) menacing and bullying

DIRECTIONS (Qs. 6 – 8) : *In each of the following, choose the word most similar in meaning to the word given in capitals.*

6. "MEDDLE"
   (a) Disregard   (b) Overlook
   (c) Interfere   (d) Free

7. "ABJURE"
   (a) Renounce   (b) Run off secretly
   (c) Abide   (d) Discuss

8. "ESTRANGE"
   (a) Endanger   (b) To become puzzling
   (c) Miscalculate   (d) Alienate

DIRECTIONS (Qs. 9 and 10) : *In each of the following, choose the word most nearly opposite in meaning to the word given in capitals.*

9. "DEROGATORY"
   (a) Conferred   (b) Immediate
   (c) Praising   (d) Private

10. "WANE"
   (a) Widen   (b) Poor
   (c) Swell   (d) Tight

DIRECTIONS (Qs. 11 – 15) : *In each of the following questions, find out which part has an error*

11. The police has (a)/arrested the thief (b)/who broke into my house (c)/last night. (d)

12. The man who (a)/they thought to be (b)/a gentleman turned out (c)/to be a rogue. (d)

13. I told him on his face (a)/that he could not hope (b)/to pass the stringent (c)/Medical examination of the Services Selection Board. (d)

14. Mohan is one of those boys (a)/who has expressed (b)/willingness for joining (c)/the education tour. (d)

15. I may spend (a)/ this summer vacations (b)/with one of my friends (c)/ in the back waters of Kerala. (d)

DIRECTIONS (Qs. 16-20) : *Pick up the most effective word from the given words to fill in the blanks to make the sentence meaningfully complete.*

16. According to the weather _____ it is going to be cloudy today.
   (a) announcement   (b) indication
   (c) prediction   (d) forecast

17. The villagers _____ the murder of their leader by burning the police van.
   (a) protested   (b) avenged
   (c) mourned   (d) consoled

18. While on the routine fight, the aircraft was hit by a missile and _____ into flames.
    (a) fired   (b) burst
    (c) caught   (d) engulfed
19. Hari got the company car for a _____ price as he was the senior most employee in the company.
    (a) reduced   (b) discounted
    (c) fixed   (d) nominal
20. The unruly behaviour of the soldiers _____ their commander.
    (a) clashed   (b) aggrieved
    (c) incensed   (d) impeached

DIRECTIONS (Qs. 21 – 40) : *Choose the correct answer.*

21. Who accorded the title 'Mahatma" to MK Gandhi?
    (a) Sardar Patel   (b) Nehru
    (c) Sarojini Naidu   (d) Rabindranath Tagore
22. The Non co-operation Movement started in which year?
    (a) 1900   (b) 1921
    (c) 1940   (d) 1935
23. During the Middle Ages education was confined only to
    (a) Kshatriyas   (b) Brahmins
    (c) Peasants   (d) Shudras
24. Who among the following was responsible for the spread of Buddhism in Sri Lanka?
    (a) Ashoka   (b) Mahavira
    (c) Parsavanth   (d) Chandra Gupta Maurya
25. The elements which have low value of ionization potential are strong
    (a) oxidising agents
    (b) reducing agents
    (c) oxidising and Reducing agents depending upon the reactants
    (d) none of these
26. Wayne Rooney, the famous footballer, hails from which country?
    (a) Italy   (b) Brazil
    (c) Argentina   (d) England
27. The official song 'Waka Waka' of FIFA World Cup held in the year 2010 at South Africa was sung by which popular singer?
    (a) Madonna   (b) Destiny Child
    (c) Shakira   (d) Rehanna
28. In the year 2011, the ace badminton player Saina Nehwal was honoured with which sports award?
    (a) Dronacharya award
    (b) Rajiv Gandhi Khel Ratna award
    (c) Arjun award
    (d) None of these
29. Term 'Visible Horizon' in astronomy is defined as
    (a) The circle of contact of the earth and the cone of visual rays passing through the meridian of the place
    (b) The circle of contact of the earth and the cone of visual rays not passing through the meridian of the place
    (c) The circle of contact of the earth and the cone of visual rays passing through the point of observation
    (d) The circle of contact of the earth and the cone of visual rays not passing through the point of observation

30. NREGA stands for
    (a) National Revenue Engagement Guarantee Association
    (b) National Revenue Employment Guarantee Act
    (c) National Rural Employment Guarantee Association
    (d) National Rural Employment Guarantee Act
31. River Satluj originates from
    (a) Northern slopes of the Kailash range
    (b) Spring at Verinarg
    (c) Rakas Lake
    (d) Amarkantak plateau
32. Limonitic ore is the ore of which metal?
    (a) Iron   (b) Aluminium
    (c) Zinc   (d) Cobalt
33. Black revolution relates to which of the following?
    (a) Self-dependence in foodgrains production
    (b) Self-dependence in milk production
    (c) Self-dependence in petroleum/crude oil
    (d) None of these
34. Karrar is the unmanned bomber aircraft of
    (a) Iraq   (b) Iran
    (c) Turkey   (d) Pakistan
35. Who is the author of book 'Keeping the Faith: Members of a Parliamentarian'?
    (a) David Omand   (b) Raja Shehadeh
    (c) Raghav Bahl   (d) Somnath Chatterjee
36. _____ is a thyroid hormone which controls the balance of calcium in the body
    (a) Calcitonin   (b) Thyroxine
    (c) Calmodulin   (d) All of these
37. The cell wall in plants is interrupted by narrow pores carrying fine strands of cytoplasm which interlink the contents of the cells. These strands are called:-
    (a) Plasmohole   (b) Microvilli
    (c) Plasmodesmata   (d) Plasmalemma
38. Who is the cricketer bestowed with an honorary commission in the Territorial Army?
    (a) Sachin Tendulkar (b) Kapil Dev
    (c) Virendra Sehwag (d) Harbhajan Singh
39. The transport phenomenon occurs only in _____ state of a gas and is _____.
    (a) non-equilibrium, irreversible
    (b) non-equilibrium, reversible
    (c) equilibrium, irreversible
    (d) equilibrium, reversible
40. Which of the following compounds form nitrites with nitrous acid?
    (a) Primary amines   (b) Secondary amines
    (c) Tertiary amines (d) All of these
41. The number whose square is equal to the difference of the squares of 37 and 23 is
    (a) 45.09   (b) 28.98
    (c) 47.09   (d) 28
42. The average age of 8 men is increased by 4 years when one of them whose age is 30 years is replaced by a new man. What is the age of new man?
    (a) 55 years   (b) 62 years
    (c) 42 years   (d) 69 years

1/4 full, it weighs 9 kg. Find the weight of empty vessel.
(a) 4 kg
(b) 5 kg
(c) 8 kg
(d) 3 kg

44. If $a - b = 4$ and $ab = 45$ find the value of $a^3 - b^3$.
(a) 604
(b) 370
(c) 253
(d) 199

45. If $a/(a + b) = 15/21$, what is $(a + b)/(a - b)$ equal to?
(a) 13/9
(b) 23/11
(c) 14/5
(d) 21/9

46. $\dfrac{\left(798 + 579\right)^2 - \left(798 - 579\right)^2}{\left(798 \times 579\right)} = ?$
(a) 2
(b) 6
(c) 4
(d) 8

47. A man's average monthly expenditure for the first four months of the year was ₹ 231.25. For the next five months, the average monthly expenditure was ₹ 22.75 more than what it was during the first four months. If the person spent ₹ 605 in all during the remaining three months of the year, find what percentage of his annual income of ₹ 3500 did he save in the year?
(a) 10%
(b) 15%
(c) 20%
(d) 25%

48. The average age of students of a class is 15.8 years. The average age of boys in the class is 16.4 years and that of the girls is 15.4 years. The ratio of the number of boys to the number of girls in the class is
(a) 1 : 2
(b) 2 : 3
(c) 3 : 4
(d) 3 : 5

49. 18 buckets of water fill a tank when the capacity of each bucket is 8 litres. How many buckets will be needed to fill the same tank, if the capacity of the bucket is 12 litres?
(a) 12
(b) 13.5
(c) 24
(d) can not be determined due to insufficient data

50. Srinivasan invests two equal amounts in two banks giving 8% and 12% rate of interest respectively. At the end of year the interest earned is ₹ 1500. Find the sum invested in each.
(a) ₹ 8500
(b) ₹ 15000
(c) ₹ 7500
(d) ₹ 17000

51. The simple interest accrued on a sum of money at the end of four years is 1/5th of its principal. What is the rate of interest per annum?
(a) 4%
(b) 5%
(c) 6%
(d) Inadequate data

52. A sum of ₹ 2600 is lent out into two parts, one at 9% and another at 7%. If the total annual income is ₹ 206, find the money lent at 7%.
(a) ₹ 1400
(b) ₹ 900
(c) ₹ 1600
(d) ₹ 1200

53. In an election between two candidates, 70% of the voters cast their votes, out of which 2% of the votes were declared invalid. A candidate got 7203 votes which was 60% of the total valid votes. Find the total number of voters enrolled in that election.
(a) 18050
(b) 17500
(c) 17000
(d) 7203

percent a house holder must reduce his consumption of kerosene so as not to increase his expenditure?
(a) 11%
(b) 9.9%
(c) 11.09%
(c) 8.25%

55. 75 pupils from a school appeared for an examination and 80% of them passed. Another school entered 10 more pupils than the first school and five pupils less than the first school passed. The pass % of in the second school was
(a) 75%
(b) 84%
(c) 72%
(d) 64.7%

56. Divide ₹ 80 in the production of 3 : 6 : 7.
(a) ₹ 10, ₹ 35, ₹ 40
(b) ₹ 15, ₹ 30, ₹ 35
(c) ₹ 15, ₹ 35, ₹ 30
(b) ₹ 10, ₹ 40, ₹ 35

57. Calculate the amount on ₹ 1875 for 2 years at 4% per annum, compounded yearly.
(a) ₹ 676
(b) ₹ 776
(c) ₹ 1778
(d) ₹ 2028

58. If x varies as y and x = 8 when y = 15 then the values of x when y = 10 is
(a) 5
(b) 15/8
(c) 8/15
(d) 16/3

59. In a mixture of 60 litres, the ratio of milk and water is 2 : 1. What amount of water must be added to make the ratio of milk and water as 1 : 2?
(a) 42 Litres
(b) 56 Litres
(c) 60 Litres
(d) 77 Litres

60. A sum of ₹ 10,000 is lent partly at 6% and the remaining at 10% p.a. If the yearly interest on the average is 9.2%, the money lent at 10% is
(a) ₹ 8000
(b) ₹ 8500
(c) ₹ 5000
(d) ₹ 2000

DIRECTIONS (Qs. 61 – 65) : *Choose the word which is least like the other words in the group*

61. (a) Garo
(b) Khasi
(c) Kangra
(d) Jayantia

62. (a) Virgo
(b) Pisces
(c) Cancer
(d) Orion

63. (a) Shoulder
(b) Foot
(b) Finger
(d) Elbow

64. (a) Canoe
(b) Dingy
(c) Yatch
(d) Igloo

65. (a) Inn
(b) Club
(c) Motel
(d) Hostel

DIRECTIONS (Qs. 66 – 70) : *The following questions consist of two words that have a certain relationship to each other, followed by four alternatives. Select the best alternative that has the same relationship as the original pair of words*

66. Liquor : Drink
(a) Bread : Butter
(b) Tea : Beverage
(c) Sniff : Inhale
(d) Water : Sip

67. Evaporation : Cloud
(a) Mountain : Snow
(b) Book : Pages
(c) Pressure : Atmosphere
(d) Tension : Breakdown

68. Barrel : Vial
(a) Book : Pamphlet
(b) Book : Reader
(c) Brochure : Complier
(d) Length : Height

69. Cream : Cosmetics
    (a) Tiger : Forest   (b) Mountain : Valley
    (c) Magazine : Editor   (d) Teak : Wood
70. Carnivore : Herbivore
    (a) Flesh : Plant   (b) Horse : Lion
    (c) Camel : Giraffe   (d) Animal : Bird

DIRECTIONS (Qs. 71 – 80) : *Three words in bold letters are given in each question, which have something in common among themselves. Out of the four given alternatives, choose the most appropriate description about these three words.*

71. Hamlet : Macbeth : Faustus
    (a) They are princes
    (b) They are plays by Shakespear
    (c) They are characters from various dramas
    (d) They were romantic hereoes.
72. Vesuvius : Etna : Kilimanjaro
    (a) These are sites of volcanoes
    (b) These are island countries.
    (c) These are hills of Italy.
    (d) These lie in polar region.
73. Knot : Watt : Fathorn
    (a) The terms are used by sailors
    (b) The terms are used for installing electricity
    (c) The terms are connected with rope
    (d) They are units of measurement.
74. Barauni : Digboi : Ankleshwar
    (a) They are famous for oil fields.
    (b) They are famous for religious places.
    (c) They are tourist places of South India.
    (d) They are famous for handlooms.
75. Knight : Rook : Bishop
    (a) These are missionaries
    (b) They are churchmen.
    (c) These are chessmen.
    (d) These are ranks of military.
76. Abhi Bhattacharya : Utpal Dutt : Satyajit Ray
    (a) They are character actors.
    (b) They are directors of Bengali movies.
    (c) They are famous poets and writers.
    (d) These personalities belong to Bengali
77. Voodoo : Sorcery : Necromancy
    (a) They are ancient arts found in sculptures.
    (b) They are terms connected with black magic.
    (c) They are ancient scripts.
    (d) They are means of communication of pre-historic age.
78. Rourkela : Bokaro : Durgapur
    (a) They are steel plants.
    (b) They have coal mines.
    (c) They have atomic plants
    (d) They are on the sea coast.
79. Spinach : Fenugreek : Celery
    (a) These are cactus plants
    (b) These are wild plants
    (c) These are wild flowers.
    (d) These are leafy vegetables.
80. Yeats : Ghalib : Kabir
    (a) They were social reformers.
    (b) They were famous poets.
    (c) They were saints.
    (d) They were yoga instructors

DIRECTIONS (Qs. 81 – 85) : *There are two sets of figures namely the Problem figures containing five figures 1, 2, 3, 4, 5 and answer figures (a), (b), (c), (d). You have to select one figure from the Answer figures which will continue the same series as given in the Problem figures.*
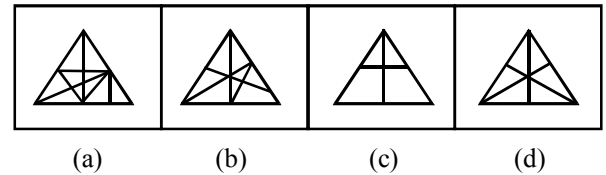
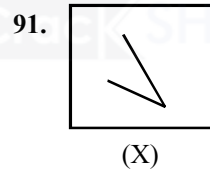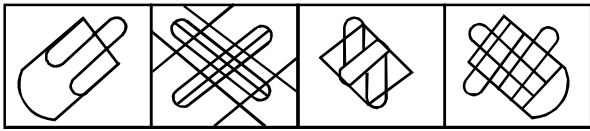**81.**

82.

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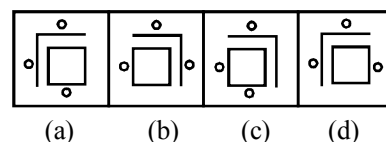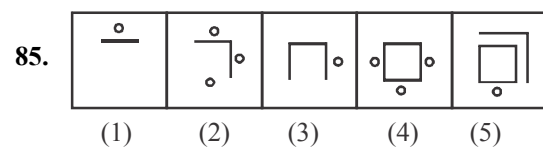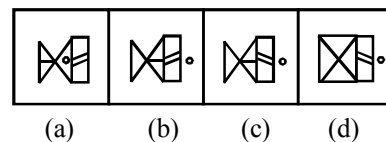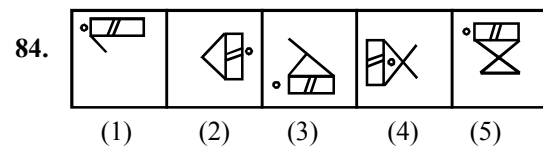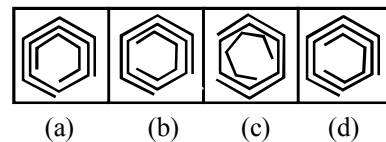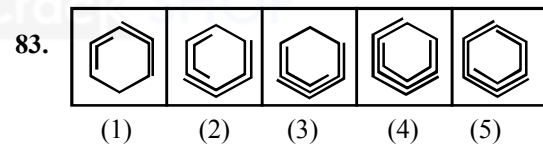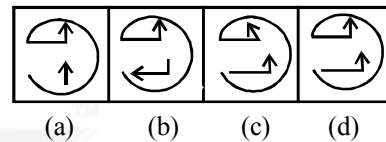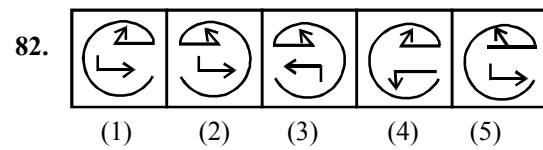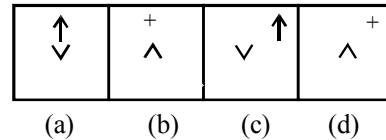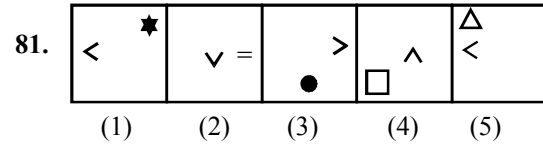
DIRECTIONS (Qs. 86-90) : *The following situations involve a cluster of three or more geometrical figures, having one or more dots placed at any point inside the cluster. This cluster is followed by a set of four alternative figures each composed of a cluster of the same type of figures. Now, for each dot we have to observe the region in which it is enclosed i.e. in which of the geometrical figure this region is common.*

From amongst the figures marked (a), (b), (c) and (d), select the figures which satisfies the same conditions of placement of the dot as in fig. (X).

86.

(X)

(a)   (b)   (c)   (d)

87.

(X)

(a)   (b)   (c)   (d)

88.

(X)

(a)   (b)   (c)   (d)

89.

(X)

(a)   (b)   (c)   (d)

90.

(X)
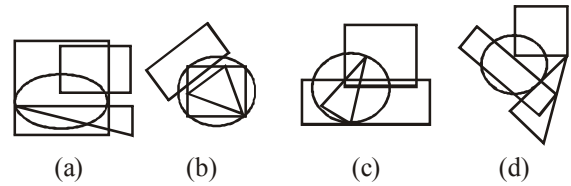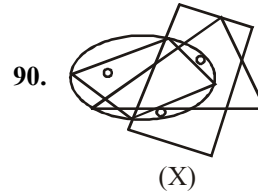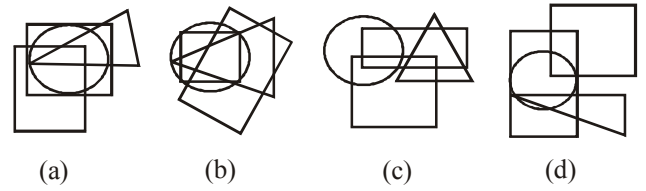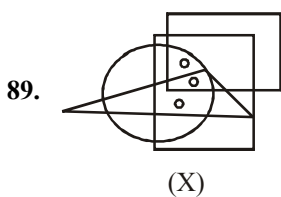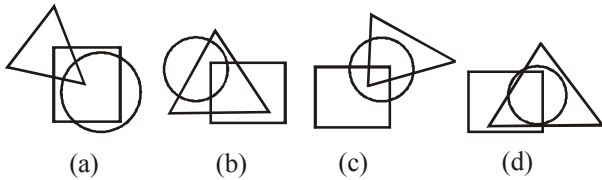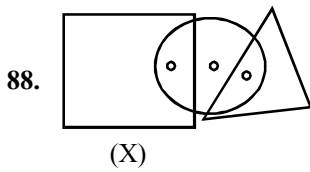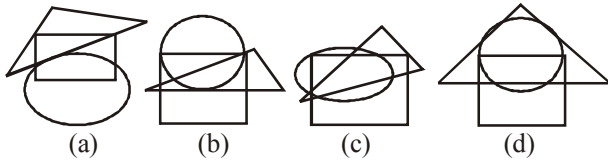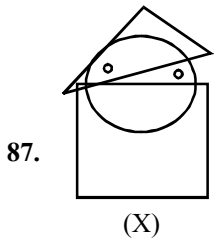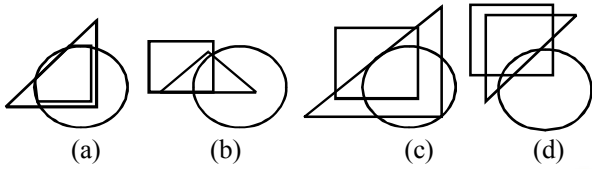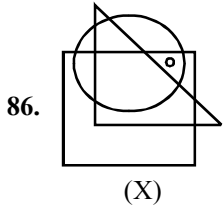
(a)   (b)   (c)   (d)

DIRECTIONS (Qs. 91 to 95) : *In this portion, a figure is given as an original figure (X) followed by four answer figures. The original figure is embedded or hidden in one of the answer figures (a, b, c & d). Select the alternative that carries the correct figure which clearly shows the embedded portion of the original figure.*

91.

(X)

(a)   (b)   (c)   (d)

92.

(X)

(a)   (b)   (c)   (d)

93.

(X)
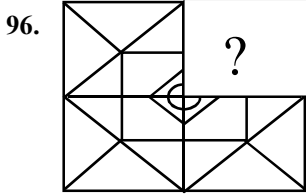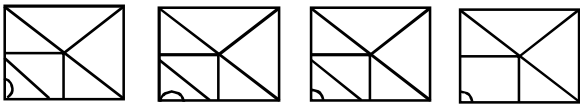
(a)　　(b)　　(c)　　(d)

(a)　　(b)　　(c)　　(d)

94.

(X)

(a)　　(b)　　(c)　　(d)

95.

(X)

(a)　　(b)　　(c)　　(d)

98.
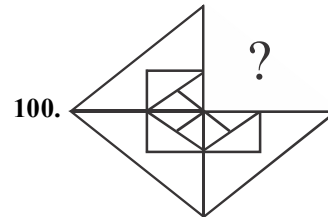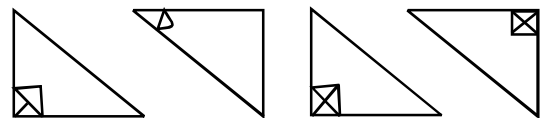
(X)

(a)　　(b)　　(c)　　(d)

99.
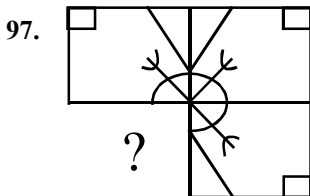
(X)
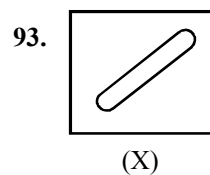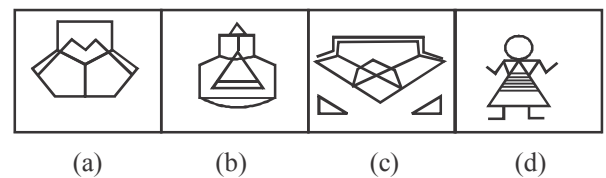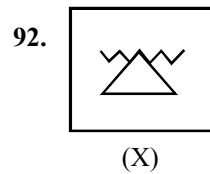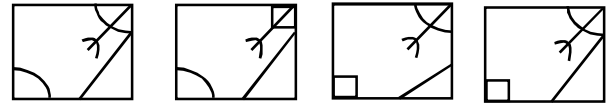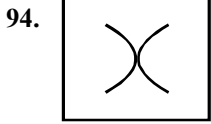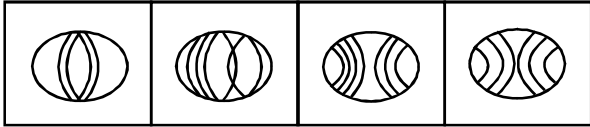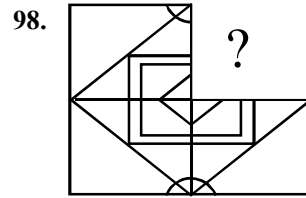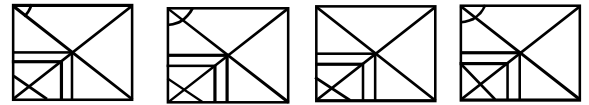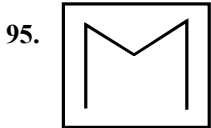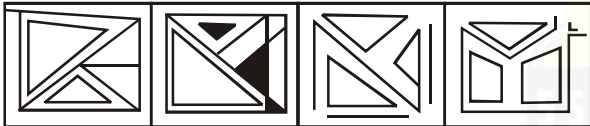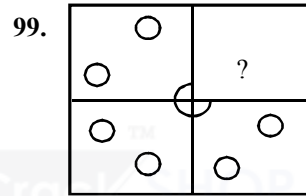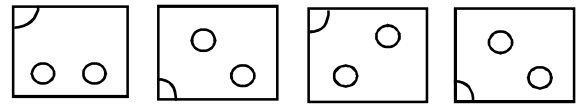
(a)　　(b)　　(c)　　(d)

DIRECTIONS (Qs. 96 -100) : *In each of the following questions, a part of the figure is missing. Find out from the given option (a), (b), (c) or (d), the right figure to fit in the missing figure (X).*

96.

(X)

(a)　　(b)　　(c)　　(d)

97.

(X)

100.

(X)

(a)　　(b)　　(c)　　(d)

ANSWER KEY									
1. (d)	2. (c)	3. (a)	4. (d)	5. (b)	6. (c)	7. (a)	8. (d)	9. (c)	10.(c)
11.(a)	12.(d)	13.(b)	14.(b)	15.(b)	16.(d)	17.(b)	18.(b)	19.(b)	20.(c)
21.(d)	22.(b)	23.(b)	24.(a)	25.(b)	26.(d)	27.(c)	28.(b)	29.(c)	30.(d)
31.(c)	32.(a)	33.(c)	34.(b)	35.(d)	36.(a)	37.(c)	38.(b)	39.(a)	40.(d)
41.(b)	42.(b)	43.(a)	44.(a)	45.(d)	46.(c)	47.(c)	48.(b)	49.(a)	50.(c)
51.(b)	52.(a)	53.(b)	54.(b)	55.(d)	56.(b)	57.(d)	58.(d)	59.(c)	60.(d)
61.(b)	62.(d)	63.(b)	64.(d)	65.(b)	66.(b)	67.(d)	68.(a)	69.(d)	70.(a)
71.(c)	72.(a)	73.(d)	74.(a)	75.(c)	76.(d)	77.(b)	78.(a)	79.(d)	80.(b)
81.(a)	82.(c)	83.(d)	84.(b)	85.(a)	86.(d)	87.(c)	88.(c)	89.(b)	90.(d)
91.(b)	92.(d)	93.(b)	94.(d)	95.(a)	96.(b)	97.(d)	98.(b)	99.(b)	100.(a)

1. (d) The speaker is a patriot who is urging to fight against France for saving his motherland at any cost.

2. (c) The speaker wants a change, for which he is expecting his people (countrymen) and people from other quarters to come forth and fight for it.

3. (a) The phrase "Go on to the end, shall never surrender" means turning all odds to save his motherland from France.

4. (d) Repetition of something means putting pressure and highlighting it. In this paragraph, speaker is highlighting his intentions of fighting for the country till the very end.

5. (b) Speaker is encouraging his countrymen to fight for their island and his words are inspiring.

6. (c) Meddle means to interfere in something that is not one's concern.

7. (a) Renounce and abjure means to formally declare one's abandonment.

8. (d) Estrange means to cause someone to be no longer involved or connected with something.

9. (c) Derogatory means showing a critical or disrespectful attitude which is opposite of praising.

10. (c) Wane means to diminish, weaken or lessen which is opposite to swell that means to grow.

11. (a) The police have arrested the thief who broke into my house last night. Here the verb 'has' is to be replaced by 'have' because the subject is a 1st person.

12. (d) Rouge is misspelt as rougue. Rouge means an unprincipled, deceitful, and unreliable person.

13. (b) Here 'could' is to be replaced by 'should'. Could is used in a hypothetical situation, where the speaker wants to express ability instead of willingness. Whereas 'should' expresses advisability.

14. (b) Here 'has' is to be replaced by 'have'.

15. (b) Here vacation is to be used as a singular because the noun 'friend' present after the pronoun is a plural.

16. (d) Forecast is used to predict or estimate a future event.

17. (b) Avenged means to inflict harm in return for an injury or wrong done to oneself or another.

18. (b) Burst means to break open or apart suddenly and violently, especially as a result of an impact (here the impact is hit by a missile).

19. (b) Being the senior most employee, Hari got a discount on the company car. The discount was proportional to his long service for the company.

20. (c) Incensed means extremely angry. Thus the unruly behaviour of the soldiers made their commander extremely angry.

21. (d) Rabindranath Tagore bestowed the title 'mahatma' to M.K.Gandhi.

22. (b) The Non-cooperation movement was a significant phase of the Indian struggle for freedom from British rule. It was led by Mohandas Gandhi and was supported by the Indian National Congress.

23. (b) In ancient India, during the Vedic period from about 1500 BC to 600 BC, most education was based on the Veda (hymns, formulas, and incantations, recited or chanted by priests of a pre-Hindu tradition) and later Hindu texts and scriptures.Education, at first freely available in Vedic society, became over time more discriminatory as the caste system, originally based on occupation, evolved, with the brahman (priests) being the most privileged of the castes.

24. (a) Ashoka sent his only daughter Sanghamitra and son Mahindra to spread Buddhism in Sri Lanka (then known as Tamraparni).As a Buddhist emperor, Ashoka believed that Buddhism is beneficial for all human beings as well as animals and plants, so he built a number of stupas, Sangharama, viharas, chaitya, and residences for Buddhist monks all over South Asia and Central Asia.

25. (b) Elements with a low ionization energy tend to be reducing agents and form cations.

26. (d) Wayne Mark Rooney is an English footballer who plays as a forward for Manchester United and the England national team. Aged nine, Rooney joined the youth team of Everton, for whom he made his professional debut in 2002 at the age of 16.

27. (c) The official song of the 2010 World Cup "Waka Waka" was performed by the Colombian singer Shakira and the band Freshlyground from South Africa, and is sung in both English and Spanish. The song is based on a traditional African soldiers' song, "Zangalewa".

28. (b) Saina Nehwal was awarded the "Rajiv Gandhi Khel Ratna award" which is India's highest award for excellence in the field of sports, following her terrific achievements in badminton in the year 2010.

29. (c) In astronomy the horizon is the horizontal plane through (the eyes of) the observer. It is the fundamental plane of the horizontal coordinate system, the locus of points that have an altitude of zero degrees. While similar in ways to the geometrical horizon, in this context a horizon may be considered to be a plane in space, rather than a line on a picture plane.

30. (d) It is an Indian law that aims to guarantee the 'right to work' and ensure livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.

31. (c) The Sutlej is sometimes known as the Red River. It is the easternmost tributary of the Indus River. Its source is Lake Rakshastal in Tibet. From there, it flows at first west-northwest for about 260 kilometres (160 mi) to the Shipki La pass, entering India in Himachal Pradesh state. It then turns slightly, heading west-southwest for about 360 kilometres (220 mi) to meet the Beas River near Makhu, Firozpur district, Punjab state.

32. (a) Limonite is an iron ore consisting of a mixture of hydrated iron(III) oxide-hydroxides in varying composition.

33. (c) Black revolution is related to self dependence in petroleum/crude oil.

34. (b) Karrar is an unmanned combat air vehicle produced for the military of Iran. According to reports, the UCAV can bomb targets at high speed. It is the first long-range unmanned aerial drone manufactured in Iran. The long-range drone was unveiled on August 23, 2010 - one day after the activation of the nuclear reactor in Bushehr.

36. (a) The thyroid also produces calcitonin, which plays a role in calcium homeostasis.

37. (c) Plasmodesmata (singular: plasmodesma) are microscopic channels which traverse the cell walls of plant cells and some algal cells, enabling transport and communication between them. Plasmodesmata evolved independently in several lineages, and species that have these structures.

38. (b) On 24 September 2008 Kapil Dev joined the Indian Territorial Army and was commissioned as a Lieutenant Colonel by General Deepak Kapoor, Chief of the Army Staff. He joined as an honorary officer.

39. (a) The aim of statistical mechanics is the interpretation and prediction of the observed macroscopic properties of matter in terms of the mechanical properties of the constituent molecules and the nature of the interaction among them. It is restricted to the non-equilibrium statistical mechanics of non-reacting gases that is to the theory of transport phenomena.

41. (b) Let the number = x
$$x^2 = (37)^2 - (23)^2$$
$$x^2 = 1369 - 529$$
$$x = 28.98$$

42. (b) Total age increased = $(8 \times 4) = 32$ years
Age of new man = $30 + 32 = 62$ years

43. (a) Let 'x' be the height of empty vessel and y be the height of full vessel.
$$x + y = 24 \qquad ....(1)$$
$$x + \frac{y}{4} = 9 \qquad ....(2)$$
Solving eq. (1) and (2)
$$x = 4 \text{ kg}.$$

44. (a)
$$a - b = 4$$
$$ab = 45$$
$$(a-b)^2 = a^2 + b^2 - 2ab$$
$$96 + 90 = a^2 + b^2$$
$$(4)^2 = a^2 + b^2 - 2 \times 45$$
$$a^2 + b^2 = 106$$
$$a^3 - b^3 = (a - b)(a^2 + b^2 + ab)$$
$$= (4)(106 + 45)$$
$$= 604$$

45. (d)
$$\frac{a}{a + b} = \frac{15}{21}$$
$$21a = 15a + 15b$$
$$6a = 15b$$
$$2a = 5b$$
$$a = \frac{5}{2} b$$
$$\frac{a + b}{a - b} = \frac{\frac{5}{2}b + b}{\frac{5}{2}b - b} = \frac{5b + 2b}{5b - 2b}$$
$$= \frac{7}{3} \times \frac{3}{3} = \frac{21}{9}$$

46. (c) $$\dfrac{\left(798+579\right)^2-\left(798-579\right)^2}{\left(798+579\right)}$$

$$\Rightarrow\quad \left(798\right)^2+\left(579\right)^2+2\times798\times579$$

$$\dfrac{-\left(798\right)^2-\left(579\right)^2+2\times798\times579}{798\times579}$$

$$\Rightarrow\quad \dfrac{4\times798\times579}{798\times579}=4$$

47. (c) Total expenditure spent on first four months
$$=4\times231.25=₹\,925$$
Total expenditure spent on next five months
$$=5\times(231.25+22.75)$$
$$=5\times254=₹\,1270$$
Total expenditure for 12 months
$$=925+1270+605=₹\,2800$$

Required % $=\dfrac{3500-2800}{3500}\times100=20\%$

48. (b)

Boys 16.4		Girls 15.4

15.8
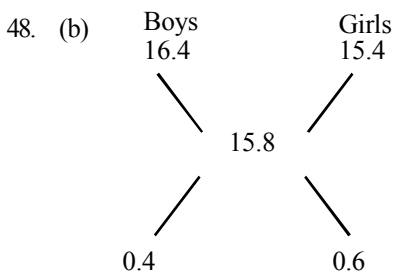
0.4   0.6

Boys to girls ratio = 0.4 : 0.6 or 2 : 3

49. (a) More capacity, less buckets (Indirect proportion)
12 : 18 : : 8 : x

$$\dfrac{12}{16}=\dfrac{8}{x}\Rightarrow x=\dfrac{18\times8}{12}=12$$

50. (c) Let the sum invested be ₹ x.

$$\dfrac{x\times8\times10}{100}+\dfrac{x\times12\times1}{100}=1500$$
$$8x+12x=150000$$
$$20x=150000$$
$$x=7500$$

51. (b) Let sum = ₹ x, S.I = $\dfrac{1}{5}$x

Time = 4 years, Rate = ?

S.I. $\dfrac{P\ \times\ R\ \times\ T}{100}$

$$\Rightarrow\quad \dfrac{1}{5}x=\dfrac{x\times R\times4}{100}$$

$$R=\dfrac{100}{5\times4}=5\%$$

₹ (2600 – x). Then,

$$\dfrac{x\times7\times1}{100}+\dfrac{\left(2600-x\right)\times9\times1}{100}=206$$
$$7x+9\times2600-9x=20600$$
$$-2x=20600-9\times2600$$
$$\Rightarrow\quad x=1400$$

53. (b) Let the total number of votes enrolled be x. Then, number of votes cast = 70% of valid votes = 98% of (70% of x)
60% of [98% of 70% of x] = 7203

$$\dfrac{70}{100}\times\dfrac{98}{100}\times\dfrac{60}{100}\times x=7203$$

$$x=\dfrac{7203\times100\times100\times100}{70\times98\times60}$$

$$x=17500$$

54. (b) If the price of a commodity increases by R%, then the reduction in consumption so as not to increase the expenditure is

$$\left[\dfrac{R}{100+R}\times100\right]\%=\dfrac{11}{100+11}\times100=9.9\%$$

55. (d) Pupils from first school appeared for an examination
$$=80\%\text{ of }75=60$$
Pupils from second school appeared for an examination = 55
Total pupils in second school = 75 + 10 = 85

Pass % of second school $=\dfrac{55}{85}\times100=64.7\%$

56. (b) 3x + 6x + 7x = 80
16x = 80
x = 5
Numbers are 15, 30, 35

57. (d) $A=P\left(1+\dfrac{R}{100}\right)^{T}$

Where A = Amount, P = Principal, R = Rate % per annum
T = Time in years

$$A=1875\times\dfrac{26}{25}\times\dfrac{26}{25}$$

$$A=₹\,2028.$$

58. (d) x = ky
8 = 4 k × 15

$$k=\dfrac{8}{15}$$
x = ky

$$x=\dfrac{8}{15}\times10$$

$$x=\dfrac{16}{3}$$

59. (c) Milk $= \dfrac{2}{3} \times 60 = 40l$

Water $= \dfrac{1}{3} \times 60 = 20l$

Let 'x' be the amount to be added to milk and water.

$\dfrac{40+x}{20+x} = \dfrac{1}{2}$

$80 + 2x = 20 + x$

$60 = x$

60. (d) Let x be the money lent at 10%

$920 = \dfrac{(10000 - x) \times 6 + x \times 10}{100}$

$92000 = 60000 - 6x + 10x$

$32000 = 4x$

$x = ₹8000$

61. (b) Garo, Khasi, Jainti are hills and Kangra is a valley.
62. (d) All expect orion are Zodiac signs while orion is a cosntellaiton.
63. (b) Expect foot all are parts of hand.
64. (d) Igloo is a type of house whereas rest are type of boats.
65. (b) Club is the place of entertainment and rest are places of living.

66. (b) Liquor is a drink. Similarly tea is a beverage.
67. (d) Tension causes the breakdown as evaporation forms the cloud.
68. (a) Second one is the bigger form of first.
69. (d) First is a kind of second.
70. (a) Carnivore are flesh eating animals and herbivores are plant eating animals.
71. (c) They were characters from various dramas.
72. (a) These are sites of volcanoes.
73. (d) They are units of measurement.
74. (a) They are famous for oil fields.
75. (c) These are chessmen.
76. (d) These personalities belong to Bengal.
77. (b) These are terms connected with black magic.
78. (a) These are places having steel plants.
79. (d) These are the leafy vegetables.
80. (b) They were the famous poets.
81. (a) 'V' shifts by half and rotate by 45° and another figure shift alternatively by 45° and 90° and figure also changes.
83. (d) In all even number of figures outer most line increases by one shift by 60° and innermost line increases by one in even figures and shift by 60° in odd figures.
84. (b) Figure rotates by 90° and everytime one extra line is added to figure.

AFCAT 1 2012 QUESTION PAPER

INSTRUCTIONS: TIME LIMIT : 2 HOURS

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1-5) : *Read the following passage carefully and answer the questions given below:*

Pablo Picasso showed his truly exceptional talent from a very young age. His first word was lapiz (Spanish for pencil) and he learnt to draw before he could talk. He was the only son in the family and very good-looking, so he was thoroughly spoilt. He hated school and often refused to go unless his doting parents allowed him to take one of his father's pet pigeons with him.

Apart from pigeons, his great love was art and when in 1891 his father, who was an amateur artist, got a job as a drawing teacher at a college, Pablo went with him to the college. He often watched his father paint and sometimes was allowed to help. One evening his father was painting a picture of their pigeons when he had to leave the room. He returned to find that Pablo had completed the picture, and it was so amazingly beautiful and lifelike that he gave his son his own palette and brushes and never painted again. Pablo was just thirteen.

1. As a boy Pablo Picasso was
    (a) ordinary looking but talented.
    (b) handsome and talented.
    (c) handsome and studious.
    (d) handsome and hardworking.
2. He was spoilt mostly because he was
    (a) a smart boy.
    (b) loved by one and all.
    (c) the only son in the family.
    (d) always surrounded by notorious boys.
3. Picasso went to school only when
    (a) his friends accompanied him.
    (b) his father went with him.
    (c) he was allowed to paint at school.
    (d) he was allowed to carry a pet with him.
4. When his father painted in the college, Pablo
    (a) occasionally helped him. (b) rarely helped him.
    (c) always helped him.   (d) invariably helped him.
5. Pablo's father gave up painting because he
    (a) did not like the job.
    (b) retired from the college.
    (c) was impressed by his son's talent.
    (d) lost interest in painting.

DIRECTIONS (Qs. 6-10) : *In each of the following questions, find out which part has an error.*

6. The boos was irritated (a) / by him neglecting (b) / the duties and (c) / not listening to his advice (d)

7. Each of the three (a) / beggars were (b) / asking for more (c) / food to eat (d)
8. My brother sent (a) / two pairs (b) / of shoe (c) / from America (d).
9. The young boy said (a) / that he (b) / neither liked me (c) / nor my wife (d).
10. He was (a) / congratulated for (b) / his success in (c) / the 100 m race (d)

DIRECTIONS (Qs. 11-15) : *Pick up the most effective word from the given words to fill in the blanks to make the sentence meaningfully complete.*

11. Sanjay was_____ with divine vision to see the great battle.
    (a) demure   (b) authorized
    (c) endowed   (d) uttered
12. There was so much_____ material in the essay that it was difficult to get the author's message.
    (a) variegated   (b) superficial
    (c) extraneous   (d) exemplary
13. The world is so constructed that if you wish to enjoy its pleasures, you must also_____ its pains.
    (a) deny   (b) neglect
    (c) ignore   (d) endure
14. Indian press did not give _____ to the British publicity.
    (a) credence   (b) scion
    (c) augury   (d) opportunity
15. Travellers _____their reservations well in advance if they want to travel during the Diwali holidays.
    (a) has better to get   (b) had better get
    (c) had to get better   (d) had better got

DIRECTIONS (Qs. 16-18) : *In each of the following choose the word most similar in meaning to the word given in capitals.*

16. EMANCIPATE
    (a) Set free   (b) Exist
    (c) Correct morally   (d) Restrain
17. DECEIT
    (a) Simplicity   (b) Gentility
    (c) Sincerity   (d) Dishonesty
18. ADMONITION
    (a) Thrash   (b) Hindrance
    (c) Warning   (d) Exhort

19. VOCIFEROUS
    (a) Laudable   (b) Quiet
    (c) Dangerous   (d) Powerful
20. IMPLICATE
    (a) Involve   (b) Exonerate
    (c) Corrupt   (d) Accuse

DIRECTIONS (Qs. 21-40) : *Choose the correct answer*

21. The person who is regarded as the greatest law giver of ancient India is
    (a) Panini   (b) Kautilya
    (c) Manu   (d) Patanjali
22. The immortal fame of Ashoka largely rests upon
    (a) his conversion to Buddhism and its propagation.
    (b) his policy for the welfare of his subjects.
    (c) his work in the sphere of politics and moral teaching.
    (d) his extensive conquests.
23. Gandhiji started Dandi March
    (a) to demonstrate against the British Empire.
    (b) to break the salt law.
    (c) to boycott foreign goods.
    (d) None of the above.
24. The first war of Indian Independence began on 10 May 1857 at
    (a) Meerut   (b) Jhansi
    (c) Barrackpore   (d) Delhi
25. The sun rises in Arunachal Pradesh two hours before it does in Dwaraka in Gujarat. This is because the former is
    (a) higher in elevation than Dwaraka and the earth rotates from West to East.
    (b) situated further North than Dwaraka and the earth rotates from West to East.
    (c) situated further East (about 30° Longitude) than dwaraka and the earth rotates from West to East.
    (d) situated about 30° East of Dwaraka and the earth rotates from West to East.
26. Srinagar is situated on the banks of the river
    (a) Ravi   (b) Sutlej
    (c) Jhelum   (d) Chenab
27. The areas in India that receive approximately an average of more than 200 cms of rainfall annually are
    (a) Meghalaya, Assam, Nagaland, Arunachal Pradesh.
    (b) Odisha, Madhya Pradesh, Gujarat, Maharashtra.
    (c) Meghalaya, Assam, Rajasthan, Jammu & Kashmir.
    (d) Meghalaya, Delhi, Punjab, Rajasthan.
28. Isotherms are imaginary lines drawn on a map which connect places of equal
    (a) Atmospheric pressure   (b) Humidity
    (c) Rainfall   (d) Temperature
29. Jim Corbett National Park is situated in which state?
    (a) Arunachal Pradesh   (b) Himachal Pradesh
    (c) Andhra Pradesh   (d) Uttaranchal
30. Which one of the following statement regarding the sun is correct?
    (a) The sun is composed mainly of hydrogen.
    (b) Its energy is generated by nuclear collision in its interior.
    (c) It is calculated that the sun consumes about a trillion pounds of hydrogen every second.
    (d) All of the above.
31. Supersonic speed is speed greater than the speed of sound (in air at sea level) that is to say around_____ miles/hour.
    (a) 760   (b) 860
    (c) 960   (d) 1060
32. Yoga sutra was written by
    (a) Vatsyayana   (b) Pathanjali
    (c) Bhartrihari   (d) Maharshi Mahesh
33. The National Institute of Oceanography is located at
    (a) Trivandrum   (b) Panaji
    (c) Cochin   (d) Mangalore
34. An aeroplane rises because
    (a) of upward reaction of air.
    (b) the density of air above the plane is less than below it.
    (c) the pressure above its wings is less than the pressure below them.
    (d) its nose points upwards.
35. Rocks formed on the solidification of molten matter are called
    (a) Metamorphic rocks   (b) Sedimentary rocks
    (c) Volcanic rocks   (d) Igneous rocks
36. The pioneer of Atomic energy in India is
    (a) Homi J Bhabha   (b) Vikram Sarabhai
    (c) C.V. Raman   (d) C.K. Naidu
37. Which one of the following statements regarding FIFA World Cup 2010 is not correct?
    (a) South Africa became the first host nation to fail to qualify for the tournament's second round.
    (b) The tournament was the culmination of a qualification process that began in August 2007.
    (c) This is the first time that the tournament was hosted by an African nation.
    (d) Zakumi, the official mascot for the FIFA World Cup, 2010 is an African bush elephant.
38. The first Indian to win the World Amateur Snooker Championship is
    (a) Om Agarwal   (b) Geet Sethi
    (c) Michael Ferreira   (d) Wilson Jones
39. The first person to win the Arjuna award for badminton is
    (a) Pullela Gopichand   (b) Prakash Padukone
    (c) Nandu Natekar   (d) Farook Engineer
40. The sport which requires the largest field is
    (a) Football   (b) Cricket
    (c) Hockey   (d) Polo

DIRECTIONS (Qs. 41-45) : *Find the odd one out.*

41. (a) Advice   (b) Counsel
    (c) Direct   (d) Suggest
42. (a) Tumble   (b) Topple
    (c) Crumble   (d) Sprain
43. (a) Sobriquet   (b) Alias
    (c) Pseudonym   (d) Anonymous
44. (a) Mumbai   (b) Goa
    (c) Visakhapatnam   (d) Thiruvananthapuram
45. (a) Petrol   (b) Acetone
    (c) Mercury   (d) Kerosene

46. Hope: Despair
    (a) Work : Failure
    (b) Worship : Adore
    (c) Cow : Milk
    (d) Encourage : Dishearten
47. Army : Logistics
    (a) War: Logic
    (b) Soldiers : Students
    (c) Business : Strategy
    (d) Team : Individual
48. Bouquet : Flower
    (a) Skin : Body
    (b) Chain : Link
    (c) Product : Factory
    (d) Page : Book
49. Revenge: Vendetta
    (a) Sleep: Dream
    (b) Sun: Moon
    (c) Envy : Jealousy
    (d) Heaven : God
50. Refine : Style
    (a) Retouch : Photograph
    (b) Paint : Wall
    (c) Compose : Song
    (d) Author : Book
51. Fear : Tremble
    (a) Hand: Shake
    (b) Heat : Perspire
    (c) Distance : Walk
    (d) Evening : Star
52. Condone: Offence
    (a) Punish: Criminal
    (b) Mitigate: Penitence
    (c) Overlook: Aberration
    (d) Ignore: Loyalty
53. Plant : Flower
    (a) Face : Eye
    (b) Stem : Tree
    (c) Chair : Sofa
    (d) Blades : Grass
54. Protoplasm : Cell
    (a) Fibre : Plastic
    (b) Coin : Money
    (c) Chemistry : Elements
    (d) Chain : Link
55. Nalanda : Takshshila
    (a) Venus : Mars
    (b) University : College
    (c) Office : Department
    (d) Ship : Cargo
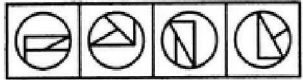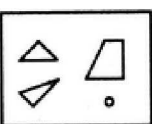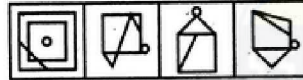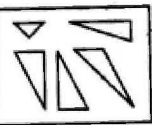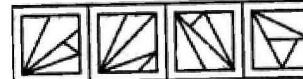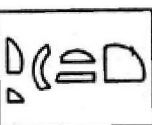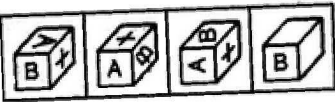
56. Foot is to Man as Hoof is to _____.
    (a) Dog
    (b) Cow
    (c) Cat
    (d) Rabbit
57. Broad is to Narrow as _____ is to Lane.
    (a) Footpath
    (b) Field
    (c) Pavement
    (d) Road
58. Back is to Backbone as Belly is to _____.
    (a) Throat
    (b) Ribs
    (c) Heart
    (d) Navel
59. Ankle is to Knee as Wrist is to _____.
    (a) Elbow
    (b) Finger
    (c) Hand
    (d) Foot
60. Sting is to Bee as _____ is to Snake.
    (a) Slithering
    (b) Rats
    (c) Poison
    (d) Fangs
61. Hari's income is 20% more than Madhu's income. Madhu's income is less than Hari's income by
    (a) 15%
    (b) 16.66 %
    (c) 20%
    (d) 22.25%
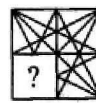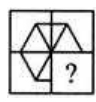62. A sum of money lent out at simple interest doubled itself in 20 years. In how many years will it triple itself?
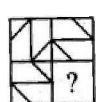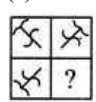
    (a) 28 yrs
    (b) 30 yrs
    (c) 40 yrs
    (d) 35 yrs
63. Which of the following fractions are in ascending order?
    (a) 2/3, 3/5,7/9,9/11,8/9
    (b) 3/5, 2/3, 9/11, 7/9, 8/9
    (c) 3/5, 2/3, 7/9, 9/11, 8/9
    (d) 8/9, 9/11, 7/9, 2/3, 3/5
64. $337.62 + 8.591 + 34.4 = ?$
    (a) 370.611
    (b) 380.511
    (c) 380.611
    (d) 426.97
65. Find the sum of :- 1/9+1/6+1/12+1/72
    (a) 3/5
    (b) 3/2
    (c) 3/8
    (d) 4/7
66. Find the average of all the numbers between 6 and 34 which are divisible by 5.
    (a) 18
    (b) 20
    (c) 24
    (d) 30
67. The average of first 80 natural numbers is
    (a) 40
    (b) 41
    (c) 40.5
    (d) 142
68. If the sum of a few numbers is 450 and their mean is 50 and if another number 100 is included, the mean would become
    (a) 55
    (b) 60
    (c) 75
    (d) 150
69. ?% of 932 + 30 = 309.6
    (a) 25
    (b) 30
    (c) 35
    (d) 40
70. The difference between a number and its two-fifth is 510. What is 10% of that number?
    (a) 12.75
    (b) 85
    (c) 204
    (d) None
71. One litre of water is evaporated from 6 litres of a solution containing 5% salt. The percentage of salt in the remaining solution is
    (a) 16%
    (b) 5%
    (c) 4%
    (d) 6%
72. A shopkeeper professes to sell all things at a discount of 10% but increases the selling price of each article by 20%. His gain on each article is
    (a) 6%
    (b) 8%
    (c) 10%
    (d) 12%
73. If the selling price of an article is 4/3rd of its cost price, the profit in transaction is
    (a) 16.75%
    (b) 20.50%
    (c) 25.50%
    (d) 33.33%
74. If selling price is doubled, the profit triples. Find the profit percent.
    (a) 66.66
    (b) 100
    (c) 105.33
    (d) 120
75. If 4/5th of an estate is worth ₹ 16,800, then the value of 3/7th of the estate is
    (a) ₹9000
    (b) ₹21000
    (c) ₹72000
    (d) ₹90000
76. If a/b = 3/4 and 8a + 5b=22, then the value of 'a' is
    (a) 1
    (b) 1/2
    (c) 3/2
    (d) 3/4
77. If (a – b) is 6 more than (c + d) and (a + b) is 3 less than (c – d), then the value of (a – c) is
    (a) 0.5
    (b) 1.0
    (c) 1.5
    (d) 2.0

78. Two numbers are in the ratio 7 : 8. If 3 is added to each of them their ratio becomes 8:9. The numbers are
(a) 14, 16   (b) 24, 27
(c) 21, 24   (d) 16, 18

79. The sum of three numbers is 98. If the ratio of the first to the second is 2 : 3 and that of the second to the third is 5 : 8, then the second number is
(a) 20   (b) 30
(c) 48   (d) 58

80. A certain amount was divided between Sita and Gita in the ratio 9 : 8. If Sita's share was ₹ 4500 then the amount is
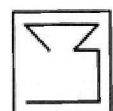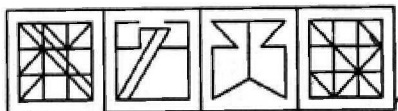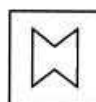(a) ₹9000   (b) ₹8500
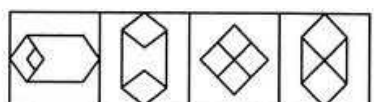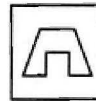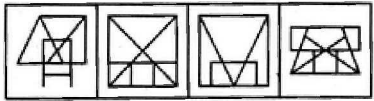(c) ₹6750   (d) ₹9025

DIRECTIONS (Qs 81-85) : *Find out which of the figures (1), (2), (3) and (4) can be formed from the pieces given in figure (X).*

81.
(a) 1   (b) 2
(c) 3   (d) 4

82.
(a) 1   (b) 2
(c) 3   (d) 4

83.
(a) 1   (b) 2
(c) 3   (d) 4

84.
(a) 1   (b) 2
(c) 3   (d) 4

85. Find out how the key figure (X) will look like after rotation.
(a) 1   (b) 2
(c) 3   (d) 4

DIRECTIONS (Qs. 86 to 90) : *In each of the following questions (Q.86-90) select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.*

86.
(a) 1   (b) 2
(c) 3   (d) 4

87.
(a) 1   (b) 2
(c) 3   (d) 4

88.
(a) 1   (b) 2
(c) 3   (d) 4

89.
(a) 1   (b) 2
(c) 3   (d) 4

90.
(a) 1   (b) 2
(c) 3   (d) 4

DIRECTIONS (Qs. 91-95) : *In each of the following questions (Q91-95) you are given a figure (X) followed by four alternative figures (1), (2), (3) and (4) such that figure (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.*

91.
(a) 1   (b) 2
(c) 3   (d) 4

92.
(a) 1   (b) 2
(c) 3   (d) 4

93.
(a) 1   (b) 2
(c) 3   (d) 4
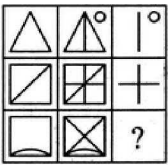
94.

(X)   (1)   (2)   (3)   (4)

(a)   1   (b)   2   (c)   3   (d)   4

95.

(X)   (1)   (2)   (3)   (4)
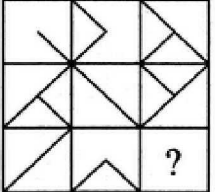
(a)   1   (b)   2   (c)   3   (d)   4

DIRECTIONS (Qs. 96 to 100) : *In each of the following questions (Q96-100) find out which of the answer figures (1), (2), (3) and (4) completes the figure matrix*

96.
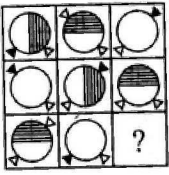
(1)   (2)   (3)   (4)

(a)   1   (b)   2   (c)   3   (d)   4

97.
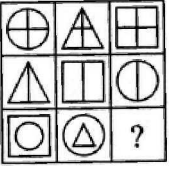
(1)   (2)   (3)   (4)

(a)   1   (b)   2   (c)   3   (d)   4

98.
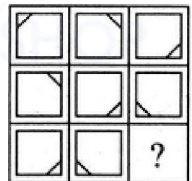
(1)   (2)   (3)   (4)

(a)   1   (b)   2   (c)   3   (d)   4

99.

(1)   (2)   (3)   (4)

(a)   1   (b)   2   (c)   3   (d)   4

100.

(1)   (2)   (3)   (4)

(a)   1   (b)   2   (c)   3   (d)   4

AFCAT 1 2012 QUESTION PAPER

ANSWER KEY									
1. (b)	2. (c)	3. (d)	4. (a)	5. (c)	6. (b)	7. (c)	8. (c)	9. (c)	10.(b)
11.(c)	12.(c)	13.(d)	14.(a)	15.(b)	16.(a)	17.(d)	18.(c)	19.(c)	20.(a)
21.(c)	22.(a)	23.(b)	24.(a)	25.(c)	26.(c)	27.(a)	28.(d)	29.(d)	30.(d)
31.(a)	32.(b)	33.(b)	34.(c)	35.(d)	36.(a)	37.(d)	38.(d)	39.(c)	40.(d)
41.(c)	42.(d)	43.(a)	44.(d)	45.(c)	46.(d)	47.(c)	48.(b)	49.(c)	50.(a)
51.(b)	52.(c)	53.(a)	54.(b)	55.(a)	56.(b)	57.(d)	58.(b)	59.(a)	60.(d)
61.(b)	62.(c)	63.(c)	64.(c)	65.(c)	66.(b)	67.(c)	68.(a)	69.(b)	70.(b)
71.(d)	72.(b)	73.(d)	74.(b)	75.(a)	76.(c)	77.(c)	78.(c)	79.(b)	80.(b)
81.(c)	82.(c)	83.(c)	84.(a)	85.(c)	86.(d)	87.(c)	88.(b)	89.(c)	90.(c)
91.(a)	92.(b)	93.(d)	94.(b)	95.(b)	96.(d)	97.(d)	98.(d)	99.(d)	100.(b)

1. (b) As a boy Pablo Picasso was handsome and talented.
2. (c) Picasso was spoilt mostly because he was the only son in the family.
3. (d) Picasso went to school only when he was allowed to carry a pet with him.
4. (a) When his father painted in the college, Pablo occasionally helped him.
5. (c) Pablo's father gave up painting because he was impressed by his son's talent.
6. (b) The correct sentence should be the boss was irritated with him for neglecting the duties and not listening to his advice.
7. (c) The correct sentence should be 'each of the three beggars was asking for more food to eat, each is often followed by a prepositional phrase ending in a plural word (Each of the cars), thus confusing the verb choice. Each is always singular and requires a singular verb. Each of the students is responsible for doing his or her work in the library.
8. (c) The correct sentence is 'My brother sent two pairs of shoes from America'.
9. (c) The correct sentence should be 'The young boy said that he liked neither me nor my wife.
10. (b) The preposition for should be replaced with on. Hence, the correct sentence should be he was congratulated on his success in the 100 m race.
11. (c) The correct option is endowed which means provided or supplied or equipped with (especially as by inheritance or nature).
12. (c) Extraneous means not pertinent to the matter under consideration.
13. (d) Endure means put up with something or somebody unpleasant.
14. (a) Credence means the mental attitude that something is believable and should be accepted as true.
15. (b) The correct filler is 'had better get'. Hence, the correct sentence should be the travellers had better get their reservations well in advance if they want to travel during the Diwali holidays.
16. (a) Emancipate means free from slavery or servitude; hence, set free is the correct option.
17. (d) The quality of being fraudulent.
18. (c) admonition means cautionary advice about something imminent (especially imminent danger or other unpleasantness).
19. (c) Vociferous may well be replaced with dangerous.
20. (a) Implicate means involve.
22. (a) Ashoka converted gradually to Buddhism beginning about 263 BCE at the latest. He was later dedicated to the propagation of Buddhism across Asia, and established monuments marking several significant sites in the life of Gautama Buddha.
23. (b) The Salt March, also mainly known as the Salt Satyagraha, began with the Dandi March on 12 March 1930. It was a direct action campaign of tax resistance and nonviolent protest against the British salt monopoly in colonial India, and triggered the wider Civil Disobedience Movement.

24. (a) The Indian Rebellion of 1857 began as a mutiny of sepoys of the East India Company's army on 10 May 1857, in the cantonment of the town of Meerut, Utar Pradesh.
25. (c) Situated further East (about 30o Longitude) than Dwaraka and the earth rotates from West to East.
26. (c) Jhelum. Srinagar is the summer capital of the Indian State of Jammu and Kashmir. It is situated in the Kashmir Valley and lies on the banks of the Jhelum River, a tributary of the Indus. The city is famous for its gardens, lakes and houseboats. It is also known for traditional Kashmiri handicrafts and dry fruits.
27. (a) Meghalaya, Assam, Nagaland, Arunachal Pradesh. Mawsynram, the wettest place on earth (annual rainfall of 1,141 cm approx), is a small village in Meghalaya's Khasi Hills near Shillong. Cherrapunji, now the second wettest place on earth, is located 10 km from Mawsynram and has the distinction of having just one season the year round - monsoon. It receives about 1,087 cm of rain annually.
28. (d) Isotherm, line drawn on a map or chart joining points with the same temperature.
29. (d) Jim Corbett National Park is the oldest national park in India and was established in 1936 as Hailey National Park to protect the endangered Bengal tiger. It is located in Nainital district of Uttarakhand(Earlier Uttaranchal) and was named after Jim Corbett who played a key role in its establishment. The park was the first to come under the Project Tiger initiative.
31. (a) Supersonic speed speed is approximately 343.2 m/s, 1,125 ft/s, 768 mph, 667 knots, or 1,235 km/h.
32. (b) Yoga sutra was written by Pathanjali.
33. (b) The National Institute of Oceanography (NIO) is one of 37 constituent laboratories of the CSIR - Council of Scientific and Industrial Research, an autonomous research organization in India. The institute has its headquarters in the coastal state of Goa i.e. Panaji, and regional centres in Kochi, Mumbai and Vizag.
35. (d) Igneous rock is formed through the cooling and solidification of magma or lava.
36. (a) Homi J. Bhabha was the eminent scientist who played a key role in the development of the Indian atomic energy program. He is also considered as the father of India's nuclear program. He also established the Atomic Energy Commission of India in 1948.
37. (d) The official mascot for the 2010 World Cup was Zakumi, an anthropomorphised African leopard with green hair, presented on 22 September 2008.
38. (d) "Wilson Jones" was the first to win the world amateur billiards title. He won this title in 1958, he won it in Sydney, Australia. He was awarded the Arjuna Award in 1962, the Padma Shri Award in 1965, and the Dronacharya Award in 1996.
39. (c) The first successful Badminton players to win the award was N.M. Natekar who won it in 1961 and Ms. Meena Shah followed him to win it in the very next year in 1962.

40. (d) The playing field is 300 yards (274 metres) long by 160 yards (146 metres) wide, the approximate area of nine American football fields. The playing field is carefully maintained with closely mowed turf providing a safe, fast playing surface. Goals are posts which are set eight yards apart, centred at each end of the field.

41. (c) Direct is different from the other three words. Direct means 'to give a formal order or command.'

42. (d) **Sprain** means 'to injure a joint in the body, especially a wrist or an ankle by suddenly twisting it so that there is pain and usually swelling.'
Crumble means to break into very small pieces, 'to begin to fail or lose strength', "to come slowly to an end.'
Topple means 'to move from side to side and fail, 'to cause somebody to lose their position of power and authority.
Trimble means 'to make fall,' to move or rush in the specified direction.

43. (a) **Anonymous** means : with a name that is not known or not made public; written or given by somebody whose name is not known or revealed; having no outsanding or unusual features; not particularly noticeable.
Alias and pseudonym refer to a name by which a person is called at other times or in other places.
Sobriquet refers to other name of a place.

44. (d) Except Thiruvananthapuram, all others are ports.

45. (c) Except Mercury all others are organic compounds. Mercury is a metal.

46. (d) Hope is Antonym of Despair. Similarly, Encourage is Antonym of Dishearten.

47. (c) The second is necessary for the first to be successful.

48. (b) The second is the unit of the first.

49. (c) Revenge and Vendetta are synonymous. Similarly. Envy and Jealousy are synonymous.

50. (a) Style can be refined to make it more beautiful and attractive. Similarly, photograph is made beautiful by retouching it.

51. (b) **Tremble** means 'to shake from fear, cold, weakness', Perspire means 'to give out sweat through the skin'.

52. (c) **Condone** means 'to accept wrong behaviour or to treat it as if it were not serious', 'to ignore something'.
The first is the act of neglecting the second.

53. (a) The second is a part of the first.

54. (b) The first is a vital part of the second.

55. (a) Nalanda ad Taxila are ancient seats of learning. Similarly, Venus and Mars are planets.

56. (b) Foot is the lower part of human's leg. Similarly, hoof is the lower part of cow's leg.

57. (d) Broad refers to spacious thing. Similarly, road is wider than lane.

58. (b) Back of a human being rests on backbone. Similarly, belly rests on ribs.

59. (a) Ankle is analogous to wrist (hand) knee is analogous to elbow.

60. (d) The first is used by the second to bite.

61. (b) If Hari's income is 20% more than Madhu, then Madhu's income is less than Hari by
$$= \left(\frac{20}{20+100} \times 10 \right)\% = 16.66\%$$

62. (c) Let $P = x$, S. I $= x$
$$Rate = \frac{SI \times 100}{P \times T} = \frac{x \times 100}{x \times 20} = 5\%$$
Now, $P = x$, $S.I = 2x$, Rate $= 5\%$
$$Time = \frac{SI \times 100}{P \times R} = \frac{2x \times 100}{x \times 5} = 40 \text{ yrs}$$

63. (c) $\frac{2}{3} = 0.67$

$\frac{3}{5} = 0.6$

$\frac{7}{9} = 0.7$

$\frac{9}{11} = 0.81$

$\frac{8}{9} = 0.88$

Correct ascending order
$$= \frac{3}{5} < \frac{2}{3} < \frac{7}{9} < \frac{9}{11} < \frac{8}{9}$$

64. (c) $337.62 + 8.591 + 34.4 = 380.611$

65. (c) $\frac{1}{9} + \frac{1}{6} + \frac{1}{12} + \frac{1}{72}$
$$\Rightarrow \frac{8+12+6+1}{72}$$
$$\Rightarrow \frac{27}{72} = \frac{3}{8}$$

66. (b) Numbers are 10, 15, 20, 25 and 30.
$$Required \ average = \frac{10+15+20+25+30}{5}$$
$$= \frac{100}{5} = 20$$

67. (c) $Average = \frac{(n)(n+1)}{(2) \times n}$
Where 'n' be the natural number
Therefore, $average = \frac{80 \times (80+1)}{2 \times 80}$
$$= \frac{81}{2} = 40.5$$

68. (a) $50 = \frac{Sum \ of \ all \ numbers}{number \ of \ observations}$
$$50 = \frac{450}{Number \ of \ observations}$$
$Number \ of \ observations = \frac{450}{50} = 9$
$New \ mean = \frac{450+100}{10} = \frac{550}{10} = 55$

?% of $932 = 309.6 - 32$

$\dfrac{?}{100} \times 932 = 279.6$

$? = 30$.

70. (b) Let the number $= x$
According to question

$x - \dfrac{2}{5}x = 510$

$\dfrac{3x}{5} = 510$

$x = \dfrac{510 \times 5}{3}$

$x = 850$

10% of $x = \dfrac{10}{100} \times 850 = 85$

71. (d) Amount of salt in the solution $= 5\%$ of $6\,l = 0.3\,l$

Percentage of salt in the remaining solution $= \dfrac{0.3}{5} \times 100$

$= 6\%$

72. (b) Let C. P. $= ₹\,100$
Then M.P. $= ₹\,120$

$\therefore$ S.P. $= \dfrac{90}{100} \times 120 = 108$

$\therefore$ Gain % $= 8\%$

73. (d) Let C. P. $= ₹\,x$, then S.P. $= ₹\,\dfrac{4x}{3}$

Gain $= ₹\left(\dfrac{4x}{3} - x\right) = ₹\,\dfrac{x}{3}$

$\therefore$ Gain % $\left(\dfrac{x}{3} \times \dfrac{1}{x} \times 100\right) = 33.33\%$

74. (b) Let C.P. $= ₹\,x$, S.P. $= ₹\,y$
Profit $= y - x$
According to question
Profit $=$ S.P. $-$ C.P.
$3(y - x) = 2y - x$
$3y - 3x = 2y - x$
$\Rightarrow \quad y = 2x$
Profit $= 2x - x = x$

Profit % $= \left(\dfrac{x}{x} \times 100\right)\% = 100\%$

75. (a) Let estate cost is $₹\,x$

$\dfrac{4}{5} \times x = 16800$

$x = 21000$

Value of $\dfrac{3}{7} \times 21000 = ₹\,9000$

76. (c) $\dfrac{a}{b} = \dfrac{3}{4} \Rightarrow b = \dfrac{4}{3}a$

$8a + 5b = 22$

$8a + 5 \times \dfrac{4}{3}a = 22$

$\dfrac{24a + 20a = 66}{3}$

$44a = 66$

$a = \dfrac{66}{44} = \dfrac{3}{2}$

77. (c) $a - b = (c + d) + 6$ ...(1)
$a + b = c - d - 3$ ...(2)
Adding eq. (1) and (2)
$2a = 2c + 3$
$2a - 2c = 3$

$a - c = \dfrac{3}{2} = 1.5$

78. (c) Let the numbers are 7x and 8x

$\dfrac{7x + 3}{8x + 3} = \dfrac{8}{9}$

$63x + 27 = 64x + 24$
$x = 3$
Numbers are 21 and 24

79. (b) Let the numbers are a, b and c
$a : b = 2 : 3$
$b : c = 5 : 8$
$a : b : c$

$2 : 3$
$5 : 8$

$10 : 15 : 24$
$10x + 15x + 24x = 98$
$49x = 98$
$x = 2$
Second number $= 15 \times 2 = 30$

80. (b) Sita's share $= \dfrac{9}{17} \times$ Amount

$\therefore$ Amount $= \dfrac{17 \times 4500}{9} = ₹\,8500$

81. (c) All of the components of figure (X) are present in the figure (c)
82. (c) All of the components of figure (X) are present in the figure (c)
83. (c) All of the components of figure (X) are present in the figure (c)
84. (a) All of the components of figure (X) are present in the figure (a)
85. (c) When the key figure (X) will be rotated it will look like figure (c). The three faces are in the following manner in clock wise direction.

$A \rightarrow B \rightarrow X$

96. (d) In each row, the first unit is deleted in the third unit.
97. (d) Answer figure (d) will complete the matrix.
98. (d) Answer figure (d) will complete matrix.
99. (d) Answer figure (d) will complete matrix.
100. (b) Answer figure (b) will complete matrix.

AFCAT 2 2012 QUESTION PAPER

DIRECTIONS (Qs. 1- 5) : *Read the following passage carefully and answer the questions given below:*

The development and widespread use of computer technology and the internet have transformed how we communicate, how business is conducted, how information is dispersed, and how society is organised. Prior to 1980, in-depth information about any one subject matter was attained through laborious research involving countless visits to libraries and via repeated interviews with persons of known reputation and reputable expertise. Now, a great deal of information is available at the click of a mouse button, all attainable from within the confines of one's own home or from the use of a computer in an office. Previous labour-intensive support Jobs. such as loading and unpacking of trucks', luggage handling at airports, and food manufacturing, once performed by a large middle-class workforce, are now performed routinely by robots which are monitored by computer-controlled systems. Our lives have been simplified but these benefits which have been ushered in by the technology revolution have had an adverse effect on the core of our interpersonal-relationships. Mere communication is no longer via postal mail or face-to-face contact, but rather via electronic email, personal internet message boards and by virtue of hand-held personal electronic assistants. Although computer technology has brought us to within a mouse-click of any sought-after piece of information, this technology boom has sequestered us to the confines of our computer desks and homes and has removed us away from those traditional settings where personal and communication skills are developed.

1. The author's attitude the advent of computer technology can be best summarised as
   (a) optimistic and thankful
   (b) appreciative but reserved
   (c) candid and reverent.
   (d) understanding and obsessive

2. The author would agree with which of the following statements?
   (a) The advent of computer technology has decreased access to libraries
   (b) Because of advancements in robotics, labour-intensive jobs are more plentiful
   (c) Although heralded as a great leap forward, the widespread use of computer technology is not without its setbacks
   (d) Of all the benefits ushered in by the use the internet. electronic email is the most beneficial

3. The author's primary purpose in writing this passage is most likely which of the following?
   (a) To downplay the need for the internet
   (b) To explain how robotics and the internet have had both a positive and negative influence on how we live
   (c) To pave way for the next great technology revolution
   (d) To showcase the wonders of recent technology advancements

DIRECTIONS (Qs. 4-6) : *In each of the following choose the word most similar in meaning to the word given in capitals.*

4. OSMOSIS
   (a) Gradual acceptance   (b) Slow recovery
   (c) Abrupt ending   (d) Strength

5. OSTRACISE,
   (a) Take away   (b) Cut off
   (c) Include   (d) Expedite

6. ALACRITY
   (a) Hesitatingly   (b) Eagerness
   (c) Unwillingly   (d) Laziness

DIRECTIONS (Qs. 7-10) : *In each of the following choose the word most nearly opposite in meaning to the word given in capitals.*

7. PROFUSION
   (a) Travesty   (b) Validity
   (c) Scarcity   (d) Agitated

8. ESCHEW
   (a) Vicious   (b) Invite
   (c) Use   (d) Emanate

9. ABSTAIN
   (a) Refuse   (b) Oppose
   (c) Run away   (d) Permit

10. INSOLENT
    (a) Affable   (b) Spotted
    (c) Foolish   (d) Mature

DIRECTIONS (Qs. 11-15) : *In each of the following questions, find out which part has an error.*

11. If you will (a) / follow my instructions (b) / you will get (c) / a suitable reward for this (d)

12. Harshad, along with (a) / his brother (b) / Ashwani and six senior officials (c) / were arrested (d)

13. He received timely support (a) / from his elder brother (b) / who is working abroad (c) / for the last six years (d)

14. One of the drawbacks (a) / of modern education are (b) / that it does not encourage original thinking (c) / No error (d)

15. Morphine and other (a) / narcotic drugs are valuable (b) / medically, if misused (c) / it can cause irreparable damage (d)

DIRECTIONS (Qs. 16-20) : *Pick up the most effective word from the given words to fill in the blanks to make the sentence meaningfully complete.*

16. His book was marked by many _____ remarks which made us forget its main theme.
    (a) irrelevant   (b) objective
    (c) slanted   (d) digressive

17. Some people have the capacity for learning foreign languages but they have no _____ to speak.
    (a) interest   (b) ability
    (c) fondness   (d) inclination

18. The dispute among the parties became so _____ that there was every likelihood of a free exchange of blows
    (a) complicated   (b) acrimonious
    (c) bellicose   (d) aggressive

19. The judge decided to resign when he was _____ for promotion to Chief Justice.
    (a) passed by   (b) passed out
    (c) passed off   (d) passed over

20. Questions will be answered by a _____ of experts.
    (a) staff   (b) panel
    (c) bunch   (d) band

DIRECTIONS (Qs. 21 to 40) : *Choose the correct answer.*

21. Who among the following had discovered the Bramhi Script in 1838?
    (a) Sir William Jones   (b) Dr. Rajendra Lal Mitra
    (c) Dr. Bhaw Dagi   (d) Jones Prinsep

22. Who was known as father of administration in medieval India?
    (a) Akbar   (b) Sher Shah Suri
    (c) Humayun   (d) Aurangzeb

23. Brahma Samaj was founded by
    (a) Raja Rammohan Roy   (b) Jawaharlal Nehru
    (c) William Carey   (d) Jonathan Duncan

24. Who discharges the function of the President when vacancy occur In the office of President & Vice President simultaneously, owing to removal, death, resignation or th incumbent or otherwise?
    (a) Chief Justice of High Court
    (b) Chief Justice of India
    (c) Speaker of Lok Sabha
    (d) Chairman of Rajya Sabha

25. With which sport is Lewis Hamilton associated?
    (a) Golf   (b) Hockey
    (c) Billiards   (d) F – 1

26. From which country does the top seeded Tennis player Rafael Nadal hail from?
    (a) France   (b) Germany
    (c) Spain   (d) Russia

27. Which Indian Boxer won the gold medal in 60 kg category in Asian game and became the youngest to win a boxing gold for India?
    (a) Vijendra Singh   (b) Vikas Krishan
    (c) Ranjan Sodhi   (d) Somdev

28. In 2010 Leander Paes in partnership with Cara Black won the mixed doubles title of
    (a) Australian Open Tennis Championship
    (b) Wimblendon Open Tennis Championship
    (c) Both of the above
    (d) None of the above

29. Term 'Prime Vertical' in astronomy is defined as
    (a) the vertical circle which passes through the east and west point of the horizon and is at right angles to the meridian of the place.
    (b) the vertical circle which passes through the north and south pain of he horizon and is at right angles to the meridian of the place.
    (c) the vertical circle which passes through the east and west pain of the horizon and is parallel to the meridian of the place.
    (d) the vertical circle which passes through the north and south point of the horizon and is parallel to the meridian of the place.

30. MNREGA stands for
    (a) Mahatma Gandhi National Revenue Engagement Guarantee Association
    (b) Maharaja National Revenue Employment Guarantee Act
    (c) Mahanagar National Rural Employment Guarantee Act
    (d) Mahatma Gandhi National Rural Employment Guarantee Act

31. River Jhelum emerges from
    (a) Northern slopes of the Kailash range
    (b) Spring at Verinarg
    (c) Rakas Lake
    (d) Amarkantak plateau

32. Haematite ores is the ore of which metal?
    (a) Iron   (b) Aluminium
    (c) Zink-   (d) Cobalt

33. Green revolution relates to which of the following?
    (a) Self-dependence in foodgrains production
    (b) Self-dependence in milk production
    (c) Self-dependence in petroleum crude oil production
    (d) None of the above

34. Nuclear Submarine Akula has been handed over to India recently by
    (a) France   (b) Germany
    (c) USA   (d) Russia

Years'?

(a) David Omand   (b) Bilkees Latif

(c) Pranab Bardhan   (d) Jagat S. Mehta

36. Vertebrates have two endocrine glands associated with the brain, namely

(a) Thyroid, Thymus   (b) Pituitary, Pancreas

(c) Pituitary, Pineal   (d) Pancreas, Pineal

37. The layer common to two adjacent plant cells called Middle Lamella is composed of

(a) Calcium Phosphate   (b) Calcium Sulphate

(c) Calcium Carbonate   (d) Calcium Pectate

38. With the increase of the effective nuclear charge, the size of the atom or ion

(a) increases

(b) decreases

(c) remain the same, since it has no bearing on size

(d) it will depend on period to period and group to group

39. On which of the following statements, is the kinetic theory of matter base?

(a) Matter is made up of molecules

(b) Molecules are in rapid motion

(c) Molecules experience forces of attraction between one another

(d) All of the above

40. When heated with chloroform, secondary amines and tertiary amines

(a) gives isocyanides

(b) gives cyanides

(c) do not give isocyanides

(d) Both (a) and (b)

41. The number whose square is equal to the difference of the squares of 40 and 32 is

(a) 45.09   (b) 24

(c) 25   (d) 28

42. 5 buckets of water fill a tank when the capacity of each bucket is 7 litres How many buckets will be needed to fill the same tank, if the capacity of the bucket is 5 litres?

(a) 12   (b) 24

(c) 21   (d) 30

43. A vessel, full of water, weighs 27.5 kg. when the vessel is 1/4 full, it weighs 12.26 kg. Find the weight of empty vessel?

(a) 7.18 kg   (b) 6.54 kg

(c) 2.75 kg   (d) 2 5 kg

44. If $a+b = 10$ and $ab = 21$, find the value of a^3+b^3

(a) 370   (b) 210

(c) 730   (d) 598

45. If $a/(a+b)=17/23$, what is $(a+b)/(a-b)$ equal to?

(a) 13/7   (b) 23/11

(c) 14/5   (d) 25/9

46. $\dfrac{(598 + 479)^2 - (598 - 479)^2}{(598 \times 479)} =$

(a) 2   (b) 6

(c) 4   (d) 8

47. A man's average monthly expenditure for the first four months of the year was ₹ 225.25. For the next five months, the average monthly expenditure was ₹ 20.75 more than what it was during the first four months. If the person spent ₹ 700 in all during the remaining three months of the year, find what percentage of his annual income of ₹ 3500 he saved in the year?

(a) 10%   (b) 15%

(c) 19.11%   (d) 25%

48. The ratio of the present age of P and Q is 2.3. The ratio of their age after 18 years will be 4.5. What is the present age of Q?

(a) 26 years   (b) 25 years

(c) 24 years   (d) 27 years

49. The mean temperature of Monday to Wednesday was 37ºC and of Tuesday to Thursday was 34ºC. If the temperature on Thursday was 4/5th that of Monday, the temperature on Thursday' was

(a) 36.5ºC   (b) 36ºC

(c) 35.5ºC   (d) 34ºC

50. Srinivasan invests two equal amounts in two banks giving 10% and 12% rate of interest respectively. At the end of year the interest earned is ₹ 1650. Find the sum invested in each.

(a) ₹ 8500   (b) ₹ 15000

(c) ₹ 7500   (d) ₹ 17,000

51. The simple interest on sum of money is 1/9 of the sum. The number of years is numerically equal to the rate percent per annum. The rate percent per annum is

(a) 3.33   (b) 5

(c) 6.66   (d) 10

52. A sum of ₹ 10.000 is lent partly at 8% and the remaining at 10% per annum, If the yearly interest on the average is 9.2%. the money lent at 10% is

(a) ₹ 6000   (b) ₹ 5500

(c) ₹ 5000   (d) ₹ 4500

53. In an election between two candidates, 60% of the voters cast their votes, out of which 4% of the votes were declared invalid. A candidate got 7344 votes which were 75% of the total valid votes. Find the total number of votes enrolled in that election.

(a) 1700   (b) 17590

(c) 17000   (d) 7344

54. If the price of kerosene be raised by 9%, find how much percent a house holder must reduce his consumption of kerosene so that not to increase his expenditure

(a) 9%   (b) 8.25%

(c) 9%   (d) 9.25%

55. Sixty five pupils from a school entered for an examination and 80% of them passed. Another school entered 10 more pupils than the first school and four more pupils passed. The % of pass in the second school was
   (a) 75%   (b) 84%
   (c) 72%   (d) 74.6%

56. A jar contains black and white marbles. If there are ten marbles in the jar, then which of the following could not be the ratio of black to white marbles?
   (a) 9:1   (b) 7:3
   (c) 1:10   (d) 1:4

57. A sum of money is to be distributed among P, Q and R in the ratio of 6:19:7. If R gives ₹ 200 from his share to Q, the ratio of P, Q and R becomes 3:10:3, what is the total sum?
   (a) ₹ 3200   (b) ₹ 12800
   (c) ₹ 6400   (d) data inadequate

58. In what ratio should tea worth ₹ 10 per kg be mixed with tea worth ₹ 14 per kg so that the average price of the mixture may be ₹ 11 per kg?
   (a) 2:1   (b) 3:1
   (c) 3:2   (d) 4:3

59. Calculate the amount on ₹ 1250 for 2 years at 4% per annum. compounded yearly.
   (a) ₹ 676   (b) ₹ 1352
   (c) ₹ 1778   (d) ₹ 255

60. A sum of ₹ 3200 is lent out into two parts, one at 6% and another at 4%. If the total annual income is ₹ 176, find the money lent at 6%.
   (a) ₹ 2400   (b) ₹ 800
   (c) ₹ 1600   (d) ₹ 3200

DIRECTIONS (Qs 61-70) : *In the following questions the words qiven bear a certain relationship. Find out from the choices the words with the same relationship.*

61. Surgeon : Scalpet
   (a) Musician : Instrument (b) Sculptor : Chisel
   (c) Carpenter : Cabinet (d) Baker : Oven

62. Creche : Infants
   (a) School : Pupils (b) Deck : Sailors
   (c) Cottage : Guests (d) Aircraft : Crew

63. Pesticide : Plant
   (a) Injection : Disease (b) Teacher : Student
   (c) Medicine : Cure (d) Vaccination : Body

64. Stare : Glance
   (a) Gulp : Sip (b) Story : tell
   (c) Hunt : Stalk (d) Step : Walk

65. Fish : Aquarium
   (a) Student : Hostel (b) Bird : Forest
   (c) Goods : Consignment (d) Bee : Apiary

66. Ecstasy : Pleasure
   (a) Hatred : Affection (b) Rage : Anger
   (c) Joy : Grief (d) Mumble : Speak

67. Necromancy : Ghosts
   (a) Romance : Stories (b) Magic : Amulets
   (c) Alchemy : Gold (d) Sorcery : Spirit

68. Coin : Mint
   (a) Grain : Field (b) Hay : Stable
   (c) Wine : Brewery (d) Book : Publisher

69. Oak : Coniferous
   (a) Chimpanzee : Ape (b) Animals : Carnivore
   (c) Fish : Sea (d) Tree : Grove

70. Onam: Kerala
   (a) Christmas : Christians
   (b) Bhangra : Punjab
   (c) Kathak : Uttar Pradesh
   (d) Bihu : Assam

DIRECTIONS (Qs 71-75) : *In each of the following questions, a group of three inter related words is given. Choose a word from the given alternatives, that belongs to the same group.*

71. Calendar : Dates : : Dictionary : ?
   (a) Vocabulary (b) Language
   (c) Words (d) Book

72. Heed : Neglect : : Pacify : ?
   (a) Incite (b) Allay
   (c) War (d) Victory

73. Malaria : Disease : : Sword : ?
   (a) Wound (b) Spear
   (c) Weapon (d) Rifle

74. Eye : Wink : : Heart: ?
   (a) Move (b) Throb
   (c) Pump (d) Quiver

75. Earth : Sun : : Moon : ?
   (a) Orbit (b) Sky
   (c) Star (d) Earth

DIRECTIONS (Qs 76-80) : *Choose the word which is least like the other words in the group.*

76. (a) Rose (b) Lotus
   (c) Marigold (d) Tulip

77. (a) Book (b) Sharpener
   (c) Pencil (d) Paper

78. (a) Copper (b) Tin
   (c) Brass (d) Zinc

79. (a) Kiwi (b) Eagle
   (c) Emu (d) Penguin

80. (a) Raniganj (b) Jharia
   (c) Bokaro (d) Baroda

DIRECTIONS (Qs 81 to 85): *There are two sets of figures namely the Problem figures containing five figures 1, 2, 3, 4, 5 and Answer figures (a), (b), (c), (d). Select one figure from the Answer figures which will continue the same series as given in the Problem figures.*

81.

82.

83.

84.

85.
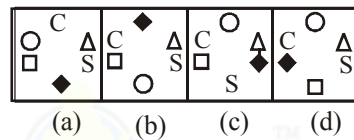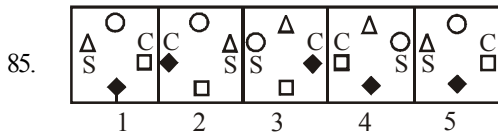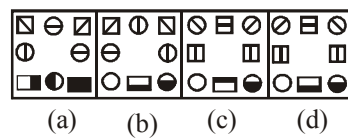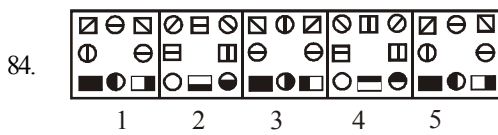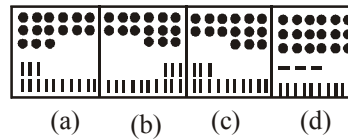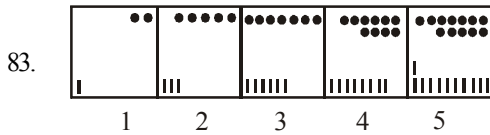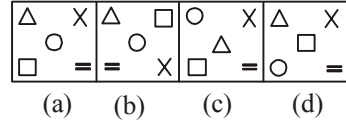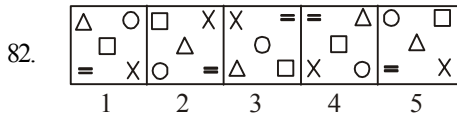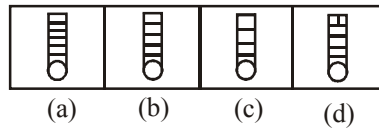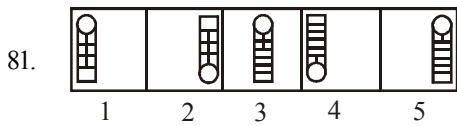
DIRECTIONS (Qs 86-90) : *From amongst the figures marked (a), (b), (c) and (d), select the figure which satisfies the same conditions of placement of the dot as in fig. (X)*
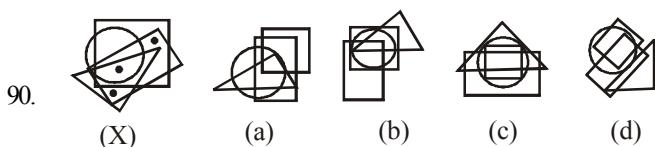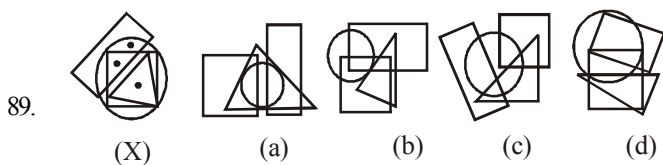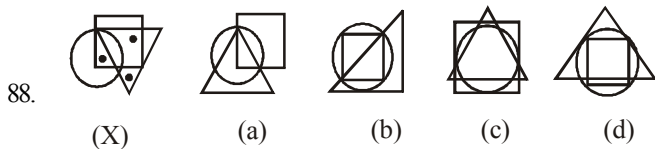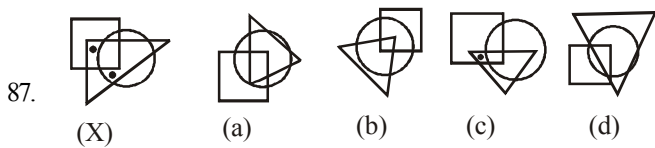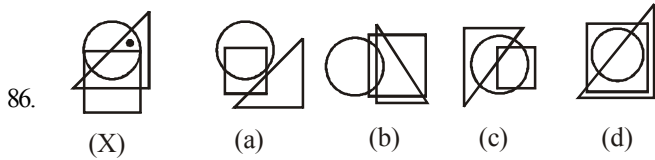
DIRECTIONS (Qs 91- 95) : *The original figure is embedded or hidden inone of the answer figures (a), (b), (c) and (d). Select the alternative that carries the correct figure which clearly shows the embedded portion of the original figure.*

86.

87.

88.

89.

90.

91.

92.

93.

94.

95.
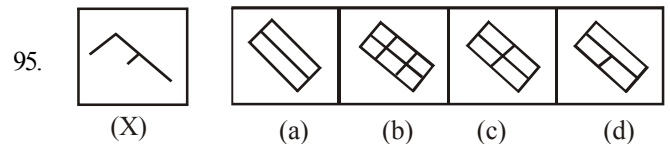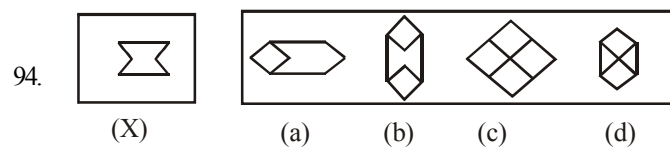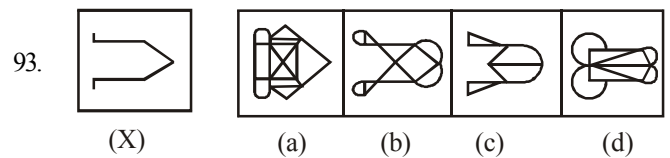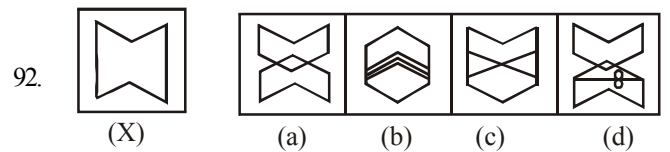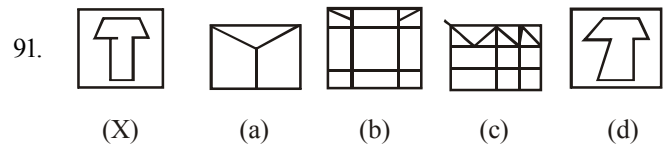
DIRECTIONS (Qs 96-100) : *Find out from the given option (a), (b), (c) or (d) the right figure to fit in the missing figure.*

96.

(X)　　(a)　　(b)　　(c)　　(d)

97.

(X)　　(a)　　(b)　　(c)　　(d)

98.

(X)　　(a)　　(b)　　(c)　　(d)

99.

(X)　　(a)　　(b)　　(c)　　(d)

100.

(X)　　(a)　　(b)　　(c)　　(d)
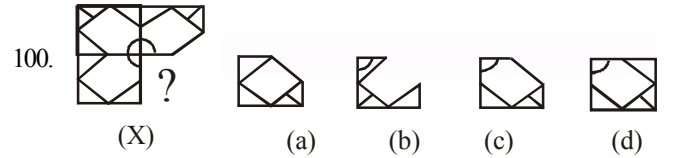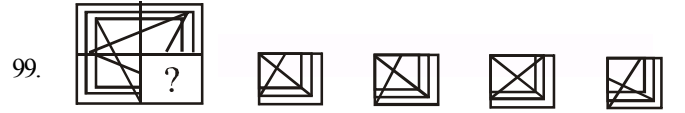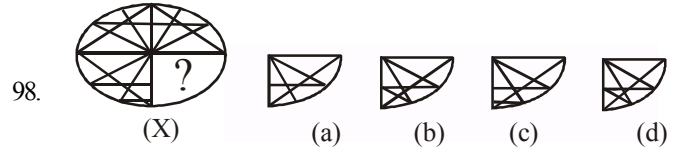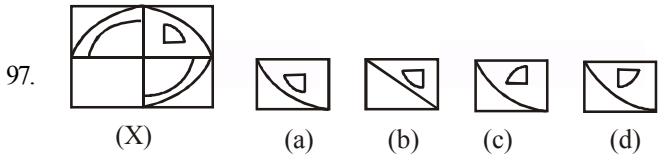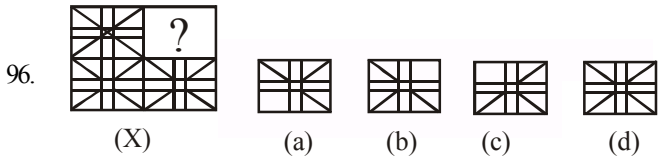
AFCAT 2 2012 QUESTION PAPER

ANSWER KEY									
1. (b)	2. (c)	3. (b)	4. (a)	5. (b)	6. (b)	7. (c)	8. (c)	9. (c)	10.(a)
11.(a)	12.(d)	13.(c)	14.(b)	15.(d)	16.(d)	17.(d)	18.(b)	19.(d)	20.(b)
21.(d)	22.(a)	23.(a)	24.(b)	25.(d)	26.(c)	27.(a)	28.(b)	29.(c)	30.(c)
31.(b)	32.(a)	33.(a)	34.(d)	35.(b)	36.(c)	37.(d)	38.(d)	39.(c)	40.(d)
41.(b)	42.(c)	43.(a)	44.(a)	45.(b)	46.(c)	47.(c)	48.(d)	49.(b)	50.(c)
51.(a)	52.(a)	53.(c)	54.(b)	55.(d)	56.(c)	57.(c)	58.(b)	59.(b)	60.(a)
61.(b)	62.(b)	63.(d)	64.(a)	65.(d)	66.(b)	67.(d)	68.(c)	69.(a)	70.(d)
71.(c)	72.(a)	73.(c)	74.(b)	75.(d)	76.(b)	77.(b)	78.(c)	79.(b)	80.(d)
81.(a)	82.(a)	83.(c)	84.(d)	85.(d)	86.(c)	87.(c)	88.(c)	89.(d)	90.(a)
91.(d)	92.(c)	93.(b)	94.(b)	95.(c)	96.(d)	97.(a)	98.(c)	99.(d)	100.(d)

1. (b) The author's attitude the advent of computer technology can be best summarised as the appreciative but reserved.

2. (c) The sentence '....but these benefits which have been ushered in by the technology revolution have had an adverse effect on the core of our interpersonal-relationships' affirms that the author would agree with the widespread use of computer technology is not without its setbacks.

3. (b) The author's primary purpose in writing this passage is to explain how robotics and the internet have had both a positive and negative influence on how we live.

4. (a) Osmosis means the process of gradual or unconscious assimilation of ideas, knowledge, etc.

5. (b) Ostracise means avoid speaking to or dealing with and cut off means the same.

6. (b) Alacrity means liveliness and eagerness; hence, option b is right.

7. (c) Profusion means the property of being extremely abundant and its opposite should be scarcity.

8. (c) Eschew means avoid and stay away from deliberately; stay clear of, hence, its opposite should be Use.

9. (c) Abstain means choose not to consume and its opposite should be permit.

10. (a) Insolent means marked by casual disrespect while affable means diffusing warmth and friendliness.

11. (a) In the conditional sentence the correct patter should be 'If you follow my instructions.........

12. (d) Along with, like in addition to, and together with, is often employed following the subject of a sentence or clause to introduce an addition. The addition, however does not alter the tense of the verb, which is governed by the subject. The king (singular), along with two aides, is expected in an hour. Hence, were is to be replaced with was.

13. (c) Present perfect continuous tense talks of an action or actions that started in the past and continued until recently or that continue into the future. Hence, the correct structure of the sentence should be - who has been working abroad.

14. (b) Here the verb 'are' is to be replaced with is; hence, the correct sequence of the sentence is 'one of the drawbacks of modern education is ....

15. (d) Since morphine and other narcotic drugs is in plural so, the pronoun 'it' should be replaced with 'they'.

16. (d) The correct filler here should be digressive.

17. (d) Here the right option should be 'inclination'.

18. (b) Acrimonious is the most effective word among the given options.

19. (d) Pass over means to leave out, disregard.

20. (b) Panel rightly corresponds with the experts.

21. (d) The script was deciphered in 1837 by Jones Prinsep, an archaeologist, philologist, and official of the British East India Company.

23. (a) Brahma Samaj is the societal component of Brahmoism, a monotheistic reformist and renaissance movement of Hindu religion. It was started at Calcutta on 20 August 1828 by Raja Ram Mohan Roy and Debendranath Tagore.

24. (b) When President Zakir Hussain died in office, the Vice President VV Giri, acted as the President. However, Mr. Giri resigned as the Vice President. Then the Chief Justice Hidayatullah became the acting President of India. The most senior judge of the Supreme Court became the acting Chief Justice of India. When the newly elected President took office a month later, Justice Hidayatullah again became the Chief Justice of India.

25. (d) Lewis Carl Davidson Hamilton, MBE is a British Formula One racing driver from England, currently racing for the Mercedes AMG team. He is the 2008 Formula One World Champion. Hamilton was born in Stevenage, Hertfordshire.

26. (c) Rafael "Rafa" Nadal Parera (born 3 June 1986) is a Spanish professional tennis player and the current world No. 1. Nadal has won 13 Grand Slam singles titles, the 2008 Olympic gold medal in singles, a record 27 ATP World Tour Masters 1000 and a record 15 ATP World Tour 500 tournaments.

28. (b) Leander Paes and Cara Black won the last senior title of Wimbledon 2010 by beating Wesley Moodie and Lisa Raymond 6-4 7-6 (7-5) in the mixed doubles.

29. (c) In astronomy and astrology, the prime vertical is the vertical circle passing east and west through the zenith, and intersecting the horizon in its east and west points.

30. (c) Act offers to guarantee hundred days of wage-employment in a year to a rural household.

31. (b) Verinag is approximately 80 km from Srinagar, by road, at an elevation of 1,876 m. It is believed that the eponymous Verinag spring is the chief source of the river Jhelum. There is an octagonal base at the spring, surrounded by a covered passage.

32. (a) Hematite, also spelled as haematite, is the mineral form of iron oxide, one of several iron oxides. Hematite crystallizes in the rhombohedral lattice system, and it has the same crystal structure as ilmenite and corundum.

36. (c) The endocrine system refers to the collection of glands of an organism that secrete hormones directly into the circulatory system to be carried toward a distant target organ. The major endocrine glands include the pineal gland, pituitary gland, pancreas, ovaries, testes, thyroid gland, parathyroid gland, hypothalamus, gastrointestinal tract and adrenal glands.

37. (d) The middle lamella is a pectin layer which cements the cell walls of two adjoining cells together. Plants need this to give them stability and so that they can form plasmodesmata between the cells. It is the first formed layer which is deposited at the time of cytokinesis. The cell plate that is formed during cell division itself develops into middle lamella or lamellum. The middle lamella is made up of calcium and magnesium pectates. In plants, the pectins form an unified and continuous layer between adjacent cells.

38. (d) The effective nuclear charge is the net positive charge experienced by an electron in a multi-electron atom. The term "effective" is used because the shielding effect of negatively charged electrons prevents higher orbital electrons from experiencing the full nuclear charge by the repelling effect of inner-layer electrons. The effective nuclear charge experienced by the outer shell electron is also called the core charge. It is possible to determine the strength of the nuclear charge by looking at the oxidation number of the atom.

41. (b) $(40)^2 - (32)^2 = 1600 - 1024 = 576$

Hence, 24 is the required number.

42. (c) Less capacity, more buckets. (Indirect proportion)

$\therefore 5 : 15 :: 7 : x$

$\dfrac{5}{15} = \dfrac{7}{x}$

$x = 21$

Hence, 21 buckets will be needed to fill the same tank.

43. (a) Let 'x' be the weight g empty vessel and 'y' be the weight of full vessel.

$x + y = 27.5$ ...(1)

$x + \dfrac{y}{4} = 12.26$

$4x + y = 4 \times 12.26$ ...(2)

Subtracting equation (1) from (2)

$4x - x = 49.04 - 27.5$

$3x = 21.54$

$x = 7.18 \, kg$

44. (a) Given, $a + b = 10$

Squaring on both sides

$a^2 + b^2 + 2ab = 100$

$a^2 + b^2 = 100 - 2 \times 21$

$a^2 + b^2 = 58$

Now, $a^3 + b^3 = (a + b)(a^2 + b^2 - ab)$

$= (10)(58 - 21)$

$= 10 \times 37 = 370$

45. (b) $\dfrac{a}{a + b} = \dfrac{17}{23}$

$23a = 17a + 17b$

$6a = 17b$

$a = \dfrac{17}{6}b$

$\dfrac{a + b}{a - b} = \dfrac{\dfrac{17}{6}b + b}{\dfrac{17}{6}b - b} = \dfrac{\dfrac{17}{6} + 1}{\dfrac{17}{6} - 1}$

$\Rightarrow \dfrac{a + b}{a - b} = \dfrac{23}{11}$

46. (c) $\dfrac{(598 + 479)^2 - (598 - 479)^2}{598 \times 479}$

$\Rightarrow (598)^2 + (479)^2 + 2 \times 598 \times 479$

$\dfrac{-(598)^2 - (479)^2 + 2 \times 598 \times 479}{598 \times 479}$

$\Rightarrow \dfrac{4 \times 598 \times 479}{598 \times 479}$

$\Rightarrow 4$

47. (c) Total expenditure spent on four months

$= 4 \times 225.25 = ₹\, 901$

Total expenditure spent on next five months

$= 5 \times (225.25 + 20.75)$

$= 5 \times 246 = ₹\, 1230$

Total expenditure for 12 months

$= ₹\, [901 + 1230 + 700] = 2831$

Required % $= \dfrac{669}{3500} \times 100 = 19.11\%$

48. (d) Let the present age of P and Q be 2x and 3x. According to question

$\dfrac{2x + 18}{3x + 18} = \dfrac{4}{5}$

$10x + 90 = 12x + 72$

$2x = 18$

$x = 9$

Present age of Q $= 9 \times 3 = 27$ years

49. (b) $\dfrac{\text{Mon} + \text{Tues} + \text{Wed}}{3} = 37°C$ ...(1)

$\dfrac{\text{Tues} + \text{Wed} + \text{Thur}}{3} = 34°C$ ...(2)

Subtracting equation (2) from (1)

Mon – Thurs = $37 \times 3 - 34 \times 3$

$\dfrac{5}{4}$ Thus – Thurs = 9

Thurs = 36°C

50. (c) Let 'x' be the sum invested in the bank.

According to question

$\dfrac{x \times 10 \times 1}{100} + \dfrac{x \times 12 \times 1}{100} = 1650$

$10x + 12x = 165000$

$22x = 165000$

$x = ₹\,7500$

51. (a) Let sum = ₹ x, S.I. = $\dfrac{1}{9}x$

Rate = R%

Time = R yrs.

$\dfrac{1}{9}x = \dfrac{x \times R \times R}{100}$

$R^2 = \dfrac{100}{9}$

$R = 3.33\%$

52. (a)

```
   8%              10%
      \          /
       \        /
        9.2%
       /        \
      /          \
  0.8%            1.2%
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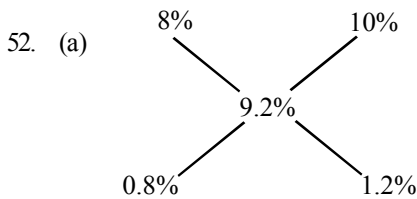
The ratio in which money lent is 0.8 : 1.2 or 2 : 3

Therefore, money lent at 10%

$= \dfrac{3}{5} \times 10000 = 6000$

53. (c) Let the total number of votes enrolled be x.

Then, number of votes cast = 60% of x

Valid votes = 96% of (60% of x)

75% of [96% of (60% of x)] = 7344

$\dfrac{75}{100} \times \dfrac{96}{100} \times \dfrac{60}{100} \times x = 7344$

$x = \dfrac{7344 \times 100 \times 100 \times 100}{75 \times 96 \times 60}$

$x = 17000$

54. (b) If the price of a commodity increases by R%, then the reduction in consumption. So as not to increase the expenditure is

$\left[\dfrac{R}{100 + R} \times 100\right]\% = \dfrac{9}{100 + 9} \times 100$

$= 8.25\%$

55. (d) Pupils from first school appeared for an examination

= 80% of 65 = 52

Pupils from second school appeared for an examination

= 52 + 4 = 56

Total pupils in second school = 65 + 10 = 75

Pass % of second school = $\dfrac{56}{75} \times 100 = 74.6\%$

56. (c) 1 : 10 could not be the ratio of black to white marbles.

57. (c) Going by options,

If the total sum is 6400 then distribution among P, Q and R was 1200, 3800 and 1400.

After giving 200 to Q by R.

New sum would be 1200, 4000 and 1200.

Or, 1200 : 4000 : 1200 = 3 : 10 : 3

58. (b)

```
 Tea 1          Tea 2
  10             14
    \          /
     \        /
        11
     /        \
    /          \
   3            1
```
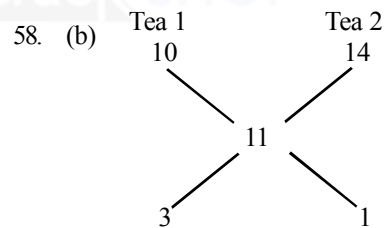
Hence, the ratio should be 3 : 1.

59. (b) Amount = Principal $\left(1 + \dfrac{\text{Rate}}{100}\right)^{\text{Time}}$

$= 1250\left(1 + \dfrac{4}{100}\right)^2$

$= 1250 \times \dfrac{26}{25} \times \dfrac{26}{25}$

$= ₹\,1352$

60. (a) Let the sum lent at 6% be ₹ x and that lent at 4% be ₹ (3200 – x). Then,

$\dfrac{x \times 6 \times 1}{100} + \dfrac{(3200 - x)4 \times 1}{100} = 176$

$6x + 4 \times 3200 - 4x = 17600$

$2x = 17600 - 4 \times 3200$

$2x = 17600 - 12800 = 4800$

$x = ₹\,2400$

61. (b) Second is the tool used to first.
62. (b) Infants are kept in Creche like wise sailors.
63. (d) Plant is given pesticide for cure and body is given vaccination.
64. (a) First is bigger than the second.
65. (d) Second is the place where first lives.
66. (b) First is more intense form of second.
67. (d) Necromancy is the practice to deal with ghosts similarly Sorcery deals with spirits.
68. (c) Second is the place where first is manufactured.
69. (a) First is a kind or type of second.
70. (d) Onam is a festival of Kerala and Bihu is of Assam.
71. (c) Calendar consists of dates and dictionary consists of words.
72. (a) The words in pair are opposite to each other.
73. (c) Second is the class to which first belongs.
74. (b) Second is the activity done by first.
75. (d) First revolves around the second.
76. (b) Lotus grow in water and rest grow on land.
77. (b) All except sharpener are used in writing.
78. (c) Brass is an alloy and rest are metals.
79. (b) All except eagle are flightless birds.
80. (d) All except Baroda are famous for coal fields.

AFCAT 1 2011 QUESTION PAPER

INSTRUCTIONS: TIME LIMIT : 2 HOURS

1. Total No. of Questions–100. Each Question is of three marks.
2. One mark will be deducted for every wrong answer.
3. Do not write or mark on the Question Paper.
4. Question Paper to be returned before leaving the Exam Hall.

DIRECTIONS (Qs. 1 to 5) : *Read the following passage carefully and answer the questions given below it.*

We stand poised precariously and challengingly on the razor's edge of destiny. We are now at the mercy of atom bombs and the like which would destroy us completely if we fail to control them wisely. And wisdom in this crisis means sensitiveness to the basic values of life; it means a vivid realization that we are literally living in one world where we must either swim together or sink together. We cannot afford to tamper with man's single minded loyalty to peace and international understanding. Anyone, who does it is a traitor not only to man's past and present, but also to his future, because he is mortgaging the destiny of unborn generations.

1. From the tone and style of the passage it appears that the writer is
    (a) a prose writer with a fascination for images and metaphors.
    (b) a humanist with a clear foresight.
    (c) a traitor who wishes to mortgage the destiny of future generations.
    (d) unaware of the global power situation.
2. The best way to escape complete annihilation in an atomic war is to
    (a) work for international understanding and harmony.
    (b) invent more powerful weapons.
    (c) turn to religion.
    (d) ban nuclear weapons.
3. The phrase 'razor's edge of destiny' means a/an
    (a) enigma that cuts through the pattern of life like the edge of a razor.
    (b) critical situation that foreordains the future.
    (c) sharp line of division that marks the alternative courses of action in the future.
    (d) destiny with sharp edges.
4. According to the writer, 'wisdom' on the razor's edge of destiny means
    (a) awareness that we stand poised precariously on the razor's edge of destiny.
    (b) determination to ban nuclear weapons.
    (c) responsibility to the 'unborn generations'.
    (d) awareness of the basic values of life.
5. The author is concerned about the threat of nuclear weapons because he feels that
    (a) a nuclear war will destroy human civilization.
    (b) all countries are interlinked and one cannot escape the consequences of what happens to another country.

    (c) the world is on the brink of disaster.
    (d) his country is threatened by a nuclear war.

DIRECTION (Qs. 6-10) : *In each of the following questions, find out which part of the sentence has an error. If there is no mistake, the answer is (d) "No error".*

6. A person I met (a) / in the theatre (b) /was the playwright himself. (c)/ No error (d)
7. They walked (a) / besides each other (b) / in silence (c) / No error (d)
8. We returned to the guest house (a)/ impressed by (b) / What we had seen (c) / No error (d)
9. The judge was convinced (a)/ that neither (b)/ of the five accused was guilty (c)/ No error (d)
10. The municipality is going (a)/ to built a new school (b)/ near the park (c)/ No error (d)

DIRECTIONS (Qs. 11-15) : *Pick out the most effective word from the given words to fill in the blank to make the sentence meaningfully complete.*

11. His actions had _____ pain and suffering on thousands of people.
    (a) affected   (b) imposed
    (c) inflicted   (d) deplored
12. The Government will _____ all resources to fight poverty.
    (a) collect   (b) exploit
    (c) harness   (d) muster
13. The children _____ crackers to celebrate the victory of their team.
    (a) burst   (b) fired
    (c) shot   (d) released
14. I am _____ forward to our picnic scheduled in the next month.
    (a) seeing   (b) looking
    (c) planning   (d) thinking
15. I hope you must have _____ by now that failures are the stepping stones to success.
    (a) known   (b) felt
    (c) decided   (d) realized

DIRECTIONS (Qs. 16 - 18) : *In each of the following choose the word most similar in meaning to the word given in capitals.*

16. CAUSED
    (a) Brought about   (b) Brought forward
    (c) Brought out   (d) Brought over

17. PLACID
    (a) Plain   (b) Clear
    (c) Poor   (d) Calm
18. AUDACIOUS
    (a) Obvious   (b) Daring
    (c) Ardent   (d) Affluent

DIRECTIONS (Qs. 19 - 21) : *Pick out the word that is most nearly the opposite in meaning to the word given in capitals.*

19. MONOLOGUE
    (a) Prologue   (b) Epilogue
    (c) Dialogue   (d) Catalogue
20. DELETE
    (a) Imbibe   (b) Improve
    (c) Insert   (d) Inspire
21. AMBIGUITY
    (a) Certainty   (b) Clarity
    (c) Rationality   (d) Laxity
22. The First Battle of Panipat was fought between
    (a) Akbar & Hemu
    (b) Babur and Ibrahim Lodhi
    (c) Akbar & Rana Sanga
    (d) Ahmad Shah Abdali & Marathas
23. Fa-hien visited India during the reign of
    (a) Chandra Gupta Maurya (b) Bindusara
    (c) Chandra Gupta II   (d) Bimbisara
24. Gandhiji's first experience with Satyagraha came up in
    (a) Dandi   (b) Champaran
    (c) Bengal   (d) Natal
25. During whose tenure as the viceroy of India were the great Martyrs Bhagat Singh, Sukhdev and Rajguru hanged?
    (a) Lord Curzon   (b) Lord Irwin
    (c) Lord Minto   (d) Lord Chelmford
26. The winner of the highest number of gold medals in an Olympic game is
    (a) Mark Spitz   (b) Matt Biondi
    (c) Michael Phelps   (d) Jenny Thompson
27. 'Agha Khan Cup' is associated with the game of
    (a) Football   (b) Hockey
    (c) Badminton   (d) Cricket
28. Usain Bolt, the 100 meters race world record holder, is from which country?
    (a) Jamaica   (b) U.S.A.
    (c) Canada   (d) Nigeria
29. Only two cricket players have taken 10 wickets in an innings. One is Anil Kumble. The other is
    (a) Richard Hadlee   (b) Muttiah Muralidharan
    (c) Jim Laker   (d) Andy Roberts
30. 'Borlaug Award' is given every year to an Indian scientist for outstanding contribution in the field of
    (a) Medicine   (b) Space
    (c) Applied Science   (d) Agriculture
31. The highest Indian gallantry award which could be given in peace time is
    (a) Ashok Chakra
    (b) Param Vir Chakra
    (c) Kirti Chakra
    (d) Param Vishisht Seva Medal

32. The most successful Satellite Launch Vehicle of Indian Space Programme to launch commercial satellites is known as
    (a) SLV   (b) ASLV
    (c) PSLV   (d) GSLV
33. Which one of the following soils is most suitable for cotton cultivation
    (a) Red soil   (b) Black soil
    (c) Loamy soil   (d) Laterite soil
34. The name of indigenously built Light Combat Aircraft is
    (a) Tejas   (b) Chakra
    (c) Vajra   (d) Trishul
35. The boundary between China and India is known as
    (a) Mc Mohan Line   (b) Radcliffe Line
    (c) Hindenberg Line   (d) Line of Control
36. Equinox means two days in a year when day and night are almost equal. If March 21 is an equinox which is the next?
    (a) 09 October   (b) 31 August
    (c) 23 September   (d) 03 November
37. UNHCR, an organisation of United Nations, was established to provide/promote
    (a) Primary Education (b) Health and Culture
    (c) Relief   (d) Protection to refugees
38. Who authored the book 'Train to Pakistan'?
    (a) Salman Rushdie   (b) Khushwant Singh
    (c) Mulk Raj Anand   (d) Vikram Seth
39. Vitamin necessary to prevent prolonged bleeding is
    (a) Vitamin A   (b) Vitamin E
    (c) Vitamin D   (d) Vitamin K
40. The famous classical dance form of Andhra Pradesh is
    (a) Kathakali   (b) Kuchipudi
    (c) Mohini Attam   (d) Yakshaagna
41. The term 'Carbon Credit' is associated with
    (a) Coal reserve of a nation
    (b) Reduction of Green House Gas emissions
    (c) Fossil Fuel reserve
    (d) Amount of CO_2 an individual emits in a year
42. In a 225 meter long yard 26 trees are planted at equal distance, one tree being at each end of the yard. What is the distance between two consecutive trees?
    (a) 10 meters   (b) 8 meters
    (c) 12 meters   (d) 9 meters
43. A bonus of ₹1000 is divided among three employees. Rohit gets twice the amount Sachin gets. Sachin gets one fifth of what Gagan gets. How much amount does Gagan get?
    (a) ₹500   (b) ₹625
    (c) ₹750   (d) ₹120
44. A boy was asked to multiply a number by 25. Instead, he multiplied the number by 52 and got the answer 324 more than the correct answer. The number to be multiplied was
    (a) 12   (b) 15
    (c) 25   (d) 32
45. The average age of 35 students in a class is 16 years. Out of these students the average age of 21 students is 14 years. The average age of remaining students is
    (a) 15 years   (b) 17 years
    (c) 20 years   (d) 19 years

46. After replacing an old member by a new member, it was found that the average age of five members of a club is the same as it was 3 years ago. What is the difference between the age of replaced member and new member?
   - (a) 2 years
   - (b) 8 years
   - (c) 15 years
   - (d) 25 years

47. The average salary of all the workers in a workshop is Rs. 8000. The average salary of seven technicians is ₹12000 and average salary of others is ₹ 6000. The total number of workers in the workshop are-
   - (a) 20
   - (b) 21
   - (c) 22
   - (d) 23

48. In an examination a candidate has to get 35% of total marks to pass. In one paper he gets 62 out of 150 and in the second 35 out of 150. How many marks should he get out of 200 marks in the third paper to pass?
   - (a) 61
   - (b) 68
   - (c) 70
   - (d) 78

49. The salary of A & B together amounts to ₹ 2000. A spends 95% of his salary and B 85% of his salary. If their savings are same what is the salary of A?
   - (a) ₹750
   - (b) ₹1250
   - (c) ₹1500
   - (d) ₹1600

50. Out of the 1000 inhabitants of a town, 60% are male of whom 20% are literate. If, amongst all the inhabitants, 25% are literate, then what percentage of the females of the town are literate?
   - (a) 22.5
   - (b) 32.5
   - (c) 27.5
   - (d) 37.5

51. A trader mixes 26 kg of rice at ₹ 20 per kg with 30 kg rice of another variety costing ₹ 36 per kg. If he sells the mixture at ₹ 30 per kg his profit will be-
   - (a) −7%
   - (b) 5%
   - (c) 8%
   - (d) 10%

52. The difference between the cost price and sale price is ₹ 240. If the profit is 20%, the selling price is
   - (a) ₹1200
   - (b) ₹1440
   - (c) ₹1800
   - (d) ₹2440

53. Samant bought a microwave oven and paid 10% less than Maximum Retail Price(MRP). He sold it with 30% profit on his purchase cost. What percentage of profit did he earn on MRP?
   - (a) 17%
   - (b) 20%
   - (c) 27%
   - (d) 32%

54. The price of a scooter and a TV are in the ratio of 7 : 5. If the scooter costs ₹8000 more than a TV set, then the price of TV set is-
   - (a) ₹20000
   - (b) ₹24000
   - (c) ₹32000
   - (d) ₹28000

55. The speed of three cars is in the ratio of 5 : 4 : 6. The ratio between the time taken by them to travel the same distance is
   - (a) 5 : 4 : 6
   - (b) 6 : 4 : 5
   - (c) 10 : 12 : 15
   - (d) 12 : 15 : 10

56. The ratio between two numbers is 3 : 4. If each number is increased by 6 the ratio becomes 4 : 5. The difference between the numbers is
   - (a) 1
   - (b) 3
   - (c) 6
   - (d) 8

57. ₹ 800 becomes ₹ 956 in 3 years at a certain rate of interest. If the rate of interest is increased by 4% what amount will ₹ 800 become in 3 years?
   - (a) ₹1020
   - (b) ₹1052
   - (c) ₹1282
   - (d) ₹1080

58. How much time will it take for an amount of ₹ 450 to gain ₹ 81 as interest, if rate of interest is 4.5% p.a on simple interest?
   - (a) 4.5 years
   - (b) 3.5 years
   - (c) 5 years
   - (d) 4 years

59. At what rate of annual simple interest will ₹10000 double in 15 years?
   - (a) 5.5%
   - (b) 8%
   - (c) 6.75%
   - (d) 7.25%

60. The value of (?) in the equation $365.089 - ? + 89.72 = 302.35$ is
   - (a) 152.456
   - (b) 152.459
   - (c) 153.456
   - (d) 153.459

61. A sum of ₹312 is divided among 60 boys and some girls in such a way that each boy gets ₹ 3.60 and each girl gets ₹2.40. The number of girls are-
   - (a) 35
   - (b) 60
   - (c) 40
   - (d) 65

DIRECTIONS (Qs. 62-69) : *This is a test of your ability to understand words. For each question four options are given. There is only one correct answer for each question. Mark the correct answer.*

62. INCITE means the same as
   - (a) short
   - (b) delay
   - (c) place
   - (d) provoke

63. SUCCUMB means the same as
   - (a) aid
   - (b) yield
   - (c) check
   - (d) oppose

64. ANOMALOUS means the same as
   - (a) disgraceful
   - (b) formless
   - (c) irregular
   - (d) threatening

65. FORTUITOUS means the same as
   - (a) accidental
   - (b) conclusive
   - (c) courageous
   - (d) prosperous

66. PERMEABLE means the same as
   - (a) flexible
   - (b) variable
   - (c) soluble
   - (d) penetrable

67. CONVOY means the same as
   - (a) carry
   - (b) flock
   - (c) standard
   - (d) escort

68. CITE means the same as
   - (a) illustrate
   - (b) reveal
   - (c) recollect
   - (d) quote

69. VOCATION means the same as
   - (a) hobby
   - (b) occupation
   - (c) post
   - (d) designation

DIRECTIONS (Qs. 70-82) : *Each of the following questions has an underlined/capitalized word. You are to indicate which one of the four choices most nearly means the same as the underlined/ capitalized word.*

70. The benefits of the plan are likely to be transitory.
   - (a) significant
   - (b) obvious
   - (c) temporary
   - (d) cumulative

71. The hikers found several crevices in the rocks.
    (a) cracks   (b) minerals
    (c) canals   (d) puddles
72. BOOK is to CHAPTER as BUILDING is to
    (a) ELEVATOR   (b) LOBBY
    (c) ROOF   (d) STOREY
73. CARROT is to VEGETABLE as
    (a) DOGWOOD is to OAK   (b) FOOT is to PAW
    (c) PEPPER is to SPICE   (d) SHEEP is to LAMB
74. CONCAVE is to CONVEX as
    (a) CAVITY is to MOUND
    (b) HILL is to HOLE
    (c) OVAL is to OBLONG
    (d) ROUND is to POINTED
75. GOWN is to GARMENT as GASOLINE is to
    (a) COOLANT   (b) FUEL
    (c) OIL   (d) LUBRICANT
76. HYPER- is to HYPO- as
    (a) DIASTOLIC is to SYSTOLIC
    (b) OVER is to UNDER
    (c) SMALL is to LARGE
    (d) STALE is to FRESH
77. IMMIGRATION is to EMIGRATION as

    (a) ARRIVAL is to DEPARTURE
    (b) FLIGHT is to VOYAGE
    (c) LEGAL is to ILLEGAL
    (d) MIGRATION is to TRAVEL
78. OCTAGON is to SQUARE as HEXAGON is to
    (a) POLYGON   (b) PYRAMID
    (c) RECTANGLE   (d) TRIANGLE
79. TELL is to TOLD as
    (a) RIDE is to RODE   (b) SINK is to SANK
    (c) WEAVE is to WOVE   (d) WEEP is to WEPT
80. SHEEP is to LAMB as HORSE is to
    (a) COLT   (b) DOE
    (c) FAWN   (d) MARE
81. IGNORE is to OVERLOOK as
    (a) AGREE is to CONSENT
    (b) CLIMB is to WALK
    (c) DULL is to SHARPEN
    (d) LEARN is to REMEMBER
82. FREQUENTLY is to SELDOM as
    (a) ALWAYS is to NEVER
    (b) EVERYBODY is to EVERYONE
    (c) GENERALLY is to USUALLY
    (d) OCCASIONALLY is to CONSTANTLY

DIRECTIONS (Qs. 83-91) : *This test is designed to test your ability to visualize and manipulate objects in space. In each question, you are shown a picture of a block. To the right of the pictured block, there are five choices shown as A, B, C, D and E. Select the choice containing a block that is just like the pictured block at the left although turned in a different position.*

88.

	A	B	C	D	E

89.

	A	B	C	D	E

90.

	A	B	C	D	E

91.

	A	B	C	D	E
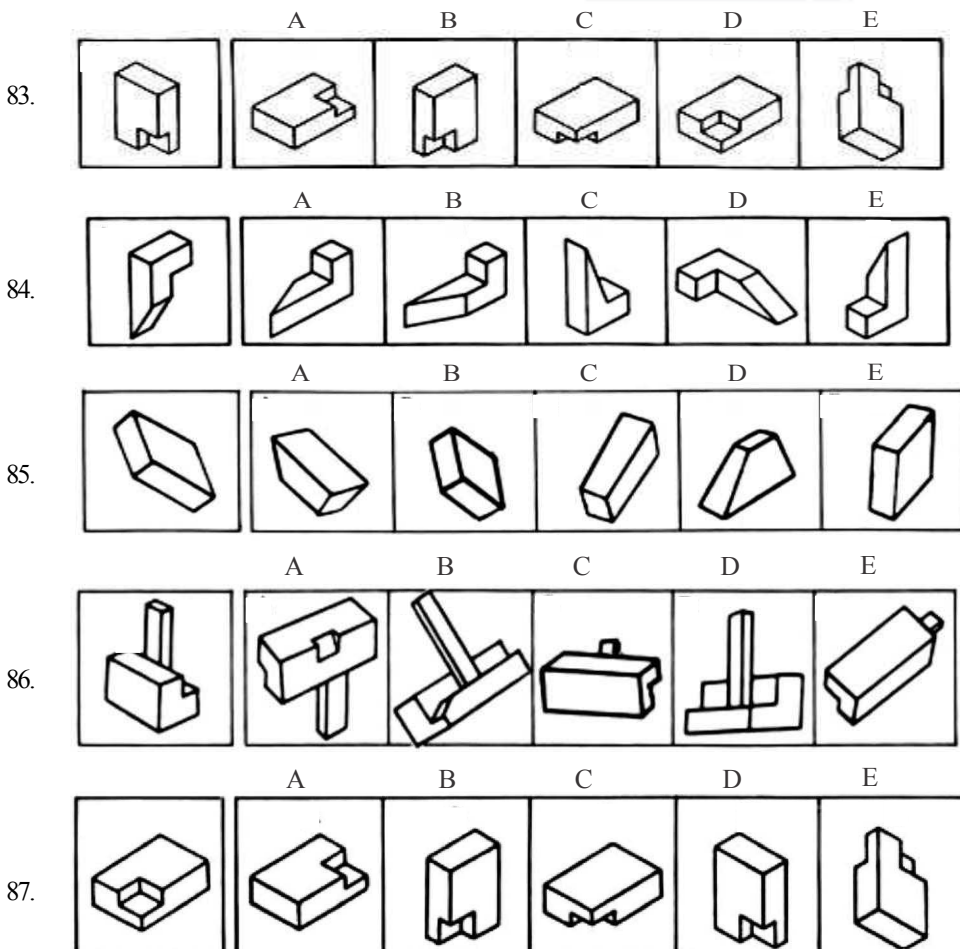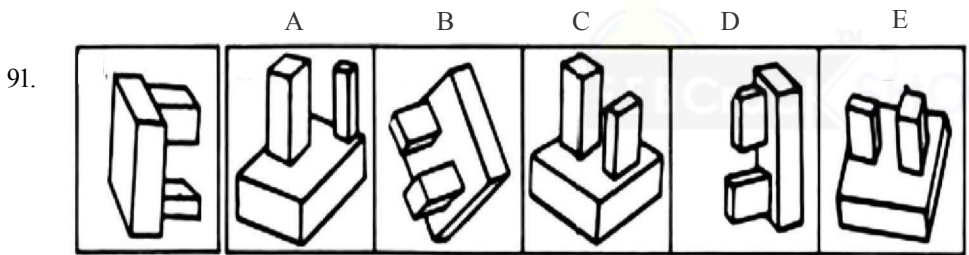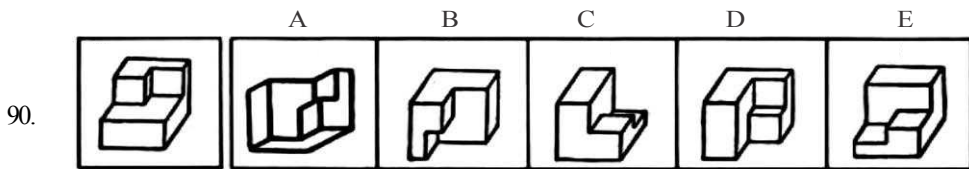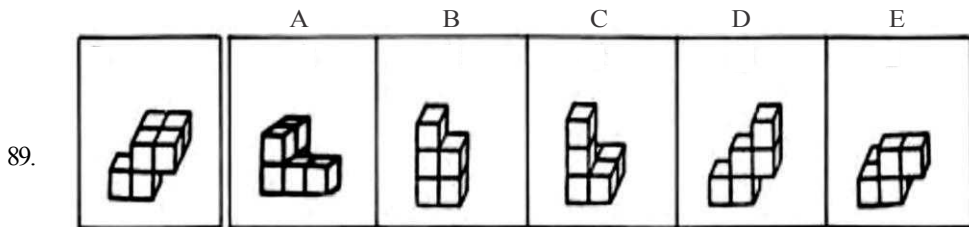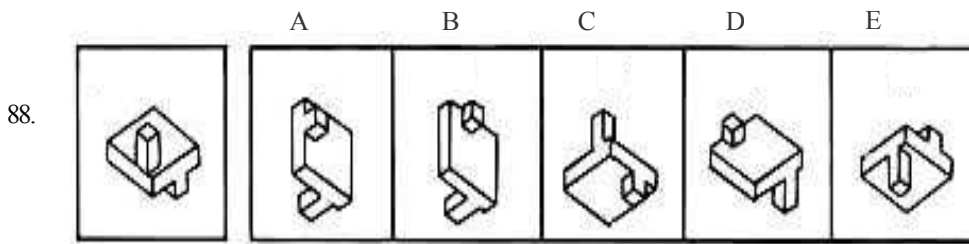
DIRECTIONS (Qs. 92-100) : *The hidden figures test is designed to perceive simple figures in complex drawings. At the top of each section are five figures lettered A, B, C, D, and E. Below these are several numbered drawings. You must determine which lettered figure is embedded in each of the numbered drawings.*

A   B   C   D   E

92.

93.

A	B	C	D	E

94.

A	B	C	D	E

A	B	C	D	E

95.

| A | B | C | D | E |

96.
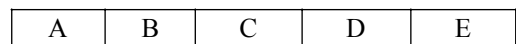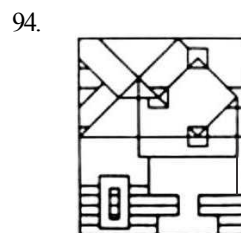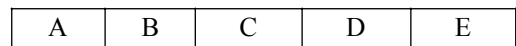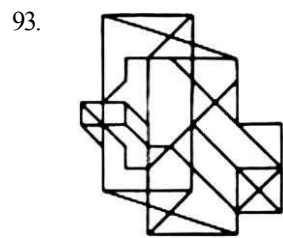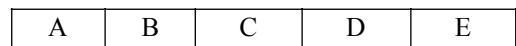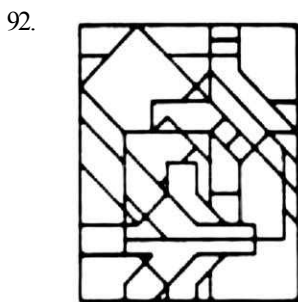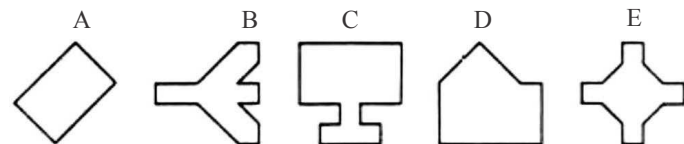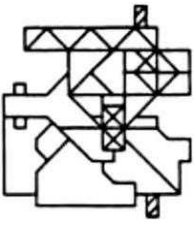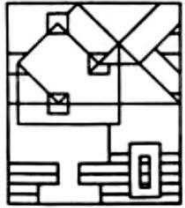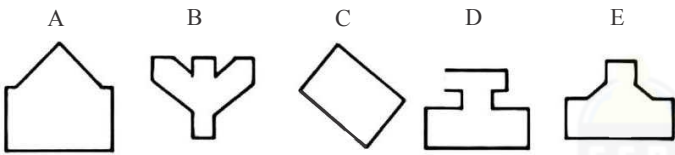
| A | B | C | D | E |

| A | B | C | D | E |

97.
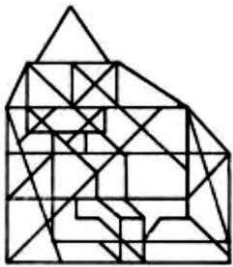
| A | B | C | D | E |

98.
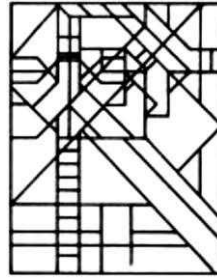
| A | B | C | D | E |

99.
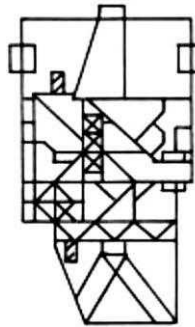
| A | B | C | D | E |

100.
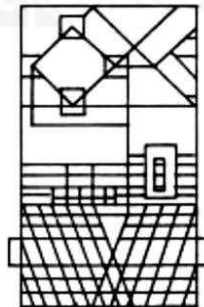
| A | B | C | D | E |

AFCAT 1 2011 QUESTION PAPER

ANSWER KEY

1. (b)	2. (d)	3. (b)	4. (d)	5. (a)	6. (a)	7. (b)	8. (a)	9. (d)	10.(b)
11.(c)	12.(c)	13.(a)	14.(b)	15.(d)	16.(a)	17.(d)	18.(b)	19.(b)	20.(c)
21.(b)	22.(b)	23.(c)	24.(b)	25.(b)	26.(c)	27.(a)	28.(a)	29.(c)	30.(d)
31.(a)	32.(c)	33.(b)	34.(a)	35.(a)	36.(c)	37.(d)	38.(b)	39.(d)	40.(b)
41.(c)	42.(d)	43.(b)	44.(a)	45.(d)	46.(c)	47.(b)	48.(d)	49.(c)	50.(b)
51.(b)	52.(a)	53.(a)	54.(a)	55.(d)	56.(c)	57.(b)	58.(d)	59.(c)	60.(b)
61.(c)	62.(d)	63.(b)	64.(c)	65.(a)	66.(a)	67.(b)	68.(a)	69.(d)	70.(c)
71.(a)	72.(d)	73.(c)	74.(a)	75.(b)	76.(b)	77.(a)	78.(d)	79.(d)	80.(a)
81.(c)	82.(a)	83.(d)	84.(b)	85.(e)	86.(a)	87.(d)	88.(c)	89.(d)	90.(e)
91.(b)	92.(e)	93.(a)	94.(c)	95.(d)	96.(d)	97.(a)	98.(c)	99.(a)	100.(e)

1. (b) The writer appears to be a humanist with a clear foresight according to the passage.

2. (d) The best option to escape complete annihilation in an atomic war is to ban nuclear weapons.

3. (b) The phrase 'razor's edge of destiny' implies here the critical situation that foreordains the future.

4. (d) 'Wisdom' on the razor's edge of destiny in the chapter signifies awareness of the basic values of life.

5. (a) The author is concerned about the threat of nuclear weapons because he feels that a nuclear war will destroy human civilization.

6. (a) Here it should be the definite article 'the' person instead of indefinite 'a' person.

7. (b) Beside means next to, at the side of while besides means making an additional point; anyway.

8. (a) The construction of the sentence should be as 'Impressed by what we had seen, we returned to the guest house.

9. (d) The sentence is correct. When neither, a singular form, is followed by a prepositional phrase with a plural object, there is a tendency, esp. in speech and less formal writing, to use a plural verb and pronoun: Neither of the guards were at their stations. In edited writing, however, singular verbs and pronouns are more common: Neither of the guards was at his station. This use of a singular verb and pronoun is usually recommended by usage guides.

10. (b) The infinitive form of the verb is always in the first form and preceded by to (e.g., to run, to dance, to think). Hence here the municipality is going to build a new school' should be correct option.

11. (c) Inflicted which means make (someone) do something unpleasant; e.g. "The teacher inflicted his rage on the students. Other options do not correspond.

12. (c) Harness means exploit the power of.

13. (a) Burst. If you are bursting crackers then you are setting off fireworks.

14. (b) The correct phrase is look forward to.

15. (d) Realize means perceive (an idea or situation) mentally which is correct filler.

17. (d) Calm

18. (b) Daring

19. (b) Epilogue

20. (c) Insert

21. (b) Clarity

22. (b) The First Battle of Panipat, on 21 April 1526, was fought between the invading forces of Babur and the Lodi Empire. It took place in north India and marked the beginning of the Mughal Empire. This was one of the earliest battles involving gunpowder firearms and field artillery. Ibrahim Lodi died on the field of battle along with 15,000 of his troops.

23. (c) Fahien visited India in the early fifth century AD. He is said to have walked all the way from China across icy desert and rugged mountain passes. Fahien's visit to India occurred during the reign of Chandragupta II.

24. (b) The first Satyagraha revolutions inspired by Mahatma Gandhi in the Indian Independence Movement occurred in Champaran district of Bihar on 1916.

26. (c) Michael Fred Phelps (born June 30, 1985) is an American swimmer and 14-time Olympic gold medallist (the most by any Olympian), who currently holds seven world records in swimming. He holds the record for the most gold medals won at a single Olympics; a total of eight, surpassing Mark Spitz, also a swimmer. Overall, Phelps has won 16 Olympic medals: six gold and two bronze at Athens in 2004, and eight gold at the 2008 Summer Olympics in Beijing.

27. (a) The Agha Khan Gold Cup was played in Dhaka,East Pakistan(Bangladesh) which invited top club sides from leading football playing nations to compete.

28. (a) Usain St. Leo Bolt (born 21 August 1986) is a Jamaican sprinter widely regarded as the fastest person ever.

29. (c) Jim Laker and Anil Kumble are the only two players who have taken 10 wickets in an innings. James "Jim" Charles Laker (9 February 1922 - 23 April 1986) was a cricketer who played for England in the 1950s. Laker was the first player to take all 10 wickets in a Test match innings, ten for 53 in the Australians' second innings of the fourth Ashes Test at Old Trafford in 1956 (the only other bowler to take all 10 wickets is Anil Kumble of India in 1999).

30. (d) The Borlaug Award is an award recognition conferred by a fertilizer company, Coromandel International, for outstanding Indian scientists for their research and contributions in the field of agriculture and environment. The award was created in 1972 and named in honour of Nobel Laureate Norman E. Borlaug. It carries a cash prize of Rs 500,000, a gold medal, and a citation.

31. (a) The Ashoka Chakra is the peace time equivalent of the Param Vir Chakra, and is awarded for the "most conspicuous bravery or some daring or pre-eminent valour or self-sacrifice" other than in the face of the enemy.

32. (c) PSLV- The Polar Satellite Launch Vehicle, commonly known by its abbreviation PSLV, is an expendable launch system developed and operated by the Indian Space Research Organisation (ISRO).

33. (b) Black soil is most suitable for cotton cultivation, locally called regard or black cotton soils, and internationally known as 'tropical black earths' or 'tropical chernozems' have been developed by the weathering of the Deccan lava in majorparts of Maharashtra, western MadhyaPrades, Gujarat, Andhra Pradesh, Karnataka, Rajasthan, Tamil Nadu and Uttar Pradesh.

34. (a) The HAL Tejas is a 4+ generation, multirole light fighter developed by India.

35. (a) The McMahon Line is a line agreed to by Britain and Tibet as part of the Simla Accord, a treaty signed in 1914. It is the effective boundary between China and India, although its legal status is disputed by the Chinese government. The line is named after Sir Henry McMahon, foreign secretary of the British-run Government of India and the chief negotiator of the convention at Simla. It extends for 550 miles (890 km) from Bhutan in the west to 160 miles (260 km) east of the great bend of the Brahmaputra River in the east, largely along the crest of the Himalayas.

36. (c) An equinox occurs twice a year, around 20 March and 22 September. If march 21 is an equinox then next equinox will be 23 september.

37. (d) The Office of the United Nations High Commissioner for Refugees (UNHCR), also known as the UN Refugee Agency, is a United Nations agency mandated to protect and support refugees at the request of a government or the UN itself and assists in their voluntary repatriation, local integration or resettlement to a third country. Its headquarters are in Geneva, Switzerland and is a member of the United Nations Development Group.

38. (b) Train To Pakistan is a historical novel by Khushwant Singh, published in 1956. It recounts the Partition of India in August 1947.

39. (d) Vitamin K is a group of structurally similar, fat-soluble vitamins that the human body needs for modification of certain proteins that are required for blood coagulation, and in bone and other tissue.

40. (b) Kuchipudi is a Classical Indian dance from Andhra Pradesh, India.

41. (c) The term Carbon Credit is associated with Reduction of Green House Gas emissions in the atmosphere.

42. (d) Distance between two consecutive trees

$$= \frac{222}{25} = 9 \text{ meters}$$

43. (b) According to question
R = 2S

$$S = \frac{1}{5}G$$

R + S + G = 1000
2S + S + 5S ₹ 1000
8S = 1000
S = 125
Hence, Gagan's get ₹ 625.

44. (a) Let the number be x.
25x + 324 = 52x
52x − 25 x = 324
27x = 324
x = 12

45. (d) Total sum of ages of 35 students = 35 × 16
Total sum of ages of 21 students = 21 × 14

The average of remaining students $= \dfrac{35 \times 16 - 21 \times 14}{14}$

= 19 years

46. (c) Age decreased = (5 × 3) years = 15 years
So, the required difference = 15 years

47. (b) Let the total number of workers be x. Then,
8000x = (12000 × 7) + 6000 (x − 7)
8000 x = 84000 + 6000 x − 42000
2000x = 42000   ∴ x = 21

48. (d) Total marks = 150 + 150 + 200 = 500
35% of 500 = 175
175 = 62 + 35 + x
x = 78

According to question

$x - 95\% \text{ of } x = [(2000 - x - 85\% \text{ of } (2000 - x)]$

$x\left[1 - \dfrac{95}{100}\right] = (2000 - x)\left[1 - \dfrac{85}{100}\right]$

$5x = (2000 - x)\,15$

$20x = 30000$

$x = 1500$

Hence, the salary of A is ₹ 1500.

50. (b) Total number of males those are literate = 60% of 20% of 1000

$= \dfrac{60}{100} \times \dfrac{20}{100} \times 1000 = 120$

Total number of males in the town = 600

Total number of females in the town = 400

Total number of all inhabitants those are literate = 25% of 1000 = 250

Remaining females those are literates = 250 − 120 = 130

$\therefore$ Required % $= \dfrac{130}{400} \times 100$

$= 32.5\%$

51. (b) C. P. of 56 kg rice

$= (26 \times 20 + 30 \times 36)$

$= ₹(520 + 1080) = ₹ 1600$

S. P. of 56 kg rice $= 56 \times 30 = ₹ 1680$

Profit % $= \dfrac{80}{1600} \times 100 = 5\%$

52. (a) Profit = S. P − C. P

Profit = 240

Profit % $= \dfrac{\text{Profit}}{\text{C.P.}} \times 100$

$20 = \dfrac{240}{\text{C.P.}} \times 100 \Rightarrow \text{C.P.} = 1200$

Therefore, S.P $= 1200 + 240 = ₹ 1440$

53. (a) Let the original price $= ₹ 100$

Then, C.P. $= ₹ 90$

S. P. = 130% of 90 $= ₹\left(\dfrac{130}{100} \times 90\right)$

$= ₹ 117$

$\therefore$ Required percentage $= (117 - 100)$

$= 17\%$

54. (a) Let the price of a scooter and a TV be 7x and 5x respectively.

According to question

$7x = 5x + 8000$

$2x = 8000$

$x = 4000$

Hence, the price of TV = ₹ 20,000

Time ratio $= \dfrac{1}{5} : \dfrac{1}{4} : \dfrac{1}{6} = \dfrac{12 : 15 : 10}{60}$

The ratio between the time taken by them to travel the same distance is 12 : 15 : 10

56. (c) Let the number are 3x and 4x.

$\dfrac{3x + 6}{4x + 6} = \dfrac{4}{5}$

$15x + 30 = 16x + 24$

$x = 6$

Number are 18 and 24.

Hence, required difference is 6.

57. (b) S.I. $= ₹(956 - 800) = ₹ 156$;

P = 800, T = 3 yrs.

$\therefore R = \left(\dfrac{100 \times 156}{800 \times 3}\right)\% = 6.5\%$

New rate $= (6.5 + 4) = 10.5\%$

New, S.I $= ₹\left(\dfrac{800 \times 10.5 \times 3}{100}\right) = ₹ 252$

$\therefore$ New amount $= 800 + 252 = 1052$

58. (d) $SI = \dfrac{P \times R \times T}{100}$

$81 = \dfrac{450 \times 4.5 \times T}{100}$

$T = \dfrac{100 \times 81}{450 \times 4.5} = 4 \text{ years}$

60. (b) $365.089 - ? + 89.72 = 302.35$

$? = 365.089 + 89.72 - 302.35$

$? = 152.459$

61. (c) Let the number of girls be x.

$60 \times 3.60 + x \times 2.40 = 312$

$x = 40$

62. (d) 'INCITE' means to encourage illegal or unpleasant.

63. (b) 'SUCCUMB' means not to be able to fight.

64. (c) 'ANOMALOUS' means different what from is normal or expected.

65. (a) 'FORTUITOUS' and accidental means happening by change.

66. (a) 'PERMEABLE' means allowing something to pass through.

67. (b) 'CONVOY' means a group of vehicles travelling together.

68. (a) 'CITE' means to mention an example in order to support what you are saying.

69. (d) 'VOCATION' and designation mean a type of work that you believe is especially suitable for you.

70. (c) 'TRANSITORY' means continuing for only a short time.

71. (a) 'CREVICES' means cracks in a rock or wall.

72. (d) Chapter is a part of book, in the same way story is a level of building.

73. (c) As carrot is a vegetable, in the same way pepper is a spice.

74. (a)

Concave ... Convex

Similarly,

Cavity ... Mound
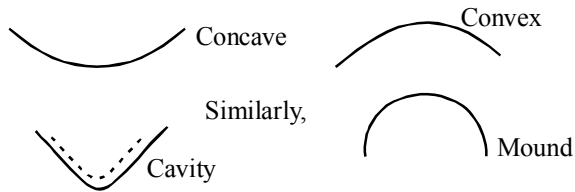
75. (b) Gown is type of garment. Similarly, Gasoline is a type of fuel.

76. (b) Hayper is the antonym of hype. Similarly, over is the antonym of under.

77. (a) Immigration (arrival) is the antonym of emigration (departure).

78. (d) Square is a four sided figure while octagon is a eight sided figure, i.e., four side more. Similarly hexagon has three more sides than triangle.

79. (d) Told is the third form of the verb tell, similarly, wept is the third form of weep.

80. (a) Lamb is young sheep. Similarly colt is a young horse.

81. (c) Ignore is the antonym of overlook. Similarly, dull is the antonym of sharpen.

82. (a) Frequently is the antonym of seldom.
Similarly always is the antonym of never.

AFCAT 2 2011 QUESTION PAPER

DIRECTIONS (Qs. 1-4) : *Read the following passage carefully and answer the questions given below it.*

Educational planning should aim at meeting the educational needs of the entire population of all age groups. While the traditional structure of education as a three layer hierarchy from the primary stage to the university represents the core, we should not overlook the periphery which is equally important. Under modern conditions, workers need to rewind, or renew their enthusiasm, or strike out in a new direction, or improve their skills as much as any university professor. The retired and aged have their needs as well. Educational planning, in other words, should take care of the needs of everyone.

Our structures of educational have been built up on the assumption that there is a terminal point of education. This basic defect has become all the more harmful today. A UNESCO report entitled 'Learning to Be' prepared by Edgar Faure and other in 1973 asserts that the education of children must prepare the future adult for various forms of self-learning. A viable education system of the future should consist of modules with different kind of functions serving a diversity of constituents. And performance, not the period of study, should be the basis for credentials. The writing is already on the wall.

In view of the fact that the significance of a commitment of lifelong learning and lifetime education is being discussed only in recent years even in educationally advanced countries, the possibility of the idea becoming an integral part of educational thinking seems to be a far cry. For, to move in that direction means so much more than some simple rearrangement of the present organisation of education. But a good beginning can be made by developing Open University programmes for older learners of different categories and introducing extension services in the conventional colleges and schools. Also, these institutions should learn to cooperate with numerous community organisations such as libraries, museums, municipal recreational programmes, health services etc.

1. What is the main thrust of the author?
   (a) Traditional systems should be strengthened.
   (b) Formal education is more important than non-formal.
   (c) One should never cease to learn.
   (d) It is impossible to meet the needs of everyone.
2. What should be the major characteristic of the future educational system?
   (a) Different modules with same function.
   (b) Same module for different groups.
   (c) No modules but standard compulsory programme for all.
   (d) None of the above

3. According to the author, what measures should open university adopt to meet modern conditions?
   (a) Develop various programmes for adult learners.
   (b) Open more colleges in traditional lines.
   (c) Cater to the needs of those who represent 'cone'.
   (d) Primary education should be under the control of open universities.
4. In the context of the passage, what is the meaning of the sentence "The writing is already on the wall"?
   (a) Everything is uncertain now-a-days.
   (b) Changes have already taken place.
   (c) The signs of change are already visible.
   (c) You cannot change the future.

DIRECTIONS (Qs. 5 - 9) : *In each of the following questions, find out which part of the sentence has an error. If there is no mistake, the answer is (d) "No error".*

5. It was a year since (a) / I received any letter (b) / from my sister. (c) / No error. (d)
6. His family members may arrive (a) / any moment (b) / by car. (c)/ No error. (d)
7. He went to office (a) / but returned back (b) / home immediately (c) / No error. (d)
8. The two brothers amicably divided (a) / their parent's property (b) /among them. (c) / No error. (d)
9. To attain a high academic standard (a) / in his college Sunil worked hard (b) / since morning till night (c) /No error.

DIRECTIONS (Qs. 10-14) : *Pick out the most effective word from the given words to fill in the blank to make the sentence meaningfully complete.*

10. Mohini is an independent and innovative thinker, it is best to grant her a good deal of _____ with regard to the direction of her research.
    (a) leverage   (b) interest
    (c) assistance   (d) money
11. The _____ of meat in your refrigerator does not necessarily indicate that you are a vegetarian.
    (a) presence   (b) absence
    (c) amount   (d) colour
12. Due to the rise of new media technology, many people predict newspapers will soon be _____ .
    (a) obsolete   (b) ubiquitous
    (c) commonplace   (d) widespread
13. Attention to detail is the _____ of a fine craftsman.
    (a) hallmark   (b) stamp
    (c) authenticity   (d) show

14. Although the two sisters are twins, they look somewhat _____.
    (a) alike   (b) unique
    (d) different   (d) related

DIRECTIONS (Qs. 15-17) : *In each of the following choose the word most similar in meaning to the word given in capitals.*

15. VENERATE
    (a) Reject   (b) Remove
    (c) Love   (d) Respect
16. VACILLATE
    (a) Waver   (b) Disintegrate
    (c) Relegate   (d) Salute
17. FELICITY
    (a) Zeal   (b) Excitement
    (c) Happiness   (d) Expertise

DIRECTIONS (Qs. 18-20) : *Pick out the word that is most nearly the opposite in meaning to the word given in capitals.*

18. HYSTERIA
    (a) Disease   (b) Ceremony
    (c) Serenity   (d) Frenzy
19. ABSTAIN
    (a) Indulge   (b) Dismiss
    (c) Repel   (d) Acquire
20. SEDENTARY
    (a) inactive   (b) Sluggish
    (c) moving   (d) settled

Directions (Qs. 21-40) : *Choose the correct answer.*

21. The famous Grand Trunk (GT) Road from Peshawar to Kolkata was built by
    (a) Akbar   (b) Ashok
    (c) Sher Shah Suri   (d) Chandragupta
22. The Ashoka Pillar whose Lion Capitol (Carving) was adopted by the Government of India as National Emblem is situated at
    (a) Varanasi   (b) Puri
    (c) Prayag   (d) Sarnath
23. The Preamble of the Constitution of India was prepared by
    (a) Member of Constituent Assembly
    (b) BR Ambedkar
    (c) Jawaharlal Nehru
    (d) Dr. Radhakrishna
24. The two great revolutionaries who threw a bomb in Legislative Assembly were
    (a) Bhagat Singh & BK Dutt
    (b) Bhagat Singh & Chandrashekhar Azad
    (c) Chandrashekar Azad & Bismil
    (d) Bhagat Singh & Ashfak Ullah Khan
25. 'Duckworth Lewis Rule' is used in the game of
    (a) Lawn Tennis   (b) Cricket
    (c) Basketball   (d) Rugby
26. Dronacharya award is given for outstanding contribution in the field of
    (a) Sports   (b) Sarv Shiksha Abhiyan
    (c) Anganwadi   (d) Music
27. Who was the first Indian woman to climb Mount Everest?
    (a) Junko Tabei   (b) Bachendri Pal
    (c) Dola Banerjee   (d) Sanamacha Chanu
28. The first Olympic Games were held in 1896 at
    (a) Rome   (b) Athens
    (c) Paris   (d) London

29. India tops the world in production of
    (a) Aluminium   (b) Copper
    (c) Chromite   (d) Mica
30. DPT vaccine does not give protection to a child from
    (a) Tetanus   (b) Polio
    (c) Diphtheria   (d) Whooping Cough
31. What will be the colour of a red rose when it is seen through green glass?
    (a) White   (b) Black
    (c) Pink   (d) Brown
32. Which one of the following is the exclusive power of the Lok Sabha?
    (a) To introduce Money Bill.
    (b) To ratify declaration of Emergency.
    (c) To impeach the President.
    (d) To pass No Confidence Motion against Council of Ministers.
33. Indigenously build supersonic cruise missile is known as
    (a) Brahmos   (b) Prithvi
    (c) Nag   (d) Astra
34. Which one of the following crops enriches nitrogen content in the soil?
    (a) Pea   (b) Sunflower
    (c) Potato   (d) Wheat
35. Which of the following periodical winds blowing from sea to land cause summer monsoon in India?
    (a) East West   (b) North East
    (c) South West   (d) South East
36. India's permanent research station 'Dakshin Gangotri" is situated in the
    (a) Great Himalayas   (b) Indian Ocean
    (c) Arabian Sea   (d) Antarctica
37. Which one of the following is the busiest ocean route in the world?
    (a) Indian Ocean   (b) Pacific Ocean
    (c) North Atlantic Ocean   (d) South Atlantic Ocean
38. Defence Services Staff College is located at
    (a) Khadakvasala   (b) Secunderabad
    (c) Dehradun   (d) Wellington
39. The United Nations Organisations responsible to maintain international peace & security, was established on 24 October in the year
    (a) 1920   (b) 1945
    (c) 1939   (d) 1942
40. Who authored the book "Freedom at Midnight"?
    (a) Salman Rushdie
    (b) Charles Dickens
    (c) Mahatma Gandhi
    (d) Larry Collins and Dominique Lapierre
41. The number of girls in a class in five times the number of boys. Which of the following cannot be the total number of children in the class?
    (a) 24   (b) 30
    (c) 35   (d) 54
42. Ram went to a shop to buy 50 kg of rice. He bought two varieties of rice which cost him ₹ 4.50 per kg and ₹ 5 per kg. He spent a total of ₹ 240. What was the quantity of the cheaper rice purchased by him?
    (a) 20 Kg   (b) 25 Kg
   (c) 30 Kg   (d) None of these

rupee and ten rupee notes. The number of each type of notes are equal. What is the total number of notes he has?

(a) 60   (b) 150
(c) 90   (d) 120

44. The average of five consecutive odd number is 61. What is the difference between the highest and lowest number?

(a) 2   (b) 5
(c) 8   (d) 12

45. Jayesh is twice as old as Vijay and half as old as Suresh. If the sum of Vijay's age and Suresh's age is 85 years what is the age of Jayesh?

(a) 34 years   (b) 36 years
(c) 68 years   (d) 24 years

46. A cricketer has an average of 30 runs in 14 innings. How many runs should he score in his next innings to achieve an average of 32 runs?

(a) 65   (b) 60
(c) 55   (d) 50

47. What percentage of profit should be added in the cost price of an item so as to gain a profit of 33% after allowing 5% discount to the customer?

(a) 45   (b) 40
(c) 52   (d) 48

48. If the manufacturer gains 10%, the wholesale dealer gains 15% and the retailer gains 25%, find the cost of production of a table. The retail price of table is ₹ 1265

(a) ₹ 800   (b) ₹ 1000
(c) ₹ 950   (d) ₹ 1180

49. A loss of 19% on a shirt gets converted into a profit of 17% when the selling price is increased by ₹ 162. What is the cost price of the shirt?

(a) ₹ 540   (b) ₹ 450
(c) ₹ 600   (d) ₹ 360

50. In an examination 75% of the total students passed in English and 65% passed in Mathematics, while 15% failed in English as well as Mathematics. If a total of 495 candidates who passed in both exams. Find the total number of students who appeared in the exam.

(a) 850   (b) 900
(c) 1000   (d) 1050

51. When the price of a product was increased by 15%, the number of items sold was decreased by 20%. What was the net effect?

(a) 10% gain   (b) 6% loss
(c) 8% loss   (d) 4% gain

52. A mixture of 40 litres of milk and water contains 10% water. How much water should be added to this mixture so that the new mixture contains 20% water?

(a) 4 litres   (b) 5 litres
(c) 6.5 litres   (d) 7.5 litres

53. The ratio of three numbers is 3 : 4 : 5 and the sum of their squares is 1250. The sum of the three numbers is

(a) 30   (b) 50
(c) 60   (d) 90

54. The average age of three boys is 25 years and their ages are in the proportion 3 : 5 : 7. What is the age of the youngest boy?

(a) 15 years   (b) 18 years
(c) 21 years   (d) 13 years

are 48 and the total number of feet are 140, then the number of hens are

(a) 22   (b) 23
(c) 24   (d) 26

56. A certain sum of money becomes three times of itself in 20 years at simple interest. In how many years will the initial sum become double at the same rate of simple interest?

(a) 8   (b) 10
(c) 12   (d) 14

57. Ram borrows ₹ 8000 at 12% p.a. simple interest and Mohan borrows ₹ 9100 at 10% p.a. simple interest. In how many years will their borrowed amounts (debt) be equal?

(a) 18   (b) 20
(c) 22   (d) 24

58. Reena took a loan of ₹ 1200 with simple interest for a certain numbers of years. The number years are same as the interest rate. If she has paid ₹ 432 as interest at the end of the loan period, what was the rate of interest?

(a) 3.6   (b) 6
(c) 12   (d) None of these

59. A student was asked to divide a number by 3. But, instead of dividing it he multiplied it by 3 and got 29.7 as the answer. What was the correct answer had he not made the mistake?

(a) 3.3   (b) 9.3
(c) 9.8   (d) 9.9

60. Which of the following fraction is the smallest?

(a) 9/13   (b) 17/26
(c) 28/39   (d) 33/52

DIRECTIONS (Qs. 61-80) : *Each question consists of two words which have a certain relationship to each other, followed by four pairs of related words. Select the pair which has the same relationship.*

61. STORY : NOVEL
(a) Sea : Ocean   (b) School : University
(c) Book : Dictionary   (d) Poetry : Drama

62. GRAIN : SALT
(a) Shard : Pottery   (b) Shred : Wood
(c) Blades : Grass   (d) Chips : Glass

63. WAITER : TIP
(a) Student : Marks   (b) Worker : Bonus
(c) Employee : Wages   (d) Clerk : Bribe

64. PAIN : SEDATIVE
(a) Comfort : Stimulant   (b) Grief : Consolation
(c) Trance : Narcotic   (d) Ache : Extraction

65. SILENCE : NOISE
(a) Quiet : Peace   (b) Baldness : Hair
(c) Talk : Whisper   (d) Singer : Dance

66. WAN : COLOUR
(a) Corpulent : Weight   (b) Insipid : Flavour
(c) Pallid : Complexion   (d) Enigmatic : Puzzle

67. PORK : PIG
(a) Rooster : Chicken   (b) Mutton : Sheep
(c) Steer : Beef   (d) Lobster : Crustacean

68. AFTER : BEFORE
(a) First : Second   (b) Present : Past
(c) Contemporary : Historic   (d) Successor : Predecessor

69. EAST : ORIENT
(a) North : Polar   (b) South : Capricorn
(c) West : Indian   (d) West : Occident

70. DISTANCE : MILE
    (a) Liquid : Litre
    (b) Bushel : Corn
    (c) Weight : Scale
    (d) Fame : Television
71. TEN : DECIMAL
    (a) Seven : Seplet
    (b) Four : Quartet
    (c) Two : Binary
    (d) Five : Quince
72. MUNDANE : SPIRITUAL
    (a) Common : Ghostly
    (b) Worldly : Unworldly
    (c) Routine : Novel
    (d) Secular : Clerical
73. LAWYER : COURT
    (a) Businessman : Market
    (b) Chemist : Laboratory
    (c) Labourer : Factory
    (d) Athelete : Olympics
74. ARMY : LOGISTICS
    (a) Business : Strategy
    (b) Soldier : Students
    (c) War : Logic
    (d) Team : individual
75. GRAVITY : PULL
    (a) Iron : Metal
    (b) North pole : Directions
    (c) Magnetism : Attraction
    (d) Dust : Desert
76. FILTER : WATER
    (a) Curtail : Activity
    (b) Expunge : Book
    (c) Edit : Text
    (d) Censor : Play
77. HOPE : ASPIRES
    (a) Love : Elevates
    (b) Film : Flam
    (c) Fib : Lie
    (d) Fake : Ordinary
78. SADIEST : PAIN
    (a) Killer : Death
    (b) Teacher : Pupil
    (c) Injury : Bandage
    (d) Alcohol : Dipsomaniac
79. SYMPHONY : COMPOSER
    (a) Leonardo : Music
    (b) Fersco : Painter
    (c) Colours : Pallet
    (d) Art : Appreciation
80. CURATOR : MUSEUM
    (a) Wit : Wisdom
    (b) Bank : Teller
    (c) Manager : Office
    (d) Doctor : Patient
81. Which word in each set of four is the odd one out?
    (a) Look
    (b) See
    (c) Watch
    (d) Face
82. This test requires you to identify the relationship between two words. Shoe is to foot as sock is to
    (a) wind
    (b) hand
    (c) foot
    (d) leg
83. Relaxed means the same as the opposite of
    (a) calm
    (b) angry
    (c) tense
    (d) sleep
84. Which number comes next in this series?
    1 4 7 10 13 16
    (a) 17
    (b) 19
    (c) 21
    (d) None of these
85. Which number comes next in this series?
    0 1 3 6 10 15
    (a) 19
    (b) 21
    (c) 26
    (d) 32
86. Look at the series 36, 34, 30, 28, 24, ... what number should come next?
    (a) 20
    (b) 22
    (c) 23
    (d) 26
87. Look at the series 22, 21, 23, 22, 24, 23 ..... what number should come next?
    (a) 22
    (b) 24
    (c) 25
    (d) 26
88. Look at the series 53, 53, 40, 40, 27, 27 ..... what number should come next?

    (a) 12
    (b) 14
    (c) 27
    (d) 53
89. Look at the series 8, 22, 8, 28, 8 ..... what number should come next?
    (a) 9
    (b) 34
    (c) 29
    (d) 32
90. Look at the series 31, 29, 24, 22, 17 ..... what number should come next?
    (a) 15
    (b) 14
    (c) 13
    (d) 12

DIRECTIONS (Qs. 91 to 94) : *This set of questions is based upon the continuation of figures in a logical manner. There is a sequence of figures depicting a change step by step. Select one of the figure from the four choices shows as (a), (b), (c) & (d) which will continue the sequence.*
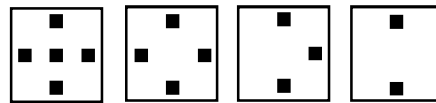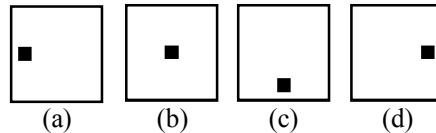
91. **Problem Figure**
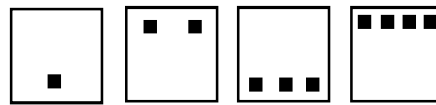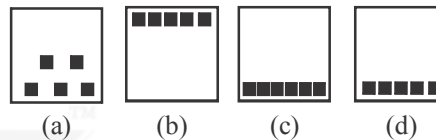
Answer Figure
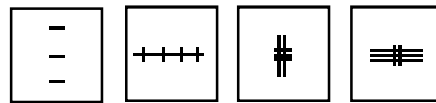

(a)   (b)   (c)   (d)

92. **Problem Figure**

Answer Figure

(a)   (b)   (c)   (d)
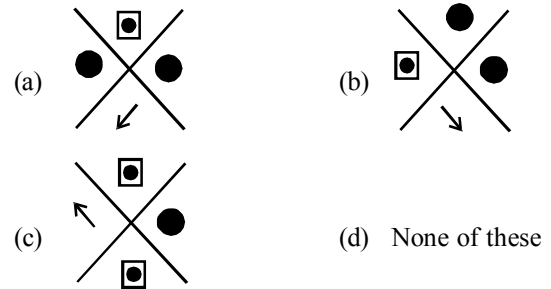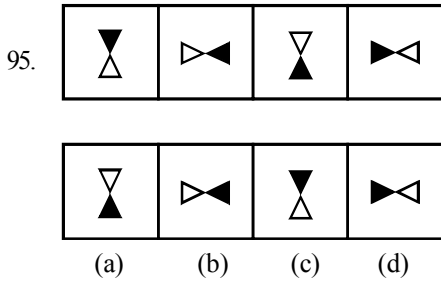
93. **Problem Figure**

Answer Figure

(a)   (b)   (c)   (d)

94. **Problem Figure**

Answer Figure

(a)   (b)   (c)   (d)
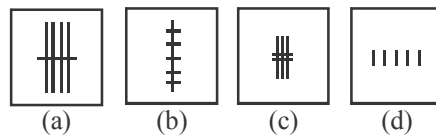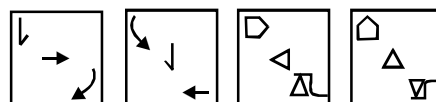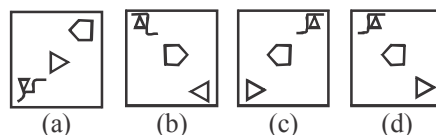
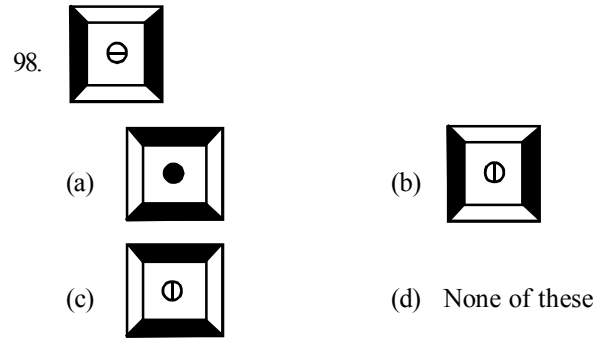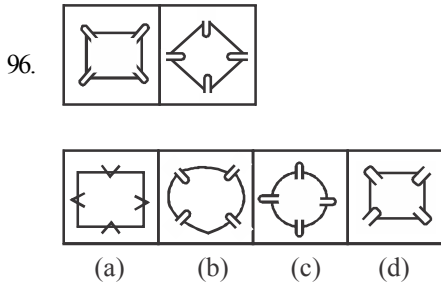**DIRECTIONS (Q. 95) :** *Which symbol in the Answer Figure completes the sequence in the problem figure:*

95.

(a)   (b)   (c)   (d)

DIRECTIONS (Q. 96) : *There are certain common characteristics/ properties between the two problem figures. Select the figure from amongst the Answer Figures which shows similar characteristics/ properties as shown by the problem figures.*

96.

(a)   (b)   (c)   (d)

DIRECTIONS (Qs. 97-99) : *Your task here is to look at the target figure and decide which of the rotated figures below is identical to it. If you do not think any of the figures is same as the target shape then choose the answer option (d) 'none of these'.*

97.

(a)

(b)

(c)

(d) None of these

98.

(a)

(b)

(c)

(d) None of these

99.

4	3	∞	2

(a)	(b)	(c)	(d)
5	5	5	2

(a)   (b)   (c)   (d)
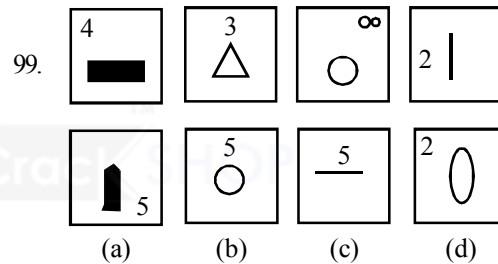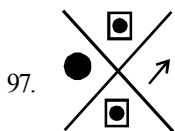
DIRECTIONS (Q. 100) : *Your task here is to look at the series of four figures and work out the rule which links them all. Choose which of the three following figures obey that rule and identify the one which does not.*

100.

(a)   (b)   (c)   (d)
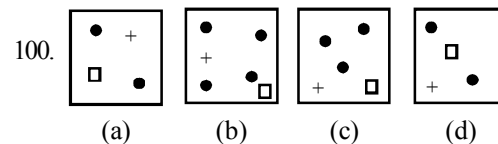
AFCAT 2 2011 QUESTION PAPER

ANSWER KEY									
1. (c)	2. (d)	3. (a)	4. (b)	5. (a)	6. (a)	7. (b)	8. (c)	9. (c)	10.(a)
11.(b)	12.(a)	13.(b)	14.(c)	15.(d)	16.(a)	17.(c)	18.(c)	19.(a)	20.(c)
21.(c)	22.(d)	23.(b)	24.(a)	25.(b)	26.(a)	27.(b)	28.(b)	29.(d)	30.(b)
31.(b)	32.(a)	33.(a)	34.(a)	35.(c)	36.(d)	37.(c)	38.(d)	39.(d)	40.(d)
41.(c)	42.(a)	43.(d)	44.(c)	45.(a)	46.(b)	47.(b)	48.(a)	49.(b)	50.(b)
51.(c)	52.(b)	53.(c)	54.(a)	55.(d)	56.(b)	57.(c)	58.(b)	59.(a)	60.(d)
61.(a)	62.(d)	63.(b)	64.(b)	65.(b)	66.(c)	67.(b)	68.(d)	69.(d)	70.(a)
71.(c)	72.(b)	73.(b)	74.(a)	75.(c)	76.(d)	77.(c)	78.(b)	79.(b)	80.(c)
81.(d)	82.(d)	83.(c)	84.(b)	85.(b)	86.(b)	87.(c)	88.(b)	89.(b)	90.(a)
91.(d)	92.(c)	93.(a)	94.(c)	95.(c)	96.(d)	97.(c)	98.(c)	99.(d)	100.(c)

1. (c) The author highlights the importance and need of lifelong learning for everyone from different spheres of life and age groups.

2. (d) The major characteristic of the future educational system includes modules with different kind of functions serving a diversity of constituents.

3. (a) Developing different programmes for adult learners in conjunction with cooperation from various community organisation like libraries, museums etc.

4. (b) the meaning of the idiom "The writing is already on the wall" is to know that something is about to happen.

5. (a) Here 'was a' should be replaced with 'has been'. Thus the sentence should be 'It has been a year since I received any letter from my sister.'

6. (a) Here 'may' should be replaced with 'can'. Thus the sentence should be 'His family members can arrive any moment by car'.

7. (b) Here 'back' should be removed from the sentence. Return means to go backwards to where you have left before.

8. (c) Among should be replaced with between. Between should be used where the relationship is distinctly one-to-one. Whereas Among should be used where the entities are considered as a group.

9. (c) Here 'since' should be replaced with 'from'. From is used to indicate a specified place or time as a starting point.

10. (a) Leverage means to use (something) to maximum advantage.

11. (b) Absence is the most appropriate word because a contrast is made here.

12. (a) Obsolete means no longer in use.

13. (b) Here stamp is being used as a trademark or a signature style.

14. (c) Although is used to show a contrast. Twins are usually considered similar looking but using although makes the sentence contrasting.

15. (d) Venerate means regard with great respect.

16. (a) Vacillate means go back and forth.

17. (c) Felicity means immense happiness.

18. (c) Hysteria means state of extreme upset. Its opposite meaning will be serenity.

19. (a) Abstain means to hold back from doing. Its opposite is indulging in something.

20. (c) Sedentary means motionless or lazy. Its opposite meaning will be moving.

21. (c) The Grand Trunk Road is one of Asia's oldest and longest major roads. For more than two millennia, it has linked the eastern and western regions of the Indian subcontinent, connecting South Asia with Central Asia. It runs from Chittagong, Bangladesh west to Howrah, West Bengal in India, across north India into Peshawar, up to Kabul, Afghanistan. The predecessor of the modern road was rebuilt by Sher Shah Suri, who renovated and extended the ancient Mauryan route in the 16th century.

22. (d) The Lion Capital of Ashoka is a sculpture of four Indian lions standing back to back, on an elaborate base that includes other animals. A graphic representation of it was adopted as the official Emblem of India in 1950. It was originally placed atop the Ashoka pillar at the important Buddhist site of Sarnath by the Emperor Ashoka, in about 250 BCE.

23. (b) The preamble of the Constitution of India was prepared by B R Ambedkar.

24. (a) Seeking revenge for the death of Lala Lajpat Rai at the hands of the police, Bhagat Singh was involved in the murder of British police officer John Saunders. He eluded efforts by the police to capture him. Soon after, together with Batukeshwar Dutt, he undertook a successful effort to throw two bombs and leaflets inside the Central Legislative Assembly while shouting the slogan of revolution.

25. (b) The Duckworth-Lewis method is a mathematical formulation designed to calculate the target score for the team batting second in a limited overs cricket match interrupted by weather or other circumstances.

26. (a) Dronacharya Award is an award presented by the government of India for excellence in sports coaching.

27. (b) Bachendri Pal (born 24 May 1954) is an Indian mountaineer, who in 1984 became the first Indian woman to reach the summit of Mount Everest.

28. (b) The 1896 Summer Olympics, officially known as the Games of the I Olympiad, was a multi-sport event held in Athens, Greece, from 6 to 15 April 1896.

29. (d) The British Geological Survey reported that as of 2005, Koderma district in Jharkhand state in India had the largest deposits of mica in the world.

30. (b) DPT (also DTP and DTwP) refers to a class of combination vaccines against three infectious diseases in humans: diphtheria, pertussis (whooping cough), and tetanus.

31. (b) Black, because red and green are two primary colours which when mixed together gives black colour in terms of light and wavelength.

32. (a) Money Bills can be introduced only in Lok Sabha (the directly elected 'people's house' of the Indian Parliament).

33. (a) The BrahMos has been developed as a joint venture between the Defence Research and Development Organization (DRDO) of India and the Federal State Unitary Enterprise NPO Mashinostroyenia (NPOM) of Russia under BrahMos Aerospace. The missile is named after two rivers, the Brahmaputra and the Moskva.

34. (a) Many legumes (alfalfa, clover, peas, beans, lentils, soybeans, peanuts and others) contain symbiotic bacteria called Rhizobia within root nodules of their root systems. These bacteria have the special ability of fixing nitrogen from atmospheric, molecular nitrogen (N_2) into ammonia (NH_3).

35. (c) The southwestern summer monsoons occur from June through September. The moisture-laden winds from the Indian Ocean rush in to the subcontinent. These winds,

Himalayas act like a high wall, blocking the winds from passing into Central Asia, and forcing them to rise. As the clouds rise their temperature drops and precipitation occurs.

36. (d) Dakshin Gangotri was the first scientific base station of India situated in Antarctica, part of the Indian Antarctic Program. It is located at a distance of 2,500 kilometres from the South Pole.

37. (c) The North Atlantic sea route, linking the US and Canada to Europe, is very busy as well.

38. (d) One of the oldest military institutions in India, it was founded in 1905 as the Army Staff college in Deolali (near Bombay), relocated to its present home in Wellington Cantonment in The Nilgiris District of Tamil Nadu, India.

40. (d) Freedom at Midnight (1975) is a book by Larry Collins and Dominique Lapierre. It describes the events in the Indian independence movement in 1947-48, beginning with the appointment of Lord Mountbatten of Burma as the last viceroy of British India, and ending with the death and funeral of Mahatma Gandhi.

41. (c) Let the number of boys in class be x.
Therefore the number of girls in class be 5x.
Total number of children in class = x + 5x = 6x.
Hence, 35 cannot be the total number of children as it's not the multiple of 6.

42. (a) Let one variety of rice be x kg.
Another quantity = (50 – x) kg
According to question x × 4.50 + (50 – x) 5 = 240
4.5x + 250 – 5x = 240
0.5x = 10
x = 20
Hence, the quantity of cheaper rice was 20 kg.

43. (d) Let the number of each type of notes be x. According to question $1 \times x + 5 \times x + 10 \times x = 640$
16x = 640
x = 40
Total number of notes = 40 + 40 + 40 = 120

44. (c) Let the numbers are
x, x +2, x + 4, x + 6 and x + 8.

$\text{Average} = \dfrac{x + x + 2 + x + 4 + x + 6 + x + 8}{5}$

$61 \times 5 = 5x + 20$
5x = 305 – 20
5x = 285
x = 57
First number = 57
Last number = 65
Required difference = 65 – 57 = 8

45. (a) Let the age of Jayesh = x yr.

Therefore age of Vijay = $\dfrac{x}{2}$ yr .

And, age of Suresh = 2x yr.
According the question

$\dfrac{x}{2} + 2x = 85$

5x = 85 × 2
x = 34 yr.

46. (b) New Average = $\dfrac{30 \times 14 + \text{required run}}{15}$

32 × 15 – 30 × 14 = Required run
Required run = 60

47. (b) Let the C.P = ₹ 100
The, S.P = ₹133
Let the marked price ₹ x
Then, 95% of x = 133

$x = \dfrac{133 \times 100}{95} = 140$

Marked price = 40% above C.P.

48. (a) Let the cost of production of a table = ₹ x.

$x \times \dfrac{110}{100} \times \dfrac{115}{100} \times \dfrac{125}{100} = 1265$

$x = \dfrac{1265 \times 1000000}{110 \times 115 \times 125} = ₹ 800$

49. (b) Let C. P. = x
Loss = 19%

then S.P. is $\dfrac{119}{100} x$

If profit = 17% then S. P. = $\dfrac{83}{100} x$

According to question

$\dfrac{119x}{100} - 162 = \dfrac{83x}{100}$

∴ x = 450

50. (b) Let A and B represent the sets of students who passed in English and Mathematics respectively.
If 15% of candidates failed in both, then 85% passed at least one of the exams.
Then, the total number of students passed in one or both subjects

$= (A \cup B) = n(A) + n(B) = n(A \cap B)$

$0.85 = 0.75 + 0.65 - n(A \cap B)$

$n(A \cap B) = 1.40 - 0.85 = 0.55$
0.55% of number of students = 495

∴ Number of students $= \dfrac{495}{55} \times 100 = 900$

51. (c) Net effect = $x + y + \dfrac{xy}{100}$

$= 15 - 20 + \dfrac{(15 \times -20)}{100} = -5 - 3 = -8$

Negative sign indicates that there is a loss of 8%.

52. (b) Milk contains in mixture = 36 liters.
Water contains in mixture = 4 liters
Let 'x' be the water added to the mixture.

$\dfrac{36}{4 + x} = \dfrac{80}{20}$

36 = 16 + 4x
20 = 4x
∴ x = 5 litres

53. (c) Let the numbers are 3x, 4x and 5x respectively.
According to question $(3x)^2 + (4x)^2 + (5x)^2 = 1250$
$9x^2 + 16x^2 + 25x^2 = 1250$
$50x^2 = 1250$
$x^2 = 25$
$x = 5$
Numbers are 15, 20 and 25.
Sum = $15 + 20 + 25 = 60$

54. (a) Let the ages of three boys are 3x, 5x and 7x.

Average age = $\dfrac{3x + 5x + 7x}{3}$

$25 \times 3 = 15x$

$x = 5$

The age of youngest boy = 15 yr.

55. (d) Let hens and cows are x and y respectively
$x + y = 48$ ....(1)
$2x + 4y = 140$
$x + 2y = 70$ ....(2)
After solving eq. (1) & (2)
$y = 22$
$\therefore \ x = 26$

56. (b) Let Principal = x
Amount = 3x
Simple interest = 2x

Rate = $\dfrac{2x \times 100}{x \times 20} = 10\%$

Now, required time = $\dfrac{x \times 100}{x \times 10} = 10$ years

57. (c) Simple interest for Ram = $\dfrac{8000 \times 12 \times 1}{100} = 960$

Simple interest for Mohan = $\dfrac{9100 \times 10 \times 1}{100} = 910$

Let 'x' be the years when borrowed amount be equal.
$8000 + 960x = 9100 + 910x$
$50x = 9100 - 8000$
$50x = 1100$
$x = 22$ years

58. (b) Let Time = T years and Rate = T%

Then, $\dfrac{1200 \times T \times R}{100} = 432$

$T^2 = \dfrac{432 \times 100}{1200} = 36$

$T = 6$

59. (a) Let the number = x
According to question
$3x = 29.7$
$x = 9.9$

Correct answer = $\dfrac{9.9}{3} = 3.3$

60. (d) $\dfrac{9}{13} = 0.692; \quad \dfrac{17}{26} = 0.654$

$\dfrac{28}{39} = 0.717; \quad \dfrac{33}{52} = 0.634$

Hence, $\dfrac{33}{52}$ is the smallest fraction.

61. (a) First is the shorter form of the second.
62. (d) First is the splitted parts of the second.
63. (b) Second is the additional money given for good service to first.
64. (b) Second is the relieve of first.
65. (b) As silence is opposite to noise, Similary Baldness is opposite to Hair.
66. (c) Pallid refers to pale complexion as wan refers to pale colour.
67. (b) First is a kind of meat of second.
68. (d) First one refers to later on stage and second one previous stage.
69. (d) First and second have similar meaning.
70. (a) First is the quantity and second is its unit.
71. (c) Decimal has base 10 and binary has base 2.
73. (b) As Lawyer practices in court similarly chemist practices in laboratory.
74. (a) Second is required for first to be successful.
75. (c) Second is the property of the first.
76. (d) Filter is used to remove impurities from water similarly censor removes objectionable scenes from play.
77. (c) Both words have nearly same meaning.
78. (b) Sadist is the one who enjoys giving pain to others while teacher pupil relation is the one where teacher enjoys white teaching to pupil.
79. (b) Fresco is prepared by painter similarly symphony is prepared by composer.
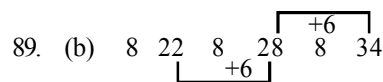80. (c) First one manages the second one.

84. (b)
$$\underset{+3}{1 \quad 4} \quad \underset{+3}{7} \quad \underset{+3}{10} \quad \underset{+3}{13} \quad \underset{+3}{16} \quad 19$$
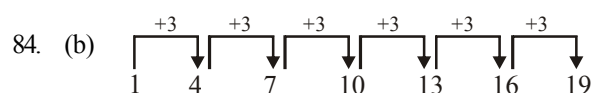
85. (b) $0 \ _{+1} \ 1 \ _{+2} \ 3 \ _{+3} \ 6 \ _{+4} \ 10 \ _{+5} \ 15 \ _{+6} \ 21.$

86. (b) $36 \ _{-2} \ 34 \ _{-4} \ 30 \ _{-2} \ 28 \ _{-4} \ 24 \ _{-2} \ 22$

87. (c) $22 \ _{-1} \ 21 \ _{+2} \ 23 \ _{-1} \ 22 \ _{+2} \ 24 \ _{-1} \ 23 \ _{+2} \ 25$

88. (b) $53 \ 53 \ _{-13} \ 40 \ 40 \ _{-13} \ 27 \ 27 \ _{-13} \ 14 \ 14$

89. (b) $8 \ 22 \ 8 \ 28 \ 8 \ 34$ with $+6$

90. (a) $31 \ _{-2} \ 29 \ _{-5} \ 24 \ _{-2} \ 22 \ _{-5} \ 17 \ _{-5} \ 17 \ _{-2} \ 15$

93. (a) Each step, horizontal lines gets rotated and increased by 1 and vertical lines rotated as well decreased by 1.
95. (c) Figure is rotated by 90° every time.
97. (c) Figure is rotated by 180°.
98. (c) Figure is rotated by 90°.
99. (d) Figure is rotated by 90° every time.
100. (c) Figure is rotated by 180°.

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