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## INTRODUCTION

"There are no secrets to success. It is the result of preparation, hard work, \& learning from failure" - Colin Powell

## ALL POSSIBLE WAYS TO JOIN AIR FORCE - A SNEAK

The Indian Air Force gives and opportunity to join the Flying, Technical and Ground Duty branches as a commissioned officer to the aspirants. Although, unlike army or the navy, there are not much opportunities to join the IAF unless you are given an honorary rank. Here are all the possible ways through which you can join the IAF as a commissioned officer.

## FLYING BRANCH

1. NDA:

Type: Through NDA
Age Limit: 16½-19½ years
Educational Qualification: 10+2 with Physics and Maths
Gender Based Selection: For Men Only

## 2. CDSE:

Type: Written Exam
Age Limit: $19-23$ years
Educational Qualification: Any graduate/BE/BTech degree having passed 10+2 with Physics and Maths
Gender Based Selection: For Men Only

## 3. NCC Special Entry:

Type: Direct Entry
Age Limit: 19-23 years
Educational Qualification: Any graduate/BE/BTech degree with minimum 60\% marks having passed 10+2 with Physics and Maths and NCC Air Wing Senior
Division 'C' Certificate
Gender Based Selection: Permanent Commission For Men Only

## 4. AFCAT:

Type: Written Test
Age Limit: 19-23 years
Educational Qualification: Any graduate/BE/BTech degree with minimum 60\% marks having passed $10+2$ with Physics and Maths.
Gender Based Selection: Short Service Commission for both Men and Women and Permanent Commission for Men only.

## TECHNICAL BRANCH

## 1. Aeronautical Enginner (Electronics/Mechanical):

Type: Direct Entry
Age Limit: 18-28 years
Educational Qualification: Engineering degree with minimum 60\% marks in the subject.
Gender Based Selection: Short Service Commission For both Men and Women and Permanent Commission for Men only.
2. University Entry Scheme (UES):

Type: Direct Entry
Age Limit: 18-28 years
Educational Qualification: Pre final year of engineering with minimum 60\% marks in the subject on completion.
Gender Based Selection: Permanent Commission for Men only.

## 3. AFCAT:

Type: Written Exam
Age Limit: 19-23 years
Educational Qualification: Four Years of graduation from any recognised university.
Gender Based Selection: Short Service Commission For both Men and Women and Permanent Commission for Men only.

## GROUND DUTY BRANCHES

1. Administration/Logistics/Accounts:Type: AFCAT Written Exam
Age Limit: 20-23/25 yearsEducational Qualification: Minimum 60\% for graduates and minimum 50\% forpost graduates.Gender Based Selection: Short Service Commission For both Men and Womenand Permanent Commission for Men only.
2. Education/Meteorology:
Type: AFCAT Written Exam
Age Limit: 20-25 years
Educational Qualification: Post Graduation with minimum 50\% marks.
Gender Based Selection: Short Service Commission For both Men and Womenand Permanent Commission for Men only.
Ages are relaxed for ground duty branches as follows:
3. For Graduate: 20-23 years
4. For Post Graduate/LLB(5 Years Integrated Course): 20-25 years
5. For LLB (3 Years Course After Graduation): 20-26 years
6. For $\mathrm{M} \mathrm{Ed} / \mathrm{PhD} / \mathrm{CA} / I C W A: ~ 20-27$ years
FAST TRACK SELECTION

Fast Track Selection is conducted by Indian Air Force to select candidates for the various branches of IAF. FTS is conducted in short amount of time and there is no fixed duration for the release of its notification, it may or may not happen yearly which is totally based on the number of vacancies. Syllabus of Fast Track Selection include written test like AFCAT followed by AFSB Interview. FTS has on the spot registration and candidate who fails in written test will be routed back.

## AFCAT SYLLABUS

## General Awareness:

History, Sports, Geography, Environment, Culture, Current Affairs, Politics, Civics, Basic Sciences, Defence, Art.

## Verbal Ability in English:

Comprehension, Error Detection, Synonyms, Antonyms, and Testing of Vocabulary, Sentence Completion etc.

## Numerical Ability:

Decimal Fraction, Simplification, Average, Percentage, Ratio \& Proportion, and Simple Interest, Profit \& Loss

## Reasoning and Military Aptitude Test section:

Verbal Skills and Spatial Ability.

## Exam Pattern

The Air Force Common Admission Test will consist of 100 questions and each question will be of three marks. So total marks for all questions will be 300. As far as negative marking is concerned, there is one-third negative marking in AFCAT exam. For every wrong answer, 1 mark will be deducted as penalty.

## AFCAT paper has four sections:

- General Awareness
- Verbal Ability In English
- Numerical Ability
- Reasoning \& Military Aptitude Test

There will be Multiply Choice Based Questions of 3 marks each. The candidates will be penalized in the form of deduction of 1 marks for every wrong answers attempted by them. Three wrong answers will take away one correct answer.

## AFCAT EKT Exam

All applicants whose online applications have been successfully submitted will be called for Air Force Common Admission Test (AFCAT) and Engineering

Knowledge Test (EKT) (applicable only for candidates applying for technical branch). EKT would be for 45 minutes and conducted immediately after AFCAT. Candidates who clear the afcat exam will be called for further ssb interview process which is also know as AFSB interview. AFSB stands for air force selection board, which are located at Mysore, Dehradun, Varanasi, Gandhinagar and Kanchrapara.

## AFCAT PAPER BLUEPRINT

The General Awareness and Verbal English sections comprises of about half the total questions in the AFCAT exam paper - about 25 questions each are asked from both the sections. The number of probable questions and blueprint of each topic that should be read in order to prepare for these sections of AFCAT is as follows:

## GENERAL AWARENESS

| TOPIC | DESCRIPTION AND OVERVIEW | APPROX <br> QUESTIONS <br> ASKED IN AFCAT |
| :--- | :--- | :---: |
| History | This section mainly focuses on the modern history of <br> India and Indian freedom struggle. Innumerable dates <br> and places are to be remembered under this topic. This <br> book contains the same in an easy-to-read-and- <br> remember way. Hence, you are required to be consistent <br> in the preparation of this topic from this book. | 3-4 Questions |
| Geography | The main focus here too is to the geography of India. This <br> could even easily be related to defence knowledge and <br> its geography. | 3-4 Questions |
| Polity | Again, the topics to be focused on are based on India's <br> Polity apart from current affairs and general knowledge. | 1-2 Questions |
| Indian <br> Economy | Here too, your general knowledge and GK will be grilled. <br> Hence, it is advisable to be updated on a daily basis. | 1-2 Questions |
| General <br> Knowledge <br> and <br> Current <br> Affairs | This topic includes everything related to general <br> awareness and current affairs. This topic also covers all <br> the basic subjects of school level. This majorly comprises <br> of Sports, Culture, Defence, elementary Physics, | 9-10 Questions |


|  | elementary Chemistry, elementary Biology and <br> elementary Environmental Studies and all the current <br> affairs related to these. Aspirants are required to read a <br> good monthly magazine apart from daily newspaper in <br> order to further expand his horizons and succeed in this <br> section. |  |
| :--- | :--- | :--- |

## VERBAL ABILITY IN ENGLISH

| TOPIC | DESCRIPTION AND OVERVIEW | APPROX QUESTIONS ASKED IN AFCAT |
| :---: | :---: | :---: |
| Basic Grammar | This section will be the gist of the following whole section. This will include basic grammar, rules, part of speech and so on followed by the overview of common errors made during attempting the questions related to it. This is a very important topic as this serves as the foundation to all the following topics. | Nil. <br> Though no direct questions are asked from this topic, all the following questions are majorly related to basic grammar |
| Synonyms and Antonyms | This too serves as the most basic and important topic for the following section, mainly, for one word substitution and sentence completion. You need to have a good collection of words in your vocabulary. This is achieved by learning at least 7-10 words daily with their meaning and use in sentences. | 4-5 Synonyms and 4-5 Antonyms |
| Sentence Completion | Under this topic, you are supposed to fill the blank by using a suitable and necessary word from the options. This requires a good treasury of your vocabulary and their fluency in your usage. | 1-2 passages based on which 67 questions to filled in the blanks will be asked |
| Error Detection | This topic will have questions that are either grammatically incorrect or require some substitution for its correctness. This topic can be achieved only if you have a thorough knowledge of all the basic grammar and its rules. | 2-3 questions |


| Jumbled <br> Sentences | You will be given broken sentences as your options <br> and you will be required to form sentences that are <br> both grammatically and logically correct. For this <br> too, you will need the knowledge of basic grammar <br> and rules. | 1-2 questions |
| :--- | :--- | :--- |
| Comprehension | In this part, you will be provided with a passage and <br> questions will be asked related to the same passage. <br> For this, you need to have a good understanding, <br> reading and absorbing skills. | 1-2 Passages; 3 <br> questions based <br> on each passage |
| Idioms and <br> Phrases | Though not much questions are asked from this <br> topic but preparing it could make a difference for <br> the slightest cut off. This will include idioms and <br> phrases given in the questions of which, you will <br> need to choose the correct meaning from the given <br> options. | 4-5 Idioms and <br> each |

## NUMERICAL ABILITY

The Maths section comprises of 12-15 questions out of total questions in the AFCAT exam paper. We are providing a blueprint of Maths section where aspirants can check topic wise questions asked in previous AFCAT papers. The number of probable questions and blueprint of each topic that should be read in order to prepare for these sections of AFCAT is as follows:

| S. No | Deci- <br> mal | Simpli <br> fication | Aver <br> Age | Ratio and <br> propor <br> Tion | Profit <br> and <br> loss | Percent <br> Age | Simple <br> interest | Time <br> and <br> distance | Time <br> and <br> work |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015 II | - | - | 1 | 1 | 2 | 2 | 2 | 4 | 2 |
| 2015 I | - | - | 1 | - | 1 | 2 | 1 | 4 | 2 |
| 2014 II | 1 | 2 | 2 | 3 | 1 | 2 | 1 | 4 | 2 |
| 2014 I | - | 6 | 3 | - | 2 | 1 | 2 | - | 1 |
| 2013 | - | 6 | 3 | 2 | - | 3 | 4 | - | - |
| 2012 II | - | 6 | 2 | 4 | 3 | - | 4 | - | - |
| 2012 I | 1 | 3 | 3 | 6 | 3 | 3 | 1 | - | - |
| 2011 II | - | 4 | 3 | 2 | 3 | 4 | 3 | - | - |
| 2011 1 | 1 | 5 | 3 | 3 | 2 | 3 | 3 | - | - |

## REASONING \& MILITARY APTITUDE TEST

This section comprises of 25 questions out of total questions in the AFCAT exam paper. We are providing a blueprint of Reasoning and Military Aptitude section where aspirants can check topic wise questions asked in previous AFCAT papers. The number of probable questions and blueprint of each topic that should be read in order to prepare for these sections of AFCAT is as follows:

| S No | Odd <br> one <br> out | Sequenc- <br> ing | Word <br> Analogy | Coding <br> Decod- <br> ing | Venn <br> diagram | Non <br> verbal <br> analogy | Embedded <br> figures | Missing <br> figures |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015 II | 5 | - | 5 | - | 5 | 5 | - | 5 |
| 2015 I | 5 | - | 5 | - | 5 | 5 | - | 5 |
| 2014 II | 5 | - | 5 | - | 5 | 4 |  | 3 |
| 2014 I | 2 | - | 8 | 5 | - | - | 3 | 4 |
| 2013 | 5 | - | 15 | - | - | - | 5 | 5 |
| 2012 II | 5 | - | 15 | - | - | - | 5 | 5 |
| 2012 I | 5 | - | 15 | - | - | - | 5 | 5 |
| 2011 II | 1 | - | 21 | - | - | - | - | - |
| 2011 I | - | - | 11 | - | - | - | - | 9 |

## AFCAT CUT OFF MARKS

| Exam Year | Cut Off Marks |
| :---: | :---: |
| AFCAT 12011 | 85 |
| AFCAT 22011 | 88 |
| AFCAT 12012 | 135 |
| AFCAT 22012 | 143 |
| AFCAT 12013 | 144 |
| AFCAT 22013 | 116 |
| AFCAT 12014 | 128 |
| AFCAT 22014 | 123 |
| AFCAT 12015 | 126 |
| AFCAT 22015 | 144 |
| AFCAT 12016 | 132 |

## SECTION 'A'

# GENERAL KNOWLEDGE AND AWARENESS 

- INDIAN HISTORY
- INDIAN GEOGRAPHY
- INDIAN POLITY
- INDIAN ECONOMY
- GENERAL KNOWLEDGE



## INDIAN HISTORY

## TOPIC QUESTIONS FOR AFCAT

## EXERCISE QUESTIONS

1. Which Veda is the earliest of four Vedas?
a) Rig Veda
b) Yajur Veda
c) Sam Veda
d) Athervana Veda
2. Which is the oldest Brahmanic literature?
a) Aranyak
b) Upanishad
c) Smriti
d) Veda
3. Which of the following works of Kalidas talks about Sunga dynasty?
a) Maghdoot
b) Abhigyanshakuntalam
c) Kumarsambhav
d) Malvikagnimitram
4. Which veda has 10 mandal 1028 Sakta and 10,580 Richas?
a) Rig Veda
b) Yajur Veda
c) Sam Veda
d) Athervana Veda
5. Which is the rich source of information about Gupta age?
a) Develsmriti
b) Manusmriti
c) Naradsmriti
d) Arthashatra
6. Who wrote 'Indica', a reliable source for the history of Chandragupta Maurya?
a) Shylak
b) Seleucus
c) Megasthanes
d) Plutarch
7. Which Veda is lyrical composition?
a) Rig Veda
b) Yajur Veda
c) Sam Veda
d) Athervana Veda
8. Where is the prehistoric grain producing site of Mehrgarh located?
a) On the bak of Ghaggar
b) In eastern Rann of kutch
c) On the edge of bolan river
d) In Western Baluchistan
9. Sixteen Mahajanapadas are referred to in $\qquad$ .
a) Anguttat Nikay
b) Khuddak Nikay
c) Sanyukta Nikay
d) Deegh Nikay
10. Greek invesion of North India is described in $\qquad$ .
a) Milindapanho
b) Gargisamhita
c) Gaudvaho
d) Harshacharit
11. Who authored 'Rajtarangini' the famous history of kashmir ?
a) Bilhan
b) kalhan
c) Jaganik
d) Atharvana veda
12. Kathak, Kapisthak, maitrayani, Taittriya and Vajsaneyi are the branches of $\qquad$ .
a) Rig Veda
b) Yajur Veda
c) Sama Veda
d) Atharvana Veda
13. Who has written about India at the time of Mahmud's invasion?
a) Taranath
b) Sulaiman
c) Alberuni
d) Ibnbatuta
14. Which work provided detail information about political, social and family life in later vedic period?
a) Upanishads
b) Brahman
c) Atharvana veda
d) All the three mentioned
15. In ' Bhadrabahu charit ' are described the event of regime of $\qquad$ .
a) Bimbisara
b) Chandragupta Maurya
c) Bindusara
d) Ashoka
16. Coins are the most important source for the history of $\qquad$ .
a) Mauryas
b) Indo-Greek rulers
c) Satvahans
d) cholas
17. The area under Harappan Civilisation was $\qquad$ .
a) Circular
b) Rectangular
c) Square
d) Triangular
18. The Indus people imported lead from $\qquad$ .
a) Saurashtra
b) Maharashtra
c) South India
d) Central Asia
19. Which Harappan site is not found in Gujarat?
a) Dhaulvira
b) Lothal
c) Sockhoh
d) Sutkagendor
20. Which is the first Harappan site to be excavated?
a) Harappa
b) Mohenjodaro
c) Chanhudaro
d) Sutkagendor
21. The Harappan people worshiped which God?
a) Indra
b) Vishnu
c) Lord-Shiva
d) Varuna
22. Evidence of more than one dead being buried together is found from $\qquad$ _.
a) Harappa
b) Mohenjodaro
c) Lothal
d) Ropar
23. The credit for Harappa excavation goes to
$\qquad$ .
a) D.R. Sahni
b) R.D. Banerji
c) N.G. Mazumdar
d) O. Stein
24. The Indus people did not have trade relations with $\qquad$ .
a) Iraq
b) Central Asia
c) Afganistan
d) China
25. Which Harappan sites are situated on bank of river sindhu?
a) Harappa, Mohenjodaro, Chanhudaro
b) Kotdiji, Harappa, Mohenjodaro
c) Mohenjodaro, Chanhudaro, Kotdiji
d) Chanhudaro, Kotdiji, Harappa
26. Button size seals of Harappan civilization have the symbols of $\qquad$ _.
a) fish
b) swastik
c) srivatsa
d) none of the above

27 .Evidence of ploughing the land is found from $\qquad$ _.
a) Rangpur
b) Harappa
c) Kalibangan
d) Ropar
28. The Scale found from Harappa is made of $\qquad$ -
a) Ivory
b) Shell
c) Wood
d) Bronze
29. Harappa is situated on the bank of which river?
a) Sindhu
b) Ghagger
c) Ravi
d) Bias
30. The animal picturised on most seals is $\qquad$ -
a) Unicorn
b) Humped bull
c) Jebu
d) Buffalo
31. Sea route to India was discovered by
a) Columbus
b) Amundsen
c) Vasco-da-gama

None of these
32. The Aryans came from Central Asia to India around
a) 8000
b) $6500 \mathrm{~B} . \mathrm{C}$
c) 3500 B.C.
d) 2500 B.C.
33. Rig Veda is believed by the historians to have been written when it was
a) Stone Age
b) Copper Age
b) Bronze Age
d)Beginning of Iron Age
34. Babur entered India for the first time through
a) Sind
b) Punjab
c) Kashmir
d) Rajasthan
35. The magnificient temple at Halebid was established by
a) Cholas
b) Pandyas
c) Hosysalas
d) Naickers
36. India derives its name from
a) The Hindus
b) The Aryans
c) Lord Indra
d) The River Indus
37. A national religion called Din-i-Illahi was promulgated by
a) Akbar
b) Babur
c) Humayun
d) Aurangazeb
38. Who introduced English in India?
a) Lord Rippon
b) Lord Dalhousie
c) Lord Canning
d) Lord William Bentick
39. The foundation for the Vijayanagar city and kingdom was laid by
a) Sadasiva Raya
b) Krishnadevaraya
c) Rama Raya
d) Harihara and Bukka
40. The quit India movement was started in the year
a) 1942
b) 1945
c) 1943
d) 1939
41. A council of Eight Ministers known as the Ashta Paradhan assisted?
a) Sher Shah
b) Balaji Baji Rao
c) Shivaji
d) Ahmad Shah Abdali
42. Lord Buddha made his first sermon at
a) Sarnath
b) Pataliputra
c) Kapilavasthu
d) Lumbini Gardens
43. The founder of the first Afghan rule in India was
a) Sikandar Lodi
b) Sher Shan Suri
c) Bahlul Lodi
d) Ibrahim Lodi
44. Taj Mahal is on the banks of
a) Tapti
b) Ganges
c) Jamuna
d) Cauvery
45. Panipat is modern
a) Delhi
b) Kurukshetra
c) Sonepat
d) Faridabad
46. Who was called Indian Napoleon
a) Chandra Gupta I
b) Samudra Gupta
c) Skanda Gupta
d) Chandra Gupta
47. The Mughal Empire reached its zenith of expansion under
a) Akbar
b) Humayun
c) Aurangazeb
d) Shahjehan
48. Do or Die slogan is associated with
a) Mahatma Gandhi
b) Bala Gangadhara Tilak
c) Jawaharlal Nehru
d) Nethaji
49. Who established the Mughal Dynasty?
a) Akbar
b) Babur
c) Humayun
d) Bahadur Shah
50. The Indian National Congress was founded by
a) Mahatma Gandhi
b) Annie Besant
c) W.C.Bannerji
d) A.O.Hume
51. The Civil services in India was established by
a) Lord Rippon
b) Lord Dalhousie
c) Lord William Bentick
d) Lord Cornwallis
52. The founder of Portuguese power in India was
a) Danes
b) Salsette
c) Albuquerque
d) Vasco-da-gama
53. The well-known king of slave dynasty was
a) Alaudhin
b) Balban
c) Mahmud Lodi
d) Muhamad-bin-Tughlaq
54. The French made their advent through
a) Mahe
b) Yenam
c) Karaikal
d) Pondicherry
55. The last Mughal Emperor was
a) Akbar
b) Babur
c) Bahadur Shah
d) Noor Jehan
56. Aryans lived in
a) Maharashtra
b) South India
c) Central India
d) Gangetic Valley
57. The brain trust of Chandra Gupta Maurya was
a) Fahien
b) Megasthanes
c) Nandagopala
d) Kautilya
58. The musical instruments used by the Aryans was
a) The Drum
b) The Lute
c) The cymbal
d) All the above
59. Chanakya was known as
a) Rajasekhara
b) Bhattasvamin
c) Vishnugupta
d) Visakhadatta
60. The first to start a joint stock company to trade with India were the
a) French
b) Dutch
c) Portuguese
d) Danish
61. The capital of the kingdom of Maharaja Ranjit Singh was
a) Lahore
b) Amrister
c) Patiala
d) Amristar
62. In the Battle of Wandiwash, the English defeated
a) the Dutch
b) the French
c) the Portuguese
d) None of these
63. Indian Navy Act was passed on
a) 1921
b) 1925
c) 1927
d) 1930
64. The first president of the Republic of India was
a) V.V.Giri
b) Zakir Hussain
c) Dr.Radhakrishnan
d) Dr.Rajendra Prasad
65. The first ruler of Pala dynasty was
a) Gopala
b) Dharmapala
c) Bhaskaravarman
d) None of these
66. The first to establish regular trade with India was
a) Dutch
b) Portuguese
c) French
d) English
67. The king of Kalinga in the Maurya period was
a) Simuka
b) Kharavela
c) Kuvishka
d) Kanishka
68. Sea route in India was discovered by
a) Columbus
b) Amundsen
c) Vasco-da-gama
d) None of these
69. The treaty of Seringapatnam was
between Cornwallis and
a) Haider Ali
b) Chand Bibi
c) Tipu Sultan
d) Nizam of Hyderabad
70. Ashoka conquered Kalinga in the year
a) 231 AD
b) 127 AD
c) 261 BC
d) 327 BC
71. Chand Bibi was the ruler of
a) Satara
b) Bijapur
c) Golconda
d) Ahmednagar
72. Rice cultivation is associated with the Harappan site of
a) Kalibangan
b) Harappa
c) Lothal
d) Mohenjodaro
73. The Mauryan dynasty was overthrown by
a) Kanishka
b) Harsha
c) Samudragupta
d) Pushyamitra Sunga
74. Who among the following was not an exponent of Bhakti movement?
a) Shankaracharya
b) Nanak
c) Ramanada
d) Kabir
75. The Bhakti Movement was first organized by
a) Nanak
b) Kabir
c) Ramanuja
d) Ramananda
76. An example of Chola architecture cab be seen at
a) Kanchipuram
b) Mahabalipuram
c) Tanjore
d) Ellora
77. Panchantra was written by
a) Kaladisa
b) Vishnu Sharma
c) Tulsidas
d) Banabhatta
78. Decimal system was introduced by
a) Aryabhatta
b) Brahmagupta
c) Bhaskara
d) None of these
79. Who is known as the "Napoleon of India"?
a) Samudragupta
b) Akbar
c) Chandragupta
d) Ashoka
80. Who was the founder of the Gupta dynasty?
a) Chandragupta I
b) Chandragupta II
c) Samudragupta
d) Skandgupta
81. Who was the greatest Buddhist commentator of the Buddhist canonical literature?
a) Euddhaghosha
b) Vasumitra
c) Nagaijuna
d) Ashvaghosha
82. The stone Age people had the first domestic
a) Asses
b) Dogs
c) Horses
d) Sheep
83. Which of the following Vedas is a collection of spells and incantations?
a) Rig Veda
b) Sama Veda
c) Yajur Veda
d) Atharva Veda
84. At which place was Akbar born?
a) Delhi
b) Agra
c) Amarkot
d) Kannauj
85. In which language were the Sangam classics written?
a) Tamil
b) Telugu
c) Kannada
d) Malayalam
86. Which one of the following divinity of Rigveda?
a) Marut
b) Agni
c) Shakti
d) Varuna
87. The Indus valley civilization flourished during
a) 5000-3500
b) 3000-1500 B.C
c) 2500-1750 В.С
d) 1500-500 B.C
88. The Indus valley civilization was discovered in
a) 1902
b) 1921
c) 1922
d) 1932
89. The main occupation of the people of the Indus valley civilization was
a) agriculture
b) cattle rearing
c) hunting
d) trade
90. Which one of the following Harappan sites had a dock?
a) Harappa
b) Mohenjodaro
c) Lothal
d) Alamgirpur
91. Which one of the following contains the Gayatri Mantra?
a) Rigveda
b) Yajurveda
c) Upanishad
d) Samaveda
92. The extreme form of Ahimsa or nonviolence is practiced in
a) Jainism
b) Hinduism
c) Buddhism
d) Sikhism
93. The Aryans at first settled in
a) Gujarat
b) Punjab
c) Sindh
d) Kashmir
94. Rabi crops of the Indus Valley are
a) Rice and wheat
b) Wheat and cotton
c) Barley and rice
d) Wheat and Barley
95. The famous temple of Kailasa, hewn out of the rock, is at
a) Ellora
b) Badami
c) Mahabalipuram
d) Elephanta
96. The Aryans came to India from
a) South East Asia
b) Eastern Europe
c) Central Asia
d) None of the above
97. The earliest example of a land grant is provided by an inscription
a) the guptas
b) the mauryas
c) the satavahanas
d) the mahameghavahanas
98. Who introduced the system of Local boards or Local Bodies in India?
a) Lord Lytton
b) Lord Ripon
c) Lord Curzon
d) Lord Mayo
99. The Indus Valley Civilization belongs to the
a) Palaeolithic Age
b) Mesolithic Age
c) Neolithic Age
d) Chalcolithic Age
100. The first Buddhist Council was held by
a) Chandragupta
b) Ashoka
c) Harashavardhana
d) Kanishka
101. The fourth Buddhist Council was held at
a) Rajagriha
b) Vaishali
c) Kundalavana
d) Patliputra
102. The Widow Remarriage Act was passed by
a) Lord Wavell
b) Lord Canning
c) Lord Dalhousie
d) Lord Auckland
103. Lord Buddha was born in
a) Vaishali
b) Pataliputra
c) Lumbini
d) Bodh Gaya
104. The largest grant of villages to temples and brahmana was given by the rulingndynasty known as
a) The Palas
b) The Guptas
c) Pratiharas
d) Rashtrakutas
105. The first ruler of Pala dynasty was
a) Dharmapala
b) Gopala
c) Bhaskaravarman
d) None of the above
106. Adigranth is the religious book of
a) Parsis
b) Sikhs
c) Hindus
d) Buddhists
107. Which of the following regions did not form the part of Ashoka's empire?
a) Taxila
b) Kanauj
c) Kashmir
d) Madras
108. The battle of Balakot was in
a) 1806 b) 1821
c) 1831 d) 1896
109. Who founded the Ramakrishna Mission?
a) Derozio
b) Satkari Datta
c) SwamiVivekananda
d) Sri Ramakrishna Parama Hamsar
110. In which year did Swami Vivekananda attended the World's Parliament of Religions held in Chicago?
a) 1863
b) 1876
c) 1893
d) 1897
111. Champaran Satyagraha was held in
a) Gujarat
b) Bombay
c) Bihar
d) Madras
112. Who led the Champaran Satyagraha?
a) Amaresh Chakravarty
b) Pulinbehari Sarkar
c) Mahatma Gandhi
d) Sardar Vallabbhai Patel
113. Who of the following Governor Generals is associated with Subsidiary Alliance Systen?
a) Lord Cornwallies
b) Lord Wellesley
c) Lord Mayo
d) Lord Delhousie
114. Who was the first Governor General of India?
a) Warren Hastings
b) William Bentick
c) Lord Delhousie
d) Lord Canning
115. Who was the first Viceroy of India?
a) Robert Clive
b) William Bentick
c) Lord Delhousie
d) Lord Canning
116. The title of 'Viceroy' was added to the centre of the Governor-General of India for the first time in
a) 1848 A.D
b) 1858 A.D
c) 1862 A.D
d) 1856 A.D
117. My Experiments with Truth is the work of
a) Mahatma Gandhi
b) Tara Chand
c) Shankarlal Banker
d) Mahadev Desai
118. Who is the author of 'Social Background of Indian Nationalism'?
a) A.R.Desai
b) Dharam Kumar
c) Ray Chaudhuri
d) K.Rajayyan
119. The Battle of Plassey was fought in
a) 1757
b) 1782
c) 1748
d) 1764
120. Under the Mountbatten Plan of 1947 the people of $\qquad$ were given the right to decide through a plebiscite whether they wished to join Pakistan or India.
a) Assam
b) Punjab
c) Bengal
N.W.F.P and the Sylhet district of Assam
121. The treaty of Mangalore was signed between?
a) The English East India Company and Haidar Ali
b) The English East India Company and Tipu Sultan
c) Haidar Ali and the Zamorin of Calicut
d) The French East India Company and Tipu Sultan
122. Which one of the following Governor Generals was impeached by the British Parliament?
a) Lord Curzon
b) Warren Hastings
c) Lord Canning
d) William Bentick
123. What is the correct sequence of the following events?
a) Foundation of Indian National Congress.
b) Simon Commission
c) Home Rule Movement
d) Cabinet Mission

Select the correct answer using the codes given below:
a) $1,3,2,4$
b) $3,1,4,2$
c) $1,2,4,3$
d) $1,4,3,2$
124. Which of the following posts during the Delhi Sultanate was related to the Provincial Services?
a) Qazi-ul Quzat
b) Ariz -i Mumalik
c) Wali
d) Barid - i Muamlik
125. Fatehpur Sikri symbolises
a) Mohgul architecture
b) Hindu and Muslim architecture
c) Muslim and Christan architecture
d) Hindu, Muslim and christen architectures
126. Raja Rammohan Roy was responsible for which of the following reforms?

1. Abolition of Sati
2. Abolition of child marriage
3. Widow re-marriage

Select the correct answer using the codes given below :
a) 1 alone
b) 1 and 2
c) 1, 2 and 3
d) 2 and 3
127. 'Direct Actions' was the brain child of
a) Subhas Chandra Bose
b) Mahatma Gandhi
c) Mohamed Ali Jauhar
d) Mohamed Ali Jinnah
128. Who among the following was the 'political guru' of Mahatma Gandhi?
a) B.G Tilak
b) G.K Gokhale
c) Dadabhai Naoroji
d) S.N. Banerjee
129. The first Indian elected to the Parliament of Great Britain was
a) Pheroz Shah Mehta
b) Lal Mohan Ghosh
c) Romesh Chandra Dutt
d) Dababhai Naoroji
130. Which one of the following rulers built the Bibi Ka Maqbara?
a) Akbar
b) Jahangir
c) Shahjahan
d) Aurangzeb
131. Hunter Commission was appointed by the British Government to probe into
a) Chauri Chaura incident
b) Demolition of Kanpur Mosque
c) Jalianwalla Bagh tragedy
d) Kakori train dacoity incident
132. The correct chronological order in which the given parties were established in India is
a) Indian National Congress, Swaraj party, justice party, Muslim League
b) Indian National Congress, Muslim League, Swaraj Party, justice party.
c) Swaraj Party, Indian National Congress, Muslim League, Justice Party
d) Swaraj Party, Indian National Congress, Justice Party, Muslim League
133. Which one of the following national leaders was opposed to Mrs. Annie Besant's idea of launching Home Rule Movement?
a) G.K. Gokhale
b) Mahatma Gandhi
c) Aurobindo Ghosh
d) B.G. Tilak
134. What was the ultimate objective of Mahatma Gandhi's Salt Satyagraha?
a) Complete Independence for India
b) Economic relief to the common people
c) Repeal of salt laws
d) Curtailment of the Government's powers 135. Which one of the following indicates the correct chronological order of the events in modern Indian history?
a) Morley-Minto Reforms, Gandhi-Irwin Pact, August Offer, Jallianwala Bagh Tragedy
b) August Offer, Morley-Minto Reforms, Jallianwala Bagh Tragedy, Gandhi-Irwin Pact
c) Morley-Minto Reforms, Jallianwala Bagh Tragedy, Gandhi-Irwin Pact, August Offer
d) Jallianwala Bagh Tragedy, Gandhi-Irwin Pact, August Offer, Morley-Minto Reforms
136. Who amongst the following named Jamshedpur after Jamsetji Nusserwanji Tata?
a) Lord Hardinge
b) Lord Chelmsford
c) Lord Irwin
c) Lord Ripon
137. Who was the viceroy of India when the British India's Capital was shifted from Calcutta to Delhi?
a) Lord Curzon
b) Lord Dalhousie
c) Lord Hardinge
d) Lord William Bentinck
138. Before the Independence of India, Dadra and Nagar Haveli were under the administrative control of
a) English
b) French
c) Portuguese
d) Nawab of Junagarh
139. Which one of the following pairs is not correctly matched?
a) Battle of Khanua: Babar vs. Rana Sanga
b) Battle of Bilgram (Kanauji): Sher Shah vs. Humayun
c) Second Battle of Panipat: Akbar vs. Hemu
d) Battle of Haldighat: Aurangzeb vs. Dara
140. During the Indian freedom struggle, who among the following founded. "The servants of India Society"?
a) B.G.Tilak
b) G.K. Gokhale
c) Mahatma Gandhi
d) S.N. Banerjee
141. During the Indian Freedom Struggle, who was the first person to make an economic analysis of British rule in India?
a) Dadabhai Naoroji
b) Dinabandhu Mitra
c) Ganesh Vasudev Joshi
d) Justice Mahadev Govind Ranade
142. The reforms of which one of the following Acts are popularily known as Morley-Minto Reforms?
a) The Indian Councils Act, 1892
b) The Indian Councils Act,1909
c) The government of India Act,1919
d) The Government of India Act,1935
143. Akbar defeated Hemu in the
a) Battle of Haldighati
b) Second Battle of Panipat
c) Battle of Talikot
d) Third Battle of Panipat
144. Who among the following was the first Chief Justice of India and assumed office on 26 January 1950?
a) Maher Chand Mahajan
b) M.Patanjali Sastri
c) Harilal Kania
d) B.K. Mukherjea
145. Who among the following started the Swaraj Party?
a) Bipin Chandra Pal and Rajendra Prasad
b) Chittaranjan Das and Motilal Nehru
c) Bipin Chandra Pal and Subhash Chandra Bose
d) Vitthalbhai Patel and Lala Lajpat Rai
146. Who among the following Sultans of Delhi introduced the token currency?
a) Balban
b) Alauddin Khalji
c) Muhammad bin Tughlaq
d) Feroz Tughlaq
147. The 1909 Indian Council Act is also known as
a) The Chelmsford Reforms
b) The August Offer
c) The Wood's Despatch
d) The Minto-Morley Reforms
148. Who among the following was the Viceroy of India when Indian National Congress was founded?
a) Lord Lytton
b) Lord Ripon
c) Lord Dufferin
d) Lord Curzon
149. Who among the following was the first woman to become the President of the Indian National Congress?
a) Annie Besant
b) Aruna Asaf Ali
c) Sarojini Naidu
d) Vijayalaksmi Pandit
150. Due to whose efforts were the legal obstacles to the remarriage of widows removed through law in the Year 1856?
a) Raja Rammohan Roy
b) Keshab Chandra Sen
c) Ishwar Chandra Vidyasagar
d) Devendranath Tagore
151. Lala Lajpat rai was assaulted by police in a demonstration which caused his death. That demonstrative was against
a) Rowlatt Act
b) Jallianwala Bagh Massacre
c) Arrival of Simon commission
d) Public Safety Ordinance
152. Who among the following laid the first railroad in India?
a) Lord Ripon
b) Lord Wavell
c) Lord Curzon
d) Lord Dalhousie
153. In the context of Indian freedom struggle, which one of the following movements is associated with the GandhiIrwin Pact?
a) Swadeshi Movment
b) Non-Cooperation Movement
c) Civil Disobedience Movement
d) Quit India Movement
154. During the Indian freedom struggle, who of the following was the first Indian woman to become the President of the Indian National Congress?
a) Aruna Asaf Ali
b) Sueheta Kriplani
c) Sarojini Naidu
d) Vijayalakshmi Pandit
155. During the Indian freedom struggle, who of the following formed the party called 'forward Bloc'?
a) C.R. Das
b) M.N. Roy
c) Rash Behari Bose
d) Subhash Chandra Bose
156. The Indian freedom fighters Ashfaqulla Khan and Ramprasad Bismil were hanged due to their involvement in which one of the following?
a) Chittagong armoury raid
b) Kanpur conspiracy case
c) Meerut conspiracy case
d) Kakori conspiracy case
157. Who among the following participated in all the three Round Table Conferences?
a) Madan Mohan Malviya
b) B. R. Ambedkar
c) Sardar Patel
d) None of these
158. Which of the following pairs is correct?
a) Ramprasad Bismil : Second Lahore Conspiracy Case
b) Surya Sen: Chatgaon Case
c) Bhagat Singh : Kakori Conspiracy Case
d) Chandrashekhar Azad: Delhi Bomb Case
159. When were the Congress Governments formed in seven out of eleven provinces?
a) July 1935
b) July 1936
c) July 1937
d) July 1938
160. Which of the following pairs is correct?
a) Chelmsford : Rowlatt Act
b) Lord Reading : Delhi Darbar
c) Lord Willington : Arriving of Prince of Wales in India
d) Lord Hardinge : II Round Table Conference
161. Which of the following statements is not true?
a) Formal accession of Asoka was very probably delayed
b) The fifth rock edict proves the existence of Harems of Asoka's brothers
c) Asoka held the viceroyalty of Taxila and Ujjain in the reign of Bindusara
d) Asoka was the younger brother of Bindusara
162. Who was the founder of Gahadwala dynasty who made Kannauj the main centre of his power?
a) Jaichandra
b) Vijaychandra
c) Chandradev
d) Govind
163. At the time of Muhammad Ghori's invasion against Prithviraj Chauhan who of the following ruled Kannauj?
a) The Chandellas
b) The Pratihars
c) The Palas
d) The Gahadwalas
164. Who of the following contested with Qutubuddin Aibak for Punjab?
a) Ikhtiyaruddin
b) Tajuddin Yaldauz
c) Nasiruddin Qubacha
d) None of these
165. Humayun ascended the throne at Agra on-
a) 7th January 1530
b) 29th December 1530
c) 23 rd September 1530
d) 16th February 1530
166. Which of the following statements is true of the Sher Shah Suri?
a) He was a fanatic Muslim
b) He was a staunch Muslim but not a fanatic
c) He was a staunch Muslim and ill-treated Hindus
d) He was intolerant towards other religions
167. Which of the following statements is true of Akbar's policy towards the Hindus?
a) He abolished the pilgrim tax but not the Jaziya
b) He abolished the Jaziya, but not the pilgrim tax
c) He abolished both the Jaziya and the pilgrim tax
d) He neither abolished the pilgrim tax nor the Jaziya
168. Guru Govind Singh was killed in 1708

## at-

a) Amritsar
b) Keeratpur
c) Nanded
d) Anandpur
169. The Treaty of Surat was concluded by the British with the following Maratha chief-
a) Narayan Rao
b) Madhav Rao
c) Nana Phadnvis
d) Raghoba
170. The triple alliance against Tipu was formed by Cornwallis consisted of the following-
a) The English, Nizam and the Marathas
b) The English, Nizam and Awadh
c) The English, Nizam and Carnatic
d) The English, Marathas and Carnatic
171. In the Second Sikh War the decisive battle was fought at-
a) Chilianwala
b) Peshawar
c) Gujarat
d) Multan
172. In the Third Maratha War, the English defeated Peshwa Bajirao II at-
a) Mahidpur
b) Sitabuldi
c) Kirki
d) Bassein
173. Which of the following states was not annexed to British Empire by Dalhousie under the doctrine of Lapse?
a) Baghat
b) Nagpur
c) Sambalpur
d) Benaras
174. At Lucknow the revolt of 1857 broke out on-
a) May 30, 1857
b) June 4,1857
c) May 15,1857
d) June 15,1857
175. The Asiatic Society of Bengal in Calcutta was founded by-
a) Raja Ram Mohan Roy
b) Sir Williams Jones
c) Warren Hastings
d) Keshabchandra Sen
176. Fifth Session of the Indian National Congress was held in 1889 at-
a) Calcutta
b) Madras
c) Bombay
d) Dacca
177. The moderates and extremists were united in the Congress Session of-
a) Lahore
b) Bombay
c) Allahabad
d) Lucknow
178. Who among the following was not in Khilafat Committee?
a) Majhar ul Haq
b) Hasrat Mohani
c) Maulana Shauqat Ali
d) Hakim Azmalkhan
179. Who among the following was the president of All India Trade Union Congress in 1929?
a) M. N. Roy
b) N. M. Joshi
c) Jawaharlal Nehru
d) Jayaprakash Narayan
180. Swaraj Party was formed by-
a) C. R. Das
b) Motilal Nehru
c) Jawaharlal Nehru
d) C. R. Das and Motilal Nehru
181. 'Lucknow Pact' was concluded between-
a) Congress and the British Government
b) Muslim League and the British Government
c) Congress and the Muslim League
d) Congress, the Muslim League and the British Government
182. The grand temples of Khajuraho were built by the rulers of-
a) Solanki dynasty of Gujarat
b) Parmar dynasty of Malwa
c) Chandelas of Bundelkhand
d) Chauhan of Ajmer
183. The main cause of Timurs' invasion of India was-
a) His excessive zeal for Islam
b) Victory and plunder
c) Extension of empire
d) Liberal religious policy of the Sultan of Delhi
184. The Pope called upon the Christians to fight Crusades against Turks because he-
a) Wanted to extend his influence in Europe
b) Wanted to check the expansion of Turkish Empire
c) Wanted top liberate Jerusalem, a sacred place of Christians from the occupation of Turks
d) Wanted to forge unity among the divided Christian rulers
185. Under whose leadership the Jats revolted against Aurangzeb?
a) Raja Ram
b) Gokul
c) Churaman
d) Surajmal
186. The First President of America was-
a) George Washington
b) Abraham Lincoln
c) Wilson
d) Roosevelt
187. The French revolution was more important than that of America and England because-
a) It came out from the middle classes (B) It ended the monarchism
b) It affected all countries of Europe
c) It established Socialism in Europe
188. The name of the thinker who propounded the idea of separation of powers was-
a) Diderot
b) Montesque
c) Voltaire
d) Rousseau
189. The person who was held responsible for the reign of terror during French revolution named-
a) Robeespierre
b) Danton
c) Voltaire
d) Mirabeau
190. The Industrial Revolution started from England because-
a) England was a rich country
b) The people of England were inventive mind
c) The Rulers encourage industries
d) England was geographically well suited as raw material like coal and iron was available in abundance
191. The fundamental principles of Indian foreign policy is based on-
a) Non-allianment
b) Imperialism
c) Military Treaty
d) Political Alliances
192. The Azad Hind Fauz was organised by-
a) Bhagat Singh
b) Subhash Chandra Bose
c) Maharaj Mahendra Pratap
d) C.R. Das
193. The United Nation Organisation differs from the League of Nations in the way that-
a) The United Nations is an International body and the League of Nations was limited Europe
b) The United Nations works with the cooperation of all country members while the League of Nations was under the control of the few
c) The United Nations is not a part of an international treaty whereas League of Nations was
d) The range of the United Nations is wider than that of the League of Nations
194. Which of the following is the most powerful in U.N.O.?
a) General Assembly
b) Security Council
c) Secretriat
d) International Court
195. 26th Jan., 1950 is important in History of India because-
a) India got independence
b) Mahatma Gandhi died
c) New constitution of Free India was introduced and India became a Sovereign Republic
d) The Indian States were merged
196. Who was the ruler of Delhi when Ibn Battutah visited India?
a) Ibrahim Lodhi
b) Muhammad Ghori
c) Muhammad bin Tughlaq
d) Sultan Raziya
197. 1857 is famous in Indian history as-
a) The first Indian War of Independence
b) A year of unusual prosperity
c) The starting point of industrialisation in the country
d) The culminating point of the Bengal renaissance
198. Which one of the following Acts brought about the abolition of the rule of East India Company?
a) Act of 1793 b) Act of 1813
c) Act of 1833 d) Act of 1858
199. The demand for a separate State of Pakistan was made on the basis of 'two nation' theory at the Lahore Session of All Indian Muslim League held in-
a) 1907
b) 1937
c) 1928
d) 1940
200. Which one of the following Sikh Gurus organised the Sikhs as soldiers to fight against the Mughal Army?
a) Guru Nanak
b) Guru Arjun Dev
b) Guru Angada
c) Guru Govind Singh

## ANSWERS

| 1. (a) | 2. (d) | 3. (d) | 4. (a) | 5. (c) | 6. (c) | 7. (c) | 8. (d) | 9. (a) | 10. (b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11. (b) | 12. (b) | 13. (c) | 14. (c) | 15. (b) | 16. (b) | 17. (d) | 18. (c) | 9. | (a) |
| 21. (c) | 22. (d) | 23. (c) | 24. (a) | 25. (d) | 26. (c) | 27. (b) | 28. (c) | 29. (a) | 30. (c) |
| 31. (c) | 32. (d) | 33. ( | 34. (b) | 35. | 36. ( | 37. | 38. (d) | 39. (d) | 40. (a) |
| 41. (c) | 42. (a) | 43. (c) | 44. (c) | 45. (b) | 46. (b) | 47. (c) | 48. (a) | 49. (b) | 50. (d) |
| 51 | 52. | 53. | 54 | 55. (c) | 56 | 57. (d) | 58 | 59. (c) | 60. (b) |
| 61. | 62. | 63. |  | 65. | 66. | 7. | 68. | 69. |  |
| 71. | 72. (c) | 73. | 74. | 75. | 76. | 77. (b) | 78. | 79. | 80. (a) |
| 81 | 82. | 83. | 84. | 85 | 86. | 7. | 88 | 89. |  |
| 91. (a) | 92. (c) | 93. | 94. (d) | 95. (a) | 96 | 97 | 98. (b) | 99. | 100.(c) |
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108. | 109 | 110 |
| 111. | 112.(c) | 113. | 114. | 115. | 116. | 117.(a) | 118.(a) | 119.(a) | 120.(d) |
| 121.(b) | 122.(b) | 123.(a) | 124.(a) | 125.(a) | 126.( | 127 | 128.(b) | 129.( | 130.(d) |
| 131. | 132 | 13 | 13 | 135 | 136 | 13 | 138 | 139 | 140.(b) |
| 141.(a) | 142.(b) | 143.(b) | 144.( | 145.(b) | 146.( | 147 | 148.(c) | 149. | 150.(c) |
| 151.(c) | 152. | 153. | 154. | 155. | 156. | 157. | 158.(b) | 159. | 160 |
| 161.(d) | 162.(c) | 163.( | 164.(b) | 165.(b) | 166.(b) | 167.(c) | 168.(c) | 169.(d) | 170.(a) |
| 171.(c) | 172.(d) | 173.(d) | 174.(b) | 175.(b) | 176.(c) | 177.(d) | 178.(a) | 179.(b) | 180.(d) |
| 181.(c) | 182.(c) | 183.(b) | 184.(c) | 185.(b) | 186.(a) | 187.(c) | 188.(b) | 189.(a) | 190.(d) |
| 191.(a) | 192.(b) | 193.(c) | 194.(b) | 195.(c) | 196.(c) | 197.(a) | 198.(d) | 199.(d) | 200.(c) |

## PREVIOUSLY ASKED QUESTIONS

1. The First Battle of Panipat was fought between
[AFCAT 1, 2011]
(a) Akbar \& Hemu
(b) Babur and Ibrahim Lodhi
(c) Akbar \& Rana Sanga
(d) Ahmad Shah Abdali \& Marathas
2. Fa-hien visited India during the reign of
[AFCAT 1, 2011]
(a) Chandra Gupta Maurya
(b) Bindusara
(c) Chandra Gupta II
(d) Bimbisara
3. Gandhiji's first experience with

Satyagraha came up in [AFCAT 1, 2011]
(a) Dandi
(b) Champaran
(c) Bengal
(d) Natal
4. During whose tenure as the viceroy of India were the great Martyrs Bhagat Singh, Sukhdev and Rajguru hanged?
[AFCAT 1, 2011]
(a)Lord Curzon
(b) Lord Irwin
(c) Lord Minto
(d) Lord Chelmford
5. The famous Grand Trunk (GT) Road from

Peshawar to Kolkata was built by-
[AFCAT 1, 2012]
(a) Akbar
(b) Ashok
(c) Sher Shah Suri
(d) Chandragupta
6. The Ashoka Pillar whose Lion Capitol (Carving) was adopted by the Government of India as National Emblem is situated at
(a) Akbar
[AFCAT 1, 2012]
(b) Ashok
(c) Sher Shah Suri
(d) Chandragupta
7. The two great revolutionaries who threw a bomb in Legislative Assembly were-
[AFCAT 1, 2012]
(a) Bhagat Singh \& BK Dutt
(c) Chandrashekhar Azad \& Bismil
(b) Bhagat Singh \& Chandrashekhar Azad
(d) Bhagat Singh \& Ashfaq Ullah Khan
8. The person who is regarded as the greatest law giver of ancient India is
(a) Panini
[AFCAT 2, 2012]
(b) Kautilya
(c) Manu
(d) Patanjali
9. The immortal fame of Ashoka largely rests upon
[AFCAT 2, 2012]
(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.
10. Gandhiji started Dandi March
(a) To demonstrate against the British Empire [AFCAT 2, 2012]
(b) To break the salt law
(c) To boycott foreign goods
(d) None of the above
11. The first war of Indian Independence began on 10 May 1857 at
(a) Meerut
(b) Jhansi
(c) Barrackpore
(d) Delhi
12. Who among the following had discovered the Brahmi Script in 1838?
(a) Sir William Jones [AFCAT 2, 2012]
(b) Dr. Rajendra Lal Mitra
(c) Dr. Bhaw Dagi
(d) James Prinsep
13. Who was known as father of administration in medieval India?
(a) Akbar
[AFCAT 2, 2012]
(b) Shershah Suri
(c) Humayun
(d) Aurangzeb
14. Brahma Samaj was founded by
(a) Raja Rammohan Roy [AFCAT 2, 2012]
(b) Jawaharlal Nehru
(c) William Carey
(d) Jonathan Duncan
15. Who accorded the title 'Mahatma' to MK Gandhi?
[AFCAT 1, 2013]
(a) Sardar Patel
(b) Jawaharlal Nehru
(c) Sarojini Naidu
(d) Rabindranath Tagore
16. The Non Co-operation Movement started in which year? [AFCAT 1, 2013]
(a) 1900
(b) 1921
(c) 1940
(d) 1935
17. During the Middle Ages education was confined only to
[AFCAT 1, 2013]
(a) Kshatriyas
(b) Brahmins
(c) Peasants
(d) Shudras
18. Who among the following was responsible for the spread of Buddhism in Sri Lanka?
[AFCAT 1, 2013]
(a) Ashoka
(b) Mahavira
(c) Parsavanth
(d) Chandra Gupta Maurya
19. Who was the Governor-General of India during the Sepoy Mutiny'?
(a) Lord Dalhousie
[AFCAT 1, 2014]
(b) Lord Harding
(c) Lord Canning
(d) Lord Lytton
20. Which of the following statements is incorrect?
[AFCAT 1, 2014]
(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
(d) 56th Amendment of the Constitution of India
21. Which of the following rulers had the title 'Kaviraja?'
[AFCAT 2, 2014]
(a) Kumaragupta
(b) Chandragupta
(c) Skandagupta
(d) Samudragupta
22. The Viceroy who divided Bengal by following the divide and rule policy was.
(a) Lord Curzon
[AFCAT 2, 2014]
(b) Lord Ripon
(c) Lord Lytton
(d) Lord Mayo
23. Who founded the Asiatic Society of Bengal in Kolkata?
[AFCAT 2, 2014]
(a) Warren Hastings
(b) John Shore
(c) Sir William Jones
(d) Lord Cornwallis
24. Who among the following was the Congress President at Madras Session of 1927 when it boycotted the Simon
Commission?
[AFCAT 1, 2015]
(a) Maulana Abul Kalam Azad
(b) MA Ansari
(c) Lala Lajpat Rai
(d) Subhash Chandra Bose
25. Why did Kalinga prove to be a turning point in the life of Ashoka? [AFCAT 1, 2015]
(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
26. Which of the following wings was not part of the espionage system described by Kautilya?
[AFCAT 1, 2015]
(a) Crime Branch
(b) Special Branch
(c) Political Branch
(d) None of these
27. Alauddin Khalji did not build
(a) Siri Fort
[AFCAT 1, 2015]
(b) Tomb of Jalaluddin
(c) Hauz-i-Alai
(d) Jamaat Khana Masjid
28. Which of the following dynasties was ruling over North India at the time of Alexander's invasion? [AFCAT 1, 2015]
(a) Nanda
(b) Maurya
(c) Sunga
(a) 1911
(d) Kanva
(b) 1915
29. Who was the Viceroy when the Simon
(c) 1917
Commission visited India?[AFCAT 2, 2015]
(d) 1919
(a) Lord Chelmsford
(b) Lord Reading
(c) Lord Irwin
(d) Lord Wellington
31. Todar Mal was associated with
$\qquad$ in Akbar's durbar
(a) Music.
[AFCAT 2, 2015]
30. Mahatma Gandhi left South Africa to
(b) Literature
return to India in
[AFCAT 2, 2015]
(c) Finance
(d) Law Reforms

## ANSWERS AND HINTS

Answer 1. (b) The first battle of Panipat was fought between Babur and Ibrahim Lodhi in 1526.

Answer 2. (c) Fahien, the 1st Chinese Buddhist pilgrim who visited India during the reign of Chandra Gupta Vikramaditya or Chandra Gupta II. He wrote the Book Si-YuKi.
Answer 3. (b) The first Satyagraha movements inspired by Mahatma Gandhi was occurred in Champaran district of Bihar and the Kheda district of Gujarat on 1917 to 1918.

Answer 4. (b) The Martyrs Bhagat Singh Sukhdev and Rajguru were hanged under the rule of Viceroy Lord Irwin (Lord Halifax), who was viceroy of India from 1926 to 931.
Answer 5. (c) Sher Shah Suri built GT road, renovated and extended the ancient Mauryan route in the 16 th century.

Answer 6. (d) The State Emblem of India, as the national emblem of India is called, is an adaptation of the Lion Capital of Ashoka at Sarnath, preserved in the Varanasi Sarnath Museum in India
Answer 7. (a) BK Singh has exploded a few bombs, along with Bhagat Singh, in the Central Legislative Assembly in New Delhi on 8 April 1929.
Answer 8. (c)
Answer 9. (b)
Answer 10. (b)
Answer 11. (a)

Answer 12. (d)
Answer 13. (b)
Answer 14. (a) Brahmo Samaj is the societal component of Brahmoism, a monotheistic reformist and renaissance movement of Hindu religion.

Answer 15. (d) Rabindranath Tagore bestowed the title on Gandhi in 1915 while writing his autobiography after the latter called him Gurudev.

Answer 16. (b)
Answer 17. (b)
Answer 18. (a) Buddhism was introduced into Sri Lanka in the third century BCE after the Third Buddhist council by Mahinda Bhikkhu, son of Emperor Ashoka, during the reign of Devanampiya Tissa of Anuradhapura.

Answer 19. (c) Charles Canning was the Governor-General of India during the rebellion. Lord Dalhousie, the Governor-General of India from 1848 to 1856, who devised the Doctrine of Lapse.

Answer 20. (d)
Answer 21. (d)
Answer 22. (a)
Answer 23. (c) The Asiatic Society was founded by Sir William Jones on 15 January 1784
Answer 24. (b)
Answer 25. (c) Many people including saints, monks etc died during Kalinga war and others lost ... Thus, the Kalinga War became a turning point in Ashoka 's life.

Answer 26. (b)
Answer 27. (b)
Answer 28. (a)
Answer 29. (c)
Answer 30. (b)
Answer 31. (c)


INDIAN GEOGRAPHY

## TOPIC QUESTIONS FOR AFCAT

## EXERCISE QUESTIONS

1. The Paithan (Jayakwadi) Hydro-electric project, completed with the help of Japan, is on the river
a) Ganga
b) Cauvery
c) Narmada
d) Godavari
2. The pass located at the southern end of the Nilgiri Hills in south India is called
a) the Palghat gap
b) the Bhorghat pass
c) the Thalgat pass
d) the Bolan pass
3. Which of the following factors are responsible for the rapid growth of sugar production in south India as compared to north India?

I Higher per acre field of sugarcane
II Higher sucrose content of sugarcane
III Lower labour cost
IV Longer crushing period
a) I and II
b) I, II and III
c) I, III and IV
d) I, II and IV
4. The principal copper deposits of India lie in which of the following places?
a) Hazaribag and Singbhum of Bihar
b) Khetri and Daribo areas of Rajasthan
c) Anantapur in Andhra Pradesh
d) Siwaliks in Uttar Pradesh and in Karnataka
5. Which of the following are true regarding Jhum cultivation in India?
I It is largely practiced in Assam
II It is referred to as 'slash and burn' technique
III In it, the fertility is exhausted in a few years
a) I, II and III
b) II and III
c) I and II
d) I and III
6. Which among the following is/are the major factor/factors responsible for the monsoon type of climate in India?
I Location
II Thermal contrast
III Upper air circulation
IV Inter-tropical convergence zone
a) 1
b) II, III
c) II, III and IV
d) I, II, III and IV
7. What is the predominant type of Indian agriculture?
a) Commercial agriculture
b) Extensive agriculture
c) plantation agriculture
d) subsistence agriculture
8. Which of the following has a potential for harnessing of tidal energy in India?
a) Gulf of Cambay
b) Gulf of Mannar
c) Backwaters of Kerala
d) Chilka lake
9. The typical area of sal forest in the Indian peninsular upland occurs
a) on the western ghats
b) between the Tapti and the Narmada
c) to the north-east of the Godavari
d) on the Malwa plateau
10. Three important rivers of the Indian subcontinent have their sources near the Mansarover Lake in the Great Himalayas. These rivers are
a) Indus, Jhelum and Sutlej
b) Brahmaputra, Sutlej and Yamuna
c) Brahmaputra, Indus and Sutlej
d) Jhelum, Sutlej and Yamuna
11. The most plausible explanation for the location of the Thar desert in western India is
a) the obstruction caused by the Aravalis to the rain-bearing wind that proceeds to the Ganga Valley
b) the evaporation of moisture by heat
c) the absence of mountains to the north of Rajasthan to cause orographic rainfall in it
d) that the moisture carried by the Southwest monsoon is driven away by the dry upper air current
12. Which of the following food grain crops occupies the largest part of the cropped area in India?
a) Barley and maize
b) Jowar and bajra
c) Rice
d) Wheat
13. The oldest rocks in India are reported from
a) Dharwar region, Karnataka
b) Aravalli range, Rajasthan
c) Vindhyan range, Madhya Pradesh
d) Siwalik range, Punjab
14. Which of the following groups of states has the largest deposits of iron ore?
a) Andhra Pradesh and Karnataka
b) Bihar and Orissa
c) Madhya Pradesh and Maharashtra
d) West Bengal and Assam
15. The Shimla Convention is an agreement that sets
a) Shimla as a tourist spot
b) Shimla as the capital of Himachal Pradesh
c) boundary between India and Tibet
d) None of the above
16. Unlike other parts of the Indian Coast, fishing industry has not developed along the Saurashtra coast because
a) there are few indentions suitable for fishing
b) of overwhelming dependence on agriculture and animal husbandary
c) the sea water is relatively more saline
d) of industrial development leading to widespread pollution of coastal area
17. Which of the following measures are effective for soil conservation in India?
I Avoiding crop rotation
II Afforestation
III Encouraging the use of chemical fertilizers
IV Limiting shifting cultivation
a) I and II
b) II and IV
c) III and IV
d) I, II and III
18. Which of the following areas or regions is most prone to earthquakes?
a) Ganga-Brahmaputra valley
b) Deccan plateau
c) Plains of northern India
d) Western ghats
19. Which of the following are true with respect to the Indian Peninsular Plateau?
I The southern plateau block is formed mainly of granite and gneiss
II The Deccan lava plateau is an elevated tableland consisting of horizontally arranged lava sheets
III The Malwa plateau dominates the Vindhyan scraps, forming the northern flank of the plateau
IV The trough of the Narmada and Tapti are interposed between the Vindhyan and the Satpura ranges
a) I, II and III
b) I and II
c) I, II, III and IV
d) I, III and IV
20. The significant shifts in Indian agriculture during green revolution include
a) non-food grains reported some spectacular progress and shift in the cropping pattern
b) major food grains, in the eastern regions productions decreased and in the northern states increased
c) both (a) and (b)
d) None of the above
21. The percentage of irrigated land in India is about
a) 45
b) 65
c) 35
d) 25
22. The southernmost point of peninsular India, that is, Kanyakumari, is
a) north of Tropic of Cancer
b) south of the Equator
c) south of the Capricorn
d) north of the Equator
23. Which of the following factors are responsible for the rapid growth of sugar production in south India as compared to north India?
I Higher per acre field of sugarcane II Higher sucrose content of sugarcane III Lower labour cost
IV Longer crushing period
a) I and II
b) I, II and III
c) I, III and IV
d) I, II and IV
24. Which of the following rocks is different from the remaining three on the basis of its mode of origin?
a) Limestone
b) Sandstone
c) Shale
d) Marble
25. Which of the following land forms is not associated with river erosion?
a) Waterfall
b) V-shaped valley
c) Moraines
c) Jabalpur
d) Ox-bow lake
d) Allahabad
26. Which of the following latitudes is the longest?
a) $23^{\circ} \mathrm{N}$
b) $66^{\circ} \mathrm{N}$
32. Where is Dead Sea situated in the following continents?
a) Europe
b) Australia
c) $0^{\circ}$
d) $80^{\circ} \mathrm{N}$
27. Two places on the same meridian must have the same-
a) Length of summer
b) Length of winter
c) Latitude
d) Solar time
c) Asia
d) Africa
33. Which of the following industries is most developed in the Great Lakes region of North America?
a) Cement and Paper
b) Steel and Engineering
c) Film industry
d) Textile and Chemicals
34. Which of the following group of countries is most famous for exporting wool and meat?
a) Australia, Sri Lanka, Indonesia
b) Argentina, France, Chile
c) Australia, Argentina, New Zealand
d) New Zealand, Argentina, Italy
35. Which of the following soils is most suitable for the cultivation of cotton in India?
a) Red soil
b) Laterite soil
c) Alluvial soil
d) Regur soil
36. Which of the following state groups is the largest producer of iron-ore in India?
a) Orissa, Madhya Pradesh, Bihar
b) Madhya Pradesh, Maharashtra, Punjab
c) Maharashtra, Orissa, Andhra Pradesh
d) Bihar, W. Bengal, Orissa
37. Which of the following landforms is different from other three on the basis of the mode of origin?
a) Fold
b) Anticline
c) Nappes
d) Rift Valley
38. Which of the following landform is not associated with glaciation?
a) Hanging valley
b) Moraines
c) Inselberg
d) Drumlin
39. Which of the following order is given to the planets of solar system on the basis of their size?
a) Saturn, Jupitar, Mercury, Neptune
b) Jupitar, Saturn, Neptune, Mercury
c) Jupitar, Mercury, Neptune, Saturn
d) Neptune, Mercury, Saturn, Jupitar
40. As we go higher into the atmosphere, the air becomes-
a) Thinner
b) Denser
c) Warmer
d) Visible
41. From which of the following longitude the Indian standard time is determined?
a) $82^{\circ} 30^{\prime}$ East
b) $80^{\circ}$ West
c) $90^{\circ}$ East
d) $81^{\circ} 30$ East
42. Which of the following oceans are connected by Panama Canal?
a) Pacific and Atlantic
b) Atlantic and Indian Ocean
c) Indian Ocean and Pacific
d) Atlantic and North Ocean
43. For which crop production is 'Saopalo' famous?
a) Cotton
b) Maize
b) Coffee
d) Tea
44. Which of the following State group is largest producer of mineral oil in India?
a) Gujarat, U. P., Maharashtra
b) Maharashtra, W. Bengal, Assam
c) Assam, U. P., Bihar
d) Assam, Gujarat, Maharashtra45. Which of the following water-ways does not pass through the Panama Canal?
a) London-Honolulu.
b) New York-San francisco
c) New York-Buenos Aires
d) New York-Sydney
46. Which of the following latitudes is a great circle?
a) Equator
b) $66^{\circ} \mathrm{N}$
c) $20^{\circ} \mathrm{S}$
d) $23^{\circ} \mathrm{S}$
47. Which of the following city is not located on Delhi-Kolkata rail route?
a) Kanpur
b) Allahabad
c) Gaya
d) Varanasi
48. Which of the following industries is famous in the Ruhr industrial region of Europe?
a) Textile and Chemicals
b) Steel and Engineering
c) Cement and Paper
d) Ship building
49. If the direction of the earth's rotation on its axis is east-west, what would be the direction of Trade wind blowing in Southern hemisphere?
a) South-West
b) South-East
c) North-East
d) North-West
50. The coldest hour of the day is approximately-
a) $5 \mathrm{a} . \mathrm{m}$.
b) $9 \mathrm{p} . \mathrm{m}$.
c) $3 \mathrm{a} . \mathrm{m}$.
d) $10 \mathrm{a} . \mathrm{m}$.
51. Which of the followings is fibre mineral?
a) Zinc
b) Asbestos
c) Coal
d) Asphalt
52. What are asteroids?
a) Minor planets revolving round the Sun between the orbits of Mars and Jupiter
b) Luminous celestial bodies moving round the Sun
c) A group of fixed stars arranged naturally
d) Small pieces of solid matter which appear in the earth's atmosphere as shooting stars from out spaces and become visible through incandescence caused by the resistance of the air to their passage
53. What is Isthmus?
a) The mouth of a river where it joins the sea
b) A narrow strip of sea dividing two oceans
c) A narrow strip of land joining two seas or oceans
d) A piece of projected land
54. Which of the following phenomena causes the shape of the Earth?
a) Internal structure
b) Atmospheric pressure
c) Rotation
d) Revolution
55. Which of the following is the location of a point on the globe that is antipodal to $65^{\circ}$ North Latitude and $30^{\circ}$ East Longitude?
a) $65^{\circ}$ North Lat., $30^{\circ}$ West Long
b) $30^{\circ}$ South Lat., $65^{\circ}$ East Long
c) $65^{\circ}$ South Lat., $150^{\circ}$ West Long
d) $30^{\circ}$ North Lat., $65^{\circ}$ West Long
56. The surface of the earth is still irregular inspite of millions of years of gradation, because-
a) Gradation is a slow process
b) Gradation does not reduce irregularities
c) Deposition of material re-elevates the land
d) Parts of the crust have been uplifted
57. What would result if the sedimentary deposit of the Ganga Plain is compressed between the Himalayas and the Deccan Plateau and then uplifted?
a) Block mountain
b) Fold mountain
c) Rift valley
d) Volcanic plateau
58. What would happen to ocean water if the moon comes nearer to the earth?
a) Fall of temperature
b) Stopping of ocean currents
c) Rise of sea level
d) Increase in height of oceanic tides
59. The line joining places of equal atmospheric pressure is termed-
a) Contour
b) Isohyet
c) Isotherm
d) Isobar
60. What would happen to types of rainfall if the earth's surface becomes all plain?
a) No cyclonic rainfall
b) No orographic rainfall
c) No convectional rainfall
d) No frontal rainfall
61. The maximum risk to air travel is from-
a) Clouds
b) Rainfall
c) Fogs
d) Strong winds
62. Which one of the following countries is the largest producer of rice in the world?
a) China
b) Japan
b) Philippines
d) Bangladesh
63. Which of the following countries possesses a strong natural resource base for iron and steel industry?
a) Russia
b) Pakistan
c) Japan
d) Bangladesh
64. The present day search for fuels alternative to petroleum, is due mainly to-
a) Iran-Iraq war
b) Strained relations between Israel and Middle East countries
c) Highly increased cost of petroleum
d) Increase in the consumption of petroleum
65. What is the population density of a District which has 50 Lakh people and 25 thousand square kilometres area?
a) 50 persons per sq. km.
b) 100 persons per sq. km.
c) 150 persons per sq. km.
d) 200 persons per sq. km .
66. The Savana type of climate is characterized by-
a) Humid summers and humid winters
b) Humid summers and dry winters
c) Humid winters and dry summers
d) Humid throughout the year
67. Which of the following groups of countries is arranged in descending order of area?
a) Russia, Canada, China, U.S.A.
b) Russia, U.S.A. Canada, China
c) Russia, Canada, U.S.A., China
d) Russia, China, U.S.A., Canada
68. Which of the following Industrial Regions of USA is located mainly on the basis of hydroelectric power?
a) The New York, Philadelphia, Baltimore region
b) The Southern New England Region
c) The Southern Lake Michigan Region
d) The Detroit Region
69. What should India increase in order to become one of the most prosperous countries of the world?
a) Food production
b) Industrial production
c) Population
d) Trade
70. Water power potential of India is great, but it has not been developed to its full extent. The major deterrent being that-
a) Coal is available in plenty therefore it is not necessary to develop water power
b) Raw materials required for the production of electric transformers are not available in India
c) Rainfall is seasonal and as such requires costly storage reservoirs
d) Lack of technical skill hinders the development of water power
71. Which of the following regions has almost prevalent types of natural vegetation in India?
a) The Himalaya mountain
b) The Deccan Plateau
c) The Ganga plain
d) The Coastal plains
72. For which of the following manufacturing industries does India have the most natural resources?
a) Glass Synthetic rubber
b) Synthetic rubber
c) Iron and Steel
d) Aluminium
73. One of the characteristics of India's population is lesser number of women compared to men. Which one of the following explains this phenomenon?
a) Excess males at birth
b) Lower social status of women
c) Neglect of females in childhood
d) High maternity mortality
74. The basic unit of settlement recurring throughout India is the village. Which of the following criteria is largely responsible for the selection of village sites?
a) Behavioural patterns of the community
b) Availability of flat land
c) Essential resources like water and fuel
d) Fuel resources and building materials
75. Which one of the following factors accounts largely for the dispersal of cotton textile industry from its original location around Bombay?
a) The development of transportation, especially railways
b) Extreme congestion in Mumbai and lack of space
c) The development of hydro-electric power
d) Improved technology
76. The main cause for Uttar Pradesh becoming the most important agricultural state of India is-
a) Good cultivators
b) Good climate
c) Large market
d) Extensive fertile plain
77. What locational advantage does India possess for International trade?
a) Central location in the Eastern hemisphere
b) Location in the middle of the developing countries
c) Location at the southern end of Asia
d) Location on the east-west oceanic route through the Suez Canal
78. The longest dam is-
a) Aswan
b) Hirakud
c) Gorky
d) Mangla
79. Which state in India is the largest producer of Saffron?
a) Jammu and Kashmir
b) Sikkim
c) Himachal Pradesh
d) Gujarat
80. Which is the largest man-made lake in India?
a) Chilka
b) Dal
c) Sambhar
d) Bhakra
81. Where is the Gol Dumoaz located?
a) Andhra Pradesh
b) Maharashtra
c) Kamataka
d) Gujarat
82. Gulmarg is a hill station in-
a) Himachal Pradesh
b) Jammu and Kashmir
c) Maharashtra
d) Tamil Nadu
83. The largest producer of cashew nut in India is-
a) Kerala
b) Gujarat
c) Orissa
d) Tamil Nadu
84. Lal Bahadur National Academy of

Administration is situated in-
a) Pune
b) Kolkata
c) Dehradun
d) Mussoorie
85. In what state is 'Rana Pratap Sagar' atomic power plant located?
a) Haryana
b) Gujarat
c) Rajasthan
d) Karnataka
86. Where is oil and Natural Gas

Commission located?
a) Haldia
b) Dehradun
c) Ankleshwar
d) Cambay
87. Which of the following is situated at Agra?
a) Paratroopers Training College
b) National Police Academy
c) Central Tractor Organisation
d) Air Force Flying College
88. The prevailing winds blowing from $30^{\circ} \mathrm{S}$ and $30^{\circ} \mathrm{N}$ towards the equator are termed as-
a) Monsoon winds
b) Antitrade winds
c) Trade winds
d) Polar winds
89. Irrigation is necessary for areas receiving rainfall-
a) Less than 200 cm .
b) Less than 75 cm .
c) Less than 125 cm .
d) At uncertain times
90. The reason for the necessity of irrigation in India is that-
a) There is no rainfall at the time of need
b) Indian crops require much water
c) Indian farmers are in habit of watering the fields
d) India is a hot country so water is easily evaporated
91. Which one of the following sources of irrigation in India is not suitable?
a) Canals
b) Karez
c) Wells
d) Tanks
92. In which of the following states of India, tank irrigation is most suitable?
a) Tamil Nadu
b) Punjab
c) Uttar Pradesh
d) Bihar
93. On the south side, India is bounded by the Indian Ocean, by the Arabian Sea on the southwest and the $\qquad$ .on the southeast.
a) Brahmaputra
b) GANT
c) Bay of Bengal
d) None of Above
94. The Lakshadweep and the Andaman \& Nicobar Islands in India are classified as
a) LAC
b) UT (union territories)
c) States
d) Deserts
95. The $\qquad$ is the effective border between India and the People's Republic of China.
a) LOC
b) LAC
c) LOG
d) None of Above
96. The first British colony was in $\qquad$ with English East India Company at Surat.
a) 1616
b) 1617
c) 1618
d) 1619
97. The Rann of Kutch is a marshy region located in north-western Gujarat and the bordering Sindh province of $\qquad$
a) Pakistan
b) Bangladesh
c) Nepal
d) Afghanistan
98. The Himalayan range is considered as the world's highest mountain range, with its tallest peak $\qquad$ on the Nepal-China border.
a) Hindu Kush
b) Mt. Everest
c) Tirich Mir
d) Kunlun
99. Many cities in India have undergone place name changes such as Baroda being renamed to $\qquad$
a) Badodara
b) Varanasi
c) Vadodara
d) Baranasi
100. The Brahmaputra is also called
a) Burlung-Buthur
b) Tsangpo-Brahmaputra
c) Yarlung Tsangpo
d) All of Above
101. $\qquad$ is the first port that was developed after independence in Gujrat State.
a) Kutch
b) Smarla
c) Kandla
d) Porbandhar
102. $\qquad$ is the smallest state of India.
a) Goa
b) Andaman Nicobar
c) Port Blair
d) Kuri
103. Southern India is mostly a Deccan Plateau, which is separated from northern plain by the $\qquad$
a) Himalayan mountains
b) Vindhya mountains
c) Satpura hills
d) Mount Everest
104. $\qquad$ are tribes of Andaman and
Nicobar Islands.
a) Munda
b) Kurra
c) Onges
d) None of Above
105. The $\qquad$ was started in
1977-78 with the main aim of controlling desertification, restoring ecological balance and creating conditions to improve the economic level of people in desert areas.
a) Desert Peoples Programme (DPP)
b) Desert Development Programme (DDP)
c) Desert Welfare Programme (DWP)
d) Desert Samadhaan Programme (DSP)
106. $\qquad$ is a strait between the Tamil Nadu state and the Mannar district of the

Northern Province of the island nation of Sri Lanka.
a) Palk Strait
b) Walk Strait
c) Talk Strait
d) Balk Strait
107. Which of the following countries share longest land boundary with india?
a) Bangladesh
b) Nepal
c) Bhutan
d) None of Above
108. The length of river Brahmaputra is
a) 3900 KM
b) 4900 KM
c) 8900 KM
d) 2900 KM
109. India's first jute mill was established in 1854 in
a) Kapurthala
b) Bihar
c) Rishra
d) Nikodar
110. $\qquad$ river is also know by the name 'Sorrow of Bengal' as it gets flooded often causing damage.
a) Damodar
b) Kamodar
c) Yamuna
d) Jhatta
111. The Nagarjuna Sagar project is constructed on the which of the below river.
a) Kaveri
b) Brahmputra
c) Krishna
d) Ganga
112. Kanchenjunga is situated in
a) HP
b) Bangladesh
c) Panchkula
d) Sikkim
113. Ranganathittu Bird Sanctuary is located in
a) Punjab
b) Uttar Pardesh
c) Karnataka
d) Solan
114. Fort William is located in Kolkata on the banks of river $\qquad$
a) Chenab
b) Hooghly
c) Ganga
d) Yamuna
115. $\qquad$ project is built on the Chenab river.
a) Dalal
b) Malal
c) Salal
d) Kalal
116. $\qquad$ is the oldest oil field in India.
a) Digboi in Assam
b) Bombay High
c) Mangala Area
d) None of Above
117. Mana Pass is located within Nanda Devi Biosphere Reserve in $\qquad$
a) Kalka
b) UP
c) Haryana
d) Uttarakhand
118. Nanga Parbat peak is located in $\qquad$
a) Jammu and Kashmir
b) Haryana
c) Punjab
d) Nagalang
119. $\qquad$ is the largest producer of rubber in India.
a) Chennai
b) Aurangabad
c) Himachal
d) Kerala
120. The .................... is the largest mangrove forest not only in India but in the world.
a) Pichavaram
b) Pitara
c) Sundarbans
d) Bhitarkanika
121. $\qquad$ also known as Jawaharlal Nehru Port, is the largest container port in India.
a) Nal Seva
b) Nhava Sheva
c) Kava
d) JTPT
122.
was an economic system where lower castes performed various functions for upper castes and in turn received grain.
a) Jajmani system
b) Yajmani system
c) Gajmani system
d) Sajmani system
123. The $\qquad$ Corridor was created in
1947 after the partition of Bengal between India and Pakistan.
a) Anamalai
b) Siliguri
c) Jhansi
d) None of Above
124. Nathpa Jhakri hydel power project is located on $\qquad$ river
a) Ganga
b) Brahmputra
c) Satluj
d) Yamuna
125. $\qquad$ is the second largest brackish-water lake or lagoon in India.
a) Muthupet
b) Cherai beach lagoon
c) Sriharikota
d) Pulicat Lake
126. Tornadoes are common in Punjab and Haryana. The same are called in
West Bengal as
a) Tejis
b) RimJhims
c) Kalbaisakhis
d) Tehjis
127. Laterite Soil (which is red in colour) is mainly found in which of the Indian states:
a) HP
b) Orissa
c) Punjab
d) Telangana
128. Damodar and Sone river valley in India are depository of the $\qquad$ rocks.
a) Sand
b) Black
c) Gondwana
d) Plateau
129. $\qquad$ is a place where river meets sea.
a) Shore
b) Connect
c) Lake
d) Estuary
130. $\qquad$ is the longest lake in India.
a) Pattyar
b) Vembanad Kayal
c) Sukhna
d) Dal
131. Kumarakom Bird Sanctuary in India is located in the state of $\qquad$
a) Punjab
b) UP
c) Kerala
d) MP
132. $\qquad$ International Airport is the first airport in India built under a publicprivate partnership (PPP) model.
a) Chandigarh
b) Mohali
c) Delhi
d) Cochin
133. Jet Airways started its commercial operations on $\qquad$
a) 5 May 1993
b) 6 May 1993
c) 7 May 1993
d) 8 May 1993
134. BSE (Bombay Stock Exchange) is located on $\qquad$ Street, Mumbai.
a) Juhu
b) Penag
c) Arthrur
d) Dalal
135. The Ganges originates from the
$\qquad$ Glacier in Uttarakhand.
a) Siachen
b) Nubra
c) Rimo
d) Gangotri
136. $\qquad$ flows from India to Bangladesh and is one of the main rivers of Bangladesh.
a) Karuna
b) Jamuna
c) Ganga
d) Kaveri
137. $\qquad$ port is located on the banks of Rukmavati River.
a) Port Blair
b) Mundra
c) Mandvi
d) Paradip
138. The length of Gulf of Kutch is
a) 97 miles
b) 98 miles
c) 99 miles
d) 100 miles
139. The term used to describe mandirs in

Swaminarayan branch of Hinduism is:
a) Shikharbaddha
b) Ucchbaddha
c) Prembaddha
d) Himbaddha
140. Places in India where you will find natural gas $\qquad$
a) Andhra Pradesh
b) Punjab
c) Uttarakhand
d) Ambala
141. $\qquad$ Point is the name given for the southernmost tip of India.
a) Kanyakumari
b) Lakshya
c) Indira
d) Rabindra
142. Guindy National Park is located in
a) Gujrat
b) Bangalore
c) Chennai
d) AP
143.
..................... port is the only corporatized major port and which is also registered as a company.
a) Kandla
b) Ennore
c) Pallatam
d) Mundra
144. The Himalayas cross five countries.
a) Bhutan, India, Nepal, China, and Pakistan
b) Bhutan, India, Afghanistan, China, and Pakistan
c) Bhutan, India, Nepal, Indonesia, and Pakistan
d) Australia, India, Nepal, China, and Pakistan
145. Punjab and Haryana plains in India are irrigated with water from the rivers
a) Jhelum, Beas, and Sutlej
b) Ravi, Yamuna, and Sutlej
c) Ravi, Beas, and Brahmputra
d) Ravi, Beas, and Sutlej
146. Which of the following is not a lake in the Himalayas:
a) Tilicho lake
b) Pangong Tso
c) Yangpa Lake
d) Tsongmo lake
147. $\qquad$ is a term used in India for a tract of land lying between two confluent rivers?
a) Satvik
b) Convergence
c) Doab
d) Dimtar
148. The $\qquad$ is uphill on the way to Gangotri.
a) TehriDam
b) Nangal Dam
c) Nagarjuna Sagar Dam
d) Srisailam Dam
149. Jalpaiguri town lies on the banks of the .................... , the second largest river in West Bengal, first one being Ganges.
a) Godavri
b) Yamuna
c) Teesta River
d) Kaveri
150. $\qquad$ river originates in Rajasthan and lies to the north east of Rann of Kutch.
a) Kaveri
b) Teesta
c) Luni River
d) Beas
151. The $\qquad$ Mountains are one of the longest mountain chains in Asia.
a) Nanda Devi
b) Kunlun
c) Mount Abu
d) Kamet
152. The Northeast Frontier Railway is headquartered in
a) Samrala
b) Cooch Behar
c) Maligaon
d) Rangpur
153. Which of the following is not a peninsular river
a) Narmada
b) Krishna
c) Mahanadi
d) Yamuna
154. Which of the following gold mines are in Bangarpet Taluk?
a) Kala Ghoda
b) kolar gold fields
c) Champion Reefs
d) Hatti Gold Mines
155. Dakshina Ganga is also known by the name $\qquad$
a) Godavari
b) Tapti
c) Ganga
d) Cauvery
156. Headquarters of Bharat Coking Coal Limited (BCCL) are in $\qquad$ India.
a) Kerala
b) UP
c) Tamil Nadu
d) Dhanbad
157. Which of the following places is a producer of iron ore
a) Kerala
b) Goa
c) Karnataka
d) All of above
158. The Aravalli Range run accross which of the following Indian states of $\qquad$
a) Gujarat, Rajasthan, Punjab and Delhi
b) Nepal, Rajasthan, Haryana and Delhi
c) Gujarat, Rajasthan, Haryana and Delhi
d) Gujarat, Rajasthan, UP and Delhi
159. The $\qquad$ Dam is one of the four major dams on Chambal River is located in the Mandsaur district of Madhya Pradesh.
a) Rana Pratap
b) Gandhi Sagar
c) Pimnam
d) Kota Barrage
160. The historical Malwa region includes
a) Parts of Nasik
b) Parts of Mumbai
c) Parts of MP and Rajasthan
d) Andaman islands

161 $\qquad$ river is also called lifeline of kerala.
a) Periyar
b) Pamba
c) Chaliyar
d) Kabini
162. Neyveli is a power generation township in $\qquad$ district of Tamil Nadu.
a) Ariyalur
b) Coimbatore
c) Cuddalore
d) Dindigul
163. Which state touches maximum number of states in India?
a) MP
b) Rajasthan
c) Delhi
d) UP
164. $\qquad$ is one of the 7 sacred cities of the Hindus and one of the four sites of Kumbh mela.
a) Goa
b) Bharatpur
c) Ujjain
d) Karnal
165. The Maharaja Sayajirao University is a university in the $\qquad$
a) West Bengal
b) Hyderabad
c) Sultanpur
d) Gujrat
166. Paakkad Gap is a $\qquad$ in State of Kerala.
a) City
b) Mountain Pass
c) Fountain
d) Town
167. $\qquad$ is also called "Teerthraj".
a) AmrKant
b) Kumnao
c) Amarkantak
d) None of above
168. The $\qquad$ river has its source in the Amarkantak Hill.
a) Yamuna
b) Narmada
c) Kaveri
d) Sani
169. $\qquad$ is India's smallest state by area.
a) Chandigarh
b) Panaji
c) Goa
d) Bhutan
170. Tamil Nadu bordering states are
a) Kerala, Goa, Andhra Pradesh
b) Kerala, Karnataka, Madhya Pradesh
c) Chennai, Karnataka, Andhra Pradesh
d) Kerala, Karnataka, Andhra Pradesh
171. In Nov 1949 Nathuram Godse (who shot Mahatma Gandhi) was hanged at
$\qquad$ Jail.
a) Gujrat
b) MP
c) Ambala
d) Mumbai
172. $\qquad$ Island also known as Rameswaram Island, is located between peninsular India and Sri Lanka.
a) Pamban
b) Ramban
c) Kuruta
d) Lakshya
173. The Satish Dhawan Space Centre is located in $\qquad$
a) Madhya Pradesh
b) Andhra Pradesh
c) Himachal Pradesh
d) None of above
174. Jammu and Kashmir is home to several valleys including
a) Tawi Valley
b) Kashmir Valley
c) Poonch Valley
d) All of above
175. The Buxa Tiger Reserve is located in ................. , India.
a) MP
b) Gujrat
c) West Bengal
d) Jhansi
176. Former Prime Minister Atal Bihari Vajpayee of India started a program related to upgradation of highways, called $\qquad$
a) NHCP
b) NHDP
c) NHSP
d) NHJP
177. The war between Nepal and Britain is also known as $\qquad$ War.
a) Nepal underdogs war
b) NB War
c) East-West war
d) Anglo-Gorkha
178. The speed of rotation of the earth is the highest
a) along the Equator
b) at the North-Pole
c) along the Tropic of Cancer
d) along the Arctic Circle
179. Which of the following planets of the solar system has the longest day?
a) Mercury
b) Jupiter
c) Venus
d) Earth
180. Comets revolve around:
a) Sun
b) Earth
c) Venus
d) No single heavenly body
181. The hottest planet is
a) Mercury
b) Venus
c) Jupiter
d) Saturn
182. In order of their distances from the Sun, which of the following planets lie between Mars and Uranus?
a) Earth and Jupiter
b) Jupiter and Saturn
c) Saturn and Earth
d) Saturn and Neptune
183. The Tropic of Cancer passes through:
a) India and Iran
b) Iran and Pakistan
c) India and Saudi Arabia
d) Iran and Iraq
184. The Core of the Earth is made up of:
a) mainly of iron in the liquid form
b) mainly of nickel in the liquid form
c) both iron and silica in the liquid form
d) both iron and magnesium in the plastic state
185. Which one of the following minerals occurs abundantly in the earth's crust?
a) Bauxite
b) Silica
c) Manganese
d) Iron
186. Which one of the following elements is the most abundant in the Earth's crust?
a) Oxygen
b) Sulphur
c) Silicon
d) Carbon
187. The approximate circumference of the Earth is:
a) 13000 km
b) 20000 km
c) 25000 km
d) 30000 km
188. In which direction the Earth rotates around its axis?
a) north to south
b) east to west
c) west to east
d) randomly
189. Mohs scale is used to determine:
a) degree of brightness of a substance
b) degree of hardness of minerals
c) degree of viscosity of a liquid
d) degree of elasticity of a material
190. In which situation Spring tides can occur:
a) the moon, sun and the earth are at right angles with the earth at the apex
b) the moon is farthest from the earth
c) the sun is closest to the earth
d) the moon, the sun and the earth in the same line
191. Total surface area of the earth in square kilometer is:
a) 510.1 million square kilometer
b) 512.8 million square kilometer
c) 520 million square kilometer
d) 525.7 million square kilometer
192. The Earth while rotates around the Sun It always keeps its axis pointed towards:
a) the moon
b) the pole star
c) Venus
d) the sun
193. The greatest amount of isolation is received by which place of Earth's surface?
a) Tropical rainforest
b) Tropical deserts
c) Savanna region
d) Equatorial region
194. What is the actual shape of the Earth?
a) flat
b) circle
c) sphere
d) oblate spheroid
195. What is the circumference of the Earth in kilometers?
a) 38005 KM
b) 40075 KM
c) 41000 KM
d) 41075 KM
196. Tides in the sea have stored in them:
a) hydraulic energy
b) kinetic energy
c) garvitional potential energy
d) a combination of all the above three forms of energy
197. Tropic of Cancer does not pass through which one of the following countries?
a) Bangladesh
b) China
c) Nepal
d) India
198. The upper part of the mantle upon which the crust of the Earth floats is called:
a) barysphere
b) mesosphere
c) mohorovic discontinuity
d) asthenosphere
199. The International Date Line passes through:
a) Bering strait
b) Gibraltar strait
c) Florida strait
d) Alacca strait
200. What happens when a ship crosses International Date Line from west to east?
a) It gains one day
b) It loses one day
c) It loses 10 hrs
d) It gains half a day

## ANSWERS

| 1. (d) | 2. (a) | 3. (d) | 4. (a) | 5. (a) | 6. (d) | 7. (d) | 8. (a) | 9. (d) | 10. (c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11. (c) | 12. (c) | 13. (a) | 14. (b) | 15. (c) | 16. (b) | 17. (b) | 18. (a) | 19. (c) | 20. (c) |
| 21. (c) | 22. (d) | 23. (d) | 24. (d) | 25. (c) | 26. (c) | 27. (d) | 28. (c) | 29. (b) | 30. (d) |
| 31. (d) | 32. (c) | 33. (b) | 34. (c) | 35. (d) | 36. (a) | 37. (d) | 38. (c) | 39. (b) | 40. (a) |
| 41. (a) | 42. (a) | 43. (c) | 44. (d) | 45. (c) | 46. (a) | 47. (d) | 48. (b) | 49. (b) | 50. (c) |
| 51. (b) | 52. (a) | 53. (c) | 54. (c) | 55. (c) | 56. (d) | 57. (b) | 58. (d) | 59. (d) | 60. (b) |
| 61. (c) | 62. (a) | 63. (a) | 64. (d) | 65. (d) | 66. (b) | 67. (a) | 68. (b) | 69. (b) | 70. (c) |
| 71. (c) | 72. (c) | 73. (c) | 74. (c) | 75. (b) | 76. (d) | 77. (d) | 78. (b) | 79. (a) | 80. (d) |
| 81. (c) | 82. (b) | 83. (a) | 84. (d) | 85. (c) | 86. (b) | 87. (a) | 88. (c) | 89. (b) | 90. (a) |
| 91. (b) | 92. (a) | 93. (c) | 94. (b) | 95. (b) | 96. (d) | 97. (a) | 98. (b) | 99. (c) | 100.(d) |
| 101.(c) | 102.(a) | 103.(b) | 104.(c) | 105.(b) | 106.(a) | 107.(a) | 108.(d) | 109.(c) | 110.(a) |


| $111 .(\mathrm{c})$ | $112 .(\mathrm{d})$ | $113 .(\mathrm{c})$ | $114 .(\mathrm{b})$ | $115 .(\mathrm{c})$ | $116 .(\mathrm{a})$ | $117 .(\mathrm{d})$ | $118 .(\mathrm{a})$ | $119 .(\mathrm{d})$ | $120 .(\mathrm{c})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $121 .(\mathrm{b})$ | $122 .(\mathrm{a})$ | $123 .(\mathrm{b})$ | $124 .(\mathrm{c})$ | $125 .(\mathrm{d})$ | $126 .(\mathrm{c})$ | $127 .(\mathrm{b})$ | $128 .(\mathrm{c})$ | $129 .(\mathrm{d})$ | $130 .(\mathrm{b})$ |
| $131 .(\mathrm{c})$ | $132 .(\mathrm{d})$ | $133 .(\mathrm{a})$ | $134 .(\mathrm{d})$ | $135 .(\mathrm{d})$ | $136 .(\mathrm{b})$ | $137 .(\mathrm{c})$ | $138 .(\mathrm{c})$ | $139 .(\mathrm{a})$ | $140 .(\mathrm{a})$ |
| $141 .(\mathrm{c})$ | $142 .(\mathrm{c})$ | $143 .(\mathrm{b})$ | $144 .(\mathrm{a})$ | $145 .(\mathrm{d})$ | $146 .(\mathrm{c})$ | $147 .(\mathrm{c})$ | $148 .(\mathrm{a})$ | $149 .(\mathrm{c})$ | $150 .(\mathrm{c})$ |
| $151 .(\mathrm{b})$ | $152 .(\mathrm{c})$ | $153 .(\mathrm{d})$ | $154 .(\mathrm{b})$ | $155 .(\mathrm{a})$ | $156 .(\mathrm{d})$ | $157 .(\mathrm{d})$ | $158 .(\mathrm{c})$ | $159 .(\mathrm{b})$ | $160 .(\mathrm{c})$ |
| $161 .(\mathrm{a})$ | $162 .(\mathrm{c})$ | $163 .(\mathrm{d})$ | $164 .(\mathrm{c})$ | $165 .(\mathrm{d})$ | $166 .(\mathrm{b})$ | $167 .(\mathrm{c})$ | $168 .(\mathrm{b})$ | $169 .(\mathrm{c})$ | $170 .(\mathrm{d})$ |
| $171 .(\mathrm{c})$ | $172 .(\mathrm{a})$ | $173 .(\mathrm{b})$ | $174 .(\mathrm{d})$ | $175 .(\mathrm{c})$ | $176 .(\mathrm{b})$ | $177 .(\mathrm{d})$ | $178 .(\mathrm{a})$ | $179 .(\mathrm{c})$ | $180 .(\mathrm{a})$ |
| $181 .(\mathrm{b})$ | $182 .(\mathrm{b})$ | $183 .(\mathrm{c})$ | $184 .(\mathrm{d})$ | $185 .(\mathrm{b})$ | $186 .(\mathrm{a})$ | $187 .(\mathrm{d})$ | $188 .(\mathrm{c})$ | $189 .(\mathrm{b})$ | $190 .(\mathrm{d})$ |
| $191 .(\mathrm{a})$ | $192 .(\mathrm{b})$ | $193 .(\mathrm{b})$ | $194 .(\mathrm{d})$ | $195 .(\mathrm{b})$ | $196 .(\mathrm{b})$ | $197 .(\mathrm{c})$ | $198 .(\mathrm{d})$ | $199 .(\mathrm{a})$ | $200 .(\mathrm{b})$ |

## PREVIOUSLY ASKED QUESTIONS

1. Which one of the following soils is most suitable for cotton cultivation-
(a) Red soil
[AFCAT 1, 2011]
(b) Black soil
(c) Loamy soil
(d) Laterite soil
2. The boundary between China and India is known as-
[AFCAT 1, 2011]
(a) Mc Mohan Line
(b) Radcliffe Line
(c) Hindenberg Line
(d) Line of Control
3. 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
[AFCAT 1, 2011]
(b) 31 August
(c) 23 September
(d) 03 November
4. UNHCR, an organisation of United Nations, was established to provide/promote-
[AFCAT 1, 2011]
(a) Primary Education
(b) Health and Culture
(c) Relief
(d) Protection to refugees
5. The term 'Carbon Credit' is associated with-
[AFCAT 1, 2011]
(a) Coal reserve of a nation
(b) Reduction of Green House Gas
emissions
(c) Fossil Fuel reserve
(d) Amount of $\mathrm{CO}_{2}$ an individual emits in a year
6. India tops the world in production of -
(a) Aluminium
[AFCAT 2, 2011]
(b) Copper
(c) Chromite
(d) Mica
7. Which one of the following crops enriches nitrogen content in the soil?
(a) Pea
[AFCAT 2, 2011]
(b) Sunflower
(c) Potato
(d) Wheat
8. 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
9. India's permanent research station
'Dakshin Gangotri' is situated in the-
(a) Great Himalayas
[AFCAT 2, 2011]
(b) Indian Ocean
(c) Arabian Sea
(d) Antarctica
10. Which one of the following is the busiest ocean route in the world?
(a) Indian Ocean
[AFCAT 2, 2011]
(b) Pacific Ocean
(c) North Atlantic Ocean
(d) South Atlantic Ocean
11. The sun rises in Arunachal Pradesh two hours before it does in Dwaraka in Gujarat. This is because the former is
[AFCAT 1, 2012]
(a) Higher in elevation than Dwaraka and the earth rotates from West to East
(b) Situated further North than Dwaraka and thebearth rotates from West to East (c) Situated further East (about $30^{\circ}$ Longitude) than Dwaraka and the earth rotates from West to East.
(d) Situated about 300 East of Dwaraka and the earth rotates from West to East
12. Srinagar is situated on the banks of the river
[AFCAT 1, 2012]
(a) Ravi
(b) Sutlej
(c) Jhelum
(d) Chenab
13. The areas in India that receive approximately an average of more than 200 cms of rainfall annually are
(a) Meghalaya, Assam, Nagaland,

Arunachal Pradesh. [AFCAT 1, 2012]
(b) Orissa, Madhya Pradesh, Gujarat, Maharashtra
(c) Meghalaya, Assam, Rajasthan, Jammu \& Kashmir
(d) Meghalaya, Delhi, Punjab, Rajasthan
14. Isotherms are imaginary lines drawn on a map which connect places of equal
(a) Atmospheric pressure [AFCAT 1, 2012]
(b) Humidity
(c) Rainfall
(d) Temperature
15. Jim Corbett National Park is situated in which state?
(a) Arunachal Pradesh
[AFCAT 1, 2012]
(b) Himachal Pradesh
(c) Andhra Pradesh
(d) Uttaranchal
16. Which one of the following statement regarding the sun is correct?
(a) The sun is composed mainly of hydrogen.
[AFCAT 1, 2012]
(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.
17. River Jhelum emerges from
(a) Northern slopes of the Kailash range
(b) Spring at Verinag
[AFCAT 2, 2012]
(c) Rakas Lake
(d) Amarkantak plateau
18. Haematite ores is the ore of which metal?
[AFCAT 2, 2012]
(a) Iron
(b) Aluminium
(c) Zinc
(d) Cobalt
19. Green revolution relates to which of the following? [AFCAT 2, 2012]
(a) Self-dependence in food grains production
(b) Self-dependence in milk production
(c) Self-dependence in petroleum crude oil production
(d) None of the above
20. River Satluj originates from:
(a) Northern slopes of the Kailash range
(b) Spring at Verinarg
(c) Rakas Lake
[AFCAT 1, 2013]
(d) Amarkaritak plateau
21. Limonitic ore is the ore of which metal?

## (a) iron

[AFCAT 1, 2013]
(b) Aluminium
(c) Zinc
(d) Cobalt
22. Black revolution relates to which of the following?
[AFCAT 1, 2013]
(a) Self-dependence in foodgrains production
(b) Self-dependence in milk production
(c) Self-dependence in petroleum/ crude oil
(d) None of these
23. On which river is Washington DC
situated?
[AFCAT 1, 2014]
(a) Potomac
(b) Irrawaddy
(c) Mississippi
(d) Hudson
24. The Baglihar Hydroelectric power project in $J \& K$ is built across the river-
(a) Beas
[AFCAT 1, 2014]
(b) Chenab
(c) Jhelum
(d) Sutlej
25. On which river is Berlin city situated?
(a) Potomac
(b) Irrawaddy
(c) Rhine
(d) Spree
26. What is the 'splash and burn agriculture' in Indonesia called as?
(a) Jhoom cultivation
(b) Roke cultivation
[AFCAT 2, 2014]
(c) Milpa cultivation
(d) Ladang cultivation
27. Which theory gave birth to the French

Revolution and the Revolution in America?
[AFCAT 2, 2014]
(a) Legal theory of rights
(c) Social welfare theory
(b) Theory of natural rights
(d) Historical theory of rights
28. 38th parallel is a boundary line between ---
[AFCAT 1, 2015]
(a) United States and Canada
(c) Turkey and Cyprus
(b) Pakistan and India
(d) South and North Korea
29. Kaziranga National Park is famous for
(a) One-horned Rhinos [AFCAT 1, 2015]
(b) Tigers
(c) Swamp Dears (Barasingha)
(d) Elephants
30. In which atmospheric layer are the communication satellites located?
(a) Stratosphere
[AFCAT 2, 2015]
(b) Ionosphere
(c) Troposphere
(d) Mesosphere
31. Lines joining places of equal
temperature are called
(a) Isotherms
(b) Isohyets
(c) Isomers
(a) $261 / 8$
(d) Isobars
(b) $271 / 8$
32. How many days moon takes to revolve around the earth?
(c) $282 / 8$
(d) $291 / 2$
[AFCAT 2, 2015]

## ANSWERS AND HINTS

Answer 1. (b) Black soil is rich in iron, lime, aluminium, potash and calcium and lacks nitrogen, phosphrous and humus. It is most suitable for cotton cultivation.

Answer 2. (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.

Answer 3. (c) There are two equinoxes every year - in September and March - when the sun shines directly on the equator and the length of day and night is nearly equal.

Answer 4. (d) The Office of the United Nations High Commissioner for Refugees (UNHCR), is the UNITED NATION Refugee Agency

Answer 5. (b) carbon credit is a generic term for any tradable certificate or permit representing the right to emit one tonne of carbon dioxide

Answer 6. (d) India is the largest producer of sheet mica, the third largest producer of iron ore and the fifth largest producer of bauxite in the world

Answer 7. (d)
Answer 8. (c)
Answer 9. (d) Dakshin Gangotri was the first scientific base station of India situated in Antarctica.

## Answer 10. (c)

Answer 11. (c) The esternmost state A.P is at 97 degree 25 mins E and the westernmost state Gujrat is at 68 degree 7 mins E.Thus there is difference of $30^{\circ}$ between the easternmost and westernmost states of India. Hence, the time lag between them is 2 hours. ( $30 \times 4$; 1 degree $=4$ minutes)

Answer 12. (c) It is situated in the Kashmir Valley and lies on the banks of the Jhelum River, a tributary of the Indus.
Answer 13. (a) North-East regions in India receive more than 200 cm of rainfall annually.

Answer 14. (d) Isotherms are imaginary lines which connect places of equal temperature.
Answer 15. (d) It is located in Uttranchal (Uttrakhand).
Answer 16. (d) The sun is composed mainly of hydrogen. Its energy is generated by nuclear collision in its interior and it is also calculated that the sun consumes about a trillion pounds of hydrogen every second.

Answer 17. (b) The river Jhelum rises from Verinag Spring situated at the foot of the Pir Panjal in the south-eastern part of the valley of Kashmir in India

Answer 18. (a) Hematite is a mineral, colored black to steel or silver-gray, brown to reddish brown, or red. It is mined as the main ore of iron.

Answer 19. (a) The Green Revolution refers to a set of research, development, and technology transfer that increased agricultural production worldwide.

## Answer 20. (c)

Answer 21. (a) Limonite is one of the two principal iron ores, the other being hematite, and has been mined for the production of iron since at least 2500 BCE.

Answer 22. (c) Self-dependence in petroleum/ crude oil
Answer 23. (a) 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.

Answer 24. (b) Baglihar Dam also known as Baglihar Hydroelectric Power Project, is a run-of-the-river power project on the Chenab River.

Answer 25. (d) The Spree follows this valley now. In Spandau, a borough in the west of Berlin, the Spree empties into the river Havel
Answer 26. (c)
Answer 27. (b)
Answer 28. (d) The 38th parallel north formed the border between North and South Korea
Answer 29. (a) Kaziranga National Park is the name to exemplify the most popular conservation efforts to save the endangered species like one-horned rhinoceros in India.

Answer 30. (c) Troposphere is the lowest atmospheric layer and is about seven miles (11 km). Satellites and are used for communication in this layer.

## Answer 31. (a)

Answer 32. (b) The sidereal month is the time it takes to make one complete orbit around Earth with respect to the fixed stars. It is about 27.32 days.


# INDIAN POLITY 

## TOPIC QUESTIONS FOR AFCAT

## EXERCISE QUESTIONS

1. The model code of conduct for Political parties and candidates to be followed during election is:
a) Laid down in the constitution of India
b) Specified in the representation of the People Act. 1951
c) Enjoined by the Supreme Court
d) A voluntary agreement among recognized political parties.
2. Who is the chairman of the Lok Sabha?
a) President
b) Minister of Parliament affairs
c) Speaker
d) Prime Minister
3. Which one of the following Articles empowers the President to Appoint Prime Minister of India?
a) Article 74
b) Article 75
c) Article 76
d) Article 77
4. The constituent Assembly formed the drafting committee of India constitution on:
a) 29th August 1947
b) 30th August 1948
c) 29th August 1949
d) 29th August 1950
5. Which one of the following sets of Bills is presented to the Parliament along with the Budget?
a) Direct taxes bill and Indirect taxes bill
b) Contingency Bill and Appropriation Bill
c) Finance Bill and Appropriation Bill
d) Finance Bill and Contingency Bill
6. Which of the following exercised the most profound influence in framing the Indian Constitution?
a) British Constitution
b) U.S. Constitution
c) Irish Constitution
d) The Government of India Act, 1935
7. In which article of the Constitution of India has the Joint Sitting of the Lok Sabha and the Rajya Sabha been provided?
a) Article 101
b) Article 108
c) Article 133
d) Article 102
8. A Money Bill passed by the Lok Sabha is deemed to have been passed by the Rajya

Sabha also when no action is taken by the Upper House within:
a) 10 days
b) 14 days
c) 20 days
d) 30 days
9. Name the committee for formulating the framework of restructuring railways:
a) Jain Committee
b) Venkatachelliah
c) Rakesh Mohan Committee
d) Dinesh Goswami Committee
10. Who among the following is/are not appointed by the President of India?
a) Governors of the States
b) Chief Justice and Judges of the High Courts
c) Vice-President
d) Chief Justice and Judges of the Supreme Court
11. Which of the following Committees are Committees of Parliament?

1. Public Accounts Committee
2. Estimates Committee
3. Committee on Public Undertakings

Select the correct answer using the code given below:
a) 1,2 and 3
b) 1 and 2 only
c) 1 and 3 only
d) 2 and 3 only
12. The Chief Election Commissioner of India holds office for a period of
a) six years
b) for six years or the age of 65 years, whichever is earlier
c) during pleasure of the President
d) for five years or the age of 60 years, whichever is earlier
13. Kamraj Plan was a plan formulated in 1963 by:
a) Chief Minister of Madras, whereby the senior ministers were asked to leave government and work to rejuvenate the party
b) Union Cabinet Minister, whereby a new Constitution for the Indian National Congress was proposed
c) Chief Minister of Madras, whereby a new set of principles for accepting donations for the party work was proposed
d) Chief Minister of Madras to root out corruption from India
14. The tenure of every Panchayat shall be for five years from the date of
a) declaration of the election results
b) its first meeting
c) issue of notification for the conduct of elections of the Panchayat
d) taking oath of office by the elected members
15. What does Article 17 of the Constitution Say?
a) Untouchability is abolished
b) The practice of untouchability is forbidden
c) Practice untouchability is an offence
d) All of the above
16. Who is the Supreme Commander of the Armed Forces in India?
a) The Prime Minister
b) The Commander-in-chief
c) The President of India
d) Minister of Defence
17. Who is known as the sculptor of the constitution of India'?
a) Rajendra Prasad
b) V.V. Giri
c) B.R. Ambedkar
d) Dr. S. Radhakrishnan
18. What is known as the "Little India"?
a) City
b) Town
c) Village
d) State
19. Who decides disputes relating with the allotment of symbols to Political Parties:
a) Representation Act 1952
b) Representation Act 1953
c) Representation of the People Act 1951
d) Election Commission
20. What was the 'privy purse' in the context of the history of Modern India?
a) A purse given privately by one organization to another
b) A purse given by the government of India to dignitaries for service rendered
c) A grant given by the Government of India to the erstwhile Princes of India
d) A gift given by an erstwhile Prince of India to the Government of India
21. The term of Member of the Rajya Sabha is:
a) Five Years
b) Six Years
c) Same as that of the Lok Sabha
d) Two years
22. Finance commission in India are set up from Time to time:
a) To lay down financial policies of Union govt.
b) To evolve a satisfactory tax-structure for economic development of the country
c) To promote foreign trade
d) For transfer of economic resources from centre to states
23. Who decides whether a bill is a Money Bill or Not?
a) President
b) Chairmen of Rajya Sabha
c) Speaker of Lok Sabha
d) Minister of Parliamentary affairs
24. The concept Lok Adalat is mainly to expedite cases relating to:

1. Matrimonial dispute
2. Murder
3. Motor vehicle accidents
4. Suits relating to banks

Which one of these statements is correct?
a) 1,3 and 4
b) 3,4 and 5
c) 1,2 and 4
d) 1,3
25. Who among the following did not serve as the Vice president before becoming president of India?
a) Dr. S Radhakrishnan
b) Dr. Zakir Hussain
c) Neelam Sanjeeva Reddy
d) R. Venkataraman
26. A federal structure of India was first put forward by the
a) Act of 1909
b) Act of 1919
c) Act of 1935
d) Act of 1947
27. Which writ is issued by a High Court or the Supreme Court to compel an authority
to perform a function that it was not performing?
a) Writ of Certiorari
b) Writ of Habeas Corpus
c) Writ of Mandamus
d) Writ of Quo Warranto
28. The Chief Election Commissioner can be removed from his office:
a) By the Chief Justice of the Supreme Court
b) By the President
c) On the basis of a resolution of the Cabinet
d) On the basis of proved misbehaviour by $2 / 3$ rd majority of both Houses of Parliament
29. If the Speaker of the Lok Sabha intends to vacate his office before the expiry of his term, he sends his resignation to the:
a) Chairman of the Rajya Sabha
b) Leader of the House (Lok Sabha)
c) Deputy Speaker of Lok Sabha
d) President of India
30. In which case did the Supreme Court of India determine that the Parliament has power to make amendment in fundamental rights, but it cannot make any change in the basic structure of the Constitution?
a) Golak Nath case
b) Keshavanand Bharati case
c) Both (a) and (b)
d) Neither (a) nor (b)
31. First woman judge to be appointed to Supreme Court was:
a) Rani Jethmalani
b) Anna George Malhotra
c) M. Fathima Beevi
d) Leila Seth
32. Which of the following political parties was first de-recognized and later on again recognized as a National Party by Election Commission of India?
a) Communist Party of India
b) Communist Party of India-Marxist
c) Samajwadi Party
d) Republican Party of India
33. Which one of the following pairs is not correctly matched:

STATE or UT - Seat of High Court
a) Uttarakhand - Nainital
b) Daman and Diu - Ahmedabad
c) Arunachal Pradesh - Guwahati
d) Chhattisgarh - Bilaspur
34. Right to property according to Constitution of India is a -
a) Fundamental Rights
b) Directive Principle
c) Legal Right
d) Social Right
35. Which of the following amendments in the Constitution of India are related with the institution of "Panchayat Raj"?

1. $106^{\text {th }}$
2. 100th
3. $73^{\mathrm{rd}}$
4. 74th
a) Only 1
b) Only 2
c) Both $1 \& 2$
d) Both $3 \& 4$
5. The first Five-Year Plan in India was launched in the year?
a) 1951
b) 1947
c) 1948
d) 1949
6. Who is the Chief Law Officer of India?
a) Secretary, Law Department
b) Attorney General
c) Advocate General
d) Solicitor General
7. Who prepared the first draft Constitution of India?
a) Jawahar Lal Nehru
b) Gandhiji
c) Advisory Branch of the Constituent Assembly
d) Sardar Ballabh Bhai Patel
8. Who was the Chairman of the Draft Committee of the Constituent Assembly?
a) Dr. B. R. Ambedkar
b) K. M. Munshi
c) Jagjivan Ram
d) None of the above
9. When did Constituent Assembly adopt a national Flag?
a) 22nd Aug. 1947
b) 22nd July 1947
c) 22nd Jan. 1947
d) 22 nd Oct. 1947
10. Who was the last British Governor General who addressed the Constituent Assembly?
a) Lord Attlee
b) Lord Mount Batten
c) Lord Bentick
d) None of the above
11. When was the Constitution of India adopted by the Constituent Assembly?
a) 25th Nov. 1949
b) 29th Nov. 1949
c) 26th Nov. 1949
d) 27th Nov. 1949
12. In the Parliament of India Upper House in known as?
a) Lok Sabha
b) Rajya Sabha
c) Council of States
d) None of the above
13. In the National Flag, what does saffron colour represent?
a) Spirit of Renunciation
b) Spirit of colours
c) Spirit of Human nature
d) None of the above
14. In the National Flag, which colour is used in the wheel?
a) Blue
b) Navy Blue
c) Red Green
d) Green-White
15. Chief Election Commissioner of India holds office for a period of?
a) six years
b) during the pleasure of the President
c) For six years or till the age of 65 years, whichever is earlier
d) for five years or till the age of 60 years, whichever is earlier
16. The First Election Commissioner of India was
a) Dr.Nagendra Singh
b) S.P.Sen Verma
c) Sukumar Sen
d) K.V.K.Sundaram
17. The judge of the Supreme Court of India now retire at the age of
a) 62 years
b) 60 years
c) 65 years
d) 58 years
18. Which of the following bills cannot be introduced first in the Rajya Sabha?
a) Bill bringing a State under the President's rule
b) Money Bill
c) Bill pertaining to the removal of the President by impeachment
d) Bill proclaiming all the State of emergency arising out of war or external aggression.
19. The speaker of the Lok Sabha:
a) Has no right to vote
b) Votes like any other member of the Lok Sabha
c) Has two votes-one in ordinary course and another in case of tie
d) Votes only in case of tie
20. First state in India which was created on linguistic basis?
a) Gujarat
b) Kerala
c) Haryana
d) Andhra Pradesh
21. During which Five Year Plan was Green Revolution initiated in India?
a) 5 th
b) 6 th
c) 4 th
d) 3 rd
22. Planning Commission is a-
a) Political body
b) Non-political body
c) Quasi-political body
d) Statutory body
23. National Development council was constituted on
a) August 16,1950
b) April 1, 1951
c) August 6, 1952
d) August 16, 1952
24. Which law officer shall have the right to speak in both the Houses of Parliament?
a) Solicitor General
b) Advocate General
c) Attorney General
d) Legal Advisor
25. Which Article of the Constitution of India mentioned the posts of the Chairman and Deputy Chairman of Rajya Sabha?
a) 90
b) 89
c) 93
d) 94
26. In which session of Parliament, Railway and General Budgets are presented?
a) Monsoon session
b) First session
c) Winter session
d) None of the above
27. Where wards Committees are found?
a) Gram Sabha
b) Gram Panchayat
c) Municipalities
d) None of the above
28. Who has the Authority to approve President Rule in the state?
a) Parliament
b) Lok Sabha
c) State Legislature
d) Council of State
29. Constitutionally, who has the power to make a law on the subject mentionable in the Union List:
a) Lok Sabha
b) Parliament
c) Rajya Sabha
d) Legislative Council
30. In the Union govt. the council of minister is collectively responsible to the:
a) President
b) Prime Minister
c) Lok sabha
d) Parliament
31. How many members are nominated to the Rajya-Sabha?
a) 10
b) 12
c) 14
d) 15
32. The judges of the High court of a state are appointed by?
a) President
b) Governor
c) Chief Justice of India
d) Vice-President
33. According to Which articles of the Indian Constitution is Hindi, In Devnagari script the official language of the Union?
a) Article 243
b) Article 343
c) Article 223
d) Article 123
34. Which constitutional article provides personal immunity to the head of the states for his official act from legal action, including proceedings for contempt of Court?
a) Article 361
b) Article 362
c) Article 368
d) Article 369
35. Under which Constitutional Article, Union Government has the power to give direction to the State Govt. regarding any of the provisions of the Constitution?
a) Article 368
b) Article 362
c) Article 365
d) Article 367
36. What is the meaning of Foreign State as given in our Indian Constitution?
a) Federal State
b) Commonwealth State
c) Nation
d) Any State other than India
37. Who decides allotment of symbols to Political Parties?
a) Political Party leader
b) Political Party Governing Committees
c) Election Committee of Political Party
d) Election Commission
38. Who decides de-recognition of the Political Party solely on the basis of its performance at the election, e.g., boycotting of the election?
a) Supreme Court of India
b) Election Commission
c) High Court
d) District Court
39. After declaration of financial emergency by the President, what is the period of operation without approval by the Parliament?
a) Three Months
b) Four Months
c) Two Months
d) One Month
40. Before the independence of India, Dadra and Nagar Haveli were under the administrative control of?
a) English
b) French
c) Portuguese
d) Afghans
41. Who among the following was the first chief Justice of India and assumed office on 26th Jan. 1950?
a) Meher Chand Mahajan
b) Patanjali Sastri
c) Harilal Kania
d) BK Mukherjea
42. Which Constitutional Article lays down the provision for a National Commission for SC and ST?
a) Article 337
b) Article 334
c) Article 338
d) Article 339
43. Which community gets special provision for Central Services in Article 336?
a) Sikh Community
b) Muslim Community
c) Hindu Community
d) Anglo-Indian Community
44. National Commission for SC and ST shall be made by which constitutional institution?
a) Parliament
b) Executive
c) Judiciary
d) State Legislature
45. Under Constitutional Article 343, which is the official language of the Union?
a) Urdu
b) Hindi
c) English
d) Both (b) \& (c)
46. Which Constitutional Article defines the Panchayat Raj?
a) 2430
b) 243 A
c) 243
d) 2431
47. Which Constitutional Article define `Municipalities’?
a) Article 243P
b) Article 243Q
c) Article 243T
d) Article 343 U
48. The Constitution of India was drafted and enacted in which language?
a) Hindi
b) English
c) Tamil
d) Telugu
49. Total number of schedules in constitution of India is:
a) 22
b) 17
c) 97
d) 12
50. Constitution of India was enacted by the Constituent Assembly on:
a) 26 January 1950
b) 26 Nov. 1949
c) 20 Nov. 1950
d) 20 January 1949
51. Constitution of India came into effect on:
a) 26 January 1950
b) 26 Nov. 1949
c) 20 Nov. 1950
d) 20 January 1949
52. The Constitution declares India to be a sovereign, socialist, secular, democratic republic, assuring its citizens of justice, equality, and liberty, and endeavours to promote fraternity among them. The words "socialist" and "secular" were added to the definition in year:
a) 1956
b) 1976
c) 1970
d) 1952
53. Total No. of six fundamental rights in Constitution of India is:
a) 12
b) 5
c) 6
d) 8
54. Indian Independence Act was passed by the British Parliament on:
a) 18 July 1947
b) 20 July 1947
c) 14 August 1947
d) 20 July 1946
55. Who represented Parsis Community in Constituent Assembly?
a) HP Modi
b) Frank Anthony
c) Kanaiyalal Munshi
d) James Franklin
56. Who represented Parsis Community in Constituent Assembly:
a) HP Modi
b) Frank Anthony
c) Harendra Coomar Mookerjee
d) Benegal Narsing Rau
57. For the members of parliament in India, who determines the salaries and allowances from time to time?
a) Union cabinet
b) Ministry of Parliament Affairs
c) Cabinet secretariat
d) Parliament by law
58. Who was the prime Minister of India when a Constitutional status for the Panchayati raj and urban self-governing institutions was accorded?
a) Indira Gandhi
b) Rajeev Gandhi
c) PV Rarasimha Rao
d) Atal Bihari Vaipayee
59. In India when both Offices of President and Vice-President happen to be vacant simultaneously who will discharge the duties of the President?
a) Prime Minister
b) Union Home Minister
c) Speaker of Lok sabha
d) Chief Justice of India
60. As per constitution of India, the Legislative assembly of a state consists of more than 500 and not less than 60 members, but which one of the following states has 32 Members?
a) Delhi
b) Sikkim
c) Goa
d) Puducherry
61. In the union government, the council of Ministers is collectively responsible to the:
a) Prime Minister of India
b) Lok Sabha
c) Lok Sabha and Rajya Sabha
d) Union cabinet
62. Under whose direct supervision is the Lok Sabha secretariat?
a) Cabinet Secretary
b) Ministry of Parliament affairs
c) Speaker of Lok Sabha
d) Prime Minister of India
63. How many members can be nominated to the Rajya Sabha by president of India?
a) 10
b) 12
c) 14
d) 18
64. Who of the following is the chairman of the National Water resources council?
a) Prime Minister of India
b) Union Minister of Water resources
c) Union minister of agriculture
d) Union Minister of earth sciences
65. Who is the chairman of National Integration Council?
a) President of India
b) Prime Minister of India
c) Minister of Minority affair
d) Chief Justice of India
66. Which one of the following dealt with the subject of Local self-Government?
a) Balwant rai Mehta Committee
b) Kothari Commission
c) Veerappa Moily Committee
d) Venkatachalam Commission
67. Which one of the following is not a fundamental right?
a) Right against exploitation
b) Right to constitution remedies
c) Right to property
d) Cultural and educational rights
68. Which one is known as Lower House?
a) Lok Sabha
b) b) Rajya sabha
c) Vidhan Sabha
d) d)Vidhan Parishad
69. Under the Panchayati Raj system Gram Sabha consists of?
a) Elected executives of a village
b) Persons who is registered in the electoral rolls relating to a village
c) Elected executives of a village and officials nominated by him/her
d) The village Sarpanch and the persons nominated by him/Her.
70. The phrase 'bicameral legislature' means
a) a single assembly
b) an elected legislature
c) a legislature consisting of a lower and an upper chamber
d) parliamentary system of government
71. The position of the president which was undermined by the 42nd amendment was subsequently somewhat retrieved by the
a) 44th amendment
b) 45th amendment
c) 26th amendment
d) None of the above
72. The oath of office is administered to the members of state council of ministers by
a) the governor
b) the chief minister
c) chief justice of the state high court
d) speaker of legislative assembly
73. The power of Supreme Court of India to decide the dispute between the centre and states falls under its
a) advisory jurisdiction
b) appellate jurisdiction
c) original jurisdiction
d) constitutional jurisdiction
74. The members of Lok Sabha are
a) directly elected by the people
b) indirectly elected
c) nominated
d) partly elected and partly nominated
75. The parliament can legislate on a subject in the state list
a) if the Rajya Sabha passes a resolution by two-third majority declaring the subject in state list of national importance
b) if the legislatures of two or more states recommend to the Parliament to legislate on such a subject with regard to those states
c) for the implementation of treaties and agreements with foreign powers
d) All the above

| 1. (b) | 2. (c) | 3. (b) | 4. (a) | 5. (c) | 6. (d) | 7. (b) | 8. (b) | 9. (c) | 10. (c) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11. (a) | 12. (b) | 13. (a) | 14. (a) | 15. (d) | 16. (c) | 17. (c) | 18. (c) | 19. (d) | 20. (c) |
| 21. (b) | 22. (d) | 23. (c) | 24. (a) | 25. (c) | 26. (b) | 27. (c) | 28. (d) | 29. (c) | 30. (b) |
| 31. (c) | 32. (b) | 33. (b) | 34. (c) | 35. (d) | 36. (a) | 37. (b) | 38. (c) | 39. (a) | 40. (b) |
| 41. (b) | 42. (c) | 43. (b) | 44. (a) | 45. (b) | 46. (c) | 47. (c) | 48. (c) | 49. (b) | 50. (d) |
| 51. (d) | 52. (b) | 53. (c) | 54. (c) | 55. (c) | 56. (b) | 57. (b) | 58. (c) | 59. (a) | 60. (b) |
| 61. (c) | 62. (b) | 63. (a) | 64. (b) | 65. (a) | 66. (c) | 67. (d) | 68. (d) | 69. (b) | 70. (c) |
| 71. (c) | 72. (c) | 73. (c) | 74. (d) | 75. (a) | 76. (d) | 77. (c) | 78. (a) | 79. (b) | 80. (d) |
| 81. (b) | 82. (a) | 83. (b) | 84. (c) | 85. (a) | 86. (b) | 87. (c) | 88. (d) | 89. (c) | 90. (d) |
| 91. (b) | 92. (b) | 93. (c) | 94. (b) | 95. (a) | 96. (b) | 97. (a) | 98. (c) | 99. (a) | 100.(b) |
| 101.(c) | 102.(a) | 103.(a) | 104.(c) | 105.(a) | 106(d) |  |  |  |  |

## PREVIOUSLY ASKED QUESTIONS

1. The Ashoka Pillar whose Lion Capitol (Carving) was adopted by the Government of India as National Emblem is situated at -
(a) Akbar
[AFCAT 1, 2011]
(b) Ashok
(c) Sher Shah Suri
(d) Chandragupta
2. The Preamble of the Constitution of India was prepared by-[AFCAT 1, 2011]
(a) Members of Constituent Assembly
(b) BR Ambedkar
(c) Jawaharlal Nehru
(d) Dr. Radhakrishnan
3. The two great revolutionaries who threw a bomb in Legislative assembly were -
[AFCAT 1, 2011]
(a) Bhagat Singh \& BK Dutt
(c) Chandrashekhar Azad \& Bismil
(b) Bhagat Singh \& Chandrashekhar Azad
(d) Bhagat Singh \& Ashfaq Ullah Khan
4. Which one of the following is the exclusive power of the Lok Sabha?
[AFCAT 1, 2011]
(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
5. Brahma Samaj was founded by
(a) Raja Rammohan Roy
(b) Jawaharlal Nehru
(c) William Carey [AFCAT 1, 2012]
(d) Jonathan Duncan
6. Who discharges the function of the President when vacancy occurs in the office of the President and VicePresident simultaneously, owing to removal, death, resignation or the incumbent or otherwise?
[AFCAT 1, 2012]
(a) Chief Justice of High Court
(b) Chief Justice of India
(c) Speaker of Lok Sabha
(d) Chairman of Rajya Sabha
7. Who is the author of book "Keeping the Faith: Memoirs of a Parliamentarian"? [AFCAT 1, 2013]
(a) David Orriand
(b) Raja Shehadeh
(c) Raghav Bahl
(d) Somnath Chatterjee
8. Which amongst the following has the power to regulate the right of citizenship in India? [AFCAT 1, 2014]
(a) Union Cabinet
(b) Parliament
(c) Supreme Court
(d) Law Commission
9. The right to vote in the national elections in India is based on the principle of [AFCAT 2, 2014]
(a) Restricted franchise
(b) Hereditary privileges
(c) Property qualifications
(d) Universal adult suffrage
10. 'Satyameva Jayate' is borrowed from which of the following?
(a) Mundaka Upanishad
(b) Mahabharat [AFCAT 2, 2014]
(c) Ramayana
(d) Arthshashtra
11. How many Vice Presidents are elected at the start of its each regular session of UN General Assembly?
(a) Nine
[AFCAT 1, 2015]
(b) Fifteen
(c) Two
(d) Twenty one
12. Think-tank of Government of India
(b) NITI Dharma
that replaced Planning Commission on
(c) NITI Vajpayee 01 January 2015 is
(d) NITI Aayog
(a) NITI Vakya [AFCAT 1, 2015]

## ANSWERS AND HINTS

## Answer 1. (d)

Answer 2. (d) The preamble-page, along with other pages of the original Constitution of India, was prepared by Dr. B.R. Ambedkar

Answer 3. (a) Bhagat Singh \& BK Dutt
Answer 4. (d) To pass No Confidence motion against Council of Ministers
Answer 5. (a) Brahmo Samaj is the societal component of Brahmoism, a monotheistic reformist and renaissance movement of Hindu religion, founded by Raja Ram Mohan Roy

Answer 6. (b) Chief Justice of India
Answer 7. (d) Somnath Chatterjee is an Indian politician who had been associated with the Communist Party of India for most of his life, though he is currently an independent.

Answer 8. (b) Parliament
Answer 9. (d) Universal adult suffrage
Answer 10. (a) Mundaka Upanishad. Satyameva Jayate is a mantra from the ancient Indian scripture Mundaka Upanishad. Upon independence of India, it was adopted as the national motto of India.

Answer 11. (d) 21
Answer 12. (d) NITI Aayog replaced the Planning Commission

## Chapter 4

## INDIAN ECONOMY

## TOPIC QUESTIONS FOR AFCAT

## EXERCISE QUESTIONS

1. Who was the first administrator-statesman to attempt planning as a means for economic development?
a) Sir CP Ramaswami Aiyyar
b) M Viswesvarayya
c) VT Krishnamachari
d) C Rajagopalachari
2. An economy is at the take off stage on its path to development when it
a) becomes stagnant
b) begins steady growth
c) is liberalized
d) gets maximum foreign aid
3. Which of the following is the basic characteristic of Oligopoly?
a) a few sellers, one buyer
b) a few sellers, many buyers
c) a few sellers, a few buyers
d) many sellers, a few buyers
4. The aim of which of the Five Year Plans was to correct the disequilibrium in the economy?
a) First Five Year Plan
b) Second Five Year Plan
c) Third Five Year Plan
d) Fourth Five Year Plan
5. Which of the following Five Year Plans recognized human development as the core of all developmental efforts?
a) Eighth Five Year Plan
b) Seventh Five Year Plan
c) Fifth Five Year Plan
d) Third Five Year Plan
6. Which of the following plans aimed at improving the standard of living?
a) Third Plan
b) Fourth Plan
c) Fifth Plan
d) Sixth Plan
7. At which of the following places was the mining of coal started in 1774?
a) Chhindwara
b) Dhanbad
c) Ranchi
d) Raniganj
8. In which of the following years were the cocking coals and non-cocking coal mines in India nationalized?
a) 1971 and 1972 repetitively
b) 1972 and 1973 respectively
c) 1973 and 1974 respectively
d) 1970 and 1972 respectively
9. Which Indian state has the largest number of cotton textile mills?
a) Madhya Pradesh
b) Maharashtra
c) Gujarat
d) West Bengal
10. Minor ports like Kakinada, Machilipatnam, Bheemunipatnam and Krishnapatnam are in which of the following states?
a) Tamil Nadu
b) Andhra Pradesh
c) Maharashtra
d) Karnataka
11. When, for the first time, did the Prime Minister of India announce the 20-point Economic Programme?
a) 1973
b) 1974
c) 1975
d) 1976
12. Which of the following plans aimed at the removal of poverty and attainment of selfreliance?
a) second plan
b) third plan
c) fourth plan
d) fifth plan
13. Census in India is being held regularly after every
a) 6 years
b) 8 years
c) 10 years
d) 12 years
14. People belonging to what age group are eligible for training under TRYSEM scheme?
a) $18-35$
b) $25-40$
c) $18-50$
d) $18-25$
15. According to the census in 2001, which city in India has the largest population?
a) Kolkatta
b) Mumbai
c) Delhi
d) Chennai
16. In terms of geographical area India occupies what position in the world?
a) Five
b) six
c) seven
d) three
17. India does not share its boundary with which of the following countries?
a) China
b) Taiwan
c) Burma
d) Bhutan
18. Agriculture employs almost what percent of the Indian population?
a) 90
b) 50
c) 40
d) 70
19. Which one of the following is a Kharif crop?
a) bajra
b) wheat
c) mustard
d) barley
20. Which one of the following is a Rabi crop?
a) rice
b) jowar
c) cotton
d) peas
21. Who is known as the 'Father of White Revolution'?
a) V Kurien
b) MS Swaminathan
c) JP Narayan
d) Baba Amte
22. Who was the chief architect of Green Revolution that significantly improved the agricultural yield in the country?
a) MS Swaminathan
b) VR Krisha Aiyyar
c) V Kurien
d) Jawaharlal Nehru
23. The Chota Nagpur Plateau famous for its mineral deposits is in
a) Uttar Pradesh
b) Jharkhand
c) Madhya Pradesh
d) Bihar
24. The Mumbai Stock Exchange was set up in
a) 1875
b) 1900
c) 1922
d) 1947
25. What does the term NSDL stands for?
a) National Securities Development Limited
b) National Securities Depository Limited
c) National Safety Development Limited
d) Natural Safety Deployment Limited
26. Which one of the following was launched with the objective of helping the poor in rural areas to become self-employed?
a) $\operatorname{DPAP}$
b) IRDP
c) TRYSEM
d) DDP
27. In Indian economy, the principal means of transportation is
a) airways
b) railways
c) waterways
d) roadwys
28. Which of the following organizations looks after the credit needs of agriculture and rural development in India?
a) FCl
b) IDBI
c) NABARD
d) ICAR
29. Which of the following estimates the National Income in India?
a) Central Statistical Organization
b) National Income Committee
c) Planning commission
d) Reserve Bank of India
30. In India which of the following taxes is levied by the state governments?
a) Excise duty on liquor
b) Capital gains tax
c) Customs tax
d) corporation tax
31. Which industry employs the largest number of women in India?
a) tea
b) textile
c) jute
d) coal
32. Which of the following is not a cash crop?
a) Jute
b) groundnut
c) jowar
d) sugarcane
33. An economy is at the 'take off' stage on its path to development when it becomes stagnant
a) begins steady growth
b) is liberalized
c) gets maximum foreign aid
d) None of the Above
34. Which among the following treaties provided for a common currency for the member countries of European Community?
a) Brussels Treaty
b) Geneva Convention
c) Maastricht Treaty
d) Treaty of Versailles
35. SEBI stands for
a) Science and Engineering Board of India
b) Securities and Exchange Board of India
c) Social Equity Bureau of India
d) Science and Educational Board of India
36. With which of the following lies the basic regulatory authority for mutual funds and stock markets?
a) Reserve bank of India
b) Government of India
c) SEBI
d) Stock Exchanges
37. With which aspect of commerce are 'Bulls and Bears' associated?
a) Foreign Trade
b) Stock Exchange market
c) banking
d) international finance
38. Which of the following is the basic characteristic of Oligopoly?
a) a few sellers, one buyer
b) a few sellers, many buyers
c) a few sellers, a few buyers
d) many sellers, few buyers
39. State Financial Corporations give assistance mainly to develop
a) small and medium scale industries
b) agricultural farms
c) cotton industry
d) large scale industries
40. In which of the following fields was the first co-operative movement in India initiated?
a) agricultural credit
b) farming activities
c) consumer co-operation
d) agricultural marketing
41. Which of the following taxes is a progressive tax?
a) income tax
b) custom tax
c) sales tax
d) excise duty
42. In which year was the policy of population planning adopted by the government of India?
a) 1947
b) 1956
c) 1952
d) 1962
43. Which of the following taxes is/are levied by the Union and collected and appropriated by the states?
a) stamp duties
b) passenger and good tax
c) estate duty
d) taxes on newspapers
44. The terms TRIPS and TRIMS are related to
a) NAFTA
b) SAPTA
c) EFTA
d) GATT
45. In which year was the new liberalized industrial policy announced in India?
a) 1989
b) 1990
c) 1991
d) 1992
46. During which Five Year Plan was the annual growth rate of National Income the lowest?
a) second plan
b) third plan
c) fifth plan
d) sixth plan
47. Chelliah Committee of 1992 deals with the overhauling of our
a) public sector undertakings
b) financial system
c) tax system
d) patents and copyrights
48. Economic planning is an essential feature of
a) capitalist economy
b) socialist economy
c) mixed economy
d) dual economy
49. Which among the following is an essential characteristic of mixed economy?
a) co-existence of small scale and large scale industries
b) co-existence of private and public sectors
c) assigning equal importance to both agriculture and heavy industries
d) co-existence of the rich and the poor
50. What is the value of goods and services produced in a country within a year called?
a) National income at factor cost
b) net national output
c) net national product at market prices
d) gross national product at market prices
51. Which of the following deals with economic offences?
a) MISA
b) NSA
c) TADA
d) COFEPOSA
52. In India, inflation is measured by
a) Wholesale price index number
a) consumer price index for urban nonmanual workers
b) consumer price index for agricultural workers
c) national income deflation
53. Which of the following programs meets the credit needs of poor women?
a) Mahila Samriddhi Yojna
b) Rashtriya Mahila Kosh
c) Indira Mahila Yojna
d) Mahila Samakhya Programme
54. National income is the
a) Net National Product at Market price
b) Net National product at factor coast
c) net domestic product at market price
d) net domestic product at factor cost
55. Which of the following programs aims at the promotion of savings among rural women?
a) Rashtriya Mahila Kosh
b) Mahila Samriddhi Yojna
c) Indira Mahila Yojna
d) Javhar Rozgar Yojna
56. What happens to marginal cost when average cost increases?
a) Marginal cost is below average cost
b) Marginal cost is above average cost
c) Marginal cost is equal to average variable cost
d) Marginal cost is equal to average cost
57. Development means economic growth with
a) price stability
b) social change
c) inflation
d) deflation
58. Which one of the following is more effective in controlling prices in the long run?
a) decrease in production
b) increase in production
c) decrease in the rate of interest
d) increase in the rate of employment
59. Through open market operations, the RBI purchase and sell
a) foreign exchange
b) gold
c) government securities
d) all of these
60. A firm is said to be of optimum size when
a) average total cost is at a minimum
b) marginal cost is at a minimum
c) marginal cost is equal to marginal revenue
d) the firm is maximizing its profit
61. All revenues received, loans raised and money received in repayment of loans by the Union government go into
a) Public account of India
b) Contingency fund of India
c) Consolidated fund of India
d) None of the above
62. The law of demand states that
a) demand increases with increase in income
b) when income and prices rise, the demand also rises
c) when price falls, demand increases
d) when price increases, demand increases
63. The balance of payment comprises
a) a current account of goods and services only
b) a capital account of financial assets only
c) official settlement accounts only
d) all of these
64. What is Net National Product?
a) The money value of final goods and services produced annually in the economy
b) The money value of annual service generation in the economy
c) The money value of tangible goods produced annually in the economy
d) The money value of tangible goods available in the economy
65. Other things being equal, what causes a decrease in demand?
a) rise in the price of the substitute
b) fall in the price of the commodity
c) rise in the income of the consumer
d) rise in the price of the commodity
66. Deflation is
a) deficit budget
b) reduction in taxation
c) contraction in volume of money or credit that results in a decline of price level
d) increase in public expenditure
67. Bank rate means
a) interest rate charged by moneylenders
b) interest rate charged by scheduled banks
c) rate of profit of the banking institution
d) the official rate of interest charged by the central bank of the country
68. Which agency estimates the national income of India?
a) Reserve Bank of India
b) Planning Commission
c) Ministry of Finance
d) Central Statistical Organization
69. What is Gross National Product?
a) the total output of goods and services produced by the country's economy
b) the total domestic and foreign output claimed by residents of the country
c) the sum of gross domestic product and investment
d) national income minus national expenditure
70. The Government of India acquired the ownership and control of major banks in 1969 whose deposits were not less than
a) Rs 40 crore
b) Rs 50 crore
c) Rs 60 crore
d) Rs 80 crore
71. What are costs which vary with output called?
a) overhead costs
b) indirect costs
c) prime costs
d) all of the above
72. Which of the following is known as plastic money?
a) bearer cheques
b) credit cards
c) demand drafts
d) gift cheques
73. To get the Net National Product, we deduct what from the Gross National Product?
a) direct taxes
b) imports
c) interim payments
d) loss
74. What is the main purpose of currency?
a) standard of postponed payments
b) standard of money
c) medium of exchange
d) none of these
75. What does devaluation of a currency mean?
a) decrease in the internal value of money
b) decrease in the external value of money
c) decrease both in the external and internal values of money
d) none of these
76. Which of the following is not a direct tax?
a) estate duty
b) agricultural income tax
c) state excise
d) corporation tax
77. Which one of the following was set up during the Seventh Five Year Plan to help the low income groups?
a) NABARD
b) Regional rural bank
c) National Housing Bank
d) UTI Bank
78. The launching of five year plans in India saw the introduction of
a) mixed economy
b) socialist economy
c) capitalist economy
d) closed economy
79. Land development banks in India are owned by the
a) RBI
b) State governments
c) Commercial banks
d) Cooperative societies
80. Which of the following taxes is levied and collected by the union, but assigned to the states?
a) sales tax
b) octroi
c) excise
d) consignment tax
81. Which is the largest commercial bank in India?
a) Reserve Bank of India
b) State Bank of India
c) ICICI Bank
d) Bank of India
82. Bank of Hindustan is the oldest bank in India. When did it start functioning?
a) 1990
b) 1770
c) 1885
d) 1892
83. The Bank of Calcutta, Bank of Bombay and Bank of Madras were merged in 1921 to form
a) Reserve Bank of India
b) Imperial Bank of India
c) Bank of India
d) Union Bank of India
84. When was the Reserve Bank of India established?
a) 1935
b) 1920
c) 1928
d) 1947
85. When was the Imperial Bank of India nationalized to form the State Bank of India?
a) 1947
b) 1949
c) 1951
d) 1955
86. The Reserve Bank of India was nationalized in?
a) 1947
b) 1948
c) 1950
d) 1956
87. What is a Bank which has capital and reserves of over Rs. 5 lakhs called?
a) National Bank
b) Cooperative Bank
c) Scheduled Bank
d) Unscheduled Bank
88. The Export-Import (EXIM) Bank was set up in
a) 1982
b) 1983
c) 1987
d) 1985
89. Which of the following has the sole right of issuing paper notes in India?
a) Union Government
b) Reserve Bank of India
c) Ministry of Finance
d) Supreme Court
90. In India, coins and subsidiary coins are issued by
a) Union Government
b) Reserve Bank of India
c) Ministry of Finance
d) Supreme Court
91. Which of the following is entrusted with the task of receiving all money on behalf of the Government as also with the task of making payments on their behalf?
a) State Bank of India
b) Reserve Bank of India
c) Ministry of Finance
d) Union Parliament
92. When was the International Monetary Fund (IMF) established?
a) 1944
b) 1945
c) 1948
d) 1950
93. Decision taken at Bretton Woods Conference led to the formation of
a) IDA
b) IMF
c) ADB
d) IFC
94. The International Bank for Reconstruction and Development (IBRD) is better known as
a) World Bank
b) Asian Development Bank
c) IMF
d) It is known by its name
95. Which sister organization of the World Bank provides long term loans at zero interest to the poorest developing countries?
a) Asian Development Bank
b) IMF
c) International Developmental Association
d) International Finance Corporation
a) 1956
b) 1972
c) 1985
d) 1960
96. Where is the headquarters of Asian Development Bank (ADB) situated?
a) Manila
b) Delhi
c) Bangkok
d) Hong Kong
97. Which sister organization of the World Bank helps private activity in developing countries by financing projects with longterm capital in the form of equity and loans?
a) Asian Development Bank
b) IMF
c) International Developmental Association
d) International Finance Corporation
98. Who is known as the 'Father of Economics'?
a) Adam Smith
b) Chanakya
c) Machiavelli
d) None of these
99. Which was the first Indian Bank to introduce credit card?
a) Central Bank of India
b) Punjab National Bank
c) State Bank of India
d) ICICl
100. When did India become a member of the IMF?
a) 1947
b) 1956
c) 1960
d) 1951
101. The International Finance Corporation (IFC) was established in?
102. Euro is the currency of European Union. When did it come into being?
a) 1999
b) 1995
c) 2000
d) 2001
103. When did the Foreign Exchange Regulation Act (FERA) come into being?
a) 1973
b) 1975
c) 1980
d) 1981
104. When did Regional Rural Banks start functioning in India?
a) 1975
b) 1947
c) 1956
d) 1960
105. In India, income tax is levied by
a) Union Government
b) State Governments
c) Ministry of Finance
d) RBI
106. The Securities and Exchange Board of India (SEBI) was established in
a) 1992
b) 1947
c) 1990
d) 1976
107. Which Five-year Plan is being implemented at present?
a) Eleventh
b) Eighth
c) Ninth
d) Tenth
108. Which of the following is not a direct tax?
a) Sales tax
b) Income tax
c) Wealth tax
d) Estate duty
109. Who is the ex-officio chairman of Planning Commission?
a) Prime Minister
b) President
c) Chief Justice of Supreme Court
d) Speaker of Lok Sabha
110. The Indian economy is
a) Capitalist
b) Socialistic
c) Mixed
d) Federal
111. Which certification indicates a guarantee of quality for agricultural food products like ghee, honey, etc.?
a) ISI
b) Agmark
c) BIS
d) All of above
112. Who was the first chairman of the Planning Commission?
a) Dr. S. Radhakrishnan
b) Jawaharlal Nehru
c) Dr. Rajendra Prasad
d) Dr. M. Vishveshwaraya
113. Who is the Deputy Chairman of Planning Commission at present?
a) Montek Singh Ahluwalia
b) B Balakrishnan
c) Manmohan Singh
d) Anil Kakodkar
114. In India farm credit is regulated by
a) SBI
b) RBI
c) NABARD
d) Union Government
115. The term of the 11th Five Year Plan is
a) 2007-2012
b) 2005-2010
c) 2008-2013
d) 2006-2011
116. When was the Tata Iron \& Steel Company set up at Jamshedpur?
a) 1907
b) 1911
c) 1914
d) 1921
117. In terms of size what position does the Indian economy occupy in the world?
a) 10 th
b) 12 th
c) 7 th
d) 9 th
118. When was the General Insurance Corporation of India formed?
a) 1982
b) 1972
c) 1956
d) 1935
119. Which Five-Year Plan had adopted 'Removal of Poverty' as its foremost objective?
a) Second
b) Third
c) Fourth
d) Sixth
120. During the financial year 2007-08 India recorded a GDP growth of
a) $8 \%$
b) $8.5 \%$
c) $9.1 \%$
d) $9.7 \%$
121. The economic liberalization was introduced in
a) 1991
b) 1990
c) 1985
d) 1988
122. Which industry provides the largest employment in India?
a) Chemicals
b) Textiles
c) Iron and steel
d) Jute
123. The highest denomination banknote being in circulation in India is
a) 500 rupee note
b) 1000 rupee note
c) 5000 rupee note
d) 2000 rupee note
124. Which period did the First Five-year Plan cover?
a) 1947-52
b) 1951-56
c) 1950-55
d) 1952-57
125. Who finally approves the Five-Year Plan?
a) The President
b) The Prime Minister
c) The National Development Council
d) The Planning Commission
126. When was the Decimal currency system introduced in India?
a) January 1955
b) April 1955
c) April 1951
d) April 1957
127. The Indian rupee is a legal tender in two other countries. One is Nepal. The other is
a) Pakistan
b) Sri Lanka
c) Bhutan
c) August 15, 1947
d) Afghanistan
d) April 1, 1947
128. Kerala's shores are famous for the deposits of
a) Copper
129. Which of the following was the first Indian bank?
a) Bank of Baroda
b) Bank of Hindustan
c) Punjab National Bank
d) State Bank of India
130. Which of the following taxes is the largest source of revenue for the Government of India?
131. In which of the following years was power development initiated in India?
a) 1900
a) Excise
b) 1905
b) Customs
c) 1911
c) Income tax
d) Corporation tax
132. The National Stock Exchange (NSE) is located at
d) 1915
133. How many banks were nationalized in 1969?
a) 10
b) 12
a) Mumbai
c) 13
b) New Delhi
c) Madras
d) Calcutta
134. The aim of which Five Year Plan was to correct the disequilibrium in the economy?
d) 14
135. Who was the Prime Minister of India when nationalization of banks took place in 1969?
a) Indira Gandhi
a) First Five year plan
b) Jawaharlal Nehru
c) Lal Bahadur Shastri
d) Morarji Desai
136. At which of the following places was the first hydroelectric power station commissioned?
a) Chambal
b) Damodar
c) Mandi
d) Shivasamudram
137. Garland canal project envisages the conservation of water resources in the country through the construction of
a) dams
b) canals
c) embankments
d) none of these
138. The largest percentage of bonded labour in India belongs to
a) scheduled castes
b) scheduled tribes
c) other backward classes
d) none of these
139. In which of the following year was the mining of coal started in India?
a) 1775
b) 1774
c) 1800
d) 1805
140. Which of the following is India's biggest dam?
a) Bhakra Nangal
b) Hirakud
c) Farakka
d) Pong Dam
141. On which river is the Pong Dam hydroelectric power project built?
a) Ganga
b) Ravi
c) Beas
d) Hughly
142. In India which crop is sown on the largest area?
a) Jowar
b) wheat
c) tobacco
d) rice
143. Bakra Nangal is a joint project of Haryana, Punjab and Rajasthan. On which river is this built?
a) Yamuna
b) Sindhu
c) Sutlej
d) Ravi
144. On which river is the Hirakud dam built?
a) Godavari
b) Kaveri
c) Mahanadi
d) Narmada
145. On which river is the Tehri dam built?
a) Alakananda
b) Bhagirathi
c) Ganga
d) Hooghly
146. Which Indian state leads in the production of rubber?
a) Tamil Nadu
b) Kerala
c) Karnataka
d) Gujarat
147. Which Indian state tops in the production of gypsum?
a) Gujarat
b) Rajasthan
c) Kerala
d) Karnataka
148. Into how many PIN code zones is India divided?
a) eight
b) seven
c) six
d) nine

## ANSWERS

| 1. (b) | 2. (b) | 3. (b) | 4. (a) | 5. (a) | 6. (b) | 7. (d) | 8. (b) | 9. (b) | 10. (b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11. (c) | 12. (d) | 13. (c) | 14. (a) | 15. (b) | 16. (c) | 17. (b) | 18. (d) | 19. (a) | 20. (d) |
| 21. (a) | 22. (a) | 23. (b) | 24. (a) | 25. (b) | 26. (c) | 27. (b) | 28. (c) | 29. (a) | 30. (a) |
| 31. (a) | 32. (c) | 33. (b) | 34. (c) | 35. (b) | 36. (c) | 37. (b) | 38. (b) | 39. (a) | 40. (a) |
| 41. (a) | 42. (c) | 43. (a) | 44. ( | 45. (c) | 46. (b) | 47. (c) | 48. (b) | 49 (b) | 50. (d) |
| 51. (d) | 52. (d) | 53. (b) | 54. (c) | 55. (c) | 56. (b) | 57. (b) | 58. (b) | 59 (d) | 60. (a) |
| 61. (c) | 62. (c) | 63. (d) | 64. (a) | 65. (d) | 66. | 67. (d) | 68. (d) | 69 (b) | 70. (b) |
| 71. (a) | 72. (b) | 73. (d) | 74. (c) | 75. (b) | 76. (b) | 77. (a) | 78. (a) | 79 (d) | 80. (d) |
| 81. (d) | 82. (b) | 83. (b) | 84. (a) | 85. (d) | 86. (b) | 87. (c) | 88. (a) | 89 (b) | 90. (c) |
| 91. (b) | 92. (a) | 93. (b) | 94. (a) | 95. (c) | 96. (a) | 97. (a) | 98. (d) | 99. (a) | 100(a) |
| 101.(a) | 102.(a) | 103.(a) | 104(a) | 105(a) | 106(a) | 107(a) | 108(a) | 109(a) | 110(c) |
| 111.(b) | 112.(b) | 113.(a) | 114(c) | 115(a) | 116(a) | 117(b) | 118(b) | 119(d) | 120(c) |
| 121.(a) | 122.(b) | 123.(b) | 124(b) | 125.(c) | 126(d) | 127.(c) | 128(c) | 129(a) | 130(a) |
| 131.(a) | 132.(b) | 133.(a) | 134(b) | 135(a) | 136(d) | 137(a) | 138(d) | 139(b) | 140(b) |
| 141.(b) | 142.(a) | 143.(c) | 144(d) | 145.(c) | 146(c) | 147(b) | 148(b) | 149(b) | 150(a) |

## PREVIOUSLY ASKED QUESTIONS

1. UNHCR, an organisation of United Nations, was established to provide/promote- [AFCAT 1, 2011]
(a) Primary Education
(b) Health and Culture
(c) Relief
(d) Protection to refugees
2. Who authored the book 'Train to Pakistan'?
[AFCAT 2, 2011]
(a) Salman Rushdie
(b) Khushwant Singh
(c) Mulk Raj Anand
(d) Vikram Seth
3. The National Institute of Oceanography is located at
(a) Trivandrum
[AFCAT 1, 2012]
(b) Panaji
(c) Cochin
(d) Mangalore
4. Which of the following is not an agency of UN? [AFCAT 1, 2014]
(a) World Bank
(b) International Atomic Energy Agency
(c) Universal Postal Union
(d) None of the above
5. Which amongst the following has the power to regulate the right of citizenship in India? [AFCAT 2, 2014]
(a) Union Cabinet
(b) Parliament
(c) Supreme Court
(d) Law Commission
6. Think-tank of Government of India that replaced Planning Commission on 01 January 2015 is
[AFCAT 1, 2015]
(a) NITI Vakya
(b) NITI Dharma
(c) NITI Vajpayee
(d) NITI Aayog

## ANSWERS AND HINTS

Answer 1. (d) The UN refugee agency emerged in the wake of World War II to help Europeans displaced by that conflict.

Answer 2. (b) Khushwant Singh has 137 books on Goodreads with 50776 ratings. Khushwant Singh's most popular book is Train to Pakistan.

Answer 3. (c) The NIO now has three regional centres at Mumbai, Kochi and Vishakhapatnam.

Answer 4. (a) The World Bank Group is sometimes considered to be a specialized agency. It is part of the United Nations system and has a formal relationship agreement with the UN.

Answer 5. (b) Article 11 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.

Answer 6. (d) The National Institution for Transforming India Aayog or NITI Aayog, is a Government of India policy think-tank established by Prime Minister Narendra Modi.

Answer 7. (c) The plan to set up an innovation council called " Kayakalp" for business re-engineering and introducing a spirit of innovation in the Indian Railways was announced recently.

## Chapter <br> 5

## GENERAL KNOWLEDGE AND CURRENT AFFAIRS

## TOPIC QUESTIONS FOR AFCAT

## EXERCISE QUESTIONS

1. National Sample Survey Office (NSSO) survey released literacy rate report in July, 2015. What was the percent in rural areas and in urban areas?
a) $71 \%$ and $86 \%$
b) $86 \%$ and $71 \%$
c) $78 \%$ and $61 \%$
d) $76 \%$ and $81 \%$
2. Registration of properties in Madhya Pradesh was slotted to go online in July, 2015. The documentation of property will be done through e-registration software. What is that?
a) Sampada
b) Gharbar
c) Khetijamin
d) None of these
3. Which State government launched a voluntary scheme 'Mhara Gaon-Jagmag Gaon' in July, 2015?
a) Punjab
b) Gujarat
c) Haryana
d) Maharashtra
4. The Union government launched an online mobile application to know gram panchayats assets. What is that?
a) e-Asset
b) $m$-Asset
c) v-Asset
d) a-Asset
5. How many States instantly joined the online, clearance system for assessing Environmental Clearance (EC) applications of smaller projects (Category-B)?
a) 9
b) 19
c) 18
d) 8
6. The students of which State entered Guinness book for washing hands on Global Handwashing Day?
a) Chhattisgarh
b) Madhya Pradesh
c) Jharkhand
d) Bihar

7 Software major 'Microsoft' has agreed to support 'Digital Villages' and develop a 'smart MIDC' apart from setting-up a
cyber-security centre in which state in July, 2015?
a) Gujarat
b) Tamil Nadu
c) Uararashtra
d) Goa
8. Adani Group, based at Gujarat, signed an agreement with which State government to supply 648 MW of solar power from its five solar power parks?
a) Gujarat
b) Tamil Nadu
c) Maharashtra
d) Goa
9. In July, 2015 International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) joined hands with which State government to promote IT-based information for farmers?
a) Tamil Nadu
b) Andhra Pradesh
c) Telangana
d) Kerala
10. Pune's Fergrusson College has been accorded the special heritage status. Who gave this status?
a) UNO
b) UGC
c) CSIR
d) ASI
11. Environment and Forest Ministers of Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu met at New Delhi in July, 2015. They discussed about conservation of biodiversity of which place?
a) Malabar coast
b) Konkani region
c) Western ghats
d) Deccan plateau
12. The Home Ministry decided that all villages located near to the international border will be developed on a priority basis with special emphasis on promotion of sports activities and rural tourism. What is the range of the villages?
a) Within 5 km
b) Within 10 km
c) Within 15 km
d) Within 20 km
13. eSign services, an online electronic signature service which can facilitate an Aadhaar holder to digitally sign a document within seconds, launched in July, 2015 by whom?
a) eMudhra
b) eLocker
c) Visa
d) Rupay
14. The Union Home Ministry has declared in July, 2015 that the whole of which State as a 'disturbed area' for a further period of one year?
a) Arunachal Pradesh
b) Nagaland
c) Jharkhand
d) Asom
15. Which IIT launched a pilot project 'Internet for All' in its Mobile Science Exhibition Bus in Mumbai in collaboration with the Nehru Science Centre?
a) Madras
b) Bombay
c) Kharagpur
d) Kanpur
16. The Supreme Court quashed the review pleas of NDA government seeking to declare which community as socially and
economically backward class to grant them OBC reservation?
a) Gujjar
b) Kabir Panthi
c) Jat
d) Ahir
17. Union Minister of Consumer Affairs, Food and Public Distribution launched a countrywide campaign 'Surakshit Khadya Abhiyan' to create mass awareness and capacity building for safe and hygienic food. Who planned this?
a) ClI
b) VOICE
c) NASVI
d) All of these
18. Which country became the first developed country in July, 2015 to fall into arrears on payments to the International Monetary fund?
a) a.Greece
b) b. Zimbabwe
c) c. Russia
d) d. France
19. A controversial and broad national security law had passed in China in July, 2015. The law will go into effect across the People's Republic. But, which places are not covered under this?
a) Hong Kong
b) Macau
c) Both (a) and (b)
d) None of the above
20. Which country has become the first country in the world to eliminate mother-tochild transmission of HIV and Syphilis?
a) Brazil
b) Cuba
c) The UAE
d) The USA
21. The World Bank has approved an additional loan of $\$ 650$ million for the Eastern Dedicated Freight Corridor in July, 2015. The fund will be utilised to build which section in Uttar Pradesh, Haryana and Punjab?
a) Ludhiana-Khurja section
b) Ludhiana-Meerut section
c) Ludhiana-Jhansi section
d) Ludhiana-Gorakhpur section
22. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) has granted world heritage status to more than 20 old industrial sites in Japan including Meiji-era site? What is Meiji-era site's location in Japan?
a) South-East
b) South-West
c) North-West
d) North-East
23. Prime Minister Narendra Modi reached at which country as the first leg of his eightday visit to Central Asia and Russia?
a) Uzbekistan
b) Kazakhstan
c) Kyrgyzstan
d) Mongolia
24. In July, 2015 Prime Minister Narendra Modi launched maiden exploratory drilling by ONGC Videsh Limited (OVL) in which country?
a) Uzbekistan
b) Kazakhstan
c) Kyrgyzstan
d) Mongolia
25. The State of Social Safety Nets ' 2015 report released in July, 2015 has been ranked

India's rural employment guarantee programme MNREGA as the world's largest public works programme. The report belongs to which organisation?
a) IMF
b) World Bank
c) The UN
d) Government of India
26. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage committee inscribed 24 new sites into the World Heritage List. Choose them.
a) The Champagne hillsides, houses and cellars (France).
b) Christiansfeld, a Moravian Church Settlement (Denmark).
c) Par Force Hunting Landscape (North Zealand, Denmark). '
d) All of the above
27. India in July, 2015 signed an intergovernmental agreement to implement the Foreign Account Tax Compliance Act (FATCA) with which country to curb overseas tax evasion and black money?
a) The USA
b) The UK
c) France
d) Germany
28. In July, 2015, some typhoons hit China coasts. What are they?
a) Linfa
b) Chan-hom
c) Nangka
d) All of these
29. In July, 2015, which countries were accepted as full members of the Shanghai Cooperation Organisation (SCO)?
a) India and Bangladesh
b) India and Pakistan
c) India and Myanmar
d) India and Sri Lanka
30. Which country has set-up the world's largest cancer registry system in a bid to fight the deadly disease with evidence-based and more-targeted intervention programmes?
a) Japan
b) Brazil
c) China
d) India
31. India and Georgia signed a Memorandum of Understandings (MoU) at New Delhi in July, 2015 for cooperation in which field?
a) Election Management and Administration
b) Panchayati Raj
c) Rights Issues
d) Party System
32. Which, Chinese telecom solutions provider got nod to set-up a manufacturing unit in Tamil Nadu?
a) ZTE
b) COOLPAD
c) XIOMI
d) Huawei
33. The European Union has banned the marketing of around 700 generic medicines for alleged manipulation of clinical trials conducted by an Indian pharmaceutical research company. Who is that?
a) GVK Biosciences
b) Sun Pharma
c) Lupin
d) Alembic
34. Which products exports touched one-million-tonne-mark in 2015 in India?
a) Seafood exports
b) Agriculture exports
c) Freshwater exports
d) None of the above
35. Mahindra Defence, a part of Mahindra Group, have signed a Memorandum of Understandings (MoU) with which company to form a joint venture for producing helicopters in India?
a) Airbus
b) Airbus Helicopters
c) Airbus Choppers
d) All of the above
36. BSNL, State-run operator, launched a pre-paid card linked mobile wallet service. What is that?
a) Instant Pay
b) Rapid Pay
c) Speed Pay
d) Prompt Pay
37. The Reserve Bank of India (RBI) told In July, 2015 that the Foreign Direct Investment (FDI) in manufacturing of which products i prohibited in India?
a) Cigarillos and cigarettes
b) tobacco
c) Tobacco substitutes
d) All of the above
38. Which organisation has set a targ of providing Rs. 30000 crore as credit to farmers for irrigation over the next three years?
a) RBI
b) NABARD
c) World Bank
d) IMF

39 Tie Reserve Bank of India (RBI) set-up a 14-member panel to work out a mediumterm or five-year measurable action plan for finan inclusion. Who is the Chairman?
a) Deepak Mohanty
b) Manoj Mudgal
c) RM Lodha
d) LSutxamaniam
40. The New Development Bank (NDB) created by the BRICS nations formally started its operations. Where is its headquarters situated?
a) Beijing
b) New Delhi
c) Shanghai
d) None of these
41. Seven Indian companies are $f$ place among the world's 500 companies, according to a list compiled by Fortune magazine Consider them.
a) Indian Oil
b) Reliance Industries
c) Tata Motors
d) All of the above
42. Which pharmaceutical com bought Gavis Pharmaceutical little-known New
Jersey-b pharma company for its specialised products?
a) Sun Pharma
b) Lupin
c) Alembic
d) Glaxo
43. Global IT leaders Computer Science Corporation (CSC) signed a definitive joint venture agreement with which company to form a banking software and services company?
a) HCL
b) ASUS
c) DELL
d) SONY
44. Which finance company got banking licence for undertaking banking business in India from Reserve bank of India under Section-22(I) of the Banking Regulation Act, 1949?
a) IDFC
b) LIC
c) OIC
d) GIC
45. In a move to bulk up its aerospace services business, Cyient Limited bought Singapore-based Global Services Engineering Asia, from global aerospace giant Pratt \& Whitney. Cyient Limited based at which place?
a) Bangalore
b) New Delhi
c) Chennai
d) Hyderabad
46. Who has entered into a partnership with the Indian Railway Catering and Tourism Corporation (IRCTC) to launch a delivery system for consumers on trains?
a) Dominos
b) Pizza Hut
c) KFC
d) McDonald's
47. Mashable, a New York-based news and blogging portal, joined hand with which company for the launching of its Indian version in India?
a) India.com
b) Outlook.com
c) Times group
d) None of the above
48. Multi Commodity Exchange of India Limited has signed a Memorandum of

Understandings (MoU) with the US-based Chicago Mercantile Exchange group for international exchange at
a) GFT City
b) High-tech City
c) Digital City
d) None of the above
49. The Insurance Regulatory and Development Authority of India (IRDAI) has constituted how many committees on July 22, 2015 for review of regulations in life insurance, general insurance and reinsurance including registration of, foreign offices of reinsurers?
a) Three
b) Four
c) Five
d) Six
50. The Times Group-run Entertainment Network India Limited (ENIL), which owns and operates Radio Mirchi FM channel, has got the approval from I\&B Ministry to acquire TV Today Network's radio station 'Oye' in four cities. What are they?
a) Amritsar
b) Jodhpur
c) Patiala
d) All of these
51. Which two antibodies showed an ability recently to neutralise the virus of the epidemic of Middle-East Respiratory Syndrome (MERS)?
a) REGN3051
b) REGN3048
c) Both (a) and (b)
d) None of the above
52. Elephant census report, 2015 reveals that Odisha has registered an increase in its elephant population. In which Elephant

Reserve, there are 1450 elephants which is $74.21 \%$ of total population?
a) Mayurbhanj
b) Mahanadi
c) Sambalpur
d) All of these
53. Who become Britain's youngest 'cyborg' (part-human, part machine) boy?
a) Kevin Warwick
b) Byron Wake
c) Martock
d) None of the above
54. A system to detect earthquakes and disseminate warnings has been installed in which State for the first time in India?
a) Delhi
b) Himachal Pradesh
c) Uttarakhand
d) Bihar
55. Which country in July, 2015 launched its heaviest commercial space mission ever with its polar rocket successfully putting five British satellites into the Sun synchronous orbit?
a) Russia
b) The USA
c) India
d) China
56. Supersonic surface-to-air missile 'Akash' which can target aircraft up to a distance of 30 km , at altitudes up to 18000 m was formally inducted in the Indian Air Force. Who developed that?
a) Russia
b) Israel
c) European Union
d) Indigenously-developed
57. In July, 2015 Gennady Padalka, a cosmonaut, has broken the record for the
longest time spent in space with a total of 804 days. What is his nationality?
a) Russian
b) Indian
c) American
d) Canadian
58. With the launch of GPS-Aided Geo Augmented Navigation (GAGAN) system; what is the rank of India in world to offer space-based satellite navigation services to the aviation sector?
a) Second
b) Third
c) Fourth
d) Fifth
59. India has test-fired successfully its indigenously developed ' $\mathrm{Nag}^{\prime}$ anti-tank guided missile. Who developed that?
a) ISRO
b) DRDO
c) Both (a) and (b)
d) None of these
60. The Large Hadron Collider Beauty (LHCB) experiment at the European Organisation for Nuclear Research (CERN) has reported the discovery of a new class of particles. What was that?
a) Quark
b) Pentaquark
c) Tetraquark
d) None of these
61. Volcanic eruptions may have slowed down global warming by injecting particulates into the atmosphere as per a study published in the journal Nature Communications. The study uses data from which sphere?
a) Tropopause
b) Stratopause
c) Ionopause
d) Thermopause
62. 'INS-Astravahini', an indigenously built Torpedo Launch and Recovery Vessel (TLRV), was decommissioned after how many years in service?
a) 29 years
b) 30 years
c) 31 years
d) 32 years
63. Two new plant species are discovered from the Pooyamkutty-Adamalayar and Neriamangalam forest regions. They are located at which geological region?
a) Eastern ghats
b) Western ghats
c) Himalayan region
d) Sundarbans delta
64. Which country has pledged to cut emissions $26 \%$ from 2013 levels by 2030 to avert calamitous global warming?
a) The USA
b) The UK
c) Japan
d) Canada
65. According to the latest issue of International Journal of Pure and Applied Zoology, a new cyprinid fish named Puntius Dolichopterus has been discovered in India. It is discovered from which State?
a) Tamil Nadu
b) Kerala
c) Karnataka
d) Goa
66. Indian Space Research Organisation (ISRO) successfully test-fired Geosynchronous Satellite Launch Vehicle (GSLV) Mark III on ground CE-20 at the ISRO Propulsion Complex at which place?
a) Wheeler Island
b) Sriharikota
c) Mahendragiri
d) Chandipur
67. The shot, called RTS,S or Mosquirix, a'vaccine got a green light from European drugs regulators. It is made for which disease?
a) Chicken pox
b) Measles
c) Malaria
d) Dengue
68. Which Grandmaster and former world junior champion won the Commonwealth Chess Championship in July, 2015?
a) Arghyadip Das
b) Abhijeet Gupte
c) MR Lalith Babu
d) None of the above
69. In July, 2015, India defeated which country in the South Asian Basketball (SABA) Championship to win the title at the Sree Kanteerava Stadium indoor courts?
a) Bangladesh
b) Pakistan
c) Myanmar
d) Sri Lanka
70. The United States of America (USA) defeated which country in the 2015 FIFA Women's World Cup final match played at Vancouver, Canada?
a) China
b) Japan
c) Malaysia
d) Indonesia
71. Chile won Copa America Cup 2015 by defeating which South American country?
a) Argentina
b) Brazil
c) Ecuador
d) Venezuela
72. Who won his second successive British Grand Prix which was his fourth victory of the season?
a) Lewis Hamilton
b) Nico Rosberg
c) David Coulthard
d) None of the above
73. Who said that Floyd Mayweather Jr. who has won the welterweight world title after beating Filipino Manny Pacquiao in May 2, 2015 has been stripped of that title due to the failure of complying with the rules?
a) World Boxing Organisation
b) World Boxing Association
c) World Boxing Champion's Organisation
d) World Boxing Champion's Association
74. Who has become the first British Asian to join the England and Wales Cricket Board (ECB) in July, 2015?
a) Lord Morris
b) Lord Kamlesh Patel
c) Lord Morris Patel
d) None of the above
75. Who won the men's singles title of Wimbledon tennis championships 2015?
a) Roger Federer
b) Novak Djokovic
c) Jean-Julien Rojer
d) Horia Tecau
76. Who won her 21st Grand Slam title at Wimbledon championships 2015 in women's singles category?
a) Garbine Muguruza
b) Sania Mirza
c) Martina Hingis
d) Serena Williams
77. Which committee suspended IPL cricket franchisees India Cements Limited (ICL) and Jaipur IPL Private Limited (JIPL) from the Indian Premier League (IPL) for two years?
a) Justice Lodha
b) Justice Mudgal
c) Justice Subramaniam
d) None of the above
78. Which tennis legend of France was inducted into the International Tennis Hall of Fame in July, 2015?
a) David Hall
b) Amelie Mauresmo
c) Both (a) and (b)
d) None of the above
79. Who decided to constitute a working group to study the Justice RM Lodha Committee order and give recommendations within six weeks?
a) ICC
b) BCCl
c) Supreme Court
d) IPL
80. Which young Indian golfer has won the junior world golf title in Las Vegas?
a) Justin Dang
b) Sihan Sandhu
c) Pongsapak Laopakdee
d) Shubham Jaglan
81. Which country's women's wrestling team has won the silver medal after finished second in the fifth Cup of the President of Republic of Kazakhstan?
a) Kazakhstan
b) Mongolia
c) India
d) The USA
82. Who won the 2015 Hungarian Grand Prix of Formula One (FI), in July, 2015?
a) Daniil Kvyat
b) Daniel Ricciardo
c) Sebastian Vettel
d) Max Verstappen
83. Matti Makkonen has died in July, 2015.

He is well known for which thing?
a) SMS
b) E-mail
c) Fax
d) None of these
84. Scientist Sanjeev Galande has be selected for the prestigious GD B award for 2014 for which work?
a) Chemistry
b) Physics
c) Genomics
d) Biotechnology
85. Who has been appointed as Tata Motors' Group Chief Financial Officer in July, 2015?
a) Praveen Kadle
b) C. Ramakrishnan
c) Ratan Tata
d) None of the above
86. Who was named as the winner the 2015 World Food Prize for creating a Non Governmental Organisation (NGO) based at Bangladesh, credited with heU more than 150 million people of poverty?
a) Fazle Hasan Abed
b) Abid Hussain
c) Fazle Mohammad
d) None of the above
87. Which Indian-American teacher among the 108 teachers nam President Barack Obama as recipients of the prestigious Presidential Award for Excel Mathematics and Science Teaching?
a) Darshan Jain
b) R. Paul
c) R. Paul Jain
d) None of
88. How many Indian-Americans 38 individuals being hono 'The Pride of America' by Corporation of New York in 2015?
a) Four
b) Five
c) Six
d) Seven
89. Abdullah Hussain, whose real name was Mohammad Khan, an eminent Pakistani Urdu novelist, passed away in July, 2015. What is/are his other novel/s?
a) Baagh
b) Nadaar Loag
c) Udas Naslain
d) All of these
90. India's most prominent biologist and an evolutionary ecologist, Kamal Bawa, has been elected to the London based prestigious Royal Society in recognition of his pioneering contributions in which area?
a) Soil Conservation
b) Conservation Science
c) Water Conservation
d) All of the above
91. Who has been appointed as the next housing finance sector regulator by the Union government in July, 2015?
a) Sriram Kalyanaraman
b) Krishna Kalyanaraman
c) Vasudev Kalyanaraman
d) Gopala Kalyanaraman
92. China declared whom to head the $\$ 100$ billion Beijing-backed Asian Infrastructure Investment Bank (AlIB)?
a) Xi Jinping
b) Chanda Kochhar
c) Jim Kim
d) Jin Liqun
93. Who has been appointed as Managing Director (MD) and Chief Financial Officer (CFO) of Bharti Enterprises in July, 2015?
a) Manoj Kohli
b) Sunil Mittal
c) Rahul Bhatnagar
d) All of the above
94. Basharat Nawaz Khan popularly known as Bashar Nawaz, a renowned Urdu poet, critic and orator has been died in July, 2015. He penned which popular song?
a) Karoge Yaad
b) Dekhlo Aaj Humko,
c) Dikhayi Diye Youn
d) Phir Chhidi
95. Prince Saud A1 Faisal, the world's longest serving Foreign Minister has died in July 2015. He belongs to which country?
a) Kazakhstan
b) Kyrgyzstan
c) Mongolia
d) Saudi Arabia
96. Which film has won the best original screenplay award at the Madrid International Film Festival?
a) Queen
b) Budhha Hoga Tera Baap
c) Life in a Metro
d) Buddha in a Traffic Jam
97. Which Eastern Army Commander, has been appointed as the Vice-Chief of the Indian Army?
a) PhflpCampose
b) Mai Mohan Singh Ra
c) P-avee- Bafrsfi
d) None of the above
98. Rakesh Sahni, former Chief Secretary of which State government has appointed as the Chairman of Narmada Valley Development Authority (NVDA)?
a) Maharashtra
b) Andhra Pradesh
c) Chhattisgarh
d) Madhya Pradesh
99. Sayed Haider Raza, a modem Indian artist has been conferred with the highest French civilian honour, the 'Commandeur de la Legion d'Honneur' for his peerless achievements transcending all boundaries. He belongs to which country?
a) Pakistan
b) Afghanistan
c) India
d) Indonesia
100. Krishnapatnam Port has received the Golden Peacock Environment Management Award for its initiatives and achievements in the field of environment at the 17th World Congress on Environment Management held in New Delhi. Where it is located?
a) Andhra Pradesh
b) Tamil Nadu
c) Telangana
d) Odisha
101. Where is the Headquarters of NorthCentral Railway Zone situated?
a) Allahabad
b) Jabalpur
c) Bhopal
d) Delhi
102. Which one of the following pairs is not correctly matched?
a) Ebola Virus - Small Pox
b) Biometric identification - Fingerprints and Iris scan
c) Cloning - Genetic replica
d) DNA Fingerprinting - Paternity or criminal identification
103. As per a World Bank report which of the following commodities is likely to face glut during 2016?
a) Iron Ore
b) Bauxite
c) Automobiles
d) Cotton Textiles
104. India investment summitwas held on February 4-5, 2016 in -
a) Ahmedabad
b) Mumbai
c) New Delhi
d) Hyderabad
105. The term "Whitewash" is associated with which game?
a) Football
b) Hockey
c) Cricket
d) Lawn Tennis
106. Global Initiative of Academic Networks is related to -
a) Intermediate Education
b) Basic Education
c) Technical Education
d) Higher Education
107. The Baltic Dry Index is associated with -
a) Dry bulk shipping freight
b) El-Nino effect
c) Intra-country trade among CIS nations
d) None of the above
108. How many Navies participated in International Fleet Review held in February 2016 in Vishakhapatnam?
a) 39
b) 54
c) 24
d) 62
109. Du Pont Analysis synthesizes -
a) Net Profit
b) Asset Turnover
c) Return on equity
d) Financial leverage
110. The "Chiang Mal" initiative pertain to -
a) Currency Swap
b) Trade
c) Intellectual Property
d) Services
111. The "Triffin Paradox" primarily pertain to -
a) Bonds
b) Equity
c) Commodity derivatives
d) Currencies
112. The state producing maximum vegetables in India is -
a) Punjab
b) Uttar Pradesh
c) West Bengal
d) Maharashtra
113. Which of the following state has been announced as "a state of total organic farming"?
a) Sikkim
b) Karnataka
c) Kerala
d) Punjab
114. Which of the following tops the list of Indian Philanthropists in 2015?
a) Mukesh Ambani
b) Azim Premji
c) Ratan Tata
d) K M Birla
115. What is the premium percentage to be paid by farmers for Rabi crops in newly introduced "Pradhan Mantri Fasal Bima Yojana (PMFBY)?
a) $1.0 \%$
b) $1.5 \%$
c) $2.0 \%$
d) $2.5 \%$
116. India ranks on Forbes Best countries list for business in 2015.
a) 97 th
b) 98 th
c) 95 th
d) 96 th
117. Defexpo-2016 held at -
a) Goa
b) Bangalore
c) Jaisalmer
d) Ahmedabad
118. "Kings are made for Public; Public is not made for King" - who made this statement during the national movement?
a) Abbas Tyabji
b) Maulana Abul Kalam Azad
c) Dadabhai Naoroji
d) Mahatma Gandhi
119. Which freedom fighter was the author of the book "An Introduction of the Dreamland"?
a) Bhagat Singh
b) Bal Gangadhar Tilak
c) Vinayak Damodar Savarkar
d) Subhas Chandra Bose
120. Who scores fastest individual Test century?
a) Viv Richards
b) Misbah-ul-Haq
c) Bredon McCullum
d) AB de Villiers
121. Which country's Parliament became first in the world to run fully on solar energy?
a) Germany
b) France
c) Russia
d) Pakistan
122. Who has been selected as the new Chairman of NHRC?
a) Justice H. L. Dattu
b) Justice Cyriac Joseph
c) Justice D. Murugesan
d) Shri Sharad Chandra Sinha
123. Who is the new Chief of Bank Board Bureau?
a) Roopa Kudva
b) $\mathrm{H} N$ Sinor
c) Anil K Khandelwal
d) Vinod Rai
124. Which team emerged champion of the HIL-2016 title?
a) Kalinga Lancers
b) Jaypee Punjab Warriors
c) Delhi Waveriders
d) Dabang Mumbai H.C.
125. President of the International Olympic Committee is elected for a term of -
a) 5 yrs
b) 6 yrs
c) 8 yrs
d) $\mathbf{1 0} \mathrm{yrs}$
126. "Bundestag" and "Bundesrat" are the name of the parliament houses of -
a) Germany
b) France
c) Australia
d) Italy
127. Central Inland Water Transport Corporation is located in -
a) Kolkata
b) Mumbai
c) Chennai
d) Panjim
128. "Shadow Cabinet" is the features of administrative system of -
a) Britain
b) Germany
c) France
d) Spain
129. Who has honoured with the BBC Sports Personality of 2015 award?
a) Rooney
b) Andy Murray
c) Ellie Downie
d) AP McCoy
130. The "Pommel Horse" is term associated with the game -
a) Chess
b) Tennis
c) Badminton
d) Gymnastics
131. Who is the newly President of Myanmar?
a) Aung San Suu Kyi
b) Htin Kyaw
c) Thein Sein
d) Henry Van Thio
132. The main constituent of biogas is -
a) Hydrogen
b) Methane
c) Butane
d) Acetylene
133. Bacillus thuringiensis is used as -
a) Biofertilizer
b) Biological pesticide
c) Chemical fertilizer
d) Chemical insecticide
134. Great Himalayan National Park, which has been accorded the UNESCO World Heritage Site status, is located in -
a) Uttarakhand
b) Himachal Pradesh
c) Jammu-Kashmir
d) Nagaland
135. In Budget 2016 limit of deduction of rent increased from Rs. 24,000 to -
a) Rs.70,000
b) Rs.75,000
c) Rs.60,000
d) Rs.50,000
136. Axis Bank recently buys $4.99 \%$ stake in -
a) Max Life Insurance
b) Tata AIG
c) Mitsui Sumitomo Insurance Company
d) Bharti AXA
137. Which Uranium isotope is used in nuclear power plants to produce electricity?
a) U-233
b) U-234
c) U-238
d) U-239
138. Who among the following is the newly elected FIFA president?
a) Gianni Infantino
b) Prince Ali of Jordan
c) Sheikh Salman
d) Jerome Champagne
139. 12th South Asian Games held at -
a) New Delhi
b) Bengaluru
c) October 2
c) Guwahati and Shillong
d) March 23
d) Hyderabad
140. A dreaded virus recently outbreak in most of the Latin American Country. The name of that virus is -
a) Ebola virus
146. Who has won the FIFA world player award for 2015?
a) Cristiano Ronaldo
b) Lionel Messi
c) Neymar
d) Luis Suárez
147. The 103rd edition of Indian Science Congress from January 3 to 7, 2016 held at -
a) Bangalore
b) New Delhi
c) Mysore
d) Pune
148. In November 2015 concluded G20 summit was held at -
142. Who is the winner of Women Single title in Australian Open Tennis 2016?
a) Serena Williams
b) Maria Sharapova
c) Angelique Kerber
d) Victoria Azarenka
143. Who is the present Chairman of Competition Commission of India?
a) Shri Ashok Chawla
b) Shri Atulesh Jindal
c) Shri A.K. Jain
d) Shri Devender Kumar Sikri
144. Which Vitamin is required for in clotting of blood?
a) Antalya, Turkey
b) Paris, France
c) Berlin, Germany
d) Geneva, Switzerland
151. The "Turn the World UN Blue" global campaign was the part of -
a) United Nation's 70th anniversary
b) United Nation's 75th anniversary
c) United Nation's 60th anniversary
d) United Nation's 50th anniversary
152. Alphabet is a parent company of -
a) Yahoo
b) Google
c) Microsoft
d) Cisco
153. Q. Which of the following has been declared as National Handloom Day by Government of India?
a) August 7
b) August 9
c) August 11
d) August 12
154. World water day is celebrated every year on -
a) June 23
b) May 15
c) July 21
d) March 22
155. According to Swachh Bharat Survey 2015, which of the following cities is most clean city of India?
a) Bangalore
b) Chennai
c) Mysore
d) Pune
156. The 8th BRICS Summit will be held in -
a) China
b) South Africa
c) Brazil
d) India
157. How many Indian companies have been included in world largest 500 companies as per fortune magazine?
a) 9
b) 7
c) 8
d) 10
158. Famous noodles brand "Maggi" is owned by -
a) Nestle India
b) Pepsico India
c) Parle Foods
d) ITC
159. India's biggest telescope "Multi Application Solar Telescope" (MAST) has been installed at -
a) Ladakh
b) Udaipur Cash Reserve Ratio (CRR) stands at -
a) $4.5 \%$
c) Jaipur
c) $4.0 \%$
d) $5 \%$
166. Prime Minister Narendra Modi lays foundation stone of first mobile manufacturing electronics cluster at -
a) Tirupati
b) Chennai
c) Hyderabad
d) Vijayawada
167. The 7th BRICS Summit 2015 held in -
a) South Africa
b) Russia
c) Brazil
d) China
168. Who was the architect of modern Mumbai?
a) Punjab Rao Deshmukh
b) Yashwantrao Chavan
c) Jagannath (Nana) Sunkersett
d) Vasantdada Patil
169. "International Yoga Day" is celebrated on -
a) 5th June
b) 20th June
c) 21st June
d) 22nd June
170. BRICS summit 2015 held at -
a) Shanghai
b) Ufa
c) Rio De janeiro
d) Moscow
171. "Love @ Facebook" is written by -
a) Hindol Sengupta
b) Nikita Singh
c) Chetan Bhagat
d) Anurag Mathur
172. Which team is the winner of 8th IPL league?
a) Channai Super King
b) Royal Challengers Bangalore
c) Kolkata Knight Rider
d) Mumbai Indian
173. A deadly virus suddenly appear in South Korea, the name of that virus is -
a) Ebola
b) SARS
c) MERS
d) Influenza
174. Unsorted transaction that can used to immediately update database is called
a) Direct database access
b) Sequential database access
c) Alternate database access
d) Instance database access
175. A satellite in vacuum -
a) Is kept in orbit by remote control
b) Is kept in orbit by retro-rocket
c) Derives energy from gravitational field
d) Does not require any energy for orbiting
176. The nuclear force is -
a) Short range repulsive force
b) Short range attractive force
c) Long range repulsive force
d) Long range attractive force
177. According to kinetic theory gases, at the temperature absolute zero, the gas molecules -
a) Start movement
b) Become massless
c) Start emitting light
d) Stop movement
178. Radio Carbon Dating is use to estimate the age of -
a) Soil
b) Monuments
c) Fossils
d) Rocks
179. Male mosquitoes take their food from -
a) The human blood
b) The standing water
c) The sap of plants
d) The dung and other debris
180. Casuarina is a -
a) Hydrophyte
b) Mesophyte
c) Xerophyte
d) Epiphyte
181. Formic acid is produced by -
a) White ants
b) Cockroaches
c) Red ants
d) Mosquitoes
182. What is the meaning of the word 'Sangam' in the Sangam Age?
a) Royal Court
b) Assembly of poets
c) Assembly of religious leaders
d) Meeting of rivers
183. Ink is prepared from -
a) Dye
b) Tannin
c) Starch
d) Latex
184. A contemporary of Charles Darwin who came to the same conclusion in the matter of organic evolution was -
a) Jean Baptist Lamarck
b) Thomas Fluxley
c) Alfred Russel Wallace
d) Franklin Benjamin
185. Which of the following lakes is situated on the West Coast of India?
a) Astamudi
b) Chilka
c) Pulicat
d) Kolleru
186. GIS stands for -
a) Geographical Integrated System
b) Geographical Information System
c) Geometrical Integrated System
d) General Immunity System
187. National AIDS research Institute is at -
a) Chennai
b) New Delhi
c) Mumbai
d) Pune
188. Chemical decomposition of an organic compound by water is called as -
a) Hydrogenation
b) Hydration
c) Hydrolysis
d) All of these
189. Which of the following pairs is not correctly matched?
a) Vitamin B - Pyridoxine
b) Vitamin C - Ascorbic acid
c) Vitamin E-Alphatocopherol
d) Vitamin D - Sunshine
190. The country with the world's largest natural gas reserves is -
a) Saudi Arabia
b) Kuwait
c) Russia
d) United States of America
191. Seasonal migration of people is known as -
a) Pastoralism
b) Nomadism
c) Intra migration
d) Transhumance
192. Ivory coast is located in -
a) South Africa
b) North America
c) West Africa
d) South America
193. When did the British make English the medium of instruction in India?
a) 1813
b) 1833
c) 1835
d) 1836
194. When and where was the All India Kisan Sabha formed?
a) 1935 - Bombay
b) 1942-Kanpur
c) 1938-Calcutta
d) 1936-Lucknow
195. Who was the founder of the City of Agra?
a) feuAla-ud-din Khalji
b) Muhammad Tughlaq
c) Firoz Tughlaq
d) Sikandar Lodi
196. Revenue deficit in the budget 2015-16 has been estimated at -
a) $3.0 \%$ of GDP
b) $2.4 \%$ of GDP
c) $2.6 \%$ of GDP
d) $2.8 \%$ of GDP
197. Which of the following feature of Indian constitution was borrowed from U.S.A.?
a) Rule of law
b) Fundamental Right
c) Rigid Constitution
d) Directive principles of state policy
198. Rule of law prevails in -
a) Dictatorship
b) Aristocracy
c) Democracy
d) Oligarchy
199. In budget 2015-16 the target of agricultural credit for the year 2015-16 has been fixed at -
a) Rs. 10.5 lakh crore
b) Rs. 10.0 lakh crore
c) Rs. 8.5 lakh crore
d) Rs. 9.5 lakh crore
200. The parliament is empowered to make laws on any subject of the state list during -
a) Election
b) War
c) Agitation
d) Emergency
201. Fascism believed in leadership of -
a) Feudals
b) Working classes
c) Political elites
d) One man
202. A firm practising price discrimination will be -
a) charging different price for different qualities of a production
b) buying in the cheapest and selling in the dearest markets
c) charging different prices in different markets for a product
d) buying only from firms selling in bulk at a distance
203. The 'fine respiratory particles' which deteriorate air quality for breathing by human beings are categorized as -
a) PM 0.0
b) PM 2.5
c) PM 8.5
d) PM 10.0
204. CSO has changed the base year for estimating the national income data -
a) from 2004-05 to 2010-11
b) from 1999-2000 to 2004-05
c) from 2004-05 to 2011-12
d) from 2004-05 to 2009-10
205. The snow leopard population is found in -
a) Sikkim
b) Assam
c) Mizoram
d) Manipur
206. In Union Budget, GDP growth rate for the year 2015-16 has been projected at -
a) $8.0 \%-8.5 \%$
b) $7.0 \%-7.5 \%$
c) 7.5-8.0\%
d) 8.5-9.0\%
207. 14th Finance Commission has recommended distribution of grants to states for local bodies using 2011 population data. The weight ratio of population and area stands at -
a) $90: 10$
b) $80: 20$
c) $85: 15$
d) $92: 08$
208. Total interacting animals and plants in any well defined area is known as -
a) Population
b) Biome
c) Community
d) Species
209. The Phillip's curve is the schedule showing the relationship between -
a) aggregate supply and demand
b) total saving and investment
c) the rate of unemployment and rate of inflation
d) demand for and supply loanable funds
210. The most healthy edible oil for heart is -
a) Butter oil
b) Olive oil
c) Rape-seed oil
d) Mustard oil
211. In Bollywood, the actress popularly known as 'Dream Girl' is -
a) Zeenat Aman
b) Helen
c) Hema Malini
d) Madhubala
212. IPCC stands for -
a) Inter-govemmental Panel on Climate Change
b) Indian Panel on Climate Change
c) International Policy on Climate Change
d) Indian Policy on Climate Control
213. The food corporation of was established in the year -
a) 1965
b) 1966
c) 1967
d) 1955

214 Increase in cash reserve ratio leads to -
a) increase in bank credit
b) decrease in bank credit
c) constant bank credit
d) excess bank credit
215. In the long run the fixed costs become -
a) Money costs
b) Sarojini Naidu
b) Real costs
c) Opportunity costs
d) Variable costs
216. The book entitled 'Spell Tiger' is written by -
a) Jim Corbett
b) Valmik Thapar
c) Sy Montgomery
d) Atul Sethi
217. ICMR is the abbreviation for -
a) International Council for Malarial Research
b) Indian Council of Medical Research
c) International Council of Medical Research
d) Indian Council of Microbial Research
218. In budget 2015-16 speech, the Finance Minister has announced the year
$\qquad$ will be Amrut Mahotsav.
a) 2019
b) 2021
c) 2020
d) 2022
219. Rubber is a product of -
a) Fibre
b) Latex
c) Resin
d) Gum
220. The first indigenous silent film -
a) Alam Ara
b) Raja Harishchandra
c) Bhakta Prahlad
d) Mother India
221. Who was the first woman President of the Indian National Congress?
a) Annie Besant
c) Vijaylakshmi Pandit
d) Kadambani Ganguli
222. Prime Minister Narendra Modi launched India's first indigenously developed vaccine
$\qquad$ on March 9, 2015.
a) Rotavirus
b) Oral Polio
c) Influenza
d) Oral Typhoid
223. Which of the followings is not correct?
a) SIT - Special Intelligence Team
b) CNG - Compressed NaturaJ Gas
c) NGT-National Green Tribunal
d) KYC - Know Your Customer
224. Telengana creation as in independent state is primarily the outcome of -
a) 13th Lok Sabha
b) 14 th Lok Sabha
c) 15th Lok Sabha
d) 16th Lok Sabha
225. $\mathrm{CaC2}$ on treatment with water gives-
a) Methane
b) Ethane
c) Ethylene
d) Acetylene
226. Which of the following is not a nitrogenous fertilizer?
a) Ammonium sulphate
b) Urea
c) Ammonium nitrate
d) Super phosphate
227. Who has won the 62nd National Film Awards as best actor?
a) Bobby Simhaa
b) Irfan Khan
c) Vijay
d) Amir Khan
228. In budget 2015-16, service tax plus education cess has been changed -
a) from $12 \%$ to $14 \%$
b) from $12 \%$ to $13 \%$
c) from $12.36 \%$ to $13 \%$
d) from $12.36 \%$ to $14 \%$
229. Mawlynnong Village in Meghalaya is in the news recently. The reason being -
a) It has been awarded the Asia's Cleanest village award in 2014-15
b) All the houses in the village have sanitary toilet
c) All the houses in the Village use clean energy for cooking
d) The village is situated on IndoBangladesh border
230. Who has won the 62nd National Film Awards as best actress?
a) Kangana Ranaut
b) Priyanka Chopra
c) Usha Jadhav
d) Baljinder Kaur
231. Who was declared man of the match in World Cup Cricket 2015 final match?
a) Guptil
b) Michael Clarke
c) James Faulkner
d) Mitchell Starc
232. Who said, "India is the bright spot on the cloudy global horizon"?
a) IMF Chief Christine Lagarde
b) World Bank Chief Dr. Jim Yong Kim
c) UNO Secretary General Ban Ki-Moon
d) US President Barack Obama
233. Which state is the winner of Ranji Trophy 2014-15?
a) Mumbai
b) Tamil Nadu
c) Karnataka
d) West Bengal
234. What is 'Pink Sheet'?
a) IMF's Data sheet on current account deficits
b) RBI's Monetary Policy norms
c) World Bank Commodities Price Data
d) WHO Data Sheet on Ebola
235. Who was declared man of the tournament in world cup Cricket 2015?
a) Martin Guptil
b) James Faulkner
c) Mitchell Starc
d) AB de Villiers
236. Who was the ICC Cricket world Cup 2015 ambassador?
a) Rickey Ponting
b) Sachin Tendulkar
c) M. S. Dhoni
d) AB de Villiers
237. Project 'Maryadaa' is associated with -
a) Making all the women of the village educated and self-reliant
b) Education of girls
c) Making the village open defecation free
d) Skill development for women
238. The term Grand Slam is associated with
a) Badminton
b) Lawn Tennis
c) Table Tennis
d) Squash
239. India's Contribution to cumulative Global $\mathrm{CO}_{2}$ emission is about -
a) $7.4 \%$
c) Lord Curzon
b) $3.6 \%$
d) Lord Chelmsford
c) $5.5 \%$
d) $2.8 \%$
240. In which of the following States are the Ajanta caves situated?
246. Fa-hien visited India in -
a) $750-890$ A.D.
b) 750-765 A.D.
c) 311-495 A.D.
d) 399-411 A.D.
b) Uttar Pradesh
c) Maharashtra
d) Karnataka
241. The planet which is farthest from the Sun is -
a) Uranus
b) Saturn
c) Mercury
d) Neptune
242. The tropical cyclones of the Bay of Bengal are usually called -
a) Hurricanes
b) Typhoons
c) Depression
d) Tornadoes
243. Which one of the following cities is the capital of Japan?
a) Nagasaki
b) Kyoto
c) Beijing
d) Tokyo
244. Chenghez Khan was a -
a) Turk
b) Mongal
c) Persian
d) Afgan
245. The Jallianwala Bagh Massacre took place during the Viceroyalty of -
247. When was Guru Nanak Dev born?
a) 1469
b) 1369
c) 1269
d) 1556
248. Which among the following was the great centre of trade and commerce in India in the Gupta period?
a) Taxila
b) Tamralipti
c) Mathura
d) Vatapi
249. Among the given nutrients, milk is a poor source of -
a) Calcium
b) Protein
c) Carbohydrate
d) Vitamin C
250. Who was the first women ruler of Delhi?
a) Noorjahan
b) Razia Begum
c) Jahanara
d) Samyukta
251. The saint from Gujarat who preached non-sectarianism in medieval India was -
a) Tukaram
b) Ramanand
c) Raghunandan
a) Lord Canning
d) Dadu
252. Myanmar is the new name of -
a) Thailand
b) Burma
c) Philippines
d) Vietnam
253. Which of the following countries are joined by the Palk Strait?
a) Pakistan and China
b) North and South Korea
c) India and Srilanka
d) France and Britain
254. Who among the following has scored first double century in World Cup Cricket?
a) Sachin Tendulkar
b) Martin Guptill
c) AB de Villiers
d) Chris Gayle
255. Lee Kuan Yew was recently in news; he is the founder of modern -
a) Thailand
b) Singapore
c) Malaysia
d) Vietnam
256. The highest individual World Cup score made by
a) Rohit Sharma
b) Chris Gayle
c) Martin Guptill
d) AB de Villiers
257. In the 2015-16 budget fund allocated for development of the North-Eastern Region (NER) is -
a) Rs. 3,000.00 crores
b) Rs. 2,362.74 crores
c) Rs. 2,100.00 crores
d) Rs. 2,000.00 crores
258. An International Financial Services Centre (IFSC) is set up at -
a) Mumbai
b) Ahmedabad
c) Gandhinagar
d) Bengaluru
259. R. K. Laxman was recently in news. He was a famous
a) Painter
b) Journalist
c) Cartoonist
d) Writer
260. LED, LCD, CRT are the names related to different types of -
a) Monitor
b) Printer
c) Sound System
d) Semiconducter
261. The factor that least influences exchange rate fluctuations:
a) Industrial Production
b) Investors Sentiments
c) Interest Rates
d) Consumer Price Index
262. The ancient civilization of Sumer flourished in a region, which is a part of the following country in the modern world -
a) Iraq
b) Egypt
c) Syria
d) Sumeria
263. Who among the following foreigners is the recipient of Padma Vibhushan for the year 2015?
a) Prof. Jacques Blamont
b) Ms. Melinda Gates
c) Shri Aga Khan
d) Shri Saichiro Misumi
264. Which city houses the headquarters of International Atomic Energy Agency (IAEA)?
a) Geneva (Switzerland)
b) Tokyo (Japan)
c) Vienna (Austria)
d) New York (USA)
265. Which seventh century Indian mathematician was the first in the world to treat 'zero' as a number and show its mathematical operations?
a) Aryabhatta
b) Bhaskaracharya
c) Brahmagupta
d) Panini
266. "Long Walk to Freedom" is the autobiography of which one of the following Bharat Ratna recipients -
a) Jawaharlal Nehru
b) S. Radhakrishnan
c) Khan Abdul Ghaffar Khan
d) Nelson Mandela
267. The number of officially recognised languages according to the Eighth Schedule of the Indian Constitution is -
a) 22
b) 15
c) 19
d) 12
268. Who among the following is not the recipient of Padma Vibhushan for the year 2015?
a) Shri Amitabh Bachchan
b) Shri Prakash Singh Badal
c) Shri Mohammad Yusuf Khan
d) Shri Jagdish Bhagwati
269. Which Indian region is the only place in the world where the Asiatic Wild Ass is found?
a) Sunderban
b) Coromandel
c) Rann of Kutch
d) Andaman and Nicobar Island
270. Who among the following was known as the "Saint of the Gutters"?
a) Baba Amte
b) Mother Teresa
c) Jyotirao Phule
d) C. F. Andrews
271. The list of persons not containing an RBI Governor is -
a) Raghuram Rajan, D. Subbarao, I. G. Patel, R. N. Malhotra
b) Y. V. Reddy, Bimal Jalan, C. Rangarajan, K. R. Puri
c) Manmohan Singh, A. Ghosh, D. Subbarao, Raghuram Rajan
d) None of the above
272. The G-7 is a group consisting of -
a) the heads of the states of US, UK, France, Germany, Italy, Canada and Japan
b) the finance ministers of US, UK, France, Germany, Italy, Canada and Japan
c) the heads of the states of US, UK, France, Germany, Russia, Canada and Japan
d) the heads of the states of US, UK, France, Germany, Russia, Italy and Japan
273. The acronym of YAHOO stands for -
a) a song sung by Shammi Kapoor
b) Yet Another Hierarchical Object Orientation
c) Yet Another Hierarchical Officious Oracle
d) Young American Hi-tech Organization in Ohio
274. The newest country in the world is -
a) Palau
b) Kosovo
c) East Trimor
d) South Sudan
275. The distance covered in half Marathon is approximately -
a) 21 km
b) 42 km
c) 11 km
d) 5 km
276. If you have the option of buying a refrigerator with 1 star, 3 star, 5 star rating given by BEE then which one you will prefer?
a) 3 star
b) 5 star
c) 1 star
d) Does not matter
277. Ibn Batuta, the famous Arab scholar, visited India during the reign of -
a) Akbar
b) Qutubuddin Aibak
c) Muhammad-bin-Tughlaq
d) Alauddin Khilji
278. Tides are primarily a result of the -
a) Attraction of the moon
b) Farrel's Law
c) Ocean currents
d) Pressure system of the earth
279. Ramu wants to buy 500 gm of cornflour. He will go to -
a) Oral shop
b) Confectionery
c) Grocery store
d) Stationary Shop
280. The body fights infections with the help of -
a) Plasma
b) Antigen
c) Good Food
d) Immune System
281. Vinegar, very commonly used in Chinese food is actually -
a) Ethyl alcohol
b) Folic Acid
c) Acetic Acid
d) Nitric Acid
282. Cub is a baby animal related to -
a) Tiger, Bear, Lion
b) Tiger, Bear, Elephant
c) Bear, Elephant, Lion
d) Lion, Tiger, Camel
283. The Members of Parliament Local Area Development Scheme (MPLADS) has been hiked to -
a) Rs. 3 crore per annum
b) Rs. 4 crore per annum
c) Rs. 5 crore per annum
d) Rs. 6 crore per annum
284. Who was the court poet of Harshavardhana?
a) Banbhatta
b) Abul Fazal
c) Firdausi
d) Kalidas
285. Which unfortunate event took place in the year 1919?
a) Partition of Bengal
b) Jallianwala Bagh Massacre
c) Subsidiary Alliance
d) Gandhi's Assassination
286. Which freedom fighter suffered fatal injuries during a demonstration against Simon Commission?
a) Bhagat Singh
b) Lala Lajpat Rai
c) Baj Gangadhar Tilak
d) Chandrashekhar Azad
287. Which Mughal emperor took the title of Alamgir?
a) Akbar
b) Jahangir
c) Shah Jahan
c) A history of Delhi Sultanate
d) Aurangzeb
d) About Akbar
288. Microsoft Office does not include -
a) Android
b) Excel
c) Powerpoint
d) Word
289. Who was the Tenth Guru of the Sikhs?
a) Guru Nanak
b) Guru Tegh Bahadur
c) Guru Gobind Singh
d) Guru Amardas
290. Which of the following Valleys is known as "Paradise of Earth"?
a) Kashmir Valley
b) Kangra Valley
c) Kullu Valley
d) Doon Valley
291. Which Sultan of Delhi shifted his capital from Delhi to Daulatabad?
a) Allauddin Khilji
b) Sher Shah
c) Muhammad-bin-Tughlaq
d) Firoz Shah Tughlaq
292. In which year was the First Battle of Panipat fought?
a) 1556 A.D.
b) 1526 A.D.
c) 1605 A.D.
d) 1761 A.D.
293. The highest town (from the sea level) of India is -
a) Srinagar
b) Lahaul \& Spiti
c) Shimla
d) Jammu
294. "Rajtarangini" written by Kalhan is -
a) About Chandragupta's reign
b) A history of Kashmir
295. What name is given to the soil brought down by the rivers?
a) Alluvial Soil
b) Black Soil
c) Laterite Soil
d) Red Soil
296. Which is the largest freshwater lake in India?
a) Wular
b) Chilka
c) Loktak
d) Sambhar
297. Where is the famous Pinjore Garden situated?
a) Shimla
b) Dehradun
c) Chandigarh
d) New Delhi
298. Who invented Telegraph?
a) Samuel Morse
b) Edward Jenner
c) Alexander Graham Bell
d) Marcony
299. The Grand Trunk Road was originally built by -
a) Sher Shah
b) Akbar
c) Aurangzeb
d) Allauddin Khilji
300. Which of the following name is not associated with painting?
a) K. L. Saigal
b) Jamini Roy
c) Manjit Bawa
d) M. F. Hussain

## ANSWERS

| 1. (a) | 2. (a) | 3. (c) | 4. (b) | 5. (b) | 6. (b) | 7. (c) | 8. (b) | 9. (c) | 10. (b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11. (c) | 12.(b) | 13. (a) | 14. (b) | 15. (b) | 16. (c) | 17. (d) | 18. (a) | 19. (c) | 20. (b) |
| 21. (a) | 22.(b) | 23. (a) | 24. (b) | 25. (b) | 26. (d) | 27. (a) | 28. (d) | 29. (b) | 30. (c) |
| 31. (a) | 32.(d) | 33. (a) | 34. (a) | 35. (b) | 36. (c) | 37. (d) | 38. (b) | 39. (a) | 40. (c) |
| 41. (d) | 42.(b) | 43. (a) | 44. (a) | 45. (d) | 46. (c) | 47. (a) | 48. (a) | 49. (a) | 50. (d) |
| 51. (c) | 52.(d) | 53. (b) | 54. (c) | 55. (c) | 56. (d) | 57. (a) | 58. (c) | 59. (b) | 60. (b) |
| 61. (a) | 62.(c) | 63. (b) | 64. (c) | 65. (b) | 66. (c) | 67. (c) | 68. (b) | 69. (d) | 70. (b) |
| 71. (a) | 72.(a) | 73. (a) | 74. (b) | 75. (b) | 76. (d) | 77. (a) | 78. (b) | 79. (b) | 80. (d) |
| 81. (c) | 82.(c) | 83. (a) | 84. (c) | 85. (b) | 86. (a) | 87. (a) | 88. (a) | 89. (d) | 90. (b) |
| 91. (a) | 92.(d) | 93. (c) | 94. (a) | 95. (d) | 96. (d) | 97. (b) | 98. (d) | 99. (c) | 100.(a) |
| 101.(a) | 102.(a) | 103.(a) | 104.(c) | 105.(c) | 106.(d) | 107.(a) | 108(b) | 109.(c) | 110.(a) |
| 111.(d) | 112.(c) | 113.(a) | 114.(b) | 115.(b) | 116.(a) | 117.(a) | 118.(c) | 119.(a) | 120.(c) |
| 121.(d) | 122.(a) | 123.(d) | 124.(b) | 125.(c) | 126.(a) | 127.(a) | 128.(a) | 129.(b) | 130.(d) |
| 131.(b) | 132.(b) | 133.(b) | 134.(b) | 135.(c) | 136.(a) | 137.(c) | 138.(a) | 139.(c) | 140.(b) |
| 141.(b) | 142.(c) | 143.(d) | 144.(d) | 145.(c) | 146.(b) | 147.(c) | 148.(a) | 149.(a) | 150.(b) |
| 151.(a) | 152.(d) | 153.(c) | 154.(d) | 155.(b) | 156.(a) | 157.(b) | 158.(a) | 159.(c) | 160.(c) |
| 161.(a) | 162.(d) | 163.(c) | 164.(a) | 165.(b) | 166.(c) | 167.(c) | 168(b) | 169.(b) | 170.(d) |
| 171.(c) | 172.(d) | 173.(d) | 174.(b) | 175.(d) | 176.(c) | 177.(c) | 178.(c) | 179.(c) | 180.(b) |
| 181.(a) | 182.(c) | 183.(a) | 184.(b) | 185.(d) | 186.(c) | 187.(d) | 188.(c) | 189.(d) | 190.(c) |
| 191.(c) | 192.(d) | 193.(d) | 194.(d) | 195.(b) | 196.(c) | 197.(c) | 198(d) | 199.(d) | 200.(c) |
| 201.(b) | 202.(c) | 203.(a) | 204.(a) | 205.(a) | 206.(d) | 207.(b) | 208(b) | 209.(c) | 210.(a) |
| 211.(a) | 212.(b) | 213.(d) | 214.(c) | 215.(b) | 216.(d) | 217.(b) | 218(b) | 219.(a) | 220.(a) |
| 221.(a) | 222.(c) | 223.(d) | 224.(d) | 225.(c) | 226.(d) | 227.(b) | 228.(a) | 229.(c) | 230.(a) |
| 231.(c) | 232.(c) | 233.(c) | 234.(b) | 235.(c) | 236.(b) | 237.(d) | 238.(c) | 239.(d) | 240.(c) |
| 241.(d) | 242.(b) | 243.(d) | 244.(d) | 245.(a) | 246.(b) | 247.(d) | 248(b) | 249.(c) | 250.(b) |
| 251.(c) | 252.(b) | 253.(c) | 254.(d) | 255.(b) | 256.(c) | 257.(b) | 258.(c) | 259.(c) | 260.(a) |
| 261.(b) | 262.(a) | 263.(c) | 264.(c) | 265.(a) | 266.(d) | 267.(a) | 268(d) | 269.(c) | 270.(b) |
| 271.(d) | 272.(b) | 273.(c) | 274.(d) | 275.(a) | 276.(b) | 277.(c) | 278.(a) | 279.(c) | 280.(d) |
| 281.(c) | 282.(a) | 283.(c) | 284.(a) | 285.(b) | 286.(b) | 287.(d) | 288.(a) | 289.(c) | 290.(a) |
| 291.(c) | 292.(b) | 293.(b) | 294.(b) | 295.(a) | 296.(a) | 297.(c) | 298.(a) | 299.(a) | 300.(a) |

## PREVIOUSLY ASKED QUESTIONS

1. The winner of the highest number of gold medals in an Olympic game is-
(a) Mark Spitz
(b) Matt Biondi

## (c) Michael Phelps <br> (d) Jenny Thompson

2. 'Agha Khan Cup' is associated with the game of-
[AFCAT 1, 2011]
(a) Football
(b) Hockey
(c) Badminton
(d) Cricket
3. Usain Bolt, the 100 meters race world record holder, is from which country?
(a) Jamaica
[AFCAT 1, 2011]
(b) U.S.A.
(c) Canada
(d) Nigeria
4. Only two cricket players have taken 10 wickets in an innings. One is Anil Kumble. The other is-
[AFCAT 2, 2011]
(a) Richard Hadlee
(b) Muttiah Muralidharan
(c) Jim Laker
(d) Andy Roberts
5. 'Borlaug Award' is given every year to an Indian scientist for outstanding contribution in the field of-
(a) Medicine
[AFCAT 2, 2011]
(b) Space
(c) Applied Science
(d) Agriculture
6. The highest Indian gallantry award which could be given in peace time is-
(a) Ashok Chakra
[AFCAT 2, 2011]
(b) Param Vir Chakra
(c) Kirti Chakra
(d) Param Vishisht Seva Medal
7. 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
8. Which one of the following statement regarding the sun is correct?
(a) The sun is composed mainly of hydrogen.
[AFCAT 1, 2012]
(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.
9. Supersonic speed is speed greater than the speed of sound (in air at sea level) that is $\qquad$ miles/hour
(a) 760
(b) 860
(c) 960
(d) 1060
10. The pioneer of Atomic energy in India is
[AFCAT 2, 2012]
(a) Homi J Bhabha
(b) Vikram Sarabhai
(c) C.V. Raman
(d) C.K. Naidu
11. Which one of the following statements regarding FIFA World Cup 2010 is not correct? [AFCAT 2, 2012]
(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.
12. The first Indian to win the World Amateur Snooker Championship is
(a) Om Agarwal
[AFCAT 2, 2012]
(b) Geet Sethi
(c) Michael Ferreira
(d) Wilson Jones
13. The sport which requires the largest field is
[AFCAT 1, 2013]
(a) Football
(b) Cricket
(c) Hockey
(d) Polo
14. Which kind of missile is BRAHMOS?
[AFCAT 1, 2013]
(a) Medium range ballistic missile
(b) Supersonic cruise missile
(c) Short range tactical missile
(d) Ultrasonic cruise missile
15. Which of the following is not a unit of energy?
[AFCAT 1, 2013]
(a) Calorie
(b) Joule
(c) Electron volt
(d) Watt
16. Which Indian sportsperson was appointed as 'Messenger of Peace' in 2001 by the UN?
[AFCAT 2, 2013]
(a) Prakash Padukone
(b) Vishwanathan Anand
(c) Sachin Tendulkar
(d) Vijay Amritraj
17. Indian Women's hockey team secured which of the following position in Asian Champions Trophy 2013?
(a) First
[AFCAT 2, 2013]
(b) Second
(c) Third
(d) Fourth
18. Which is the longest bone in the human body?
[AFCAT 2, 2013]
(a) Fibula
(b) Radius
(c) Stapes
(d) Femur
19. A US team of scientists has found that the mechanism responsible for the ageing process is located-
(a) Inside the face
[AFCAT 1, 2014]
(b) Inside the skin
(c) Inside the brain
(d) Inside the heart
20. 

Serena
Williams defeated $\qquad$ to win the women's singles title of Australian Open 2015.
[AFCAT 1, 2014]
(a) Venus Williams
(b) Sania Mirza
(c) Maria Sharapova
(d) Ana Ivanovic
21. Which city will host the 2022 Common Wealth Games?
(a) Gold Coast, Australia [AFCAT 1, 2014]
(b) Durban, South Africa
(c) Lusaka, Zambia
(d) Nairobi, Kenya
22. Which of the following Asian countries celebrates its Independence Day on 4th February?
[AFCAT 2, 2014]
(a) Sri Lanka
(b) Bahrain
(c) Cambodia
(d) Bangladesh
23. Animals active at night are called
(a) Diurnal
[AFCAT 2, 2014]
(b) Nocturnal
(c) Parasites
(d) Nacto-diurnal
24. The book, 'Born Again on the Mountain' is authored by
(a) Pooja Rani
(b) Arunima Sinha
(c) Bachendri Pal
(d) Urbashi Lal
25. The present chairman of ISRO is
(a) MYS Prasad
[AFCAT 1, 2015]
(b) Shailesh Nayak
(c) AS Kiran Kumar
(d) K Radhakrishnan
26. Natural radioactivity was discovered by
[AFCAT 1, 2015]
(a) Marie Curie
(b) Earnest Rutherford
(c) Henry Bacquerel
(d) Enrico Fermi
27. Sir C.V. Raman was awarded Noble Prize for his work connected with which
of the following phenomenon of radiation?
[AFCAT 2, 2015]
(a) Scattering
(b) Diffraction
(c) Interference
(d) Polarization
28. Who has been awarded the Dada

Saheb Phalke Award for 2014?
(a) Pran
[AFCAT 2, 2015]
(b) Shashi Kapoor
(c) Dilip Kumar
(d) Amitabh Bachchan

## ANSWERS AND HINTS

Answer 1. (c) American swimmer Michael Phelps has won the most Olympic medals with 22 ( 18 gold, 2 silver, 2 bronze).

Answer 2. (b) Hockey
Answer 3. (a) Jamaican sprinter Usain Bolt is arguably the fastest man in the world
Answer 4. (c) Jim Laker was the first player to take all 10 wickets in a Test match innings.
Answer 5. (d) The Borlaug Award is an award recognition conferred by a fertilizer company, Coromandel International, for outstanding Indian scientists.

Answer 6. (a) An Indian military decoration awarded for valour, courageous action or self-sacrifice away from the battlefield. It is the peacetime equivalent of the Param Vir Chakra.

Answer 7. (c) The Polar Satellite Launch Vehicle, commonly known by its abbreviation PSLV, is an expendable launch system developed and operated by the ISRO.

Answer 8. (d)
Answer 9. (a) The speed of sound is about 768 miles per hour at sea level. That is about four times faster than a racecar. Supersonic speed is 1060 miles per hour

Answer 10. (a) He established the Atomic Energy Commission of India in 1948.
Answer 11. (a)

Answer 12. (a) Om B. Agrawal was an Indian professional snooker player who won the 1984 amateur IBSF World Billiards Championship in Dublin, Ireland, the first Indian to win the event

Answer 13. (d) Polo is the ball sport with the largest playing field.
Answer 14. (b) BRAHMOS is the only known versatile supersonic cruise missile system which is in service.
Answer 15. (b) Joule is a unit of work done.
Answer 16. (d) Vijay Amritraj, a former tennis player, was appointed as its messenger of peace by the UN

Answer 17. (c)
Answer 18. (d) Femur is the longest bone while the shortest bone in the human body is in the ear

Answer 19. (c) The US team of scientists found the mechanism is located deep inside the brain and showed that it is responsible for the ageing process.

Answer 20. (c) Serena Williams won the title, defeating Maria Sharapova in the final, 6-3, 7-6, 7-5 to earn her sixth Australian Open title

Answer 21. (b) African city of Durban was selected as the host for the 2022 Commonwealth Games

Answer 22. (a) The day commemorates its internal political independence from British rule on that day in 1948. The day is a national holiday in Sri Lanka.

Answer 23. (b) Nocturnal creatures generally have highly developed senses of hearing, smell, and specially adapted eyesight.

Answer 24. (b) Arunima Sinha is the first female amputee to climb Mount Everest. She is also the first Indian amputee to climb Mount Everest.

Answer 25. (b) Former ISRO chairman K Radhakrishnan had retired on December 31, 2015 following which Shailesh Nayak, secretary, ministry of earth sciences, was given additional charge of Isro till the appointment of a new head
Answer 26. (c)
Answer 27. (a) C.V.Raman was awarded noble prize for scattering of light.
Answer 28. (b) The veteran actor-producer, 77, is the 46th winner of the honour

## SECTION ‘B’

## VERBAL ABILITY IN ENGLISH

- BASIC GRAMMAR \& ERROR DETECTION
- SYNONYMS AND ANTONYMS
- PASSAGE COMPLETION/CLOZE TEST
- JUMBLED SENTENCES
- COMPREHENSION
- IDIOMS AND PHRASES


## Chapter 1

## BASIC GRAMMAR \& ERROR DETECTION

## TOPIC QUESTIONS FOR AFCAT

## PREVIOUSLY ASKED QUESTIONS

DIRECTIONS: 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".
[AFCAT 1, 2011]

1. A person I met (a) / in the theatre (b) /was the playwright himself. (c)/ No error (d)
2. They walked (a) / besides each other (b) / in silence (c) / No error (d)
3. We returned to the guest house (a)/ impressed by (b) / What we had seen (c) / No error (d)
4. The judge was convinced (a)/ that neither (b)/ of the five accused was guilty (c)/ No error (d)
5. The municipality is going (a)/ to built a new school (b)/ near the park (c)/ No error (d) DIRECTIONS: 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".
[AFCAT 2, 2011]
6. It was a year since (a) / I received any letter (b) / from my sister. (c) / No error. (d)
7. His family members may arrive (a) / any moment (b) / by car. (c)/ No error. (d)
8. He went to office (a) / but returned back (b) / home immediately (c) / No error. (d)
9. The two brothers amicably divided (a) / their parent's property (b) /among them. (c) / No error. (d)
10. To attain a high academic standard (a) / in his college Sunil worked hard (b) / since morning till night (c) / No error.

DIRECTIONS: In each of the following questions, find out which part has an error. If there is no mistake, the answer is (d) "No error".
[AFCAT 1, 2012]
11. The boos was irritated (a) / by him neglecting (b) / the duties and (c) / not listening to his advice (d)
12. Each of the three (a) / beggars were (b) / asking for more (c)/ food to eat (d)
13. My brother sent (a) / two pairs (b) / of shoe (c) / from America (d).
14. The young boy said (a) / that he (b) / neither liked me (c)/ nor my wife (d).
15. He was (a) / congratulated for (b) / his success in (c) / the 100 m race (d)

DIRECTIONS: In each of the following questions, find out which part has an error. If there is no mistake, the answer is (d) "No error".
[AFCAT 2, 2012]
16. If you will (a) / follow my instructions (b) / you will get (c) / a suitable reward for this (d)
17. Harshad, along with (a) / his brother (b) / Ashwani and six senior officials (c) / were arrested (d)
18. He received timely support (a) / from his elder brother (b) /who is working abroad (c) / for the last six years (d)
19. One of the drawbacks (a) / of modern education are (b) / that it does not encourage original thinking (c) / No error (d)
20. Morphine and other (a) / narcotic drugs are valuable (b)/ medically, if misused (c) / it can cause irreparable damage (d)

DIRECTIONS: In each of the following questions, find out which part marked in (a), (b), (c) and (d) has an error
[AFCAT 1, 2013]
21. The police has (a)/arrested the thief (b)/who broke into my house (c)/last night. (d)
22. The man who (a)/they thought to be (b)/a gentleman turned out (c)/to be a rogue. (d)
23. 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)
24. Mohan is one of those boys (a)/who has expressed (b)/ willingness for joining (c)/the education tour. (d)
25. I may spend (a)/ this summer vacations (b)/with one of my friends (c)/ in the back waters of Kerala. (d)
26. A person I met (a)/in the theatre (b)/was the playwright himself. (c)/No error (d).
[AFCAT 1, 2011]
27. They walked (a)/besides each other (b)/in silence. (c)/No error (d).
[AFCAT 2, 2011]
28. We returned to the guest house (a)/impressed by (b)/what we had seen. (c)/No error (d).
[AFCAT 1, 2012]
29. The judge was convinced (a)/that neither (b)/of the five accused was guilty. (c) /No error (d).
[AFCAT 2, 2012]
30. The municipality is going (a)/to built a new school (b)/near the park. (c)/No error (d).
[AFCAT 1, 2013]
31. The boss was irritated (a)/ by him neglecting (b)/ the duties and (c) not listening to his advice (d).
[AFCAT 2, 2013]
32. Each of the three (a)/ beggars were (b)/ asking for more (c)/ food to eat (d).
33. My brother sent (a)/two pairs (b)/ of shoe (c)/ from America (d)
[AFCAT 1, 2011]
34. The young boy said (a)/that he (b)/neither liked me (c)/nor my wife (d).
[AFCAT 1, 2011]
35. He was (a)/congratulated for (b)/his success in (c)/ the 100 m race (d).
[AFCAT 1, 2011]
DIRECTIONS: Choose the correctly spelt word: [2014-II]
36. (a) Parentheses
(b) Parenthsis
(c) Parentesis
(d) Parenthses
37. (a) Verstile
(b) Versatile
(c) Versetile
(d) Versatele
38. (a) Hemmorrhage
(b) Hemorrhage
(c) Haemorrhage
(d) Hemmorrage
39. (a) Vetnerinarian
(b) Veternarian
(c) Vetrinarian
(d) Veterinarian

## ANSWERS

1. (a) Here it should be the definite article 'the' person instead of indefinite 'a'.
2. (b) Beside means next to, at the side of while besides means making an additional point; anyway.
3. (a) The construction of the sentence should be as 'Impressed by what we had seen, we returned to the guest house.
4. (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 ere 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.
5. (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.
6. (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.'
7. (a) Here 'may' should be replaced with 'can'. Thus the sentence should be 'His family members can arrive any moment by car'.
8. (b) Here 'back' should be removed from the sentence. Return means to go backwards to where you have left before.
9. (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.
10. (c) Here 'since' should be replaced with 'from'. From is used to indicate a specified place or time as a starting point.
11. (b) The correct sentence should be the boss was irritated with him for neglecting the duties and not listening to his advice.
12. (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.
13. (c) The correct sentence is 'My brother sent two pairs of shoes from America'.
14. (c) The correct sentence should be 'The young boy said that he liked neither me nor my wife.
15. (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.
16. (a) In the conditional sentence the correct patter should be 'If you follow my instructions
17. (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.
18. (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.
19. (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 $\qquad$
20. (d) Since morphine and other narcotic drugs is in plural so, the pronoun 'it' should be replaced with 'they'.
21. (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.
22. (d) Rouge is misspelt as rougue. Rouge means an unprincipled, deceitful, and unreliable person.
23. (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.
24. (b) Here 'has' is to be replaced by 'have'.
25. (b) Here vacation is to be used as a singular because the noun 'friend' present after the pronoun is a plural.
26. (a)
27. (b)
28. (c)
29. (b)
30. (b)
31. (b)
32. (b)
33. (c)
34. (c)
35. (b)
36. (a) Parentheses. It's a plural form of parenthesis.
37. (b) Versatile
38. (c) Haemorrhage
39. (d) Veterinarian

## Chapter 2

## SYNONYMS AND ANTONYMS <br> PREVIOUSLY ASKED QUESTIONS

In each of the following choose the word most similar in meaning to the word given in capitals.

1. CAUSED
(a) Brought about
(b) Brought forward
(c) Brought out
(d) Brought over
2. PLACID
[AFCAT 2, 2011]
(a) Plain
(b) Clear
(c) Poor
(d) Calm
3. AUDACIOUS [AFCAT 1, 2012]
(a) Obvious
(b) Daring
(c) Ardent
(d) Affluent
4. EMANCIPATE [AFCAT 2, 2012]
(a) Set free
(b) Exist
(c) Correct morally
(d) Restrain
5. DECEIT
[AFCAT 1, 2013]
(a) Simplicity
(b) Gentility
(c) Sincerity
(d) Dishonesty
6. ADMONITIO [AFCAT 2, 2013]
(a) Thrash
(b) Hindrance
(c) Warning
(d) Exhort
7. 'TRANSGRESSOR'
(a) Passenger [AFCAT 1, 2014]
(b) Law-breaker
(c) Protector
(d) Comrade
8. 'EGREGIOUS [AFCAT 2, 2014]
(a) Common
(b) Social
(c) Plain
(d) Atrocious
9. Nebulous
[AFCAT 1, 2015]
(a) Tiny
(b) Vague
(c) Insignificant
(d) Inadequate
10. Debilitate
[AFCAT 1, 2015]
(a) Weaken
(b) Attack
(c) Surmount
(d) Destroy
11. Anathema [AFCAT 2, 2015]
12. Penchant [AFCAT 1, 2015]
(a) Religious Chant
(a) Liking
(b) Pun
(b) Eagerness
(c) Musical Subject
(c) Disability
(d) Curse
(d) Keennes

Pick out the word that is most nearly the opposite in meaning to the word given in capitals:
13. MONOLOGUE [AFCAT 1, 2011]
(a) Prologue
(b) Epilogue
(c) Dialogue
(d) Catalogue
14. DELETE [AFCAT 1, 2011]
(a) Imbibe
(b) Improve
(c) Insert
(d) Inspire
15. AMBIGUITY [AFCAT 2, 2011]
(a) Certainty
(b) Clarity
(c) Rationality
(d) Laxity
16. VOCIFEROUS
(a) Laudable [AFCAT 1, 2012]
(b) Quiet
(c) Dangerous
(d) Powerful
17. IMPLICATE [AFCAT 2, 2012]
(a) Involve
(b) Exonerate
(c) Corrupt
(d) Accuse
18. 'PREDILECTION'
(a) Oblivion [AFCAT 1, 2013]
(b) Objectivity
(c) Aversion
(d) Defeat
19. 'CACOPHONOUS'
(a) Tamed [AFCAT 2, 2013]
(b) Harmonious
(c) Domestic
(d) Silent
20. 'CALUMNY'
(a) Apology [AFCAT 1, 2014]
(b) Eulogy
(c) Enjoyment
(d) Reservation
21. Refractory [AFCAT 2, 2014]
(a) Refreshing
(b) Burdensome
(c) Privileged
(d) Manageable
22. Insolent
[AFCAT 1, 2015]
(a) Sullen
(b) Affable
(c) Determined
(d) Rich
23. Acrimonious
(a) Legal
[AFCAT 1, 2015]
(b) Severe
(c) Cursive
(d) Harmonious
24. Sceptic [AFCAT 2, 2015]
(a) Cryptic
(b) Believer
(c) Support
(d) Eminent

## ANSWERS AND HINTS

| 1. (a) | 2. (d) | 3. (b) | 4. (a) | 5. (d) | 6. (c) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 7. (b) | 8. (d) | 9. (b) | 10. (a) | 11. (d) | 12. (a) |
| 13. (c) | 14. (c) | 15. (b) | 16. (b) | 17. (b) | 18. (c) |
| 19. (d) | 20. (b) | 21. (d) | 22. (b) | 23. (d) | 24. (b) |

PASSAGE COMPLETION/CLOZE TEST

Directions ( $\mathrm{Q} .1-10$ ): In the following passage there are blanks, each of which has been numbered. These numbers are also printed below the passage and against each five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

## PASSAGE 1

A good percentage of the population of India is tribal. The tribals live in the hills and forests of the country; and have been little (1) by the (2) currents of the plains. Practically all the states of India have their tribal population. The tribes are numerous, computed to be about 200, some living in (3) regions in dense forests, and others on the borders of villages. Some tribes are (4) to a few souls, while others like the Santhals run into millions and are steadily (5) in numbers. During the British period some of them were known as criminal tribes for they showed (6) respect for the Indian Penal Code. After independence they have been named Scheduled Tribes. Under modern conditions isolation, however, has become (7) and the hill tribes are getting (8).The cultural traffic is two-way. Social reformers are taking civilization to the hills, and the tribes, (9) their old occupations of hunting and (10) farming, are settling in villages, towns and cities as labourers and workers.
1.
(a) affected
(b) domiciled
3.
(c) motivated
(a) comfortable
(d) deprived
(b) marshy
(c) wild
(e) favoured
(d) unpopulated
(e) inhospitable
2.
(a) financial
(b) proud
4.
(c) cultural
(a) devoted
(b) confined
(d) unruly
(c) susceptible
(e) swift
(d) related
(e) attached
5.
(a) constant
(b) deteriorated
(c) developing
(d) increasing
(e) decreasing
6.
(a) abundant
(b) genuine
(c) superficial
(d) exorbitant
(e) scant
7.
(a) crucial
(b) necessary
(c) difficult
(d) convenient
(e) indispensable
8.
(a) civilized
(b) demoralized
(c) wiped-out
(d) entertained
(e) reduced
9.
(a) escaping
(b) with
(c) enhancing
(d) leaving
(e) continuing
10.
(a) productive
(b) primitive
(c) profitable
(d) cultivable
(e) scientific

## Answers

| 1. (a) | 2. (c) | 3. (e) | 4. (b) | 5. (d) | 6. (e) | 7. (c) | 8. (a) | 9. (d) | 10. (b) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## PASSAGE 2

Our company has set up a foundation which is (1) to spreading literacy. To (2) to this cause the foundation has a project called 'A Library for Every School' through (3) the foundation donates books mainly to government school libraries so that children have easy (4) to books on a variety of subjects. In my (5) as a Chairperson of the Foundation I travel (6) in rural areas. All this travelling has (7) me to understand what children want to read in different parts of the country. (8) my travels I frequently stay in the houses of people I meet as (9) there are no hotels in small towns and villages that I visit. In India a guest is always treated well; an old Sanskrit saying is Atithi Devo Bhava (10) that God comes in the form of a guest.
1.
(a) dedicated
(b) responsible
(c) trying
(d) catered
(e) involved
2.
(a) awaken
(b) further
(c) aim
(d) contribute
(e) perform
3.
(a) those
(b) which
(c) whom
(d) where
(e) these
4.
(a) opportunity
(b) admission
(c) purchase
(d) access
(e) contact
5.
(a) feeling
(b) decision
(c) role
(d) knowledge
(e) order
6.
(a) extensively
(b) somehow
(c) extremely
(d) hastily
(e) sometime
7.
(a) ensured
(b) provided
(c) enabled
(d) deprived
(e) made
8.
(a) During
(b) Since
(c) From
(d) Through
(e) Besides
9.
(a) while
(b) usual
(c) neither
(d) often
(e) either
10.
(a) threatens
(b) meaning
(c) fearing
(d) imply
(e) naturally


## PASSAGE 3

There has been a (1) change in people's (2) towards and awareness (3) the environment. People are more (4) about the (5) condition of their environment. Land in all societies is subjected to (6) usage, viz. crop production, forest cover, grassland, urbanization and industrialization etc. During the last five decades (7) developmental activities have taken place. Slope failure and (8) of soil due to such (9) are (10) environmental hazards.
1.
(a) special
(b) tremendous
(c) extreme
(d) developmental
(e) supportive
2.
(a) information
(b) feasibility
(c) debate
(d) participation
(e) attitude
3.
(a) protecting
(b) covering
(c) towards
(d) surrounding
(e) of
4.
(a) concerned
(b) biased
(c) casual
(d) desperate
(e) confused
5.
(a) grey
(b) deteriorating
(c) dry
(d) rustic
(e) uneven
6.
(a) continued
(b) drastic
(c) multiple
(d) unjustified
(e) insignificant
7.
(a) unique
(b) disastrous
(c) umpteen
(d) extensive
(e) amazing
8.
(a) pollution
(b) cultivation
(c) deployment
(d) demand
(e) erosion
9.
(a) urgency
(b) misconception
(c) activities
(d) action
(e) misdeed
10.
(a) major
(b) damaging
(c) effective
(d) distinctive
(e) concerned

## Answers

| 1.(b) | 2. (e) | 3. (e) | 4.(a) | 5. (b) | 6.(c) | 7. (d) | 8. (e) | 9. (c) | 10.(a) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## PASSAGE 4

Indian's approach towards treatment of (1) banks is yet another interesting issue. Rather than closing them down, policymakers in India have shown a preference to (2) such banks with healthy public sector banks. It has been (3) in certain circles that such an approach may give rise to a moral hazard problem. However, two issue need (4) in this context. First, commercial banks are the most dominant and systemically important segment of the financial system. Second, over 70 per cent of the bank depositors in India are small depositors.

Therefore, systemic concerns coupled with the necessity to (5) The interest of small depositors have been (6) in the minds of policymakers while (7) with insolvent banks. This issue had not (8) Much attention in the context of a predominantly government owned banking system. As the weight of private banks increases further thinking will need to be done on this subject, both in teams of (9) Of insolvency through advance regulatory supervision and action, and post insolvency measures that (10) moral hazard and eventual fiscal cost
1.
(a) insolvent
(b) foreign
(c) cooperative
(d) small
(e) private
2.
(a) dissolve
(b) relegate
(c) anchor
(d) merge
(e) connect
3.
(a) resolved
(b) felt
(c) promised
(d) identified
(e) done
4.
(a) resolutions
(b) decisions
(c) approaches
(d) priority
(e) consideration
5.
(a) enhance
(b) increase
(c) safeguard
(d) rationalize
(e) evolve
6.
(a) paramount
(b) superficial
(c) extradited
(d) vested
(e) imbibing
7.
(a) conniving
(b) coping
(c) absorbing
(d) dealing
(e) conversing
8.
(a) paid
(b) offered
(c) deserved
(d) distracted
(e) received
9.
(a) enhancement
(b) prevention
(c) attachment
(d) refurbishment
(e) expedition
10.
(a) anticipate
(b) provoke
(c) discourage
(d) envisage
(e) create

## Answers

| 1. (a) | 2. (d) | 3. (b) | 4. (e) | 5. (c) | 6. (a) | 7. (d) | 8. (e) | 9. (b) | 10. (c) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## PREVIOUSLY ASKED PASSAGES

## PASSAGE 1 (AFCAT 1, 2014)

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.

1. (a) Poor
(b) Sick
(c) Hardy
(d) Weak
2. (a) Dependent
(b) Independent
(c) Exposed
(d) Tried
3. (a) Heralds
(b) Herald
(c) Bring
(d) Brings
4. (a) Hangs
(b) Hand
(c) Goes
(d) Shines
5. (a) Know
(b) Get
(c) Think
(d) Have
6. (a) Everything
(b) Something
(c) Somewhere
(d) Nothing

## Answers

| 1. (a) | 2. (c) | 3. (d) | 4. (c) | 5. (d) | 6. (d) |
| :--- | :--- | :--- | :--- | :--- | :--- |

## PASSAGE 2 (AFCAT 2, 2014)

The Indian economy is not (1) "in a bright spot". That is what most (2), barring those like the International Monetary Fund (IMF), appear to think. One can, of course, see (3) the IMF is coming from. Multilateral agencies, (4) armed with a cookie-cutter approach, do take a (5) view and it is true that India is today the world's fastest-growing (6) economy. Cheer on this front must, however, be (7) by an awareness that India has a far (8) per capita income compared to other countries in the Brazil, Russia, India, China, South Africa (BRICS) grouping. (9), early indications are that India's growth rate is slowing this (10) year.
1.
(a) altogether
(b) exactly
(c) quitely
(d) same
(e) truly
2.
(a) observers
(b) followers
(c) Viewers
(d) spectators
(e) watchers
3.
(a) what
(b) why
(c) that
(d) where
(e) which
4.
(a) although
(b) despite
(c) in spite of
(d) despite of
(e) though
5.
(a) world
(b) whole
(c) global
(d) complete
(e) overall
6.
(a) large
(b) largest
(c) highest
(d) biggest
(e) big
7.
(a) artifical
(b) mediteted
(c) settled
(d) moderated
(e) resolved
8.
(a) higher
(b) moderate
(c) lower
(d) reduced
(e) arguable
9.
(a) whatsoever
(b) however
(c) moreover
(d) nonetheless
(e) anyhow
10.
(a) current
(b) fiscal
(c) purgatory
(d) financial
(e) commercial

## Answers

| 1.(b) | 2.(a) | 3.(d) | 4.(e) | 5.(c) | 6.(a) | 7.(b) | 8.(c) | 9.(c) | 10.(d) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## PASSAGE 3 (AFCAT 1, 2015)

Singapore is the (1) education (2) in Asia, offering (3) education (4) at all (4) to local and international students. (6) on the strengths and international (7) of Singapore (8) the Singapore government is (9) promoting and developing the education industry in Singapore for all international students from (10) the world.
1.
(a) unique
(b) legendary
(c) striking
(d) proven
(e) premier
2.
(a) hub
(b) window
(c) prospect
(d) network
(e) country
3.
(a) demanding
(b) career
(c) quality
(d) basically
(e) prosperous
4.
(a) atmospher
(b) environment
(c) system
(d) opportunities
(e) privilege
5.
(a) infrastructure
(b) corridors
(c) stream
(d) networks
(e) levels
6.
(a) multiplying
(b) feeding
(c) building
(d) spreading
(e) holding
7.
(a) recognition
(b) dynamism
(c) record
(d) track
(e) exposure
8.
(a) educating
(b) syllabus
(c) institutions
(d) management
(e) division
9.
(a) mainly
(b) actively
(c) vastly
(d) thoroughly
(e) intentionally
10.
(a) within
(b) around
(c) over
(d) along
(e) covering

## Answers

| 11.(e) | 12.(a) | 13.(c) | 14.(d) | 15.(e) | 16.(c) | 17.(a) | 18.(c) | 19.(b) | 20.(b) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## PASSAGE 5 (AFCAT 2, 2015)

Life is an (1) series of challenges and opportunities to be seized. You have to plan for exercising the right career choices and (2) the right opportunities. Planned (3) rather than a hasty decision is (4) as far as your career is concerned. You need to (5) what occupational groups, (6) and type of organizations are suitable for you.

1. (a) enticing
(b) exciting
(c) encharming
(d) enhancing
2. (a) catching
(b) offsetting
(c) grabbing
(d) conceiving
3. 

(a) delay
(b) hindrance
(c) application
(d) execution
2.
(a) desirable
(b) deciphered
(c) inevitable
(d) acceptable
3.
(a) check
(b) classify
(c) divide
(d) analyse
4. (a) specifications
(b) limitations
(c) qualifications
(d) identification

## Answers

| 1. (b) | 2. (c) | 3. (a) | 4. (a) | 5. (d) | 6. (a) |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Chapter 4 <br> JUMBLED SENTENCES

Directions: In questions below, each passage consist of six sentences. The first and sixth sentences are given in the beginning. The middle four sentences in each have been removed and jumbled up. These are labelled as P, Q, R and S. Find out the proper order for the four sentences.

## Q. 1

S1: In the middle of one side of the square sits the Chairman of the committee, the most important person in the room.

P: For a committee is not just a mere collection of individuals.
Q: On him rests much of the responsibility for the success or failure of the committee.
$R$ : While this is happening we have an opportunity to get the 'feel' of this committee.
$S$ : As the meeting opens, he runs briskly through a number of formalities.
S6: From the moment its members meet, it begins to have a sort nebulous life of its own.
The Proper sequence should be:
A.RSQP
B. PQRS
C. SQPR
D. QSRP
Q. 2

S1: A force of exists between everybody in the universe.
P: Normally it is very small but when the one of the bodies is a planet, like earth, the force is considerable.

Q: It has been investigated by many scientists including Galileo and Newton.
R : Everything on or near the surface of the earth is attracted by the mass of earth.
S: This gravitational force depends on the mass of the bodies involved.
S6: The greater the mass, the greater is the earth's force of attraction on it. We can call this force of attraction gravity.

The Proper sequence should be:
A.PRQS
B. PRSQ
C. QSRP
D. QSPR

## Q. 3

S1: Calcutta unlike other cities kept its trams.
P: As a result there horrendous congestion.
Q: It was going to be the first in South Asia.
$R$ : They run down the center of the road
$S$ : To ease in the city decided to build an underground railway line.
S6: The foundation stone was laid in 1972.
The Proper sequence should be:
A.PRSQ
B. PSQR
C. SQRP
D. RPSQ

## Q. 4

S1: For some time in his youth Abraham Lincoln was manager for a shop.
P: Then a chance Customer would come.
Q: Young Lincoln way of keeping shop was entirely unlike anyone else's
R: Lincoln would jump up and attend to his needs and then revert to his reading.
S: He used to lie full length on the counter of the shop eagerly reading a book.
S6: Never before had Lincoln had so much time for reading as had then.
The Proper sequence should be:
A.SRQP
B. QSPR
C. SQRP
D. QPSR
Q. 5

S1: All the land was covered by the ocean.
P: The leading god fought the monster, killed it and chopped its body in to two halves.
Q : A terrible monster prevented the gods from separating the land from the water.
R: The god made the sky out of the upper part of the body and ornamented it with stars.
S: The god created the earth from the lower part, grew plants on it and populated it with animals.

S6: The god moulded the first people out of clay according to his own image and mind. The Proper sequence should be:
A.PQRS
B. PQSR
C. QPSR
D. QPRS

## Q. 6

S1: Smoke oozed up between the planks.
P: Passengers were told to be ready to quit the ship.
$Q$ : The rising gale fanned the smouldering fire.
R : Everyone now knew there was fire on board.
S : Flames broke out here and there.
S6: Most people bore the shock bravely.
The Proper sequence should be:
A.SRQP
B. QPSR
C. RSPQ
D. QSRP
Q. 7

S1: You know my wife, Madhavi, always urged me to give up smoking.
P: I really gave it up.
Q : And so When I went to jail I said to myself I really must give it up, if for no other reason than of being self-reliant.

R: When I emerged from jail, I wanted to tell her of my great triumph.
S: But when I met her, there she was with a packet of cigarettes.
S6: poor girl!
The Proper sequence should be:
A.PSRQ
B.SPQR
C.QPRS
D.RSPQ

## Q. 8

S1: When a satellite is launched, the rocket begins by going slowly upwards through the air.

P: However, the higher it goes, the less air it meets.
Q : As the rocket goes higher, it travels faster.
R: For the atmosphere becomes thinner.
S: As a result there is less friction.
S6: Consequently, the rocket still does not become too hot.
The Proper sequence should be:
A.QPRS
B.QSPR
C.PQRS
D.PQSR

## Q. 9

S1: A father having offered to take the baby out in a perambulator was tempted by the sunny morning to slip into a pub for a glass of beer.

P : Indignant at her husband's behaviour, she decided to teach him a lesson.
Q: She wheeled away the pram.
R : A little later, his wife came by, where to her horror, she discovered her sleeping baby.
S: Leaving the pram outside, he disappeared inside the bar.
S6: She waited for him, anticipating the white face and quivering lips which would soon appear with the news that the baby had been stolen.

The Proper sequence should be:
A.SRPQ
B.RQPS
C.SPQR
D.PQSR

## Q. 10

S1: The city is almost a slum and stinks most of time.
P: The slush on the road did not deter them.
Q: The occasional slips and falls were considered a small price to pay for the trip.
R : They were excited, fascinated by the sight of fresh snow on the roads.
S: Even so, it looked beautiful to tourists of various categories.
S6: But some visitors came away with the unforgettable sight of young labours scantily clad.

The Proper sequence should be:
A. RQPS
B. QPRS
C.RSQP
D.SPQR
Q. 11

S1: Venice is a strange and beautiful city in the north of Italy.
P: There are about four hundred old stone bridges joining the island of Venice.
Q: In this city there are no motor cars, no horses, no buses.
R: These small islands are near one another.
S: It is not an island but a hundred and seventeen islands.
S6: This is because Venice has no streets.
The Proper sequence should be:
A.PQRS
B.PRQS
C.SRPQ
D.PQSR
Q. 12

S1: The Hound of Baskervilles was feared by the people of the area.
P: Some people spoke of seeing a huge, shadowy form a Hound at midnight on the moor.
Q: But they spoke of it in tones of horror.
R : Nobody had actually seen the hound.

S: This shadowy form did not reveal any details about the animal.
S6: The Hound of Baskervilles remains an unsolved mystery.
The Proper sequence should be:
A.SPQR
B.SPRQ
C.PSRQ
D.PQRS
Q. 13

S1: A gentleman who lived alone always had two plates placed on the table at dinner time.
P: One day just as he sat down to dine, the cat rushed in to the room.
Q: One plate was for himself and other was for his cat.
R : she drooped a mouse into her own plate and another into her master plate.
$S$ : He used to give the cat a piece of meat from his own plate.
S6: In this way the cat showed her gratitude to her master.
The Proper sequence should be:
A.QSPR
B.PSRQ
C.QRSP
D.RPQS
Q. 14

S1: Ants eat worms, centipedes and spiders.
$P$ : They are usually much quicker than the ant itself.
Q: Nevertheless, these animals do not make easy game for ants.
$R$ : Besides, they have an extraordinary number of ways of escaping.
S: They also eat larvae and insect adults such as flies, moths and spring tails.
S6: Some jump, and some give out a pungent repellent substance.
The Proper sequence should be:
A.SQPR
B.SPRQ
C.SQRP
D.SRQP
Q. 15

S1: Satyajit Ray made several films for children.
P : Later film makers have followed his lead.
Q: Today other nations are making the children's film in a big way.
$R$ : This was at a time when no director considered children as potential audience.
S: Ray was, thus, a pioneer in the field.
S6: But today few think of Ray as a maker of children's films.
The Proper sequence should be:
A.PSRQ
B.RSQP
C.RSPQ
D.SQRP
Q. 16

S1: Hungary, with a population of about 10 million, lies between Czechoslovakia to the north and Yugoslavia to the south.
P: Here a great deal of grain is grown.
Q: In recent years, however, progress has been made also in the field of industrialisation.
R : Most of this country consists of an extremely fertile plain, through which the river Danube flows.

S: In addition to grain, the plain produces potatoes, sugar, wine and livestock.
S6: The new industries derive mainly from agricultural production.
The Proper sequence should be:
A.QRSP
B.RPSQ
C.PRSQ
D.RQSP
Q. 17

S1: Palaeobotany is the study of fossil plants preserved in rocks dating back in millions of years.

P: Records of the history of the world are contained in fossils.
Q:Through the ages, plants have evolved from simple to more complex forms.
R : First there were water plants then land plants appeared during the Paleozoic era.
S: But since the fossil remains appear locked in rock layers, they are closely related to the geologist area of investigation.

S6: The fossil plants indicate the age of the rock, and also point to facts regarding climate, temperature and topography.

The Proper sequence should be:
A.RQSP
B.SQRP
C.PSQR
D.QRPS
Q. 18

S1: On vacation in Tangier, Morocco, my friend and I sat down at a street cafe.
P : At one point, he bent over with a big smile, showing me, a single gold tooth and a dingy fez.

Q: soon I felt the presence of someone standing alongside me.
$R$ : But this one wouldn't budge.

S: We had been cautioned about beggars and were told to ignore them.
S6: Finally a man walked over to me and whispered, "Hey buddy this guy is your waiter and he wants your order"
The Proper sequence should be:
A.SQRP
B.SQPR
C.QSRP
D. QSPR
Q. 19

S1: And then Gandhi came.
P: Get off the backs of these peasants and workers, he told us, all you who live by their exploitation.

Q: He was like a powerful current of fresh air, like a beam of light, like a whirlwind that upset many things.
R: He spoke their language and constantly dre their attention to their appalling conditions.

S: He didn't descent from the top, he seemed to emerge from the masses of India.
S6: Political freedom took new shape and then acquired a new content.
The Proper sequence should be:
A.QSRP
B.SRQP
C.RSQP
D.PRSQ

## Q. 20

S1: Biological evolution has not fitted man to any specific environment.
P: It is by no means a biological evolution, but it is a cultural one.
Q: His imagination, his reason, his emotional subtlety and toughness, makes it possible for him not to accept the environment but to change.

R: And that series of inventions by which man from age by age has reshaped his environment is a different kind of evolution.

S: Among the multitude of animals which scamper, burrow swim around us he is in the only one who is not locked in to his environment.

S6: That brilliant sequence of cultural peaks can most appropriately be termed the ascent of man.

The Proper sequence should be:
A.QPRS
B.SRQP
C.QRSP
D.SQRP

## Q. 21

S1: The dictionary is the best friend of you task.
P: That may not be possible always.
Q: It is wise to look it up immediately.
R : Then it must be firmly written on the memory and traced at the first opportunity.
S: Never allow a strange word to pass unchallenged.
S6: soon you will realize that this is an exciting task.
The Proper sequence should be:
A.PQRS
B.SPQR
C.QRPS
D.SQPR

Q22
S1: The Bhagavadgita recognises the nature of man and the needs of man.
P: All these three aspects constitute the nature of man.
Q: It shows how the human being is rational one, an ethical one and a spiritual one.
R: More than all, it must be a spiritual experience.
S: Nothing can give him fulfilment unless it satisfies his reason, his ethical conscience.
S6: A man whom does not harmonise them, is not truly human.
The Proper sequence should be:
A.PSRQ
B.RSPQ
C.QPSR
D.PSQR
Q. 23

S1: I usually sleep quite well in the train, but this time I slept only a little.
P: Most people wanted it shut and I wanted it open.
Q:As usual, I got angry about the window.
$R$ : The quarrel left me completely upset.
S: There were too many people too much huge luggage all around.
S6: It was shut all night, as usual
The Proper sequence should be:
A.RSQP
B.SQPR
C.SQRP
D.RSPQ

## Q. 24

S1: In 1934, William Golding published a small volume of poems.
P: During the World War II(1939-45) he joined the Royal Navy and was present at the sinking of the Bismarck.

Q : He returned to teaching in 1945 and gave it up in 1962, and is now a full time writer.
R : In 1939, he married and started teaching at Vishop Wordsworth school in Salisbury.
S: At first his novels were not accepted.
S6: But the Lord of the files which came out in 1954 was welcomed as "a most absorbing and instructive tale".

The Proper sequence should be:
A.RPQS
B.RPSQ
C.SRPQ
D.SQPR
Q. 25

S1: The future beckons to us.
P: In fact we have hard work ahead.
Q: Where do we go and what shall be our endeavour?
R : We shall also have to fight and end poverty, ignorance and disease.
S: It will be to bring freedom and oppurtunity to the common man.
S6: There is no resting for any one of us till we redeem our pledge in full.
The Proper sequence should be:
A.PSRQ
B. QPSR
C.QSRP
D.SRPQ
Q. 26

S1: Most of the universities in the country are now facing financial crisis.
P: Cost benefit yardstick thus should not be applied in the case of universities.
Q: The current state of affairs cannot be allowed to continue for long.

R: Universities cannot be equated with commercial enterprises.

S : Proper development of universities and colleges must be ensured.

S6: The Government should realise this before it is too late.

The Proper sequence should be:
A.QRPS
B.QSPR
C.QRSP
D.QPRS

## Q. 27

S1: While talking to a group, one should feel self-confident and courageous.
P: Nor is it a gift bestowed by providence on only a few.

Q: One should also learn how to think calmly and clearly.
$R$ : It is like the ability to play golf.
S: It is not as difficult as most men imagine.
S6: Any man can develop his capacity if he has the desire to do so.
The Proper sequence should be:
A.SQPR
B.QSPR
C.QRSP
D.RSQP
Q. 28

S1: A ceiling on urban property.
P: No mill-owner could own factories or mills or plants.
Q:And mass circulation papers
R: Would mean that
S: No press magnate could own printing presses.
S6: since their value would exceed the ceiling fixed by the government.
The Proper sequence should be:
A.QSRP
B.RPSQ
C.SRPQ
D.QPSR

## Q. 29

S1: The art of growing old is one which the passage of time has forced upon my attention.
$P$ : One of these is undue absorption in the past.
Q: One's thought must be directed to the future and to things about which there is something to be done.

R : Psychologically, there are two dangers to be guarded against in old age.
S: It does not do to live in memories, in regrets for the good old days, or in sadness about friend who are dead.

S6: This is not always easy one's own past is gradually increasing weight.
The Proper sequence should be:
A.QSRP
B.RPQS
C.RPSQ
D.QPRS

## Q. 30

S1: I keep on flapping my big ears all day.
P: They also fear that I will flip them all away.
Q: But children wonder why I flap them so.
R: I flap them so to make sure they are safely there on either side of my head.
S: But I know what I am doing.
S6: Am I not a smart, intelligent elephant?
The Proper sequence should be:
A.SRQP
B. QPSR
C.QPRS
D.PSRQ
Q. 31
[AFCAT 2011]
S1: Once King Shantnu met a young and beautiful fisher girl.
$P$ : He went to the fisherman and asked him for her asked him for her hand in marriage.

Q: The King was extremely sad and returned to his palace.
R: He fell in love with the fisher girl.
S: The fisherman agreed to it condition that the son of his daughter should be heir to the throne of Hastinapur.

S6: Devavrata, the King's son, asked him the reason of his sadness.
The Proper sequence should be:
A.PQRS
B.RPSQ
C.QSPR
D.PSQR
Q. 32
[AFCAT 2012]
S1: Reliogion is not a matter of mere dogmatic conformity.
P: It is not merely going through the ritual prescribed to us.
Q: It is not a question of ceremonial piety.
R : Unless that kind of transformation occurs, you are not an authentically religious man.
S: It is the remarking of your own self, the transformation of your nature.
S6: A man of that character is free from fear, free from hatred.
The Proper sequence should be:
A.SPRQ
B.QPSR
C.PSRQ
D.SPQR
Q. 33
[AFCAT 2013]
S1: We speak today of self-determination in politics.
P: So long as one is conscious of a restraint, it is possible to resist it or to near it as a necessary evil and to keep free in spirit.

Q: Slavery begins when one ceases to feel that restraint and it depends on if the evil is accepted as good.

R: There is, however, a subtler domination exercised in the sphere of ideas by one culture to another.

S: Political subjection primarily means restraint on the outer life of people.
S6: Cultural subjection is ordinarily of an unconscious character and it implies slavery from the very start.

The Proper sequence should be:
A.SPRQ
B.RSQP
C.SPQR
D.RSPQ
Q. 34
[AFCAT 2014]
S1: Once upon a time an ant lived on the bank of river.
$P$ : The dove saw the ant struggling in water in a helpless condition.
Q:All its efforts to come up is failed.
R: One day it suddenly slipped in to water.
S: A dove lived in the tree on the bank not far from the spot.
S6: She was touched.
The Proper sequence should be:
A.RQSP
B.QRPS
C.SRPQ
D.PQRS
Q. 35
[AFCAT 1, 2015]
S1: The December dance and music season in Madras is like the annual tropical cyclone.
P: A few among the new aspirants dazzle witht he colour of youth, like fresh saplings.
Q: It rains an abundance of music for over a fortnight.
R: Thick clouds expectation charge the atmosphere with voluminous advertisements.

S: At the end of it one is left with the feeling that the music of only those artists seasoned by careful nurturing, stands tall like well-routed trees.

S6: Many a hastily planed shrub gets washed away in the storm.
The Proper sequence should be:
A.RQPS
B.QRPS
C.RQSP
D.QRSP
Q. 36
[AFCAT 2, 2015]
S1: There is a touching story of Professor Hardy visiting Ramanujan as he lay desperately ill in hospital at Putney.
$P$ : 'No Hardy, that is not a dull number in the very least.
Q: Hardy, who was a very shy man, could not find the words for his distress.
R: It was 1729.
S: The best he could do, as he got to the beside was "I say Ramanujan, I thought the number of taxi I came down in was a very dull number"

S6: It is the lowest number that can be expressed in two different ways as the sum of two cubes.

The Proper sequence should be:
A.PRSQ
B.QSRP
C.QSPR
D.SQRP

## ANSWERS

| 1. D | 2. D | 3. D | 4. B | 5. D | 6. A |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7. C | 8. A | 9. A | 10. D | 11. C | 12.C |
| 13. A | 14.A | 15. C | 16. B | 17. D | 18. C |
| 19. B | 20. C | 21. D | 22. C | 23. B | 24. A |
| 25. C | 26. A | 27. B | 28. B | 29. C | 30. B |
| 31. B | 32. B | 33. C | 34. A | 35. B | 36. B |

## Chapter 5 <br> COMPREHENSION

Directions: Read the following passages and answer the questions that follow:

## PASSAGE 1

Democracy is a political arrangement that, at its most basic, demands that there be collective decision making and equality in the mechanisms of coalition building and deliberation. The strictest definition would imply that decisions are made directly by the citizens and no electoral process is employed to select legislative representatives who would, in turn, make decisions for the citizens, where representatives are elected to make decisions on behalf of the electorate, such a system is defined as a republic. Although a republic system is not entirely a pure democracy, it is built on democratic principles and normative theory would argue that this distinction is irrelevant as it can be accommodated into the very definition of democracy: practical democracy can involve the election of representatives or it can involve the direct decision-making powers of a citizen class.

1. Which aspect of democracy, at its most basic, does the writer refer to in this passage?
(a) Divided decision making and equality in alliance building
(b) Authoritarian decision making and inequality in coalition building
(c) Collective decision making and equality in coalition building
(d) Tyrannical decision making and equality in coalition building
2. What would, according to the writer, the strictest definition of democracy imply?
(a) Decisions are made directly by the citizens
(b) Decisions are made through their representatives
(c) They select legislative representatives who would, in turn, make decisions on their own
(d) The legislative representatives make decision by consulting with their electorates
3. Which of these sayings summarises the message within the passage?
(a) The decision making power is vested with the legislative representatives
(b) The decision making power is vested with the president
(c) it can involve the direct decision-making powers of a citizen class
(d) The decision making power is indirectly vested with the citizen class
4. The writer describes 'practical democracy' in this passage as
(a) the election of representatives
(b) the election of president
(c) the election of governors
(d) the election of representative that are nominated by the president
5. Complete the sentence 'a republic system is not entirely a pure democracy....'
(a) it is built on political arrangement
(b) it is built on electoral process
(c) it is built on alliance building
(d) it is built on democratic principles

## PASSAGE 2

There have been numerous experiences that have changed my life, but only one has impacted it the greatest; my mother being in the military. Many people never move in their entire life, but I have moved a total of four times. Ever since I could remember I have been moving and it is not easy. It takes a toll on you emotionally and mentally. It is not always a negative thing to move from one place to another every couple of years. I have had a lot amazing experiences because of it. I have been as far as to the beautiful island of Hawaii and the culturally rich Germany. My mother has been in the military for a total of eleven years. She was stationed in Germany when she had me. My family went to a lot of diverse places. First, we went to Cleveland, Ohio to visit my grandparents. We stayed here for a total of three months.
6. The writer's mother being in the military has impacted his life the greatest because
(a) He had plenty of time to introspect
(b) He had a lot of money to spend on travelling
(c) He has had a lot of amazing experiences due to it
(d) He had a lot of vacations
7. What does writer think takes a toll on one emotionally and mentally?
(a) Moving from one place to another
(b) One's mother being in the military
(c) Travelling day in and day out
(d) Shifting one's belongings from one place to another
8. The second sentence shows that the writer appreciates
(a) A person being in the military
(b) Working of a woman in the military
(c) Visiting the beautiful island of Hawaii
(d) Travelling
9. 'When she had me' means which of the following?
(a) When she was bearing me
(b) When she scolded me
(c) When she sent me to boarding
(d) When she asked me to travel alone
10. The writer's reference to 'Many people never move in their entire life' is a reference to
(a) They never go on vacation
(b) They never go on hiking
(c) They never change residence
(d) They never enjoy their life to the fullest

## PASSAGE 3

Patriotism is a very complex feeling, built up out of primitive instincts and highly intellectual convictions. There is love of home and family and friends, making us peculiarly anxious to preserve our own country from invasion. There is the mild instinctive liking for compatriots as against foreigners. There is pride, which is bound up with the success of the community to which we feel that we belong. There is a belief, suggested, by pride but reinforced by history, that one's own nation represents a great tradition and stands for ideals that are important to the human race. But besides all these, there is another element, at once nobler and more open to attack, an element of worship, of willing sacrifice, of joyful merging of the individual life in the life of the nation. This religious element in patriotism is essential to the strength of the State, since it enlists the best that is in most men on the side of national sacrifice.
11. A suitable title for the passage could be:
(a) Elements of Patriotism
(b) Historical Development of a Nation
(c) The role of Religion and History in Patriotism
(d) Religion and Patriotism
12. Describing the element of worship "Open to attack", the author implies that it:
(a) is unnecessary
(b) leads to national sacrifice
(c) has no historical basis
(d) cannot be justified on rational grounds
13. The tone of the passage can best be described as:
(a) critical
(b) descriptive
(c) persuasive
(d) analytical
14. Which of the following can clearly be grouped under "intellectual convictions" the author mentions in the opening sentence?
(a) Love of family
(b) Love of compatriots
(c) The element of worship
(d) None of the above
15. Which one of the following statements is false?
(a) We tend to like our own countrymen better than we like foreigners
(b) Nations always stand for ideals that are important to the human race
(c) It is the religious element in patriotism that motivates us for sacrificing ourselves for our nation
(d) Our pride of the community is bound with the community's success

## PASSAGE 4

Anxiety and conscience is a pair of powerful dynamos. Of course, I can only speak for myself. Between them, they have ensured that one shall work at anything worthwhile. They are blind forces which drive but do not direct. Fortunately, I have also been moved by a third motive-the wish to see and understand.

Curiosity is another motive for action. It is also one of the distinctive characteristics of human nature and contrasted with the natures of non-human animals. All human beings have curiosity in some degree and we also have it about things which are of no practical use. Curiosity may be focused on anything in the universe, but the spiritual reality of the phenomena should be the ultimate objective of all curiosity for it to be fruitful. Thanks to my mother, my approach to this ultimate objective is through the story of human affairs.
16. What is the main objective of this passage?
(a) Distinguish between human beings and animals
(b) Project curiosity as a potent motivating factor
(c) Project anxiety and conscience as inadequate motivators
(d) Motivation and spiritual reality
17. A characteristic peculiar to human beings that is referred to is :
(a) superior intelligence
(b) spirit of enquiry
(c) capacity to rationalise and analyse
(d) ability to shift the practical from the impractical
18. Which of the following statements is true according to the passage?
(a) Animals are as curious as human beings
(b) Curiosity is the only motive for action
(c) People motivated by curiosity do not need other motives to guide them
(d) People motivated by anxiety and conscience alone can be misdirected
19. According to the author:
(a) hose who have little curiosity are curious about unimportant things
(b) apart from humans no other living beings have the gift of curiosity
(c) the highest form of curiosity can be satisfied by study of human affairs alone
(d) spiritual reality is the ultimate goal of humans through action
20. The author subscribes to the view:
(a) one's curiosity should focus beyond the facade on the latent meaning of things
(b) curiosity is an inherited family characteristics
(c) a study of human affairs is the most effective method of satisfying one's curiosity
(d) in order to motivate, curiosity must be coupled with anxiety and conscience

## PASSAGE 5

America is often referred to as a "nation of immigrants" because of its largely opendoor policy toward accepting foreigners pursuing their vision of the American Dream. Recently, there has been a clamour to close that door, arguing that immigrants threaten American life by taking jobs from American workers, by using much-needed social services, and by eroding on the "American way of life." While these arguments may seem valid to many, they are overwhelmingly false, and more than likely confused with the subject of illegal immigration.

A common argument among those opposing further immigration is that foreigners take U.S. jobs and cause unemployment among the displaced American workers. That view was highlighted by a recent poll, according to which sixty-two percent of non-blacks and sixtythree percent of blacks agreed that "new immigrants take jobs away from American workers."
21. America is often referred to as a 'nation of immigrants' because it
(a) Sends its people to other countries for work
(b) Offers best opportunities of work to foreigners
(c) Welcomes people who come here to settle
(d) Has a lot of natural resources
22. The writer's reference to 'open-door policy' is a reference to
(a) Freedom of jobs
(b) Freedom of access
(c) Freedom of settlement
(d) Freedom of speech
23. The second sentence expresses an opinion that is most similar to which of the following statements?
(a) There have been loud demands to check on immigrants.
(b) There have been arguments in favour of welcoming immigrants
(c) There has been a hue and cry to send them back out of country
(d) There has been a call to increase their wages
24. "By eroding on the 'American way of life'" is best described as
(a) Infringing their privacy
(b) Conflicting with them culturally and socially
(c) Harming them economically
(d) Deteriorating their day to day life
25. Which of these sayings summarises the message within the passage?
(a) The argument that immigrants take jobs from American workers is unfounded.
(b) The immigrants take jobs from American workers.
(c) The immigrants settle in America without proper legal provisions.
(d) The immigrants never go back to their base country.

## PASSAGE 6

We weren't even supposed to have one, it was just a puppy the Murdoch girl found under a Gristede's truck one day and she was afraid the truck would run over it when the driver had finished making his delivery, so she stuck it in her knapsack and brought it to the school with her. So we had this puppy.

As soon as I saw the puppy I thought, Oh Christ, I bet it will live for about two weeks and then... And that's what it did. It wasn't supposed to be in the classroom at all, there's some kind of regulation about it, but you can't tell them they can't have a puppy when the puppy is already there, right in front of them, running around on the floor and yap yap yapping. They named it Edgar - that is, they named it after me. They had a lot of fun running after it and yelling, "Here, Edgar! Nice Edgar!" Then they'd laugh like hell. They enjoyed the ambiguity. I enjoyed it myself. I don't mind being kidded.
26. How did the puppy make it to the classroom?
(a) It was brought in the classroom by Murdoch girl.
(b) It was left to the classroom by the truck driver.
(c) It was sent to the classroom by the teacher.
(d) It was brought in by the principal.
26. Which of these words best add to complete the sentence 'and then.......' in the first sentence of paragraph 2?
(a) run away
(b) run over by the truck
(c) die
(d) be stolen by someone
28. In the second sentence writer's interjection 'Oh Christ' shows that the writer
(a) Shows sadness
(b) Expresses dismay
(c) Conveys satisfaction
(d) Expresses surprise
29. The writer describes 'there's some kind of regulation about it' in this passage as
(a) there is some kind of rule to maintain the decorum of classroom
(b) there is some decency to keep the pets in the classroom
(c) There should be some sympathy to treat animals
(d) There should be some kennel to put up the dogs
30. Judging from the passage as a whole, Murdoch's girl temperament can be described as being generally
(a) cool
(b) caring
(c) indifferent
(d) happy-go-lucky

## PASSAGE 7

There was this Korean orphan that the class adopted through the Help the Children program, all the kids brought in a quarter a month, that was the idea. It was an unfortunate thing, the kid's name was Kim and maybe we adopted him too late or something. The cause of death was not stated in the letter we got, they suggested we adopt another child instead and sent us some interesting case histories, but we didn't have the heart.

The class took it pretty hard, they began (I think, nobody ever said anything to me directly) to feel that maybe there was something wrong with the school. But I don't think there's anything wrong with the school, particularly, I've seen better and I've seen worse. It was just a run of bad luck. We had an extraordinary number of parents passing away, for instance. There were I think two heart attacks and two suicides, one drowning, and four killed together in a car accident.
31. The 'case histories' in this passage means
(a) details of their features
(b) details of their education
(c) detailed record of the background of the child brought in there
(d) details of their DNA
32. The writer's reference to 'The class took it pretty hard' is a reference to
(a) The class took it unfavourably
(b) The class took it favourably
(c) The class took it in good stead
(d) The class took it sympathetically
33. The writer didn't think that there was something wrong with the school because
(a) He had seen so many orphans coming and going
(b) He had seen so many children grow up
(c) He had seen the better as well as the worse
(d) He had seen the game plan of administration
34. Which of these words best reflect the meaning of the word 'a run of bad luck' as used in the third to last sentence?
(a) An incident of bad luck
(b) A series of bad things
(c) Running away by bad luck
(d) Running short of luck
35. Evaluating from the passage as a whole, the writer's temperament can be described as being
(a) Cold and calculating
(b) Kind and caring
(c) Disciplinarian and authoritarian
(d) Indifferent and pitiless

## PASSAGE 8

Over four hundred years after his death, scholars are still travelling the mysteries of Michelangelo's art. Recently one mystery that was revealed was that his famous drawing of a pensive Cleopatra included a hidden drawing of a different Cleopatra on the reverse side. This hidden Cleopatra shows a tormented woman, whose eyes stare out at the viewer and whose mouth is open, screaming in horror. The two images, drawn on two sides of the same paper, can be viewed simultaneously. A second mystery concerns Michelagelo's architectural plan for the dome of St. Peter's Basilica in Rome. Did he intend for the dome to look like the model he built between 1558 and 1561? Or did he change his mind after building the model and decide to elevate the dome in the way it is today? Scholars do not agree on the answer. A third mystery about one of the greatest artists who ever lived was why he destroyed hundreds or thousands of his drawings before he died. Did he feel they were unimportant? Did he want posterity to see only his finished products?
36. It can be inferred from the passage that the most unusual aspect of the Cleopatra drawing is that:
(a) the figure is tormented
(b) the figure is screaming
(c) one drawing is hidden
(d) one drawing is backward
37. The word 'pensive' can best be substituted with the word:
(a) angry
(b) happy
(c) anxious
(d) thoughtful
38. The dome of St. Peter's Basilica:
(a) bears no relation to the one in the model
(b) was destroyed after the model was built
(c) is raised more than the one in the model
(d) follows the plan of the model
39. According to the passage, Michelangelo is :
(a) a private person
(b) one of the greatest artists in the world
(c) the most famous architect in Rome
(d) screaming in horror
40. Why did Michelangelo destroy so many drawings before he died?
(a) Nobody knows
(b) They were unimportant
(c) They were only drafts
(d) He had changed the drawings

## PASSAGE 9

The bulk of our population is poor and illiterate. Their sorry condition poses a problem. On the one hand there is a shortage of teachers for Adult Education and on the other, the adults feel shy of starting to learn at a late age and attend classes. Moreover, the adult villagers have little time to spare for attending classes as the job of a farmer is very strenuous. In addition, he finds that what is taught at adult centers of education has no bearing on his daily needs; therefore he has become cynical about adult education. It is necessary to make it more meaningful for farmers in the villages. In towns and cities also, emphasis should be laid at increasing literacy rate and encourage adult education. Though it can be made useful and work based to arise their interest. It should comprise types of system in which earning and learning go together. Efforts to enhance adult education will ultimately discourage tendency to migrate to towns for better earning.
41. What is needed for Adult Education in villages?
(a) It should be agriculture oriented
(b) It should be free
(c) It should be compulsory
(d) It should be available in all villages
42. The main problem for educating adult in village is
(a) Financial helplessness to purchase books etc.
(b) They hardly find time to study and feel shy
(c) Their inability to read and write
(d) There is no room for schools in villages
43. The farmers have grown cynical about education because......
(a) He has no time go to school
(b) What is taught in such schools is mostly of no use in his daily life.
(c) He has no money to pay fees
(d) He needs rest \& recreation after strenuous work.
44. Adult Education should be encouraged in $\qquad$
(a) Towns and cities
(b) Schools, collages
(c) Towns, cities and villages
(d) Only villages
45. The inherent problem of education system is
(a) Lack of funds
(b) Shortage of teachers
(c) No spare space for schools
(d) Lack of interest

## PASSAGE 10

The Mohan house is located at the end of the street. This house sits farther back from the curb than the other houses. It is almost difficult to see from the road without peering behind the deformed oak tree that has obscured it for years. Even so, the Mohan house stands out from the other houses on the street. It is tall and white. However, this white is no longer pristinely white, but a dingy greyish cream colour. Long vines hang from the tattered roof. The Mohan house is two stories tall and has a large yard in the back that has never been mowed. The other houses on the street are a mere one story and have been painted a variety of colours. The newer, single story properties all appear to have been built around the same time; the yards mostly being of the same size, and the houses appearing to be clones of one another. Aside from the Mohan house at the end, this street is a perfect slice of city. The inhabitants of the other houses wonder who lives in the ancient, dilapidated house at the end of the street.
46. Based on its use in the passage, which of the following statements accurately describes something that has been obscured?
(a) The tall, thick pine trees in Chloe's yard provide shade for her house.
(b) A sun visor is one of Ken's favourite hats, because it helps protect his face from harsh rays.
(c) After it stopped raining, the sun was barely visible through the grey clouds.
(d) Because of his favourite, bright red sweatshirt, Anthony is always easy to spot
47. Which characteristic makes it clear that the "newer, single story properties all appear to have been built around the same time"?
(a) They have all been painted the same color.
(b) They are all situated next to each other on the street.
(c) There are no other oak trees on this street.
(d) The yards are mostly the same size.
48. Based on its use in the passage, it can be understood that dilapidated belongs to which of the following word groups?
(a) rickety, neglected, run-down
(b) ancient, old, primitive
(c) dejected, crushed, melancholy
(d) discarded, abandoned, discharged
49. The inhabitants of the other houses
(a) wonder why the owner does not take care of his or her house
(b) wonder who lives in the ancient, dilapidated house at the end of the street
(c) wish their houses were more uniquely designed
(d) wish they had larger yards
50. This passage is best described as
(a) argumentative
(b) descriptive
(c) informative
(d) persuasive

## PASSAGE 11

The greatest enemy of mankind, as people have discovered is not science, but war. Science merely reflects the social forces by which it is surrounded. It is found that when there is peace, science is constructive, when there is war, and science is perverted to destructive ends. The weapons which science gives us do not necessarily create war; these make war increasingly more terrible. Until now it has brought us to the doorstep of doom. Our main problem, therefore, is not to curb science, but to stop war to substitute law for force and international government for anarchy in the relations of one nation with another. That is a job in which everybody must participate, including the scientists. But the bomb of Hiroshima suddenly woke us up to the fact that we have very little time. The hour is late and our work has scarcely begun. Now we are face to face with this urgent question "Can education and tolerance, understanding and creative intelligence run fast enough to keep us abreast with our own mounting capacity to destroy?" That is the question which we shall have to answer one way or the other in this generation. Science must help us in the answer, but the main decision lies within ourselves.
51. According to author, real enemy of mankind is not science but war, because
(a) science during wars is so destructive
(b) science merely invents the weapons with which war is fought
(c) the weapons that science invents necessarily lead to war
(d) the weapons invented by science do not cause war, though these make it more destructive
52. War can be stopped, if
(a) weapons invented by science are not used to launch a war
(b) science is restricted to be utilised only during war time
(c) science is not allowed to lead us to utter destruction
(d) we replace force and lawlessness by law and international government
53. According to the writer, the main problem we are faced with, is to
(a) prevent scientists from participating in destructive activities
(b) abolish war
(c) stop scientific activities everywhere
(d) stop science from reflecting social forces
54. The expression "bring to the doorstep of doom" means
(a) lead to the threshold of a new destiny
(b) introduce to an unpredictable destiny
(c) carry close to death and destruction
(d) induct in a ruinous activity
55. Which of the following is opposite in meaning to the word 'anarchy' as used in the passage?
(a) Law and order
(b) Economic prosperity
(c) Political dominance
(d) Communal harmony

## PASSAGE 12

India is among the top 10 most powerful countries the world. In a first-of-its-kind study of "national power" a group of eminent strategic experts and scholars have placed India at the eighth position among a group of 27 most powerful countries in the world. The study, conducted by the New Delhi-based Foundation for National Security Research (FSNR), judged "national power" by various indices, including energy security, population, technological capability etc. An interesting index of national power was judged by "foreign affairs capability", which includes self-reliance in defence, membership of multilateral groupings, role in global rule-making and soft power.
56. What according to you makes India such a powerful country?
(a) It has many states
(b) It has only one national language
(c) India is the world's most stable democracy
(d) None of these
57. What is India's technological capability like?
(a) Good
(b) Average
(c) Poor
(d) Very poor
58. What is meant by 'membership of multi-lateral grouping' in the last paragraph?
(a) Membership of huge organisations
(b) Membership of rich clubs
(c) Membership of a varied group
(d) Membership of organisation such as the UNESCO, SAARC, UNICEF, Greenpeace International.
59. What is meant by 'soft power' in the last paragraph?
(a) Money natural resources etc.
(b) Use of force and power
(c) Balues, ethics, prosperity, etc.
(d) None of these
60. What kind of feelings does this paragraph generate in you?
(a) Sorrowful feelings
(b) Anxious feelings
(c) Insecure feelings
(d) Patriotic feelings

## ANSWERS

| 1. (c) | $2 .(\mathrm{a})$ | $3 .(\mathrm{c})$ | $4 .(\mathrm{a})$ | $5 .(\mathrm{d})$ | $6 .(\mathrm{c})$ | $7 .(\mathrm{a})$ | $8 .(\mathrm{d})$ | $9 .(\mathrm{a})$ | $10 .(\mathrm{c})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(a) | $12 .(\mathrm{d})$ | $13 .(\mathrm{d})$ | $14 .(\mathrm{d})$ | $15 .(\mathrm{c})$ | $16 .(\mathrm{b})$ | $17 .(\mathrm{b})$ | $18 .(\mathrm{d})$ | $19 .(\mathrm{b})$ | $20(\mathrm{a})$ |
| $21 .(\mathrm{c})$ | $22 .(\mathrm{b})$ | $23 .(\mathrm{a})$ | $24 .(\mathrm{d})$ | $25 .(\mathrm{a})$ | $26 .(\mathrm{a})$ | $27 .(\mathrm{c})$ | $28 .(\mathrm{d})$ | $29 .(\mathrm{a})$ | $30 .(\mathrm{c})$ |
| $31 .(\mathrm{c})$ | $32 .(\mathrm{a})$ | $33 .(\mathrm{a})$ | $34 .(\mathrm{b})$ | $35 .(\mathrm{b})$ | $36 .(\mathrm{c})$ | $37 .(\mathrm{d})$ | $38 .(\mathrm{c})$ | $39 .(\mathrm{b})$ | $40 .(\mathrm{a})$ |
| $41 .(\mathrm{a})$ | $42 .(\mathrm{b})$ | $43 .(\mathrm{b})$ | $44 .(\mathrm{c})$ | $45 .(\mathrm{b})$ | $46 .(\mathrm{c})$ | $47 .(\mathrm{d})$ | $48 .(\mathrm{a})$ | $49 .(\mathrm{b})$ | $50 .(\mathrm{b})$ |
| $51 .(\mathrm{d})$ | $52 .(\mathrm{d})$ | $53 .(\mathrm{b})$ | $54 .(\mathrm{c})$ | $55 .(\mathrm{a})$ | $56 .(\mathrm{c})$ | $57 .(\mathrm{b})$ | $58 .(\mathrm{d})$ | $59 .(\mathrm{c})$ | $60 .(\mathrm{d})$ |

## PREVIOUSLY ASKED PASSAGES

## PRACTICE PASSAGE 1 (AFACT 1 2011)

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; itmeans 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.

## PRACTICE PASSAGE 2 (AFACT 2 2011)

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 the aged have their needs as well. Educational planning, in other words, should take care of the needs of everyone.

Our structures of education have been built upon the assumption that there is a terminal point to education. This basic defect has become all the more harmful today. A UNESCO report entitled 'Learning to Be' prepared by Edgar Faure and others 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 kinds 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 organization of education. But a good beginning can be made by developing Open University Programs for older learners of different categories and introducing extension services in conventional colleges and schools. Also, these institutions should learn to cooperate with numerous community organizations such as libraries, museums, municipal recreational program, health services etc.
6. 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
7. What should be the major characteristic of the future educational system? (a)

Different modules with the same function
(b) Same module for different groups
(c) No modules but standard compulsory program for all
(d) None of these
8. According to the author, what measures should open universities adopt to meet modern conditions?
(a) Develop various programs for adult learners
(b) Open more colleges on traditional lines
(c) Cater to the needs of those who represent care
(d) Primary education should be under the control of open universities
9. 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
(d) You cannot change the future

## PRACTICE PASSAGE 3 (AFACT 1 2012)

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 organized. Prior to 1980 in-depth information about any subject matter was attained throu'gh 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 rniddleclass 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 interpersonalrelationships. Mere communication is no longer via postal mail or face-to-face contact, but rather via electronic mail (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 taken us away from those traditional settings where personal and communication skills are developed.
10. The author's attitude about the advent of computer technology can be best summarized as
(a) Optimistic and thankful
(b) Appreciative but reserved
(c) Candid and reverent
(d) Understanding and obsessive
11. 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 set backs.
(d) Of all the benefits ushered in by the use the internet, email is the most beneficial.
12. 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 havehad both a positive and negative influence on how we live.
(c) To pave the way for the next great technology revolution.
(d) To showcase the wonders of recent technology advancements.

## PRACTICE PASSAGE 4 (AFACT 2 2012)

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.
13. As a boy Pablo Picasso was
(a) Ordinary looking but talented.
(b) Handsome and talented.
(c) Handsome and studious.
(d) Handsome and hardworking.
14. 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.
15. 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.
16. When his father painted in the college, Pablo
(a) Occasionally helped him.
(b) Rarely helped him.
(c) Always helped him.
(d) Invariably helped him.
17. 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.

## PRACTICE PASSAGE 5 (AFACT 1 2013)

We shall go on to the end, we shall fight on the seas and oceans, we shall fight with 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 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 were 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.
18. On the basis of the passage which of the following statements may be said to be correct?
(a) The speaker is encouraging his men to conquer 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.
19. 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
20. Which of the following pair of phrases helps best to bring out the intention of the speaker?
(a) 'Go on to the end', 'shall never surrender'
(b) 'Growing confidence', 'subjugated and starving'
(c) "Subjugated and starving', 'lighting on the landing ground'
(d) 'Fighting in the streets', 'subjugated and starving'
21. 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
22. The tone of the speaker is
(a) Pleading and urging
(b) Inspiring and encouraging
(c) Discouraging and gloomy
(d) Menacing and bullying

## PRACTICE PASSAGE 6 (AFACT 1 2014)

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.
23. 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
24. The rise of Gandhi--
(a) shocked people
(b) made India powerful
(c) made the condemnation of the exploiter final
(d) made women feel secure
25. Gandhi fought the--
(a) rich
(b) oppressor
(c) apathetic masses
(d) unjust system
26. The conspicuous role of Gandhi is that of a--
(a) father
(b) reformer
(c) teacher
(d) liberator

## PRACTICE PASSAGE 7 (AFACT 2 2014)

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.
27. Rhetoric is the
(a) art of reasoning
(b) use of figure of speech
(c) power of persuasion
(d) means of communicating information
28. 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
29. The above passage is
(a) informative
(b) persuasive
(c) convincing
(d) rhetorical

## PRACTICE PASSAGE 8 (AFACT 1 2015)

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.
30. 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 give above is / are true?
(a) I only
(b) II only
(c) Both I and II
(c) Neither I nor II
31. Female polar bears give birth during
(a) Spring
(b) Summer
(c) Autumn
(d) Winter
32. Mother bear
(a) Takes sides over cubs
(b) Lets the cubs fend for themselves
(c) Feeds only their favorites
(d) Sees that all cubs get an equal share

## PRACTICE PASSAGE 9 (AFACT 2 2015)

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.
33. Which of the following is the most suitable explanation to the author's remark that an "ounce 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 in life.
(d) Without patience wisdom cannot be used properly.
34. 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.
35. 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.

## ANSWERS AND HINTS

| 1.(b) | 2. (a) | 3. (b) | 4. (d) | 5. (a) | 6. (c) | 7. (d) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8. (a) | 9. (c) | 10. (b) | 11. (c) | 12. (b) | 13. (b) | 14. (c) |
| 15. (d) | 16. (a) | 17. (c) | 18. (d) | 19. (b) | 20. (a) | 21. (d) |
| 22. (b) | 23. (a) | 24. (c) | 25. (d) | 26. (b) | 27. (c) | 28. (d) |
| 29. (a) | 30. (a) | 31. (d) | 32. (b) | 33. (d) | 34. (d) | 35. (b) |

## Chapter 6

## IDIOMS AND PHRASES

## TOPIC QUESTIONS FOR AFCAT

DIRECTION: Choose the correct meaning of an idiom/ phrase.

1. To turn over a new leaf:
(a) To change completely one's course of action
(b) To shift attention to new problems
(c) To cover up one's faults by wearing new marks
(d) To change the old habits and adopt new ones
2. To wrangle over an ass's shadow:
(a) To act in a foolish way
(b) To quarrel over trifles
(c) To waste time on petty things
(d) To do something funny
3. All agog:
(a) Everybody
(b) All ready
(c) Restless
(d) Almighty
4. To take with a grain of salt:
(a) To take with some reservation
(b) To take with total disbelief
(c) To take whole heartedly
(d) To take seriously
5. Hobson's choice:
(a) Feeling of insecurity
(b) Accept or leave the other
(c) Feeling of strength
(d) Excellent choice
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 snap one's fingers:
(a) To speak abruptly
(b) To accept immediately
(c) To grasp eagerly
(d) To become contemptuous of
8. To take the bull by the horns:
(a) To punish a person severely for his arrogance
(b) To grapple courageously with difficulty that lies in our way
(c) To handle it by fierce attack
(d) To bypass the legal process and take action according to one's own whims
9. To be in abeyance:
(a) To be in trouble
(b) Dual minded
(c) In a fighting mood
(d) Insuspense
10. To cast pearls before a swine:
(a) To spend recklessly
(b) To spend a lot of money on the unkeep of domestic hogs
(c) To waste monkey over trifles
(d) To offer to a person a thing which he cannot appreciate
11. To take people by storm:
(a) To put people in utter surprise
(b) To captivate them unexpectedly
(c) To exploit people's agitation
(d) To bring out something sensational attracting people's attention
12. Harp on:
(a) To comment
(b) To criticise
(c) To keep on talking
(d) To keep on insulting
13. To bring one's eggs to a bad market:
(a) To face on humiliating situation
(b) To bring one's commodities to a market where there is no demand for them
(c) To show one's talents before audience which is incapable of appreciating them
(d) To fail in one's plans because one goes to the wrong people for help
14. To give/get the bird:
(a) To get the awaited
(b) To have good luck
(c) To send away
(d) To get the impossible
15. To save one's face:
(a) To hide oneself
(b) To oppose
(c) To avade disgrace
(d) To say plainly
(a) To sidetrack the issue
(b) To quarrel over trifles
(c) To indulge in over-refined arguments
(d) To find faults with other
16. Will o' the wisp :
(a) Anything which eludes or deceives
(b) To act in a childish way
(c) To act in a foolish way
(d) To have desires unbacked by efforts
17. To read between the lines:
(a) To concentrate
(b) To read carefully
(c) To suspect
(d) To grasp the hidden meaning
18. To flog a dead horse:
(a) To act in a foolish way
(b) To waste one's efforts
(c) To revive interest in an old subject
(d) To revive old memories
19. A tall order:
(a) A task difficult to perform
(b) A bid problem
(c) A royal summon
(d) A big demand
20. To turn the tables:
(a) To defeat
(b) To oppose
(c) To create chaos
(d) To change the sorry scheme
(e) To change completely the position of disadvantage
21. To keep the ball rolling:
(a) To earn more and more
(b) To work constantly
(c) To keep the conversation going
(d) To make the best use of
22. To split hours:
23. All and sundry:
(a) Greater share
(b) All of a sudden
(c) Completion of work
(d) Everyone without distinction
24. To worship the rising sun:
(a) To honour a man coming to office
(b) To honour to promising people
(c) To indulge in flattery
(d) To welcome the coming events
25. To play fast and loose:
(a) To beguile others
(b) To be winning sometimes and losing at other times
(c) To play with someone's feeling
(d) To play tricks
26. To have brush with:
(a) To start painting
(b) To have good and pleasing terms
(c) To be impressed
(d) To have a slight encounter
27. To pull one's socks up:
(a) To prepare
(b) To try hard
(c) To get ready
(d) To depart
28. Dog in the manger:
(a) An undersized bull almost the shape of a dog
(b) A dog that has no kennel of its own
(c) A person who puts himself in difficulties on account of other people
(d) A person who prevents others from enjoying something useless to himself
29. To set the people by ears:
(a) To box the people
(b) To insult and disgrace the people
(c) To punish heavily
(d) To excite people to a quarrel
30. To give chapter and verse for a thing:
(a) To produce the proof of something
(b) To eulogize the qualities of a thing
(c) To make publicity of a thing
(d) To attach artificial value to a thing
31. To plough the sands:
(a) To work hard to achieve one's aim
(b) To afford hope or ground for expecting a good result
(c) To busy oneself in a way which cannot lead to any profitable result
(d) To advance one's position in life
32. To take umbrage:
(a) To feel depressed
(b) To be offended
(c) To be satisfied
(d) To be pleased
33. To drink like a fish:
(a) To drink little
(b) To drink alone
(c) To be a drunkard
(d) To drink in the company of others
34. To fight to the bitter end:
(a) To fight with poison-tipped arrows
(b) To fight to the last paint of enemy position
(c) To die fighting
(d) To carry on a contest regardless of consequences
35. To give a false colouring:
(a) To misrepresent
(b) To submit the false report
(c) To be dishonest
(d) To conceal the facts
36. To show the white feather:
(a) To show signs to cowardice
(b) To seek peace
(c) To show arrogance
(d) To become polite
37. Spick and span:
(a) Neat and clean
(b) Outspoken
(c) A ready-made thing
(d) Garrulous
38. To take the wind out of another's sails:
(a) To manoeuvre or mislead another on the high seas
(b) To cause harm to another
(c) To defeat the motives of another
(d) To anticipate another and to gain advantage over him
39. To carry the coal to new castle:
(a) To work hard
(b) To finish a jab
(c) To do unnecessary things
(d) To do menial jobs
40. The pros and cons:
(a) For and against a thing
(b) Foul and fair
(c) Good and evil
(d) Former and latter
41. A baker's dozen:
(a) Twelve
(b) Charity
(c) Thirteen
(d) Allowance
42. 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 person who is rough and clumsy where skill and care are required
43. Hard-pressed:
(a) Bewildered
(b) Insulted
(c) Hard discipline
(d) In difficulties
44. To be at one's finger's end:
(a) To be hopeless
(b) To be highly perplexed
(c) To be completely conversant with
(d) To count things
45. To pull strings:
(a) To exert hidden influence
(b) To tease someone
(c) To speed up
(d) To start something
46. A green horn:
(a) An envious lady
(b) A trainee
(c) An inexperienced man
(d) A soft-hearted man
47. To be old as the hills:
(a) To be very ancient
(b) To be wise and learned
(c) To be old but foolish
(d) Not being worth the age
48. To pour oil in troubled water:
(a) To ferment trouble
(b) To add to the trouble
(c) To instigate
(d) To calm a quarrel with soothing words
49. To mind one's P's and Q's:
(a) To be cautious
(b) To be accurate and precise
(c) To be careful of one's accounts
(d) To be careful of one's personality
50. To break the ice:
(a) To start quarrelling
(b) To end the hostility
(c) To start to conversation
(d) To end up partnership
51. To cool one's heels:
(a) To rest for sometime
(b) To give no importance to someone
(c) To remain in a comfortable position
(d) To be kept waiting for sometime
52. A fool's errand:
(a) A blunder
(b) An impossible task
(c) A useless undertaking
(d) None of these
53. Swan-song:
(a) Music as sweet as a song of birds
(b) A melodious song in praise of someone
(c) Praise of a woman by her lover
(d) Last work of a poet or musician before death
54. To oil the knocker:
(a) To instigate a person to do a job
(b) To do a work with increased pace
(c) To tip the office-boy
(d) To revive old enmity
55. By the rule of thumb:
(a) By the use of force
(b) By the use of trickery
(c) By cheating and deception
(d) By practical experience which is rather rough
56. To live fast:
(a) To lead a life of dissipation
(b) To accomplish a purpose
(c) To do a task hurriedly
(d) To use up one's income as fast as it comes in
57. To hold somebody to ransom:
(a) To keep captive and demand concession
(b) To humiliate somebody
(c) To offer bribe
(d) To blackmail and extract money
58. To hit the jackpot:
(a) To gamble
(b) To get an unexpected victory
(c) To be wealthy
(d) To make money unexpectedly
59. To pay off old scores:
(a) To have one's revenge
(b) To settle a dispute
(c) To repay the old loan
(d) None of these
60. To take a leaf out of somebody's book:
(a) To take him as a model
(b) To steal something valuable
(c) To follow the dictates of someone
(d) To conform to other's standard
61. To set the Thames on fire:
(a) To do something remarkable
(b) To try to do the impossible
(c) To burn something to ashes
(d) To fling ironical remarks
62. To cast pearls before a swine:
(a) To offer some a thing which he cannot appreciate
(b) To bring something good before the eyes of a greedy person
(c) To spend recklessly on a useless fellow
(d) To indulge in fruitless endeavours
63. To bear the palm:
(c) To work hard for a small accomplishment
(a) To win
(d) To earn money by all means
(b) To accept a challenge
(c) To accept defeat
(d) To endure something
64. To change colour:
(a) To change appearance
(b) To shift allegiance to
(c) To favour the wrong person
(d) None of these
65. To cut the Gordian knot:
(a) To solve a difficult problem
66. To speak dagger:
(a) To abuse someone
(b) To indulge in veracious talks
(c) To speak to a person with hostility
(d) None of these
67. Be in the mire:
(a) Be under debt
(b) Be in love
(b) To be victorious
(c) Be in difficulties
(c) To break ties with someone
(d) Be uneasy
(d) To defeat to powerful person
68. To wrangle over an ass's shadow:
69. To give a rap on the knuckles:
(a) To eulogise
(b) To chastise
(c) To condemn
(d) To rebuke
70. To be above board:
(a) To have a good height
(b) To be honest in any business deal
(c) Having no debts
(d) To try to be beautiful
71. To cry wolf:
(a) To listen eagerly
(b) To give false alarm
(c) To turn pale
(d) To keep off starvation
72. He is on the wrong side of seventy:
(a) more than seventy years old
(b) less than seventy years old
(c) seventy years old
(d) eighty years old

## ANSWERS

| 1 (d) | 2 (b) | 3 (c) | 4 (a) | 5 (b) | 6 (b) | 7 (d) | 8 (b) | 9 (d) | 10(d) | 11(b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12(c) | 13(d) | 14(c) | 15(c) | 16(c) | 17(a) | 18(d) | 19(b) | 20(a) | 21(d) | 22(c) |
| 23(d) | 24(a) | 25(d) | 26(d) | 27(b) | 28(d) | 29(d) | 30(a) | 31(c) | 32(b) | 33(c) |
| 34(d) | 35(a) | 36(a) | 37(a) | 38(d) | 39(c) | 40(a) | 41(c) | 42(d) | 43(d) | 44(c) |
| 45(a) | 46(c) | 47(a) | 48(d) | 49(b) | 50(c) | 51(d) | 52(c) | 53(d) | 54(c) | 55(d) |
| 56(a) | 57(a) | 58(b) | 59(b) | 60(a) | 61(b) | 62(a) | 63(a) | 64(b) | 65(a) | 66(c) |
| 67(a) | 68(c) | 69(a) | 70(c) | 71(c) | 72(d) | 73(b) | 74(b) | 75(a) | 76(a) | 77(d) |

## SECTION 'C'

## NUMERICAL ABILITY

- DECIMAL SYSTEM
- SIMPLIFICATION
- AVERAGE
- RATIO AND PROPORTION
- PROFIT AND LOSS
- PERCENTAGE
- SIMPLE INTEREST
- TIME AND DISTANCE
- TIME \& WORK

\section*{| Chapter |
| :---: |
| 1 |}

## DECIMAL SYSTEM

## SAMPLE QUESTIONS

Example 1: Which of the following is smallest

$$
\frac{3}{10}, \frac{9}{100}, \frac{240}{100}
$$

Solution: Converting all of them to decimal
$=0.3,0.09,2.4$
So we get $\rightarrow 0.09<0.3<2.4$
Smallest is $\frac{9}{100}$
Example 2: What will be the outcome of $\frac{4}{5}$ ?
Solution: $\frac{4}{5}$ can be solved by converting the denominator to decimal
$\frac{4 \mathrm{X} 2}{5 \mathrm{X} 2}=\frac{8}{10}=0.8$

Example 3: Solve $\rightarrow$ 0.6-0.3X0.2
Solution: Using BODMAS,
The equation will be solved by firstly applying multiplication and then subtraction.
Multiplying $0.3 \mathrm{X} 0.2=0.06$
Now, 0.6-0.06 $=0.54$
Example 4: Simplify - $\frac{0.025 \text { X } 0.7}{0.035}$
Solution: on simplification of the decimal terms, we get $\frac{25 \times 7 \text { X } 1000}{1000 \times 10 \times 35}=0.5$

Example 6: Express 0.66666666666666... into decimals
Solution: For recurring decimals, Repeating number
9 as many repeating numbers, 0 as many non-repeating numbers 6/9

Example 7: Convert 0.124848484848
Solution: For recurring decimals use the given formula

$$
0+\frac{1248-12}{9900}=\frac{103}{425}
$$

Example 8: What decimal fraction of an hour is 2 minutes
Solution: Minutes in an hour $=60$
So decimal fraction $=2 / 60$ minutes
$=1 / 30$
Solving further,
$=0.33333$ $\qquad$
Example 9: Solve - $\frac{(0.5)^{6} \mathrm{X}(0.6)^{4}}{(0.5)^{3} \mathrm{X}(0.6)^{3}}$
Solution: For solving this,
we need to recall some rules, related to exponents
When same numbers multiplies, their powers adds
When same numbers divides, their powers subtracts
Here 0.5 is divided by 0.5 and 0.6 is divided by 0.6 . So their powers will be subtracted

Example 5: Solve this -> 6.74+3.86-5.03
Solution: Applying BODMAS, addition is done first and then subtraction will be executed
$6.74+3.86=10.6$
Now subtracting it with 5.03 $10.6-5.03=5.57$

$$
(0.5)^{3} \mathrm{X}(0.6)^{1}=0.125 \times 0.6=0.075
$$

Example 10: Solve $\frac{0.001 \times 0.1}{0.0001 \times 0.1}$
Solution: Convert all decimals into fractions

$$
\frac{1}{1000} \times \frac{1}{10} \times \frac{10000}{1} \times \frac{10}{1}=10
$$

## PREVIOUS YEAR QUESTIONS

1) $337.62+8.591+34.4$ is equal to
(AFCAT I 2012)
(a) 370.611
(b) 380.511
(c) 380.611
(d) 426.97

Solution: $337.62+8.591+34.4=380.611$
2) The value of (?) in the equation
(AFCAT I 2012)
$365.089-?+89.72=302.35$ is
(a) 152.456
(b) 152.459
(c) 153.456
(d) 153.459

Solution: 365.089-? $+89.72=302.35$
$?=454.809-302.35$
$?=152.459$
3) How many digits will be there to the right of the decimal point in the product of 95.75 and 0.02554 ?
(AFCAT II 2014)
(a) 5
(b) 6
(c) 7
(d) Insufficient

Data
Solution: Required product $=95.75 \mathrm{X} 0.02554=2.445455$
So, 6 digits will be there to the right of the decimal Point. Answer is (b).
4) $337.62+8.591+34.4=$ ?
(a) 370.611
(b) 380.511
(c) 380.611
(AFCAT I 2012)

Solution: $337.62+8.591+34.4=x$
$\Rightarrow x=380.611$
Answer is (c)
5) $? \%$ of $932+30=309.6$
(AFCAT I 2012)
(a) 25
(b) 30
(c) 35
(d) 40

Solution: $\frac{x}{100} \mathrm{X} 932+30=309.6$
Answer is (b)
6) The value of (?) in the equation $365.089-?+89.72=302.35$ is-
(AFCAT I 2011)
(a) 152.456
(b) 152.459
(c) 153.456
(d) 153.459

Solution: $365.089-x+89.72=302.35$
454.809-302.350 $=x \Rightarrow x=152.459$

Answer is (d)

## UNSOLVED QUESTIONS

1) What is the correct value for 0.6666666666 ......
(a) $3 / 5$
(b) $3 / 2$
(c) $2 / 3$
(d) $4 / 5$
2) Divide $31.4 / 2.5$ ?
(a) 13.23
(b) 12.56
(c) 14.33
(d) 12.332
3) Find the value of $x$ if $\frac{14.4}{3}=\frac{6}{x}$
(a) $3 / 7$
(b) $5 / 9$
(c) $6 / 5$
(d) $5 / 4$
4) $83.042 \times 0.1 \times 2.1=$ ?
(a) 17.43882
(b) 16.2098
(c) 15.4656
(d) 17.2745
5) Find out $\frac{248.346}{45.99}=$ ?

If $\frac{248346}{4599}=54$
(a) 7.5
(b) 6.3
(c) 5.4
(d) 6.7
6) Find a, $19.25 \times 16.4 \mathrm{Xa}=3472.7$
(a) 11
(b) 12.4
(c) 12.5
(d) 14
7) $83.04-66.46-11.71=$ ?
(a) 5.67
(b) 4.87
(c) 7.34
(d) 5.25
8) $0.125^{3} / 0.25^{2} \times 0.5^{2}=0.5^{\mathrm{x}}$, find $x$
(a) 9
(b) 12
(c) 6
(d) 3
9) The approximate value of $17.5001 \times 31.999 \times 12.001$ is
(a) 6895
(b) 6720
(c) 5609
(d) 6453
10) $221.45+534.58-386.89-195.42=$
(a) 173.72
(b) 192.2
(c) 187.7
(d) 180.7
11) $25 \times 3.25+\frac{50.4}{24}=$ ?
(a) 82.87
(b) 85.3
(c) 83.35
(d) 80.55
12) $(833.25-384.45) / 24=$ ?
(a) 20.3
(b) 21.4
(c) 19.4
(d) 18.7
13) $437 / 19 \times 4.5=$ ?
(a) 104.23
(b) 103.5
(c) 102.67
(d) 102.23
14) Approximate value of $13.96^{2}-15.03^{2}+18.09^{2}-32.65$ is
(a) 256
(b) 275
(c) 264
(d) 250
15) $6561 /(10.8 \times 2.5) / 3=$
(a) 27
(b) 75
(c) 81
(d) 82
16) $888.12+726.34-1001.88=$
(a) 612.58
(b) 612.445
(c) 601.45
(d) 662.4
17) $\frac{562.038+838.734}{3}=$
(a) 436.5746
(b) 453.556
(c) 466.924
(d) 475.565
18) $(9.11 \%$ of 936$)-(12.5 \%$ of 498$)=$
(a) 23.0196
(b) 23.5745
(c) 22.5673
(d) 24.6764
19) $15.593-9.214-3.452-2.191=$
(a) 0.342
(b) 0.5442
(c) 0.736
(d) 0.2322
20) $4895+364 \times 0.75-49=$
(a) 5490
(b) 5339
(c) 5119
(d) 5112
21) $78.95^{2}-43.35^{2}=$
(a) 4233.5
(b) 4223.43
(c) 4500.34
(d) 4353.88
22) Express $1.042424242 \ldots . . . .$. in the fraction
(a) $124 / 90$
(b) $232 / 90$
(c) $1032 / 990$
(d) $132 / 990$
23) Covert 0.0234234234 ......... in fraction
(a) $19 / 99$
(b) $13 / 555$
(c) $15 / 990$
(d) $17 / 990$
24) $1 / 5$ of $x=81$, find $60 \%$ of $x$
(a) 253
(b) 224
(c) 243
(d) 250
25) $1.5 \times 2.8+8 \%$ of $250=$ ?
(a) 25
(b) 25.4
(c) 27.3
(d) 24.2
26) $8^{4.3} \times 64.3=x$, find $x$
(a) $8^{13}$
(b) $8^{10.5}$
(c) $8^{15}$
(d) $2^{20}$
27) $0.1 \times 0.01-0.001+10+0.01=$ ?
(a) 10.1
(b) 10.01
(c) 1.01
(d) 11.01
28) $99 \times 0.14 / 11 \times 0.7=$
(a) 18
(b) 1.5
(c) 1.8
(d) 2.2

SOLUTIONS

| 1.(c) | 2.(b) | 3.(d) | 4.(a) | 5.(c) | 6.(a) | 7.(b) | 8.(d) | 9.(b) | 10.(a) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11.(c) | 12.(d) | 13.(b) | 14.(c) | 15.(c) | 16.(a) | 17.(c) | 18.(a) | 19.(c) | 20.(c) |
| 21.(d) | 22.(c) | 23.(b) | 24.(c) | 25.(d) | 26.(b) | 27.(b) | 28.(c) |  |  |

## Chapter <br> 2

## SIMPLIFICATION

## SAMPLE QUESTIONS

Example 1: Solve 35 X . $07-21$ X 0.03
Solution: The equation has multiplication and subtraction operation. So, BODMAS gives first priority to multiplication and then to subtraction.

35 X . $07-21$ X 0.03
$24.5-0.63=23.87$
Example 2: If $x+\frac{1}{2 \mathrm{x}}=2$, find the value of $8 x^{3}+1 / x^{3}$
Solution: $x+\frac{1}{2 \mathrm{x}}=2 \Rightarrow 2 x+\frac{1}{\mathrm{x}}=4$
On cubing $8 x^{3}+1 / \mathrm{x}^{3}+3.2 x \cdot \frac{1}{\mathrm{x}}$
$\left(2 x+\frac{1}{x}\right)=64$
$\Rightarrow 8 x^{3}+1 / x^{3}+6 \times 4=64$
$\Rightarrow 8 x^{3}+1 / x^{3}=64-24=40$
Example 3: $\frac{x}{5}-\frac{x}{6}=4$. What value of $X$ satisfies this equation?
Solution: Taking the LCM of denominators

$$
\begin{aligned}
& \frac{x}{5}-\frac{x}{6}=4 \\
& \frac{6 x-5 x}{30}=4 \\
& x=4 \times 30 \\
& x=120
\end{aligned}
$$

Example 4: What is the difference between $\frac{3}{5}$ of 350 and $\frac{4}{7}$ of 210 ?
Solution :

$$
\begin{aligned}
& \frac{3}{5} \text { of } 350-\frac{4}{7} \text { of } 210 \\
& \frac{3}{5} \times 350-\frac{4}{7} \times 210 \\
& 3 \times 70-4 \times 30 \\
& 210-120=90
\end{aligned}
$$

Example 5: Find the difference between 19/16 and its reciprocal.
Solution Reciprocal of 19/16 $=16 / 19$

$$
\begin{aligned}
& \Rightarrow \frac{19}{16}-\frac{16}{19} \\
& \Rightarrow \frac{19 \times 19-16 \times 16}{16 \times 19} \\
& \Rightarrow \frac{105}{304}
\end{aligned}
$$

Example 6: $\mathrm{a}-\mathrm{b}=3$ and $\mathrm{a}^{2}+\mathrm{b}^{2}=29$.
What is value of Xb ?
Solution: Here, you have to use basic formulas to solve the equation

$$
(a-b)^{2}=a^{2}+b^{2}-2 a b
$$

Putting the value of $a-b$ and $a^{2}+b^{2}$ in the equation, we get

$$
\begin{aligned}
& (3)^{2}=29-2 a b \\
& 9=29-2 a b
\end{aligned}
$$

$2 \mathrm{ab}=29-9$
$a b=20 / 2$
$\mathrm{ab}=10$
Example 7: (-5) (2) (4) $\left(\frac{1}{2}\right)\left(\frac{3}{4}\right)=x$, find the value of $x$.
$-5 \times 2 \times 4 \times \frac{1}{2} \times \frac{3}{4}=x$
-5 X 1 X 3
-15
Example 8: If $\frac{3}{7}$ of a property costs 9,000 , then what will be the cost of $\frac{4}{5}$ of it?
Solution: If $\frac{3}{7}$ of property costs $=$ 9000 , then the cost of property will be

$$
x=21000
$$

Now we have to find out the cost of $\frac{4}{5}$ th of the property
$21000 \times \frac{4}{5}$
16800
Example 9: If $\left(x^{2}-1\right) /(x+1)=4$, then what is the value of $x$ ?
Solution. $\frac{\left(\mathrm{x}^{2}-1\right)}{(\mathrm{x}+1)}=4$
$\Rightarrow \frac{(x+1)(-1)}{(x+1)}=4$
$\Rightarrow x-1=4$

Solution: According to BODMAS, bracket is not a complex entity in the equation. So multiplication is used as the major operatio
$\Rightarrow x=5$
Exercise 10: Amit pays Rs. 1600 for 2 T-shirts and 4 jeans. Rajiv bought 1 t shirt and 6 jeans for same amount. The cost of T-shirt and jeans are?
Solution: Let the cost of 1 T-shirt be $=x$

And the cost of 1 jeans= $y$
Then, following the question, we will get two equations

$$
\begin{equation*}
2 x+4 y=1600 \tag{i}
\end{equation*}
$$

$1 x+6 y=1600$
Solving i and ii

$$
\begin{gathered}
2 x+4 y=1600 \\
2(1 x+6 y=1600) \\
----------------1600
\end{gathered}
$$

Or $\mathrm{y}=\mathbf{2 0 0}$
Putting value of y in (ii), we will
get the value of $x$
$x+6 \times 200=1600$
$x=400$

## PREVIOUS YEAR QUESTIONS

1) 7 is added to a number then the sum is multiplied by 5 and the product is divided by 9 and then 3 is subtracted from the quotient. The remainder left is 12 . What is the number?
(AFCAT II 2014)
(a) 20
(b) 30
(c) 40
(d) 5

Solution: Let the number be $x$. Then following the statement, the equation formed is
$\frac{(x+7) \mathrm{X} 5}{9}-3=12$
$5 x+8=108$
$x=20$
Answer is (a)
2) Sum of two numbers is thrice their difference. If the smaller number out of the two numbers is 10 , then the other number is
(AFCAT I 2014)
(a) 15
(b) 30
(c) 40
(d) None of these

Solution: Let the two number be $a$ and $b$
Then, $a+b=3$ (a-b)
$\mathrm{a}=2 \mathrm{~b}$
Given that $b=10$
So $\mathrm{a}=2 \times 10=20$
Answer is (d)
3) 10 is added to a number, the sum is multiplied by 7 , the product is divided by 5 and 5 is subtracted from quotient. The remainder left is half of 88 . The number is
(a) 21
(b) 20
(c) 25
(d) 30
(AFCAT I 2014)
Solution: Let the number be $x$
Then the equation will be $(10+\mathrm{x}) \times 7 / 5-5=88 / 2$
$7 x+45=220$
$x=175 / 7=25$
Answer is (c)
4) $a-b=4$ and $a b=45$. Find the value of $a^{3}-b^{3}$
(AFCAT 2013)
(a) 604
(b) 370
(c) 253
(d) 199

Solution: following the formula
$a^{3}-b^{3}=(a-b)^{3}+3 a b(a-b)$
Given $\mathrm{a}-\mathrm{b}=4$ and $\mathrm{ab}=45$
$a^{3}-b^{3}=(4)^{3}+3(45)(4)$
$a^{3}-b^{3}=604 \quad$ Answer is (a)
5) Simplify ?\% of $932+30=309.6$
(AFCAT I 2012)
(a) 25
(b) 30
(c) 35
(d) 40

Solution: $\frac{?}{100} \times 932+30=309.6$
$?=\frac{27960}{932}$
$?=30$
Answer is (b)
6) If $(a-b)$ is 6 more than $(c+d)$ and $(a+b)$ is 3 less then ( $c-d)$, then the value of (a-c) is
(AFCAT I 2012)
(a) 0.5
(b) 1
(c) 1.5
(d) 2

Solution: $\mathrm{a}-\mathrm{b}=\mathrm{c}+\mathrm{d}+6$
$a+b=c-d-3$
Adding both the equations, we get
$2 \mathrm{a}-2 \mathrm{c}=3$
$\mathrm{a}-\mathrm{c}=\frac{3}{2}=1.5$
Answer is (c)
7) In a 225 m long yard 26 trees are planted at equal distance. 1 tree being at each end of yard. The distance between two consecutive trees is
(a) 10
(b) 8
(c) 12
(d) 9
(AFCAT I 2011)
Solution: distance between two consecutive number trees $=\frac{225}{25}=9 \mathrm{~m}$
Answer is (d)
8) The number of girls in a class is 5 times the number of boys. Which of the following cannot be the total number of children in class?
(AFCAT II 2011)
(a) 24
(b) 30
(c) 54
(d) 35

Solution: Girls $=5 \mathrm{X}$ boys
Total students $=6 \mathrm{X}$ girls
Using hit and trail
6 X girls $=24$
6 X girls $=30$
6 X girls $=54$
6 X girls' $\neq 35$
Answer is (d)
9) In Arun's opinion his weight is more than 65 kg but less than 72 kg . His brother does not agree with Arun and he thinks that Arun's weight is more than 60 kg but less than 70 kg . His mother's view is that his weight cannot be more than 68 kg . If all of them are correct in their estimation, what is the average of different probable weights of Arun?
(AFCAT II 2014)
(a) 71 kg
(b) 67 kg
(c) 67.5 kg
(d) 68 kg

Solution: 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, $x \leq 68$

The values satisfying all the above conditions are 66,67 and 68 .
Required average,
$=(66+67+68=201) / 3=67 \mathrm{~kg}$.
Answer is (b)
10) Simplify: $\frac{69 \times 69 \times 69-65 \times 65 \times 65}{69 \times 69+69 \times 65+65 \times 65}$
(AFCAT I 2014)
(a) 1
(b) 4
(c) 0.216
(d) 0.164

Solution: Let $\mathrm{a}=69$ and $\mathrm{b}=65$

$$
\begin{aligned}
& \frac{69 \times 69 \times 69-65 \times 65 \times 65}{69 \times 69+69 \times 65+65 \times 65}=\frac{\mathrm{a}^{3}-\mathrm{b}^{3}}{\mathrm{a}^{2}+\mathrm{ab}+\mathrm{b}^{2}} \\
= & \frac{(a-b)\left(a^{2}+b^{2}+a b^{2}\right)}{a^{2}+a b+b^{2}}=\mathrm{a}-\mathrm{b}=69-65=4
\end{aligned}
$$

Answer is (b)
11) A bag contains 25 paise, 50 paise and 1 Rs coins. There are 220 coins in all and the total amount in the bag is Rs. 160 . If there are thrice as many 1 Rs coins as there are 25 paise coins, then what is the number of 50 paise coins?
(AFCAT I 2014)
(a) 60
(b) 40
(c) 120
(d) 80

Solution: Let there are $x$ one rupee's coin, Y 50 paisa coins and Z 25 paisa coins.
Now, $x+y+z=220$
Total amount = Rs. 160
Now, $x+(y / 2)+(z / 4)=160$
$4 x+2 \mathrm{y}+\mathrm{Z}=640$
Thrice as many 1 Re coins as 25 paisa,
$x=3 Z$-------- (iii)
On solving equations (i), (ii) and (iii),
$\mathrm{z}=40$
$x=3 \mathrm{X} 40=120$
$\mathrm{y}=220-(120+40)=60$
50 paisa coins $=60$.
Answer is (a)
12) 19 persons went to a hotel for a combined dinner party, 13 of them spent Rs79 each on their dinner and the rest spent Rs 4 more than the average expenditure of all the 19 persons. What was the total money spent by them? (AFCAT I 2014)
(a) 1628.4
(b) 1534
(c) 1492
(d) None of these

Solution: Let average expenditure of 19 people be $x$.
Then,
$19 x=13 \mathrm{X} 79+6 \mathrm{X}(x+4)$;
Or, $19 x=13 \mathrm{X} 79+6 x+24$;

Or, $x=80.84$;
So, total money spent $=80.84 \mathrm{X} 19=$
Rs. 1536.077
Hence, Answer will be (d)
13) There were 35 students in a hostel. If the number of students be increased by 7 , the expenditure on food increases by Rs 42 per day while the average expenditure of students is reduced by Rs 1. What was the initial expenditure on food per day?
(a) Rs 432
(b) Rs 442
(c) Rs 420
(d) Rs 400

Solution: Let original average expenditure was $x$.
(AFCAT I 2104)
Total expenditure $=35 x$.
Now, according to question,
$35 x+42=(x-1) \times 42$
$35 x+42=42 x-42$
$7 x=84$
$x=$ Rs. 12
So, Initial expenditure would be $12 \times 35=$ Rs 420
Hence, Answer will be (c).
14) Find two natural numbers whose sum is 85 and they are common multiple of 102.
(a) $30 \& 55$
(b) $17 \& 68$
(c) $35 \& 55$
(d) $51 \& 34$

Solution: From option (d), 51+34=85 and 51 x2 $=102$
(AFCAT I 2014)
$34 \times 3=102$
Hence, Answer will be (d).
15) 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

Solution: Let the number $=x$
$x^{2}=(37)^{2}-(23)^{2}=(37+23)(37-23)$
(AFCAT 2013)
$\Rightarrow x^{2}=60 \mathrm{X} 14$
$x^{2}=840 \Rightarrow x=\sqrt{840}=28.98$,
Hence, Answer will be (b).
16) If $\frac{a}{a+b}=\frac{15}{21}$, what is $\frac{a+b}{a-b}$ equal to?
(AFCAT 2013)
(a) $\frac{13}{9}$
(b) $\frac{23}{11}$
(c) $\frac{14}{5}$
(d) $\frac{21}{9}$

Solution: $\frac{a}{a+b}=\frac{15}{21} \Rightarrow 21 \mathrm{a}=15 \mathrm{a}+15 \mathrm{~b}$

$$
6 \mathrm{a}=15 \mathrm{~b}
$$

$a=\frac{15}{6} b$
$\frac{a+b}{a-b}=\frac{6}{15 b}=\frac{15 b+6 b}{15 b-6 b}$
$=\frac{21 b}{9 b}=\frac{21}{9}$
Hence, Answer will be (d)
17) A bonus of Rs. 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) Rs. 500
(b) Rs. 625
(c) Rs. 750
(AFCAT I 2011)

Solution: Let Gagan's amount $=$ Rs. $x$
Sachin's amount $=$ Rs. $\frac{x}{5}$
Rohit's amount $=$ Rs. $\frac{2 x}{5}$
$x+\frac{x}{5}+\frac{2 x}{5}=1000 \quad \Rightarrow 8 x=5000 \quad \Rightarrow \mathrm{x}=$ Rs. 625
18) 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
(AFCAT I 2011)
(a) 12
(b) 15
(c) 25
(d) 32

Solution: Let the number $=x$
$52 \mathrm{X} x-25 x=324$
$\Rightarrow 27 x=324 \Rightarrow \mathrm{x}=12$
19) A sum of Rs. 312 is divided among 60 boys and some girls in such a way that each boy gets Rs. 3.60 and each girl gets Rs.2.40. The numbers of girls are
(a) 35
(b) 60
(c) 40
(d) 65

Solution: 60 X $3.60=$ Rs. 216
$312-216=$ Rs. 96
(AFCAT I 2011)
Number of girls $=\frac{96}{2.40}=40$
20) Ram went to a shop to buy 50 kg of rice. He bought two varieties of rice which cost him Rs. 4.50 per kg and Rs. 5 per kg. He spent a total of Rs. 240 . What was the quantity of the cheaper rice purchased by him?
(AFCAT II 2012)
(a) 20
(b) 25
(c) 30
(d) None of these

Soution: Let the quantity of rice for Rs 4.50 per kg be x kg .
Then $4.50 x+5(50-x)=240$
$\frac{9}{2} x+250-5 x=240$
$250-240=x / 2$
$x=20 \mathrm{Kg}$.
21) A student was asked to divide a number by3. 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
(AFCAT 2 2011)

Solution: Let the number $=x$.
Correct answer $=\frac{x}{3}$
$3 x=29.7$
$x=\frac{29.7}{3}=9.9$
Correct answer $=\frac{9.9}{3}=3.3$
22) Which of the following fraction is the smallest?
(AFCAT II 2011)
(a) $\frac{9}{13}$
(b) $\frac{17}{26}$
(c) $\frac{28}{39}$
(d) $\frac{33}{52}$

Solution: $\frac{9}{13}, \frac{17}{26}, \frac{28}{39}, \frac{33}{52}$
LCM of $13,26,39$ and $52=156$
$\frac{12 \times 9,102,112,99}{156}=\frac{108,102,112,99}{156}$
Smallest fraction $\frac{33}{52}$
23) If $x$ varies as $y$ and $x=8$ when $\mathrm{y}=15$, then the value of $x$ when $\mathrm{y}=10$ is
(a) 5
(b) $\frac{15}{8}$
(c) $\frac{8}{15}$
(d) $\frac{16}{3}$

Solution: $x \propto y$
When $\mathrm{y}=15$, then $x=8$
(AFCAT 2013)
When $\mathrm{y}=10$, then $x=\frac{8}{15} \mathrm{X} 10 \Rightarrow x=\frac{16}{3}$
24) 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

Solution: $(40)^{2-}(32)^{2}=(40+32)(40-32)=72 \times 8=576$
(AFCAT II 2012)
$x^{2}=576$
$\Rightarrow x=24$
Number $=24$
25) 15 buckets of water fill a tank when the capacity of each bucket is 7 L . How many buckets will be needed to fill the same tank, if the capacity of the bucket is 5L?
(a) 12
(b) 24
(c) 21
(d) 30

Solution: Number of buckets $=\frac{15 \times 7}{5}=21$
(AFCAT II 2012)
26) If $a+b=10$ and $a b=21$, find the value of $a^{3}+b^{3}$.
(a) 370
(b) 210
(c) 730
(d) 598

Solution: We have $\mathrm{a}+\mathrm{b}=10$ and $\mathrm{ab}=21$ (AFCAT 2 2012)
(AFCAT II 2012)
$\mathrm{a}^{3}+\mathrm{b}^{3}+3 \mathrm{ab}(\mathrm{a}+\mathrm{b})=(\mathrm{a}+\mathrm{b})^{3}$
$(a+b)^{3}-3 a b(a+b)=(10)^{3}-3(21)(10)$
$=1000-630=370$
27) $\frac{(598+479)^{2}-(598-479)^{2}}{598 \times 479}$ is equal to
(AFCAT 2 2012)
(a) 2
(b) 6
(c) 4
(d) 8

Solution: Let $598=\mathrm{a}$ and
$479=\mathrm{b} \quad \Rightarrow \frac{(a+b)^{2}-(a-b)^{2}}{a b}=\frac{4 a b}{a b}=4$
28) The difference between a number and its two-fifth is 510 . What is $10 \%$ of that number?
(AFCAT I 2012)
(a) 12.75
(b) 85
(c) 204
(d) None

Solution: Let the number be $x$.
According to the question, $x-2 \mathrm{x} / 5=510$
$3 x+5 \times 510$
$x=\frac{5 \times 510}{3}=5 \times 170=850$
$10 \%$ of $850=\frac{10 \times 850}{100}=85$
29) If $\frac{a}{b}=\frac{3}{4}$ and $8 a+5 b=22$, then the value of ' $a$ ' is
(AFCAT I 2012)
(a) 1
(b) $\frac{1}{2}$
(c) $\frac{3}{2}$
(d) $\frac{3}{4}$

Solution: $\frac{a}{b}=\frac{3}{4} \Rightarrow \mathrm{~b}=\frac{4}{3} \mathrm{a}$
$\therefore 8 a+5 b=22 \Rightarrow 8 a+5\left(\frac{4}{3} a\right)=22$
$\Rightarrow 8 \mathrm{a}+\frac{20}{3} \mathrm{a}=22$
$\Rightarrow 44 \mathrm{a}=66 \quad \Rightarrow \mathrm{a}=\frac{66}{44}=\frac{3}{2}$
30) $\frac{(798+579)^{2}-(798-579)^{2}}{(798 \times 579)}$ is equal to
(AFCAT 2013)
(a) 2
(b) 6
(c) 4
(d) 8

Solution: Let $798=\mathrm{a}$ and $579=\mathrm{b}$

$$
\begin{aligned}
& \therefore \frac{(a+b)^{2}-(a-b)^{2}}{a X b} \\
& =\frac{a^{2}+2 a b+b^{2}-a^{2}-b^{2}+2 a b}{a b} \\
& =\frac{4 a b}{a b}=4
\end{aligned}
$$

## UNSOLVED QUESTIONS

1) $80^{2}-70^{2}=3 x$; Then $x=$ ?
(a) 600
(b) 550
(c) 500
(d) 450
2) Find out the value of $40-(20 / 4)+36-8=$
(a) 54
(b) 49
(c) 58
(d) 63
3) $\frac{6^{3} \times 36^{4}}{3^{4} \times 2^{4}}=x$, Find $x$
(a) $6^{7}$
(b) $6^{8}$
(c) 6
(d) $3^{9}$
4) Find out the value of $5 / 8$ of $14 / 3$ of 72
(a) 190
(b) 210
(c) 320
(d) 190
5) $21 \times 0.3-35 \times 0.7$
(a) -18.2
(b) 17.0
(c) 19.6
(d) 17.4
6) $4-\{4-[4-2(4+4)]\}$
(a) -16
(b) -8
(c) -12
(d) -6
7) $17 / 3+x / 7=2$ find $x$
(a) $-77 / 3$
(b) $-28 / 9$
(c) $-21 / 4$
(d) $-19 / 4$
8) $11.3+0.556-10.453=$
(a) 1.403
(b) 12.69
(c) 2.567
(d) 1.76
9) Find out the difference between $4 / 7$ of 420 and $3 / 8$ of 340
(a) 121
(b) $87 / 4$
(c) 78.5
(d) 112.5
10) If $x / 5-x / 6=4$. find $x$
(a) 300
(b) 210
(c) 120
(d) 143
11) $11 / 4+8 / 3+13 / 12=$
(a) 6.5
(b) 7.5
(c) 9.6
(d) 9.8
12) Divide $1 / 12$ with $3 / 8$
(a) $2 / 9$
(b) $5 / 4$
(c) $6 / 7$
(d) $7 / 8$
13) Amit's salary is 2 and a half time more than his wife. It the total salary of the couple is 14,000 , then find out the difference between their salaries.
(a) 6000
(b) 5500
(c) 6200
(d) 5320
14) $\sqrt{224} \times 12.05+3 \sqrt{342} \times 4$
(a) 282
(b) 208
(c) 512
(d) 509
15) A certain amount of money is divided among 3 persons. The first person gets $1 / 4$ th of the second person while the second person gets $2 / 3$ rd of the third person. If the total amount of money is Rs. 2934. The share of third person is
(a) 1600
(b) 1645
(c) 1500
(d) 2100
16) A class has boys equal to $2 / 5^{\text {th }}$ of the total students in the class. If $1 / 4^{\text {th }}$ of the girls and $2 / 9^{\text {th }}$ of the boys are absent, then what part of the students is present in the class?
(a) $234 / 564$
(b) $137 / 180$
(c) $143 / 200$
(d) $173 / 12$
17) A bag contains some coins of denomination of 20 paisa and 25 paisa. If the total amount in the bag is Rs. 71 and the total number of coins in the bag is 324 , then find out the number of coins of each denomination in the bag.
(a) 190,134
(b) 100,224
(c) 150,174
(d) 200,124
18) Amit bought a certain number of tennis balls for Rs. 450. Amit bargains and reduces the cost of each ball by 15 and bought five more balls for Rs. 450 . Find the number of balls he was purchasing before bargaining.
(a) 23
(b) 20
(c) 17
(d) 10
19) $x^{2}+164^{2}=307^{2}-272$
(a) 259
(b) 365
(c) 73
(d) 234
20) $\mathrm{b}-[\mathrm{b}-(\mathrm{a}+\mathrm{b})-\{\mathrm{b}-(\mathrm{b}-\mathrm{a}+\mathrm{b})\}+2 \mathrm{a}]$
(a) b
(b) 0
(c) $-b^{2}$
(d) $\left(a-b^{2}\right)$
21) $53 \%$ of a number is 358 less than the square of 26 . Find the value of $3 / 4$ of $23 \%$ of the number.
(a) 102
(b) 94.5
(c) 103.5
(d) 106
22) A bag contains coins of denomination $1 / 2,1$ and 2 rupees. The coins in the bag are in the ratio of $2: 3: 4$. If the total amount in the bag is Rs. 240, then find the number of coins of denomination of 1 rupees
(a) 55
(b) 75
(c) 60
(d) 69
23) A number consist of two digits. The sum of those digits is 10 and number will become reverse when 18 is subtracted from the number. Find the product of the (reverse) digits of original number
(a) 25
(b) 24
(c) 32
(d) 43
24) If $2 x+3 y=18$ and $2 x-y=2$, then the product of $x$ and $y$ is
(a) 19
(b) 12
(c) 24
(d) 13
25) What should be subtracted from $8 / 117$ to get $2 / 3$
(a) $-18 / 109$
(b) $-13 / 76$
(c)- $70 / 117$
(d) $-59 / 43$
26) A man hired 2 male and 1 female employees in his start-up company and collectively paid them Rs 1940. The female employee was paid Rs. 500 more than male employee. The salary given to one of the male employee is
(a) 480
(b) 500
(c) 540
(d) 490
27) A fraction of cloth is stitched to $4 / 7$ meters of cloth. Now, the total length of the cloth $15 / 14$. Find the length of cloth piece added to it.
(a) $3 / 2$
(b) $4 / 5$
(c) $1 / 2$
(d) $5 / 2$

SOLUTIONS

| 1. (c) | 2. (d) | 3. (a) | 4. (b) | 5. (a) | 6. (c) | 7. (a) | 8. (a) | 9.(d) | 10.(c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11.(a) | $12 .(\mathrm{a})$ | $13 .(\mathrm{a})$ | $14 .(\mathrm{b})$ | $15 .(\mathrm{a})$ | $16 .(\mathrm{b})$ | $17 .(\mathrm{d})$ | $18 .(\mathrm{d})$ | $19 .(\mathrm{a})$ | $20 .(\mathrm{b})$ |
| 21.(c) | $22 .(\mathrm{c})$ | $23 .(\mathrm{b})$ | $24 .(\mathrm{b})$ | $25 .(\mathrm{c})$ | $26 .(\mathrm{a})$ | $27 .(\mathrm{c})$ |  |  |  |

## HINTS

16. Ratio of boys $=\frac{2}{5}$ and that of girls $=\frac{3}{5}$

Fraction of boys present $=1-\frac{2}{9}=\frac{7}{9}$
Fraction of Girls present $=1-\frac{1}{4}=\frac{3}{4}$
$\frac{2 \mathrm{X} 7}{5 \mathrm{X} 9}+\frac{3 \mathrm{X} 3}{5 \mathrm{X} 4}=\frac{137}{180}$
17. Let no of coins of denomination 20 paisa be $x$

Let no of coins of denomination 25 paisa be y
Then $1 / 5 x+1 / 4 y=71$
$4 x+5 y=1420$
And $\mathrm{x}+\mathrm{y}=324$
Solving these we will get $x=200$ and $y=124$
18. let the price of 1 ball be x and no of balls bought be y
Then before bargaining $-\mathrm{xX} \mathrm{y}=450$
After bargaining
$=>(x-15)(y+5)=450$

Solving this, the value of $\mathrm{y}=10$
21. $\frac{53}{100} \mathrm{X} x=26^{2}-358$
$x=600$
Solving ahead;
$600 \times \frac{3}{4} \times \frac{23}{100}$
103.5
23. Let the two digits of the number be
$\mathbf{x}$ and y ,
Then $10 x+\mathrm{y}-18=10 \mathrm{y}+x$ and $x+y=10$

Solving the two equation, the value of $x$ and $y$ will be 6 and 4
Product of 6 and $4=24$

## Chapter 3

## AVERAGE

## SAMPLE QUESTIONS

Example 1: What is the average of all numbers falling between 6 and 35 and are also a multiple of 5 .

Solution- multiples of 5 between 6-35 $=$ $10,15,20,25,30$ and 35

Now applying average formula
$\underline{10+15+20+25+30+35}=\mathbf{2 2 . 5}$

## 6

Example 2: What is the average of first 9 multiples of 3 ?
Solution: 9 multiples of 3.
Here count the table of three, nine times
You will get $3,6,9,12,15,18,21$, 24, 27
We can use formula of AP here
Sum of n terms $=\frac{n}{2}[2 \mathrm{a}+(\mathrm{n}-1) \mathrm{d}]$
$\frac{9}{2}[2 \times 3+(9-1) 3]$
$=4.5[6+24]=135$
Now the sum is to be divided by number of terms in actual sequence

$$
\frac{135}{9}=15
$$

Example 3: A shop keeper sold certain number of articles in 16 days. On 17 day,
he Sold 85 articles increasing the total average by 3 . The average articles sold in all $17^{\text {th }}$ days is?

Solution - Let the average articles sold
in 16 days $=\mathrm{a}$
Then total number of articles sold in 16 days $=16 \mathrm{X}$ a $\rightarrow 16 \mathrm{a}$
Adding 85 in 16a will increase the average (a) by 3 i.e.
$\frac{16 a+85}{17}=a+3$
17
$16 \mathrm{a}+85=17 \mathrm{a}+51$
$\mathrm{a}=34$
The new average is $34+3=37$
Example 4: The average of 50 numbers is 38. If 2 numbers 45 and 55 are dropped from the list, the average of reaming will be.

Solution: Let the sum of all numbers be "n"
$\frac{n}{50}=38 \quad$ OR $\quad \mathrm{n}=50 \times 38 \quad \rightarrow$ 1900
Now two number, 45 and 55 are excluded from 1900
$=1900-(45+55)=1800$
Total numbers after exclusion $=$ $50-2=48$
Now average is $=1800 / 48=37.5$

Example 5: In a laboratory the average of 6 observations is 12 and if one more observation is counted the average decreases by 1 . The last observation added is?
Solution: Let the sum of observations $=\mathrm{n}$

$$
\frac{n}{6}=12 \quad \text { OR } \quad n=12 \times 6 \rightarrow 72
$$

Now let the observation added be " $x$ " And after adding x with 72 , the average will decrease by 1 i.e. $12-1=11$

And after added an observation, the number of observation is $6+1=7$

Now calculating the average

$$
\frac{72+x}{7}=11 \quad \rightarrow x=5
$$

Example 6: The average of four consecutive odd numbers is 12 . The product of largest and smallest odd numbers is?
Solution : Let the consecutive numbers be
$n, n+2, n+4, n+6$
Average $=\frac{n+n+2+n+4+n+6}{4}=12$
$n=9$
Now the smallest number $=9$ and the largest number $=9+6=15$ Product of largest and smallest numbers is $=15 \mathrm{X} 9=135$

Example 7: The average of 5 consecutive odd numbers is 41 . The smallest odd number is?
Solution - let the consecutive numbers be $n, n+2, n+4, n+6, n+8$
Their average
$\frac{n+n+2+n+4+n+6+n+8}{5}=41$
$n=37$

Example 8: The average of 13 observations is 52 . The average of first 7 of them is 48 and average of last 7 is 58 . 66
Solution - let the sum of all observations $=\mathrm{n}$

Then $\frac{n}{13}=52 \rightarrow n=13 \times 52=676$
Sum of first 7 terms $=7 \times 48$

Sum of last 7 terms $=7 \mathrm{X} 58$

- (ii)

Adding i and ii,
We get, $7(48+58)=742$
The middle number is $=742-676$ $=66$

Example 9: The average daily expenditure of Mohan in three consecutive months is Rs.10, Rs. 14 and Rs.15. His average expenditure of the three months is?

Solution : Average of daily expenditure
in 3 months $=10,14$ and 15
Average $=\frac{10+14+15}{3}=13$

Example 10: A car covers 200 kms at the speed of $100 \mathrm{Km} / \mathrm{hr}$ and comes back at $50 \mathrm{Km} / \mathrm{hr}$. The average speed of the car is?
Solution : Formula used

$$
\text { Average speed }=\frac{\text { Total Distance }}{\text { Total Time }}
$$

Now total distance $=200+200$
(going 200 kms and then coming back)
Total time $=\frac{200}{100}+\frac{200}{50}=2+4=6$ hours
Average speed $=\frac{400}{6}=\frac{200}{3} \rightarrow 66 \frac{2}{3}$

## PREVIOUS YEAR QUESTIONS

1) The average weight of 50 boys in a class is 45 Kgs . When one boy leaves the class, the average reduces by 100 gm . The weight of boy who left the class is (AFCAT II 2015)
(a) 50
(b) 50.8
(c) 49
(d) 49.9

Solution: Average weight of 50 students $=45 \mathrm{Kgs}$
Total weight $=45 \times 50=2250 \mathrm{~kg}$
After the boy leaves the class the average weight becomes $=44.9 \mathrm{kgs}$
Total weight of remaining students $=44900 \mathrm{X} 49=2200100 \mathrm{gms}$
Weight of student who left $=2250000-2200100=49900 \mathrm{gm}=49.9 \mathrm{kgs}$
2) The average weight of 5 men is increased by 2 kgs when a 60 kg man is replaced by a new man. The weight of new man is
(AFCAT I 2014)
(a) 50
(b) 65
(c) 68
(d) 70

Solution: Total increase in weight $=5 \times 2=10 \mathrm{Kgs}$
Weight of new man $=60+10=70 \mathrm{Kgs}$
3) In three annual exams of which the aggregate marks of each exam was 500 , a student scored average marks of $45 \%$ and $55 \%$ in first and second annual examinations. To secure $60 \%$ average total marks. It is necessary for him to secure $\qquad$ marks in the $3^{\text {rd }}$ annual exam.
(AFCAT II 2014)
(a) 300
(b) 350
(c) 355
(d) 400

Solution: Marks in first exam $=(45 / 100) \times 500=225$
Marks in second exam $=(55 / 100) \mathrm{X} 500=275$
Total marks required $=(500+500+500) X(60 / 100)=900$
Marks required in $3^{\text {rd }}$ exam $=900-(225+275)=900-500=400$
4) There are 24 students in a class. A student whose age is 18 years left the class. And his place is filled with another student. The average of the class was nearly lowered by 1 month. The age of new student is
(AFCAT I 2014)
(a) 14
(b) 15
(c) 16
(d) 17

Solution: Age of new student $=18-(24 \mathrm{X}(1 / 12))=16$ years
5) The average of 8 men is increased by 4 years when one man of 30 years is replaced by a new man. The age of the new man is
(AFCAT 2013)
(a) 55
(b) 62
(c) 42
(d) 69

Solution: Let the average age of 8 men be $x$
Then the total age of all 8 men $=8 x$
Age of $7 \mathrm{men}+30=8 x \quad----(\mathrm{i})$
Secondly - average age of $8 \mathrm{men}=(x+4)$ years
Total age of 8 men $=8(x+4)$
Age of 7 men + new man $=8 x+32$
Subtraction of both the equations gives
7 men + new man -7 men $-30=8 x+32-8 x$
Age of new man $=62$ years
6) The sum of few numbers is 450 and their mean is 50 and if another number 100 is included, the mean would become
(AFCAT I 2012)
(a) 50
(b) 55
(c) 60
(d) 65

Solution: Number of values $=\frac{450}{50}=9$
New mean will be $\frac{550}{10}=55$
7) The average age of 35 students of a class is 16 years. Out of these the average age of 21 students is 14 years. The average age of remaining students is
(a) 15
(b) 17
(c) 20
(d) 19

Solution: Total age of all 35 students $=35 \times 16=560$ years $\quad$ (AFCAT I 2011)
Total age of 21 students $=21 \times 14=294$ years
Total age of 14 students $=560-294=266$ years
Average of 14 students $=266 / 14=19$ years
8) A cricketer has an average of 30 runs in 14 innings. How many runs should he score in his next inning to achieve an average of 32 runs?
(AFCAT II 2011)
(a) 65
(b) 60
(c) 55
(d) 50

Solution: Total runs in 14 innings $=30 \times 14=420$
Total runs in 15 innings $=480$
Runs in next innings $=480-420=60$
9) The average salary of all the workers in a workshop is Rs. 8000 . The average salary of seven technicians is Rs. 12000 and average salary of others is Rs. 6000. The total number of workers in the workshop are
(AFCAT I 2011)
(a) 20
(b) 21
(c) 22
(d) 23

Solution: Let total number of workers $=x$
Total salary of 7 workers $=7 \times 12000=8400$
Total salary of remaining $(x-7) \times 6000$
According to the question,
$8000 x=6000 x-42000+84000$
$\Rightarrow 2000 x=42000 \Rightarrow x=21$
Hence, total number of workers $=21$
10) The average of five consecutive odd numbers is 61 . What is the difference between highest and lowest number?
(AFCAT II 2011)
(a) 2
(b) 5
(c) 8
(d) 12

Solution: Let the numbers be $x, x+2, x+4, x+6$ and $x+8$.
Then $\frac{x+(x+2)+(x+4)+(x+6)+(x+8)}{5}=61$.
or $5 x+20=305$ or $x=57$.
So, required difference $=(57+8)-57=8$
11) A man's average monthly expenditure for the first 4 months of the year was 231.25. For the next 5 months, the average monthly expenditure was 22.75 more than what it was during the first 4 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?
(AFCAT 2013)
(a) $10 \%$
(b) $15 \%$
(c) $20 \%$
(d) $25 \%$

Solution: A man's average monthly expenditure for the first four months of the year was Rs.231.25.
He spent 231.25 X $4=$ Rs. 925
For the next five months, the average monthly expenditure was Rs. 22.75 more than what it was during the first four months.
He spends $231.25+22.75$ for one month
In 5 months he spends $(231.25+22.75) \mathrm{X} 5=1270$
If the person spent Rs. 605 in all during the remaining three months of the year,
Total expense $=925+1270+605=2800$
Saving $=3500-2800=700$
$\%$ saving $=\frac{700}{3500} \times 100=20 \%$
12) 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:
(AFCAT 2013)
(a) $1: 2$
(b) $2: 3$
(c) $3: 4$
(d) $3: 5$

Solution: Let $x=$ number of girls and $y=$ number of boys
$\frac{\text { Sum of girls ages }}{x}=15.4$
$\frac{\text { Sum of boys ages }}{y}=16.4$
The sum of the girls' ages is $15.4 x$, and boys' sum is $16.4 y$
Sum of girls ages+Sum of boys ages
$x+y$
$\frac{15.4 \mathrm{x}+16.4 \mathrm{y}}{x+y}=15.8$
$15.4 x+16.4 \mathrm{y}=15.8(x+\mathrm{y})$
$15.4 x+16.4 \mathrm{y}=15.8 x+15.8 \mathrm{y}$
$0.6 \mathrm{y}=0.4 x$
$0.6 \mathrm{y} / x=0.4$
$\mathrm{y} / \mathrm{x}=0.4 / 0.6=\mathrm{y}: x=2 / 3$
Hence, ratio of boys : girls = 2:3
13) A man's average monthly expenditure for the first four months of the year was Rs 225.25 . For the next five months, the average monthly expenditure was 20.75 Rs more than what it was during the first four months. If the person spent 700 Rs in all during the remaining three months of the year find what percentage of his annual income of 3500 Rs he saved in the year?
(AFCAT II 2012)
(a) 10
(b) 15
(c) 19.11
(d) 25

Solution: Total expenditure four months $=225.25 \times 4=901$
Total expenditure five months $=(225.25+20.75) \mathrm{X} 5$
$=246 \times 5=$ Rs 1230
Total expenditure in 12 months $=901+1230+700$
= Rs 2831
Saving $=3500-2831=$ Rs 699
Percentage saving $=\frac{699}{3500} \times 100=19.11 \%$
14) Find the average of all the numbers between 6 and 34 which are divisible by five.
(a) 18
(b) 20
(c) 24
(d) 30
(AFCAT I 2012)
Solution: Average $=\frac{10+15+20+25+30}{5}=\frac{100}{5}=20$
15) The average of first 80 natural numbers is
(AFCAT I 2012)
(a) 40
(b) 41
(c) 40.5
(d) 142

Solution: Average $=\frac{80 \times 81}{2 \times 80}=\frac{81}{2}=40.5$

## UNSOLVED QUESTIONS

1) The average of 10 numbers is " $n$ ". If all numbers are increased by $10 \%$, then the average will be?
(a) Increase by $10 \%$
(b) Increase by $20 \%$
(c) Decrease by $10 \%$
(d) Decrease by $20 \%$
2) The average of 5 numbers is 27 . If one number is excluded from them, the average falls to 25 . The number is.
(a) 24
(b) 35
(c) 66
(d) 54
3) a, b, c, d and e are consecutive counts. What will be the average of the counts?
(a) $(a+b+c+d+e) / 5$
(b) abcde
(c) $(a+b+c+d+e) X 5$
(d) $5 /(a+b+c+d+e)$
4) The average of a number and its square is 5 times the selected number, the number is?
(a) 4
(b) 8
(c) 9
(d) 21
5) Average age of male in an office is 30 and the average age of females in the same offices is 25 . The average age of all employees is.
(a) 35
(b) 27.5
(c) 26
(d) Data Inadequate
6) The average of some numbers is 10 . If all numbers are multiplied by 2 then the new average is?
(a) 12
(b) 20
(c) 8
(d) 22
7) The average of 5 consecutive even numbers is " $x$ ". If the next two numbers in the sequence are also taken to calculate the average, the average will increase by?
(a) 2
(b) 3
(c) 5
(d) 1
8) A cricketer scores average 32 runs in 10 innings. How many runs he has to score in next innings to increase the average by 4.
(a) 76
(b) 70
(c) 65
(d) 69
9) The average of 50 numbers is 39 . If two numbers, 40 and 35 are removed from the sequence, then the new average is?
(a) 32.545
(b) 32.56
(c) 39.0625
(d) 54.443
10) Average marks in an examination of 13 students are 40 . The average of first 6 is 30 and that of last six is 32 . The middle number of the sequence is?
(a) 201
(b) 150
(c) 148
(d) 192
11) Average of 5 numbers is 29 . It becomes 27 if one number is excluded from it. The number excluded is?
(a) 37
(b) 35
(c) 67
(d) 24
12) Average of 7 numbers is 7 . If 2 is added to each number then the new average will be?
(a) 9
(b) 7
(c) 5
(d) 2
13) A motorbike covers a distance at speed of $x \mathrm{~km} / \mathrm{hr}$ and covers same distance at the speed of $y \mathrm{~km} / \mathrm{hr}$. the average speed is?
(a) $x+y / x y$
(b) $2 x y / x+y$
(c) $x y / x+y$
(d) $2(x+y)$
14) The average of a and $b$ is 30 and that of $c$ and $d$ is 20 . Then the total average falls between?
(a) 20-22
(b) 24-26
(c) 22-24
(d) 26-30
15) Average of numbers between 6 and 50 that are divisible by 5 is?
(a) 40
(b) 30
(c) 25
(d) 35
16) The average of 20 numbers is 35 . Out of them, a number 85 is replaced by 45 . Now the new average is?
(a) 27
(b) 31
(c) 30
(d) 33
17) Average of three numbers is 95 . Out of three, the first number is three times of second and 4 times the third number. The third number is?
(a) 20
(b) 40
(c) 44
(d) 45
18) Average of 11 numbers is 36 . Average of first 9 of them is 34 . The $10^{\text {th }}$ and $11^{\text {th }}$ number is in the ratio of $2: 3$. The two numbers are?
(a) 20,16
(b) 30,60
(c) 36,54
(d) 25,65
19) Average weight of $x, y$ and $z$ is 45 . The average of $x$ and $y$ is 40 and that of $y$ and $z$ is 43. The weight of $y$ is?
(a) 42
(b) 32
(c) 45
(d) 31
20) In 2010 and 2011, 80 and 60 students appeared in an exam. In the exam, $60 \%$ and $40 \%$ of students got passed respectively. The average of passed students is
(a) 35
(b) 42
(c) 25
(d) 36
21) Average of 40 boys in a class is 15 and average of 20 girls is 17 . The average of total students is
(a) 15.7
(b) 15
(c) 17
(d) 14
22) The total average of three numbers is 20 more than the first number. The middle number is
(a) 30
(b) 66
(c) 23
(d) Data insufficient
23) The average of 7 consecutive numbers is 30 . The smallest number is.
(a) 22
(b) 25
(c) 27
(d) 65
24) The average salary of male employees is Rs 520 and that of female employees is Rs 420. The average salary of all employees is Rs 500 . The percentage of male employees is?
(a) $50 \%$
(b) $80 \%$
(c) $65 \%$
(d) $70 \%$
25) Raju scores 80 runs in his $6^{\text {th }}$ innings and increases the average by 5 . The average after 6 innings is?
(a) 49
(b) 35
(c) 45
(d) 55
26) An aeroplane covers 4 same distances at different of $100,200,300$, and $400 \mathrm{kms} / \mathrm{hr}$. The average speed is?
(a) 143
(b) 250
(c) 192
(d) 260
27) The average percentage of 20 students is $66 \%$ and that of 15 students is $70 \%$. What is the total average percentage of all students?
(a) $54.4 \%$
(b) $67.7 \%$
(c) $67.5 \%$
(d) $59.5 \%$

## SOLUTIONS

| 1. (a) | 2. (b) | 3. (a) | 4. (c) | 5. (d) | 6. (b) | 7. (a) | $8 .(\mathrm{a})$ | 9. (c) | 10. (c) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(a) | $12 .(\mathrm{a})$ | $13 .(\mathrm{b})$ | $14 .(\mathrm{b})$ | $15 .(\mathrm{b})$ | $16 .(\mathrm{d})$ | $17 .(\mathrm{d})$ | $18 .(\mathrm{c})$ | $19 .(\mathrm{d})$ | $20 .(\mathrm{d})$ |
| $21 .(\mathrm{a})$ | $22 .(\mathrm{d})$ | $23 .(\mathrm{c})$ | $24 .(\mathrm{b})$ | $25 .(\mathrm{d})$ | $26 .(\mathrm{c})$ | $27 .(\mathrm{b})$ |  |  |  |

## HINTS

4) Let the number be $x$

$$
\begin{aligned}
& \frac{x+x^{2}}{2}=5 x \\
& X=9
\end{aligned}
$$

10) $13 \times 40-(6 \times 30+6 \times 32)=148$
11) $5 \times 29=145$
$4 \times 27=108$
145-108=37
12) Let no of males $=B$

Let no of females $=\mathrm{G}$
$\underline{520 \mathrm{~B}+420 \mathrm{G}}=500$ $\mathrm{B}+\mathrm{G}$
$->B: G=4: 1$
$\% B=(4 / 5)$ X $100=80 \%$
25) Let average till $5^{\text {th }}$ innings $=\mathrm{A}$

And total score till $5^{\text {th }}$ inning $=S$
Then- $\mathrm{A}=\mathrm{S} / 5$ OR $\mathrm{S}=\mathrm{A} 5$
After 6th inning
$A+5=\underline{S+80}$
6
$A=50$
After $6^{\text {th }}$ innings $=50+5=55$
18) $\frac{\text { Sum of } 11 \text { numbers }}{11}=36$

Sum of 11 numbers $=396$
$\frac{\text { sum of } 9 \text { numbers }}{9}=34$
Sum of 9 numbers $=306$ sum of $10^{\text {th }}$ and $11^{\text {th }}$
$396-306=90$
$\frac{2}{5} X 90=36$
Another number $=90-36=54$
27) $\frac{20 \times 66+15 \times 70}{35}$
$\frac{4 \times 66+3 \times 70}{7}=67.7 \%$

## Chapter 4

## RATIO AND PROPORTION

## SAMPLE QUESTIONS

Example 1: A number is divided into 3 parts in ratio of $1: 2: 3$. The smallest part is 20 . The sum total of all is?

Solution: if $1^{\text {st }}$ no is $=20$ then $2^{\text {nd }}$ no is $=x$

$$
\begin{aligned}
& \frac{1}{2}=\frac{20}{x} \\
& x=40
\end{aligned}
$$

Using same procedure, the largest number will be calculated

$$
\frac{1}{3}=\frac{20}{y}
$$

$\mathrm{y}=60$
Now adding all three $=20+40+60$ $=120$

Example 2: The sides of a triangle are in the ratio of $1 / 2,1 / 3$ or $1 / 4$ and its perimeter is 104 centimetres, the length of longest side is

Solution: convert the ratio in simple form
$\frac{1}{2}: \frac{1}{3}: \frac{1}{4}$
LCM of $2,3,4=12$
$\frac{12}{2}: \frac{12}{3}: \frac{12}{4}$
6:4:3
It is clear that the side having length ratio 6 is largest

$$
\begin{aligned}
& \frac{6}{13} \times 104 \\
& 6 \times 8=48 \mathrm{~cm}
\end{aligned}
$$

Example 3: In a school, $10 \%$ of the boys are same in number as $1 / 4^{\text {th }}$ of the girls what is the ratio of boys to the girls in the school.

Solution: $10 \%$ of the boys $=1 / 4$ of the girls
$\frac{10}{100} \mathrm{X}$ boys $=\frac{1}{4} \mathrm{X}$ girls
2 X boys $=5 \mathrm{X}$ girls
$\frac{\text { Boys }}{\text { Girls }}=\frac{5}{2}$
Boys: Girls $=5: 2$
Example 4: $20 \%$ of $x$ is equals to $10 \%$ of y , the ratio of $x$ and $y$ is?
Solution: $20 \%$ of $x=10 \%$ of y

$$
\begin{aligned}
& \frac{20}{100} \mathrm{X} x=\frac{10}{100} \mathrm{Xy} \\
& 2 x=1 \mathrm{y} \\
& \frac{x}{y}=\frac{1}{2} \\
& x: y=1: 2
\end{aligned}
$$

Example 5: A certain amount of money is divided among 2 friends' $x$ and $y$ in the ratio of $4: 3$. $y$ has got the share of Rs 4800
then find the ratio of total amount and amount that $x$ got.

Solution: Adding the ratio, we get $=4+3=7$
If $y$ got 4800 , then total will be
$\frac{3}{7}=\frac{4800}{\text { Total }}$
Total $=11200$
For finding the amount of x , we will use same procedure
$\frac{3}{4}=\frac{4800}{x}$
$x=6400$
Now the ratio of total: $x$
11200: 6400 = 7:4

Example 6: In a school, number of boys are more than number of girls by $12 \%$ of the total students. The ratio of boys and girls in school is?

Solution: Let number of boys in school be " b "
And number of girls be " g "
Then total number of students $=b+g$ According to the question, difference between boys and girls $=12 \%$ of total OR
$\mathrm{b}-\mathrm{g}=12 \%(\mathrm{~b}+\mathrm{g})$
b-g $=\frac{12}{100} \mathrm{X}(\mathrm{b}+\mathrm{g})$
$100 b-100 \mathrm{~g}=12 \mathrm{~b}+12 \mathrm{~g}$
$88 \mathrm{~b}=112 \mathrm{~g}$
$11 \mathrm{~b}=14 \mathrm{~g}$
$\mathrm{b}: \mathrm{g}=14: 11$
Example 7: In the ratio 15:25::36 : a , Find the value of a .
Solution: The ratio is to be Solved by
multiplying $1^{\text {st }}$ and $4^{\text {th }}$ proportional and $2^{\text {nd }}$ and $3^{\text {rd }}$ proportional and equating them
i.e. $15 \mathrm{Xa}=25 \mathrm{X} 36$
$\mathrm{a}=\frac{25 \times 36}{15}$
$\mathrm{a}=60$
Example 8: A bag contain 1 rupee, 50 paisa, and 25 paisa coins in the ratio of $2: 3: 10$, and total amount in the bag is 288, then find the number of 1 rupee coin in the bag.

Solution: The ratio of coins $=2: 3: 10$
Let the constant value in the ratio be x Then number of 1 rupee coins $=2 x$

Number of 50 paisa coins $=3 x$
Number of 25 rupee coins $=10 x$
Total amount by 1 rupee coins $=1 \mathrm{X} 2 x$
Total amount by 50 paisa coins $=\frac{1}{2} \mathrm{X} 3 x$
Total amount by 25 paisa coins $=\frac{1}{4} \mathrm{X} 10 x$
Putting above values in equation, we get
$1 \mathrm{X} 2 x+(1 / 2) \mathrm{X} 3 x+(1 / 4) \mathrm{X} 10 x=288$
$2 x+(3 / 2)+5 / 2 x=288$
$x=48$
Number of 1 rupee coins $=2 x=2 \mathrm{X} 48=$ 96 coins

Example 9: A,B,C went into partnership and earned profit of Rs 279. They decided to divide the profit in the ratio of $6: 10: 15$. The share of A will be?
Solution: Adding all the values of ratio, we get
$=6+10+15=31$
Now the share of $A=\frac{6}{31} \times 279$ Rs.
$6 \quad \mathrm{X} 9=$ Rs. 54

Example 10: If $x: y=2: 3$ and $y: z=5: 6$, then
find $x: z$
Solution: Here $\frac{x}{y}=\frac{2}{3}$
and $\frac{y}{z}=\frac{5}{6}$
From I, we can get
$\frac{3 x}{2 z}=\frac{5}{6}$
$\frac{x}{Z}=\frac{10}{18}$
$\frac{x}{Z}=\frac{5}{9}$
$y=\frac{3 x}{2}$
Putting this value of y in (ii), we will get

## PREVIOUS YEAR QUESTIONS

1) In a mixture of 35 litres, the ratio of milk and water is $4: 1$. If 7 lt . of water is added to mixture, the ratio of milk and water of the new mixture will be
(AFCAT 2015)
(a) $2: 1$
(b) $1: 2$
(c) $5: 4$
(d) $4: 5$

Solution: Milk in 35 Litres solution $=\frac{4}{5} \mathrm{X} 35=28$
Water $=35-28=7$
New quantity of water $=7+7=14 \mathrm{lt}$.
New ratio $=28: 14 \quad$ or $\quad 2: 1$
2) A factory employs skilled workers, unskilled workers and clerks in proportion of 8:5:1 and the wages paid to them are in the ratio of 5:2:3 respectively. When 20 unskilled workers are employed the total daily wage of all amounts to Rs. 318. What is the daily wages paid to each category of employees
(a) $240,57,19$
(b) $210,70,13$
(AFCAT II 2014)
(c) $230,65,12$
(d) $240,60,18$

Solution: Let the constant in the ratio of workers be a
Then the no of workers will become 8a, 5 a and 1 a .
Total wage $=8 \mathrm{a}$ X $5+5 \mathrm{a}$ X $2+1 \mathrm{a} \mathrm{X} 3=318$
$40 a+10 a+3 a=318$
$\mathrm{A}=6$
So wages of all three categories will be
40 X 6,10 X $6,3 \times 6$
240, 60, 18
3) Average age of students of a class is 15.8 years. The average age of boys in a class is 16.4 years and that of girls is 15.4 years. The ratio of number of boys and girls in the class is
(a) $1: 2$
(b) $2: 3$
(c) $3: 4$
(d) $3: 5$
(AFCAT 2013)

Solution: Let the number of boys be $B$ and no of girls be $G$
Total age of students $=(B+G) 15.8$
Total age of boys $=\mathrm{B} 16.4$
Total age of girls $=$ G 15.4
Equating the above data, we get
B $16.4+$ G $15.4=(B+G) 15.8$
$6 \mathrm{~B}=4 \mathrm{G}$
$B: G=2: 3$
4) Divide Rs 80 in the proportion of $3: 6: 7$
(AFCAT 2013)
(a) $10,35,40$
(b) $15,30,35$
(c) $15,30,35$
(d) $10,40,35$

Solution: $3+6+7=16$
$(3 / 16) \times 80=15$
$(6 / 16) \times 80=30$
$(7 / 16) \times 80=35$
5) Sum of 3 numbers is 98 . The ratio of first two numbers is $2: 3$ and that of second and third number is $5: 8$. Then the second number is
(AFCAT I 2012)
(a) 20
(b) 30
(c) 48
(d) 58

Solution: Let the three numbers be a,b,c
So $\mathrm{a}: \mathrm{b}=2: 3$ or $\mathrm{a}=\frac{2 b}{3}$
$\mathrm{b}: \mathrm{c}=5: 8 \quad$ or $\mathrm{c}=\frac{8 b}{5}$
$a+b+c=98$
Form all three equations we get
$\frac{2 b}{3}+\mathrm{b}+\frac{8 b}{5}=98$
$B=30$
6) Find the sum of $\frac{1}{9}+\frac{1}{6}+\frac{1}{12}+\frac{1}{72}$
(AFCAT I 2012)
(a) $\frac{3}{8}$
(b) $\frac{3}{2}$
(c) $\frac{1}{8}$
(d) $\frac{4}{7}$

Solution: $\frac{1}{9}+\frac{1}{6}+\frac{1}{12}+\frac{1}{72}$
$\frac{8+12+6+1}{72}=\frac{27}{72}=\frac{3}{8}$
7) The speed of three cars are in the ratio of $5: 4: 6$. The ratio of their time taken to travel the same distance is
(AFCAT I 2011)
(a) $5: 4: 6$
(b) $6: 4: 5$
(c) $10: 12: 15$
(d) $12: 15: 10$

Solution: Speed ratio $=5: 4: 6$
Speed $=$ distance/time. So ratio of time $=\frac{1}{5}: \frac{1}{4}: \frac{1}{6}$
Or 12:15:10
8) 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
(AFCAT I 2011)
(a) 1
(b) 3
(c) 6
(d) 8

Solution: Let the number be $3 x$ and $4 x$. Then $\frac{3 x}{4 x}=\frac{3}{4}$
Again, $\frac{3 x+6}{4 x+6}=\frac{4}{5}$ (given that when both numbers are increased by 6 the ratio
becomes 4/5)
$5(3 x+6)=4(4 x+6)$
$=>15 x+30=16 x+24$
$=>x=6$
Hence, answer is (c)
9) A certain amount was divided between Sita and Gita in the ratio 9:8. If Sita's share was Rs 4500 then the amount is
(AFCAT I 2012)
(a) 9000
(b) 8500
(c) 6750
(d) 9025

Solution: Let the amount be Rs. $x$
$\frac{9}{17} \mathrm{X} x=4500$
$\Rightarrow \mathrm{x}=(4500 \mathrm{X} 17) / 9=$ ? 8500
Hence, answer is (b)
10) The ratio of three numbers is $3: 4: 5$ and the sum of their squares is 1250 . The sum of the three numbers is
(AFCAT II 2011)
(a) 30
(b) 50
(c) 60
(d) 90

Solution: Let numbers be 3 x 4 x and 5 x
$9 x^{2}+16 x^{2}+25 x^{2}=1250$
$50 x^{2}=1250$
$x^{2}=25$

$$
=5
$$

Numbers are 15, 20 and 25
Sum of numbers $=15+20+25=60$
Hence, answer is (c)
11) 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?
(AFCAT II 2011)
(a) 15 years
(b) 18 years
(c) 21 years
(d) 13 years

Solution: Total age of 3 boys $=25 \mathrm{x} 3=75 \mathrm{yr}$
$3 x+5 x+7 x=75 \quad \Rightarrow 15 x=75 \quad \Rightarrow \quad x=5$
Youngest age $=3 \times 5=15$ yrs
Hence, answer is (a)
12) The ratio of the present age of $P$ and $Q$ is $2: 3$. The ratio of their age after 18 yr will be $4: 5$. What is the present age of Q ?
(AFCAT II 2012)
(a) 26 yr
(b) 25 yr
(c) 24 yr
(d) 27 yr

Solution: Let present age of $\mathrm{P}=2 x$ yr and present age of $\mathrm{Q}=3 x$ yr
$\frac{2 x+18}{3 x+18}=\frac{4}{5}$
$12 x+72=10 x+90$
$2 x=18$
$x=9$
Present age of $\mathrm{Q}=3 \mathrm{X} 9=27 \mathrm{yr}$
Hence, answer is (d)
13) 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) $1: 4$
(AFCAT II 2012)
Solution: 9:1 can give total of 10 marbles
7:3 can give total of 10 marbles
$1: 10$ can never give total of 10 marbles
1:4 OR 2:8 can give total of 10 marbles
Hence, answer is (c)
14) A sum of money is to be distributed among $P, Q$ and $R$ in the ratio of $6: 19: 7$. If $R$ gives Rs 200 from his share to $Q$, the ration of $P, Q$ and $R$ becomes $3: 10: 3$, what is the total sum?
(AFCAT II 2102)
(a) Rs 3200
(b) Rs 12800
(c) Rs 6400
(d) Data inadequate

Solution: $\quad$ P $\quad$ Q $\quad$ R
6 : 19 : 7
1200: 3800 : 1400

R gives 200 to Q
1200 : 4000 : 1200
$310 \quad 3$
Total amount of $\mathrm{P}, \mathrm{Q}$ and R
$=1200+3800+1400=$ Rs 6400
Hence, answer is (c)
15) Which of the following fractions are in ascending order?
(AFCAT I 2012)
(a) $\frac{2}{3}, \frac{3}{5}, \frac{7}{9}, \frac{9}{11}, \frac{8}{9}$
(b) $\frac{3}{5}, \frac{2}{3}, \frac{9}{11}, \frac{7}{9}, \frac{8}{9}$
(c) $\frac{3}{5}, \frac{2}{3}, \frac{7}{9}, \frac{9}{11}, \frac{8}{9}$
(d) $\frac{8}{9}, \frac{9}{11}, \frac{7}{9}, \frac{2}{3}, \frac{3}{5}$

Solution: $3 / 5=0.6$
$\frac{2}{3}=0.6666 \quad \frac{7}{9}=0.7777$
$\frac{9}{11}=0.818 \quad \frac{8}{9}=0.888$
$\frac{3}{5}, \frac{2}{3}, \frac{7}{9}, \frac{9}{11}, \frac{8}{9}$ are in ascending order.
Hence, answer is (c)
16) 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) $15: 11$
(AFCAT II 2014)
(c) $17: 15$
(d) $15: 16$

Solution: Cat:Dog

$$
\begin{gathered}
5: 4 \\
5 \times 3: 4 \times 4 \Rightarrow 15: 16
\end{gathered}
$$

Hence, answer is (d)
17) 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 Rs 8. How many rupees should Ram and Shiv respectively get, assuming each of the three consumes an equal portion of the apples?
(AFCAT II 2014)
(a) 1,7
(b) 2,5
(c) 5,3
(d) 2,6

Solution: Suppose cost of 1 apple $=$ Rs $x$
Ration of amount contribute among Ram, Shiv and Ganesh
$=$ Ram : Shiv: Ganesh =Rs $3 x$ : Rs $5 x$ : 8
Suppose Ram and Shiv respectively gets Rs $m$ and Rs $n$ from Ganesh. Then actual ratio amount contribute in party
$=$ Ram : Shiv: Ganesh=Rs $3 x-\mathrm{m}$ : Rs $5 x-\mathrm{n}$ : Rs8
Now, $3 x-\mathrm{m}=5 x-\mathrm{n}$
$\Rightarrow \quad \mathrm{n}-\mathrm{m}=\mathrm{Rs} 2 x$

And $\quad \mathrm{m}+\mathrm{n}=\mathrm{Rs} \frac{8 x}{3}$
On adding Eqs, (i) and (ii), $2 \mathrm{n}=2 \mathrm{X}+8 \mathrm{x} / 3 \Rightarrow 2 \mathrm{n}=14 \mathrm{x} / 3$
$\Rightarrow \quad \mathrm{n}=\frac{7 x}{3}$
On subtracting Eqs. (ii) from (i), $2 \mathrm{~m}=8 \mathrm{x} / 3-2 x$
$\Rightarrow 2 \mathrm{~m}=\frac{2 x}{3}$
$\Rightarrow \quad \mathrm{m}=\frac{x}{3}$
$\mathrm{m}+\mathrm{n}=\frac{8 x}{3} \quad \Rightarrow 8=\frac{8 x}{3} \quad(\because \mathrm{~m}+\mathrm{n}=\mathrm{Rs} 8)$
$\Rightarrow \quad x=$ Rs. 3
Amount given to Ram by Ganesh (m) $=\frac{x}{3}=\frac{3}{3}=$ Rs 1
And amount given to Shiv by Ganesh (n) $=\frac{7 x}{3}=\frac{7 \times 3}{3}=$ Rs. 7
Hence answer is Rs. 1, 7

## UNSOLVED QUESTIONS

1) The angles of a quadrilateral are in the ratio of $1: 2: 3: 4$. The smallest angle is
(a) 54
(b) 68
(c) 36
(d) 20
2) Ratio of $A$ and $B$ is $3: 4$ and that of $B$ and $C$ is $5: 7$, while that of $C$ and $D$ is $8: 9$. The ratio of $B$ and $D$ is
(a) $40: 63$
(b) $45: 37$
(c) $79: 40$
(d) $20: 17$
3) A sum of money is divided into $5: 3: 2$. If the smallest share among this ratio measures rs. 400 , then the total amount is?
(a) 1,600
(b) 2,100
(c) 1,300
(d) 2,000
4) Two numbers are in the ratio of $12: 11$. Find the two numbers if the product of the two numbers is 4752 .
(a) 72,66
(b) 46,43
(c) 77,20
(d) 50,29
5) A bag contains 1 rupee coin, 50 paisa and 25 paisa coins. The total amount in the bag is 210 . Find the number of coins if the ratio of all coins is 5:6:8
(a) 453
(b) 244
(c) 923
(d) 400
6) The ratio of $x$ and $y$ is $4: 5$ and that of $y$ and $z$ is $2: 3$. What is the ratio of $x: z$ ?
(a) $6: 20$
(b) $9: 14$
(c) $4: 13$
(d) $8: 15$
7) 40 percent of $x$ is equal to $4 / 5$ of another number. Find the ratio of two numbers.
(a) $3: 4$
(b) $2: 1$
(c) $5: 4$
(d) $1: 5$
8) 540 rs are divided into the ratio of $2: 3$. The larger amount is?
(a) 402
(b) 324
(c) 923
(d) 322
9) Three friends $x, y$ and $z$ invested in a scheme by sharing amount in the ratio of $1 / 2: 1 / 4: 5 / 16$. The scheme derived a profit of 6800 . What is the largest share in the profit?
(a) 600
(b) 3200
(c)2700
(d) 3400
10) $x$ is inversely proportional to $y$. If $x$ has the value of 4 then $y$ will have the value of 7. Find the value of $y$ if $x$ is 9 ?
(a) $19 / 4$
(b) $16 / 3$
(c) $28 / 9$
(d) $41 / 3$
11) The price of a tape recorder and a VCD is in the ratio 5:9. If the difference between their prices is Rs 4000, find the price of tape recorder
(a) 4200
(b) 3900
(c) 4250
(d) 5000
12) The ratio of sides of a triangle is $6: 4: 3$. If the perimeter of the triangle is 104 , find the length of smallest side of the triangle.
(a) 24
(b) 53
(c) 43
(d) 17
13) Two numbers are in the ratio of $3: 4$. If 25 is added to both the numbers, then the ratio changes to $4: 5$. Find the difference between the two numbers.
(a) 16
(b) 27
(c) 25
(d) 32
14) 78 is divided into 3 parts in the ratio of $1: 1 / 2: 1 / 6$. Find the smallest part.
(a) $39 / 5$
(b) $1 / 7$
(c) $40 / 3$
(d) $16 / 9$
15) A number is added to both the terms of $49: 68$ which converts it into $3: 4$. The number is
(a) 11
(b) 7
(c) 9
(d) 8
16) The ratio of $x: y$ is 25 times the ratio of $y: x$. find the ratio $x: y$
(a) $5: 1$
(b) $4: 3$
(c) $2: 7$
(d) $6: 1$
17) The angles of a triangle are in AP. The largest angle is double the smallest number. Find the ratio of the angles.
(a) $5: 3: 1$
(b) $4: 3: 2$
(c) $7: 3: 4$
(d) $3: 6: 2$
18) The number of students of $\mathrm{MA}, \mathrm{M} \mathrm{Com}$ and M Sc are in the ratio of $3: 5: 8$. In next session, the number of students in all courses increased to $20 \%, 40 \%$ and $25 \%$. The ratio of students in new session is
(a) $18: 35: 50$
(b) 20:17:14
(c) $15: 19: 20$
(d) $22: 14: 17$
19) The ratio of salaries of $A$ and $B$ is $3: 5$ and that of $A$ and $C$ is $6: 5$. The salary of $B$ is Rs 78000 Rs. The salary of C is
(a) 40,000
(b) 39,000
(c) 19,000
(d) 17,000
20) If $A: B$ is $5: 6$ and $B: C$ is $5: 2$ and $C: D$ is $7: 4$, then ratio of $A: D$ is
(a) $199: 23$
(b) $172: 13$
(c) $175: 48$
(d) $181: 9$
21) The ratio of girls and boys in a school is $1: 2$. The ratio of Boys and girls in primary is $3: 4$, then the ratio of boys and girls in secondary classes is
(a) $5: 14$
(b) $14: 5$
(c) $4: 11$
(d) $6: 13$
22) Amit and Sidharth invested in a scheme in a ratio of $3: 2$. While the amount invested by Sidhard and Vineet is in the ratio of 5:4. If the amount invested by Vineet is 1600 , then the amount invested by Amit is
(a) 2900
(b) 3000
(c) 4100
(d) 3200
23) Two numbers are in the ratio of $13: 11$. The product of the numbers is 24167 . The two numbers are
(a) 543,23
(b) 200,120
(c) 143,169
(d) 320,99
24) A number is subtracted from two numbers in the ratio of $4: 5$ making it $3: 4$. The number subtracted is
(a) 1
(b) 3
(c) 6
(d) 4
25) The ratio of $62 / 3$ and its reciprocal is
(a) $1: 1$
(b) $9: 1$
(c) $2: 3$
(d) $3: 7$
26) A candidate gets 96 marks in an examination and gets failed by 16 marks. If the passing marks is $35 \%$, the maximum marks in the examination is
(a) 320
(b) 400
(c) 390
(d) 360
27) In a college election between two candidates, the ratio of votes received by winner and other candidate is $57: 43$ votes and winner won by 210 votes. The total no of votes were -
(a) 4000
(b) 2800
(c) 3200
(d) 1500
28) The ages of Suraj and Ankit are in the ratio of $6: 5$. If the sum of their age is 44 , then the ratio of their age after 5 years will be
(a) $26: 13$
(b) $29: 25$
(c) $50: 23$
(d) 19:23

## SOLUTIONS

| 1.(c) | 2.(a) | 3.(d) | 4.(a) | 5.(c) | 6.(d) | 7.(b) | 8.(b) | 9.(b) | $10 .(\mathrm{c})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(d) | $12 .(\mathrm{a})$ | $13 .(\mathrm{c})$ | $14 .(\mathrm{a})$ | $15 .(\mathrm{d})$ | $16 .(\mathrm{a})$ | $17 .(\mathrm{b})$ | $18 .(\mathrm{a})$ | $19 .(\mathrm{b})$ | $20 .(\mathrm{c})$ |
| 21.(c) | $22 .(\mathrm{b})$ | $23 .(\mathrm{c})$ | $24 .(\mathrm{a})$ | $25 .(\mathrm{a})$ | $26 .(\mathrm{a})$ | $27 .(\mathrm{d})$ | $28 .(\mathrm{b})$ |  |  |

## HINTS

14) Ratio $=\frac{1}{1} / \frac{1}{2} / \frac{1}{6}$

OR 6:3:1
Smallest part $=\frac{1}{10} \times 78=\frac{39}{5}$
18) Let the number of students in courses be
$3 x, 5 x$ and $8 x$
Then increasing the MA students by $20 \%$,
M.Com by $40 \%$ and MSC by $25 \%$
$3 x \mathrm{X} \frac{120}{100}=3.6 x$
$5 x \mathrm{X} \frac{140}{100}=7 x$
$8 x \mathrm{X} \frac{125}{100}=10 x$
The new ratio $=$ 3.6:7:10
OR 36:70:100 OR 18:35:50
19) $A: B=3: 5$ and $A: C=6: 5$
$A: B: C=6: 10: 5$
If $\mathrm{B}=78000$, then $\mathrm{C}=\frac{5 \times 78000}{10}$
Rs39000
26) Passing marks $=96+16=112$

Passing percentage $=35 \%$
$\frac{112}{x}=\frac{35}{100}$
$x=320$
27) Difference in ratio $=57-43=14$

Difference in votes $=210$
$\frac{14}{100}=\frac{210}{x}$
$x=1500$ votes
28) Ratio of ages $=6: 5$

Sum of ages $=44$
$6 x+5 x=44$
$x=4$
Current age $=6 \mathrm{X} 4=24$

$$
5 \times 4=20
$$

After 5 years the ages will be $=29,25$
Ratio of ages after 5 years $=29: 25$

## Chapter 5

## PROFIT AND LOSS

## SAMPLE QUESTIONS

Example 1: Ram sold an article for 100 Rs and earned a profit of 30 rupees. The gain percentage is?

Solution: Given SP = Rs. 100
Gain $=$ Rs. 30
Formula used
(i) $\quad$ Gain $=\mathrm{SP}-\mathrm{CP}$
\&
(ii) Gain Percentage $=\frac{\text { Profit X } 100}{C P}$

Putting values in (i)

$$
\begin{aligned}
& 30=100-\mathrm{CP} \\
& \mathrm{CP}=70
\end{aligned}
$$

Applying values in (ii)
Profit $/$ Gain Percentage $=\frac{30 \times 100}{70}$
Answer: $17 \frac{11}{17} \%$
Example 2: The CP of 20 articles is equal to the SP of $x$ articles. If the profit is $25 \%$, then the value of $x$ is:

Solution: Given Profit $=25 \%$
Let CP of 1 article $=100$
Then CP of 20 articles $=2,000$
if CP of 1 article is $=100$, and
Profit $=25 \%$ then

SP of 1 article is $=125$ (as mentioned and SP of $x$ articles is ( $x \mathrm{X}$ 125)
(in Tips and Tricks)
Now CP of 20 articles $=$ SP of $x$ articles
$2,000=x \mathrm{X} 125$
$x=16$
Example 3: Ram bought a radio for Rs. 225. His overhead expenses are Rs. 15. He sells the radio for Rs. 300. What is the profit earned?
Solution: Given CP $=$ Rs 225
Extra expenses $=$ Rs 15
$S P=$ Rs 300
Now,
total CP will be Rs $225+$ Rs 15 = Rs 240
Profit $=$ SP-CP OR $\quad 300-240=$ Rs 60
Using the formula
\%Profit $=\frac{\text { Profit } \mathrm{X} 100}{\mathrm{CP}}$
Applying the values in formula

$$
\% \text { Profit }=\frac{60 \times 100}{240}=25 \%
$$

Example 4: A person incurs a loss of 5\% by selling a watch for Rs. 1140. At what price should the watch be sold to earn 5\% profit?
Solution: Given SP = Rs 1140
Loss incurred $=5 \%$

Profit to be earned $=5 \%$
Here using CP formula, we will get;
Cost Price $=$

$$
\frac{100 \text { X SP }}{100-\text { Loss Percentage }}
$$

Putting values in formula
$C P=\frac{100 \mathrm{X} 1140}{(100-5)}=1200$
Now using SP formula, we will get SP after 5\% profit
$\mathrm{SP}=\frac{(100+\text { Gain Percentage }) \mathrm{X} \mathrm{CP}}{100}$

Putting values in formula
Selling price $=\frac{(100+5) \times 1200}{100}=1260$

## Short method

Let CP be 100, then SP after 5\%
loss $=95$ and SP after 5\% gain $=105$
As per given in the question, SP
after $5 \%$ loss is 1140
So

$$
\mathrm{SP}=1260{ }^{\frac{95}{105}=\frac{1140}{S P}}
$$

Example 5: If the cost price is $25 \%$ of selling price. Then what is the profit percent.
Solution: Given CP $=25 \%$ of SP
Let CP be 100 then

$$
\begin{aligned}
& 100=\frac{25 \times S P}{100} \\
& S P=400
\end{aligned}
$$

Now profit $=$ SP-CP or 400-100 = Rs300
Using formula
Profit Percentage $=\frac{\text { Profit X } 100}{C P}$
Putting values in formula
Profit Percentage $=\frac{300 \times 100}{100}=300 \%$

Example 6: When a plot is sold for Rs. 18,700, the owner loses $15 \%$. At what price must that plot be sold in order to gain $15 \%$ ?
Solution: Given $\mathrm{SP}=$ Rs 18,700
Loss incurred $=15 \%$
Profit to be earned $=15 \%$
Here using CP formula, we will get CP
Formula used
$\mathrm{CP}=$
$\frac{100 \text { X SP }}{100-\text { Loss Percentage }}$

Putting values in formula
$C P=\frac{100 \mathrm{X} \mathrm{18700}}{(100-15)}=22000$
Now using SP formula, we will get SP after 15\% profit

$$
\mathrm{SP}=\frac{(100+\text { Gain Percentage }) \mathrm{XCP}}{100}
$$

Putting values in formula

$$
\mathrm{SP}=\frac{(100+15) \times 2200}{100}=25,300
$$

Short method
Let CP be 100, then SP after
$15 \%$ loss $=85$ and SP after $15 \%$ gain $=$ 115

As per given in the question, SP after $15 \%$ loss is 18700
So,

$$
x=25,300
$$

Example 7: Shyam buys apples at a price of 1 Rupee per 10 apples. At what price should he sell a dozen apples if he wishes to make a profit of $25 \%$ ? Solution: Given Rate of 10 apple $=$ Rs 1

Profit to be earned $=25 \%$

Here if 10 apple costs 1 rs then 1 apple costs (CP) = Rs 0.10

Using formula
SP $=\frac{(100+\text { Gain Percentage }) \mathrm{XCP}}{100}$
Putting values in formula
Selling price $=\frac{(100+25) \times 0.10}{100}$
SP $=$ Rs 0.125
Now if 1 apple sold at 0.125 then a dozen will be sold at $=0.125 \mathrm{X} 12=$ Rs 1.5

Example 8: Ram purchased a machine for Rs. 80,000 and spent Rs. 5000 on repair and Rs. 1000 on transport and sold it with $25 \%$ profit. At what price did he sell the machine?
Solution: Given $C P=80,000$
Repairing cost $=5000$
Transport cost $=1000$
Profit to be earned $=25 \%$
Here total expenditure valued to (CP)
$=80,000+5,000+1,000=86,000$
To get SP we will use formula
SP $=\frac{(100+\text { Gain Percentage }) \mathrm{XCP}}{100}$
Putting values in formula
Selling price $=\frac{(100+25) \times 86000}{100}$
SP $=107,500$ Rs
Example 9: P sold an article for Rs. 1080 thereby losing $10 \%$ Q sold another article for Rs. 1800 at a loss of $10 \%$. Who incurred a greater loss?

Solution: Given SP $(P)=1080$ Rs
Loss incurred by $\mathrm{P}=10 \%$
SP $(Q)=1800$
Loss incurred by $\mathrm{Q}=10 \%$
CP of $P$
Using formula
$\mathrm{CP}=$
100 X SP
100-Loss Percentage
Putting values in formula,
Cost Price $=\frac{100 \times 1080}{(100-10)}=$ Rs 1200
So actual loss $=1200-1080=120$ Rs
CP of Q
Using formula

$$
\begin{aligned}
& \mathrm{CP}= \frac{100 \text { X SP }}{100+\text { Gain Percentage }} \\
& \text { OR } \\
& \frac{100 \times \text { SP }}{100-\text { Loss Percentage }}
\end{aligned}
$$

Putting values in formula
Cost Price $=\frac{100 \mathrm{X} 1800}{(100-10)}=$ Rs 2000
Actual loss $=2000-1800=200$
So Q incurred more loss
Example 10: A person bought two cows each for Rs. 9900 . If he gained $10 \%$ on one and lost $20 \%$ on another. What is the outcome of the total exchange?
Solution: Given
Cost of each cow $=9900$
Loss incurred over 1 cow $=20 \%$
Gain earned over 1 cow $=10 \%$
Firstly the SP of cow sold at loss will be
calculated using formula
$\mathrm{SP}=\frac{(100-\text { Loss Percentage }) \mathrm{X} \text { CP }}{100}$
Putting values in formula we get
Selling price $=\frac{(100-20) \times 9900}{100}=8901$
The SP of cow sold at gain of $10 \%$ will be
calculated using formula
$S P=\frac{(100+\text { Gain Percentage }) X C P}{100}$
Putting values in formula we get
Selling price $=\frac{(100+10) \times 9900}{100}=10,890$
Now the total CP $=9900 \times 2=19,800$
Total SP $=10,890+8901=19791$
So total transaction resulted into
loss of Rs 9

## PREVIOUS YEAR QUESTIONS

1) A sells two TV sets, one at a loss of $15 \%$ and another at a profit of $15 \%$. The total gain and loss is
(AFCAT I 2015)
(a) 2.25
(b) 3
(c) 4
(d) No profit no loss

Solution: When profit and loss are same then
$\frac{15 \times 15}{100}=\frac{225}{100}=2.25 \%$ loss
2) A dishonest shopkeeper professes to sell his groceries at a cost price but at false weight of 900 g for each kg . The gain percent is
(AFCAT I 2014)
(a) $91 / 9$
(b) $100 / 9$
(c) $100 / 11$
(d) $95 / 9$

Solution: Difference in weights $=1000 \mathrm{gm}-900 \mathrm{gm}=100 \mathrm{gms}$
Profit $\%=\frac{\text { Difference in weight X } 100}{\text { Selling Weight }}=\frac{100 \times 100}{900}=\frac{100}{9}$
3) An article costs Rs 50 presently. The rate of inflation is $300 \%$. The cost of article after 2 years?
(AFCAT I 2014)
(a) 200
(b) 600
(c) 800
(d) 1000

Solution: $50 \times \frac{100+300}{100} \times \frac{100+300}{100}=$ Rs. 800
4) The selling price of an article is $4 / 3$ of the cost price. The profit in the transaction is
(AFCAT I 2012)
(a) 40
(b) 32
(c) 25
(d) $33 \frac{1}{3}$

Solution: Let the $\mathrm{CP}=100$
Then SP $=\frac{4}{3} \mathrm{X} 100=\frac{400}{3}$
Profit $=\frac{400}{3}-100=\frac{100}{3}$
Profit $\%=\frac{100}{100 \times 3} \mathrm{X} 100=\frac{100}{3}=33 \frac{1}{3}$
5) The ratio of cost of a scooter and a TV is $7: 5$. If the scooter costs rs. 8000 more than the TV set, then the price of TV set is
(AFCAT I 2011)
(a) 20000
(b) 24000
(c) 28000
(d) 32000

Solution: Let the constant in ratio 7:5 be a
Then cost of scooter $=7 \mathrm{a}$ and cost of $\mathrm{TV}=5 \mathrm{a}$
According to the statement $=7 a-5 a=8000$
$A=4000$
Price of TV set $=5 \mathrm{X} 4000=20,000$
6) Samant bought a microwave and paid $10 \%$ less than the MRP. He sold it with $30 \%$ profit. The percent of profit on MRP is
(AFCAT I 2011)
(a) 17
(b) 20
(c) 27
(d) 32

Solution: Let MRP of microwave $=100$
Then the CP $=100-10=90$
After selling it with $30 \%$ profit, the SP will be
$\frac{130}{100} \times 90=117$
Profit $\%=117-100=17 \%$
7) A manufacturer gains $10 \%$, the whole seller gains $15 \%$ and retailer gains $25 \%$.

Find the cost of production of tables if the retail price of the table is rs. 1265
(a) 800
(b) 1000
(c) 950
(d) 1180
(AFCAT II 2011)

Solution: Let the cost of production of table $=1000$
Then the CP of whole sale $=\frac{10}{100} \times 1000+1000=1100$
Retailer's CP $=\frac{15}{100} \times 1100+1100=1265$
So the cost of production is = Rs 1000
8) A loss of $19 \%$ on a shirt gets converted into a profit of $17 \%$ when the SP is increased by 162 . The CP of the shirt is
(AFCAT II 2011)
(a) 540
(b) 450
(c) 600
(d) 360

Solution: Let $\mathrm{CP}=100$
After loss of $19 \%=100-19=81$
And gain of $17 \%=100+17=117$
Difference $=117-81=36$
$\mathrm{CP}=\frac{100 \times 162}{36}=450$
9) Anmol sold two items for Rs 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, $1 \%$ (AFCAT II 2015)
(c) Profit, $10 \%$
(d) Loss, $10 \%$

Solution: When two transaction of equal SP are done with equal loss and gain, then the total transaction incurs loss of $1 \%$.
Hence, answer is (b)
10) If the selling price is doubled, the profit triples. The profit percent is
(a) $66 \frac{1}{3} \%$
(b) $150 \%$
(c) $100 \%$
(d) $90 \%$
(AFCAT II 2015)

Solution: When SP is doubled and profit triples then profit percent is always $100 \%$ Hence answer is (c).
11) 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 Rs 400 , what was the value of the consignment?
(a) Rs. 13,000/-
(b) Rs. 17,000/- (AFCAT II 2014)
(c) Rs. 15000
(d) Rs. 40000

Solution: let the total value be Rs $x$
Value of $2 / 3=2 x / 3$, value of $1 / 3=x / 3$
Total S.P value be Rs $x$
Total S.P $=[(105 \%$ of $2 x / 3)+(98 \%$ of $x / 3)]$
$=\frac{105 \mathrm{X} 2 x}{100 \times 3}+\frac{98 x}{100 \mathrm{X} 3}$
$=\frac{308 x}{300}$
$\frac{308 x}{300}-x=400$
$8 x / 300=400$
$x=\frac{300 \times 400}{8}=$ Rs 15000
Hence, answer is (c).
12) A man purchased a bullock and a cart for Rs 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.
(AFCAT I 2014)
(a) Rs. 650
(b) Rs. 750
(c) Rs. 900
(d) Rs. 800

Solution: Cost Price of bullock and cart = Rs. 1800.
Let bullock price was $x$ and cart price was (1800-x)
SP of both $=1800+155 / 6 \%$ of $1800=2265$
Profit $=$ Rs. 465.
$x+20 \%$ of $x+(1800-x)+30 \%$ of $(1800-x)=2265$
$1.2 x+1800-x+\frac{54000-30 x}{100}=2265$
$1.2 x+1800-x+540-0.3 x=2265$
$1.2 x-1.3 x=2265-1800-540$
$-0.1 x=-75$
$\mathrm{X}=750$.
Cost of bullock is Rs. 750.
Hence, answer is (b)
13) 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
(AFCAT II 2011)

Solution: Let the real value of an item $=$ ? $x$
$95 \%$ of $x=\frac{95}{100} x=\frac{19}{20} x$
CP of an item $=\frac{100}{133} \mathrm{X} \frac{19 x}{20}=\frac{5 x}{7}$
Gain $=x-\frac{5 x}{7}=\frac{2 x}{7}$
Percentage profit $=\frac{2 x}{7} \times \frac{7}{5 x} \times 100=40 \%$
Hence answer is (b).
14) When the price of a product was increased by $15 \%$, the number of items sold was decreased by $20 \%$. What was the net effect?
(AFCAT II 2011)
(a) $10 \%$ gain
(b) $6 \%$ loss
(c) $8 \%$ loss
(d) $4 \%$ gain

Solution: Net effect $=\frac{(100+15)(100-20)}{100}$
$=\frac{115 \times 80}{100}=23 \times 4=92$
Loss $=8 \%$
Hence, answer is (c).
15) The difference between the cost price and sale price is Rs. 240 . If the profit is $20 \%$, the selling price is
(AFCAT I 2011)
(a) Rs. 1200
(b) Rs. 1440
(c) Rs. 1800
(d) Rs. 2440

Solution: Let the C.P be Rs. $x$
Then, S.P $=120 \%$ of Rs. $x=$ Rs. $\frac{120}{100} x=$ Rs. $\frac{6 x}{5}$
$\frac{6 x}{5}-x=240$
$x=1200$
$\mathrm{S} . \mathrm{P}=$ Rs. $\left(\frac{6}{5} \mathrm{X} 1200\right)=$ Rs. 1440.
Hence, answer is (b)

## UNSOLVED QUESTIONS

1) Man bought radio for Rs 250 . For how much should he sell to get $10 \%$ profit?
(a) 265
(b) 270
(c) 275
(d) 280
2) Ramesh sold a TV for Rs. 352.88 at a loss of $12 \%$. What is the CP of the TV
(a) 387
(b) 401
(c) 390
(d) 329
3) Raju sells a book to Ramesh at $20 \%$ profit and Ramesh sells it to Amit at $25 \%$ profit. Amit pays Rs. 225 for the book, then what is the CP of the book
A - 150
(b) 155
C - 165
(d) 190
4) An article is sold at Rs 570 at $5 \%$ loss. At what rate it should be sold to get $5 \%$ gain?
(a) 630
(b) 590
(c) 650
(d) 700
5) A sold a scooter for Rs 5060 at a gain of $10 \%$. What will be the profit if it is sold at 4370 Rs?
(a) $7 \%$
(b) $5 \%$
(c) $8 \%$
(d) $6 \%$
6) An article is sold at $7 \%$ loss. Had it been sold at $9 \%$ profit it it will get Rs64 more. The CP of the article is?
(a) 250
(b) 300
(c) 350
(d) 400
7) Ramesh sold an article at loss of $2.5 \%$. Had it been sold at $7.5 \%$ profit it would differ from previous SP by Rs 100 . What will be the SP if the profit Ramesh want is 12.5?
(a) 1200
(b) 1125
(c) 1100
(d) 1325
8) CP of 10 bananas is equal to SP of 9 bananas. What is the profit percent?
(a) $40 \%$
(b) $210 / 7 \%$
(c) $38 \%$
(d) $100 / 9 \%$
9) If Amit loses $1 / 3^{\text {rd }}$ of SP, then what is loss percentage?
(a) $25 \%$
(b) $24 \%$
(c) $20 \%$
(d) $35 \%$
10) 6 pens cost a rupee. At what rate it must be sold to earn gain of $20 \%$ ?
(a) 6 for Rs 1
(b) 9 for Rs 1
(c) 5 for Rs 1
(d) 12 for Rs 1
11) Ravi sold a table at $20 \%$ loss. He would gain Rs. 800 more if he received $5 \%$ gain. The CP is?
(a) 3200
(b) 3500
(c) 3300
(d) 3100
12) Cost of 21 objects is equal to the selling price of 15 objects. The profit is?
(a) $45 \%$
(b) $30 \%$
(c) $20 \%$
(d) $40 \%$
13) An article is sold at $12 \%$ loss. To earn Rs 108 , it should be sold at $12 \%$ profit. The CP is?
(a) 450
(b) 490
(c) 440
(d) 500
14) What will be the cost price if an article is sold at Rs 2000 at a loss of $331 / 3$ ?
(a) 2800
(b) 2500
(c) 3000
(d) 2700
15) A book is sold at $5 \%$ profit instead of $5 \%$ loss and the seller gets Rs 33.6 more. What is the CP?
(a) 320
(b) 225
(c) 340
(d) 336
16) 8 oranges costs rs3. At what cost it should be sold to get $60 \%$ profit?
(a) 2 for Rs1
(b) 5 for Rs3
(c) 3 for Rs2
(d) 4 for Rs3
17) Consecutive discount of $10 \%$ and $30 \%$ is given over a necklace sold at Rs. 2520 . The Marked Price is?
(a) 5000
(b) 4400
(c) 3900
(d) 4000
18) Ramesh reduces selling price of a bulb from 400 to 380 and his loss increased by $2 \%$. The CP is?
(a) 1000
(b) 1100
(c) 1500
(d) 2000
19) An article was bought at $10 \%$ less than its price and sold $10 \%$ more than its price. The total profit or loss is?
(a) $21 \%$
(b) $20 \%$
(c) $22.2 \%$
(d) $25.1 \%$
20) An article is marked at $25 \%$ above the CP and sold at discount of $12.5 \%$. The selling price of article is Rs. 875 then CP is?
(a) 900
(b) 840
(c) 1000
(d) 800
21) Two TV sets are sold at Rs 12,000 each. If one TV is sold at $20 \%$ profit and another at $20 \%$ loss then the total transaction has
(a) Profit of 1100
(b) Profit of 9000
(c) Loss of 9000
(d) Profit of 1000
22) A photo frame is marked at more $20 \%$ more than its cost price, and a $10 \%$ discount is given over it. The total profit he gained in this deal is
(a) $7 \%$
(b) $12 \%$
(c) $7.5 \%$
(d) $8 \%$
23) A shopkeeper bought a certain amount of key chains. He sold them at $10 \%$ profit. But $20 \%$ of them got stolen. The total profit or loss is
(a) $10 \%$ loss
(b) 10\%gain
(c) $12 \%$ loss
(d) $14 \%$ loss
24) Selling 50 sweaters costs a shopkeeper equal to cost price of 40 sweaters. Total loss or gain is?
(a) $15 \%$ gain
(b) $20 \%$ loss
(c) $15 \%$ loss
(d) $20 \%$ gain
25) After allowing a discount of $5 \%$, a shopkeeper gains $33 \%$ profit. The marked price is marked \{above (percentage) \}?
(a) 40
(b) 32
(c) 44.2
(d) 38
26) A tape recorder is marked at Rs. 2000 . Successive discounts of $10 \%$ and $20 \%$ is given over it. The selling price is?
(a) 1440
(b) 1350
(c) 1400
(d) 1300
27) An article is bought and sold at different prices with $20 \%$ profit. The difference between CP and SP is Rs 240. The SP is?
(a) 1400
(b) 1440
(c) 1000
(d) 1200
28) A box is sold at $10 \%$ profit. If it is bought at $10 \%$ less and sold at Rs. 3 more, then the profit gained is $25 \%$. The actual CP is?
(a) 100
(b) 140
(c) 150
(d) 120
29) Amit sold 16 pens at price of $C P$ of 20 pens. The actual profit is
(a) 40
(b) 25
(c) 10
(d) 120
$30) 2 / 3$ rd of the consignment is sold at $6 \%$ profit and remaining is sold at $3 \%$ loss. The actual profit is 540 , then the total price of consignment is?
(a) 14,000
(b) 18,000
(c) 20,000
(d) 12,000

## SOLUTIONS

| 1.(c) | 2.(b) | 3.(a) | 4.(c) | 5.(b) | 6.(d) | 7.(b) | 8.(d) | 9.(a) | $10 .(\mathrm{c})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(a) | 12.(d) | $13 .(\mathrm{a})$ | $14 .(\mathrm{c})$ | $15 .(\mathrm{d})$ | $16 .(\mathrm{b})$ | $17 .(\mathrm{d})$ | $18 .(\mathrm{a})$ | $19 .(\mathrm{c})$ | $20 .(\mathrm{d})$ |
| 21.(d) | 22.(d) | $23 .(\mathrm{c})$ | $24 .(\mathrm{b})$ | $25 .(\mathrm{a})$ | $26 .(\mathrm{a})$ | $27 .(\mathrm{b})$ | $28 .(\mathrm{d})$ | $29 .(\mathrm{b})$ | $30 .(\mathrm{b})$ |

## HINTS

9) Let $\mathrm{SP}=100$ then loss $=100 / 3$

And CP $=100+(100 / 3)=400 / 3$
$\operatorname{Loss} \%=\frac{(100 / 3) \times 100}{(400 / 3)}$
Profit\% = $25 \%$
16) 8 oranges at Rs. 3 then

CP of 1 Orange $=$ Rs. $3 / 8$
Let $\mathrm{CP}=100$ then
after profit of $60 \% \mathrm{SP}=160$
If $\frac{100}{160}=\frac{3 / 8}{S P}$
SP = $3 / 5$
So 5 oranges has to be sold at Rs. 3
17) $\mathrm{SP}=2520$, discounts $=10 \%$ and $30 \%$

Using formula
Discount\%1+Discount\%2 -
Disount\%1 X Discount\%2
$=10+30-\frac{10 \times 30}{100}=37 \%$
So let $\mathrm{CP}=100$ then after $37 \%$ discount
SP $=63$
If $\frac{63}{100}=\frac{2520}{C P}$
$\mathrm{CP}=4000$
20) Let $\mathrm{CP}=100$, then marked price $=125$

After discount
$\frac{125}{S P}=\frac{100}{100-12.5}$
$\mathrm{SP}=\frac{125 \mathrm{X} 87.5}{100}$
Now
$\frac{\text { Supposed SP }}{\text { Supposed CP }}=\frac{\text { Actual SP }}{\text { Actual CP }}$
$\frac{125 \mathrm{X}\left(\frac{7.5}{100}\right)}{100}=\frac{875}{\mathrm{CP}}$
CP $=800$
23) Let total key chains are 100 and price of each one is 100 then
total $\mathrm{CP}=100 \mathrm{X} 100=10000$
Now each keychain sold at $10 \%$ profit so
SP of 1 keychain = 110
$20 \%$ of key chains stolen, so left key
chains are 80
Now total SP $=110$ X $80=8800$
Loss $=1,200$
Profit loss $\%=\frac{1200}{10000} \times 100=12 \%$ Loss
24) Let cost of every sweater $=100$ then

CP of 40 sweater $=4,000$
CP of 40 sweater $=\mathrm{SP}$ of 50 sweater $=$ 4,000
SP of 50 sweater $=4,000$, then
SP of 1 sweater $=\frac{4000}{50}=80$
Loss $\%=\frac{20}{100} \times 100=20 \%$ Loss
25) Discount 5\%, gain 33\%

Case 1-
Let $\mathrm{CP}=100$, then $\mathrm{SP}=100+33=133$
Case 2-
Now taking the marked price as 100,
Discount $=5 \%$ then $\mathrm{SP}=95$

Comparing case 1 and 2
$\frac{133}{M P}=\frac{95}{100}$
Marked Price $=140$
So marked price is marked at $40 \%$
27) Profit $=$ Rs. 240 and Profit $\%=20 \%$

Then $1 \%=$ Rs. 12 and $100 \%=1200$
Let $\mathrm{CP}=100$, then $\mathrm{SP}=120$
So if $\frac{100}{120}=\frac{1200}{x}$
$x=1440$
28) Let $C P$ be 100

Then actual $\mathrm{SP}=110$
Supposed CP $=90$
After 25\% profit - 125
$\frac{125}{100}=\frac{\text { Supposed SP }}{90}$
Supposed SP = 112.5
Now difference b/w actual SP and supposed $\mathrm{SP}=112.5-110=2.5$ which is actually Rs. 3
Then $\frac{2.5}{100}=\frac{3}{C P}$
$\mathrm{CP}=120$
29) Let the CP of 1 pen $=100$ then

CP of 20 pen $=2000$
CP of 20 pens $=$ SP of 16 Pens $=$ Rs. 2000
SP of 1 pen $=\frac{2000}{16}=$ Rs. 125
Profit $=125-100=25$
Profit $\%=\frac{25}{100} \times 100=25 \%$
30) Let actual price of consignment be 100

Then profit of $6 \%$ on $2 / 3$ of consignment is $212 / 3$
And loss at of $3 \%$ on $1 / 3$ of
consignment $=\frac{97}{3}$
Supposed SP $=\frac{212}{3}+\frac{97}{3}=103$
Supposed profit $=103-100=3$
Supposed profit $=$ actual profit
Supposed CP actual CP
$\frac{3}{100}=\frac{540}{S P}$
$S P=18,000$

## Chapter 6

## PERCENTAGE

## SAMPLE QUESTIONS

Example 1: What percentage of an hour is 12 minutes?
Solution: Deriving 1 hour in minutes
$=60$ minutes
Now putting the values in percentage formula
$\frac{x}{y} \times 100 \%$
$y$
We get $\frac{12}{60} \times 100=20 \%$
Example 2: $10 \%$ of x is subtracted form x , and the result is 1800 . Here x is?
Solution: The number is $=x$
Subtracting $10 \%$ of $x$ from $x$
$=x-\frac{10 x}{100}=\frac{9 x}{10}$
Second step
$\frac{9 x}{10}=1800$
$x=\frac{1800 \mathrm{X} 10}{9}=2000$
Example 3: Amit score $40 \%$ of marks out of 700 marks. How much marks did he scored?
Solution. Given
Percentage of marks $=40 \%$
Total marks $=700$
Marks obtained $=x$
Putting values in percentage formula, we get

$$
\begin{aligned}
& 40=\frac{x}{700} \times 100 \\
& x=\frac{40 \times 700}{100} \\
& x=280 \text { marks }
\end{aligned}
$$

Example 4: Amit's salary dropped to $50 \%$ after changing the job. After one year, his salary was increased by $50 \%$. What is the percentage of difference of his salary in before changing the job and after getting hike of $50 \%$ ?
Solution. Let his salary before changing the job $=100$
After changing the job, his salary dropped by $50 \%$. So his actual salary $=$ Rs. 50
After hike of $50 \%$ in his salary (Rs 50)

$$
\frac{50}{100} \times 50=25
$$

So his salary after hike $=50+25=75$
Difference in his salary $=100-75=$ rs. 25
Percentage of difference $=\frac{25}{100} \times 100$
= $25 \%$
Example 5: Abhishek's income is 25\% more than Ankit. What percentage is Ankit's income less than Abhishek?
Solution: Abhishek's income is more
than Ankit's income by $25 \%$ so here $\mathrm{R}=25$

Using formula $=\left|\frac{R \mathrm{X} \mathrm{100}}{100+R}\right|$
Putting values in formula, we get

$$
\left|\frac{25 \text { X } 100}{100+25}\right|=20 \%
$$

Example 6: The difference between two numbers is $15 \%$ of the sum of the two numbers. The ratio of the two numbers is?
Solution. let the numbers be $x$ and $y$
Now difference $\mathrm{b} / \mathrm{w}$ numbers $=$
$\frac{15}{100} \mathrm{X}$ (sum of numbers) OR
$x-\mathrm{y}=\frac{15}{100} \mathrm{X}(x+\mathrm{y})$
$100 x-100 \mathrm{y}=15 x+15 \mathrm{y}$
$85 x=115 y$
$17 x=23 y$
$\frac{x}{y}=\frac{23}{17}$
Example 7: The difference between 40\% \& $28 \%$ of a number is 198 . The number is?
Solution. Let the number be " $x$ "
As per the question,
$40 \%$ of $x-28 \%$ of $x=198$
Evaluating the equation
$\frac{40}{100} \mathrm{X}-\frac{28}{100} \mathrm{X} x=198$
$\frac{12 x}{100}=198$
$x=1650$
Example 8: Rajat spend $75 \%$ of his salary on his household and extra works. He got promotion and got a hike of $20 \%$ in his salary. Along with this his expenditure also increased by $10 \%$. The increase in his savings is?
Solution. Let the salary of Rajat be 100 .
His current expenditure $=75$
Current saving $=25$
After promotion
$20 \%$ hike in salary will make his total salary $=120$

His expenditure increased by $10 \%$
I.e. $75 \mathrm{X} \frac{110}{100}=82.5$

His saving after promotion $=120-$
$82.5=37.5$
So his increase in savings will be $\frac{37.5-25}{25} \times 100=50 \%$

Example 9: In an examination, Raju scored $57 \%$ marks while Amit got $43 \%$ marks. The difference between their marks is 98 . If passing percentage is $40 \%$ then passing marks

## Solution

If $14 \%=98$ then $40 \%=$ ?
$\frac{14}{98}=\frac{40}{x}$
$x=280$ marks
Example 10: $12.5 \%$ of a number is equal to $7.5 \%$ of another number. Find the two numbers if their difference is 1660 .
Solution: Let the two numbers be " $x$ " and "y"

Then,
$\frac{12.5}{100} \mathrm{X} x=\frac{7.5}{100} \mathrm{X} y$
Solving this we get
$5 x=3 \mathrm{y} \quad$ OR $\quad x=\frac{3 y}{5}$
Now the difference between the two numbers $=1660$
From above equation, it is clear that y is greater than $x$, so
Ory - $x=1660$
Putting value of ii into i, we get
$y-\frac{3 y}{5}=1660$
$\mathrm{y}=4150$
Putting value of $y$ in (ii), we will get the
value of $x$
$x=4150-1660$
$x=2490$

## PREVIOUS YEAR QUESTIONS

1) A's salary is $50 \%$ more than B. how much percentage is B's salary less than $A$
(a) $63 \frac{1}{4}$
(b) $43 \frac{1}{4}$
(c) $53 \frac{1}{3}$
(d) $33 \frac{1}{3}$
(AFCAT II 2015)

Solution: $\frac{50}{100+50} \mathrm{X} 100$
$\frac{50 \times 100}{150}=\frac{100}{3}=33 \frac{1}{3}$
2) The price of an article is decreased by $25 \%$. What percentage increase must be done to get the original price?
(AFCAT II 2015)
(a) $33 \frac{1}{3}$
(b) $43 \frac{3}{4}$
(c) $55 \frac{2}{3}$
(d) $65 \frac{1}{4}$

Solution: $\frac{25}{100-25}$ X 100
$\frac{25 \mathrm{X} 100}{75}=\frac{100}{3}=33 \frac{1}{3}$
3) The price of sugar increases by $20 \%$ due to festive season. By what percentage a family must reduce the consumption of sugar so that there is no change in the expenditure
(AFCAT I 2015)
(a) 20
(b) $18 \frac{1}{3}$
(c) $16 \frac{2}{3}$
(d) $16 \frac{1}{3}$

Solution: Reduce in consumption
$\frac{20}{100+20} \times 100=\frac{20 \times 100}{120}=\frac{100}{6}=16 \frac{2}{3}$
4) A' salary is $20 \%$ lower than B's salary. B's salary is $15 \%$ lower than C's salary. By what percentage C's salary is more than A's salary
(AFCAT I 2015)
(a) 44.05
(b) 45.05
(c) 46.05
(d) 47.05

Solution: Let the salary of $\mathrm{C}=100$
Then B's salary will be $=\frac{100 \times 85}{100}=85$
Then A's salary $=\frac{80 \times 85}{100}=68$
Required \%age $=\frac{100-68}{68} \times 100=47.08$
5) The sum of 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 students. How many boys are there in the school
(AFCAT II 2014)
(a) 51
(b) 65
(c) 60
(d) 95

Solution: No of boys $=x$

No of girls = 150- $x$
Following the question the equation will be
$150-x=150 \mathrm{X}_{-100}^{\mathrm{x}}=>=60$
6) A scored $30 \%$ marks and failed by 15 marks. B scored $40 \%$ marks and obtained 35 numbers more marks then those required to pass. The passing percentage is
(a) 33
(b) 40
(c) 34
(d) 48

Solution: Let the total marks be $M$
Then the equation will be
(AFCAT II 2014)
M X $\frac{30}{100}+15=\mathrm{M} \mathrm{X} \frac{40}{100}-35$
$\frac{3 \mathrm{M}}{10}+15=\frac{2 \mathrm{M}}{5}-35$
$\mathrm{M}=500$
Passing percentage $=\frac{165}{500} \times 100=33 \%$
7) If the price of kerosene is increase by $11 \%$. Find how much $\%$ a householder must reduce his consumption of kerosene so as not to increase its expenditure
(a) 10
(b) 9.9
(c) 11.09
(d) 8.25

Solution: Increased price of kerosene is 111/100 of actual price
So consumption should be 100/111
(AFCAT 2013)
Decrease in consumption $=\frac{1}{100 / 111}$ of actual consumption
$\frac{11}{111}$ Of actual consumption
$\frac{11}{111} \times 100$
$\frac{1100}{11}=9.9 \%$
8) 1 litre of water is evaporated from 6 litre of a solution containing $5 \%$ salt. The percentage of salt in remaining solution is
(AFCAT I 2012)
(a) 16
(b) 5
(c) 4
(d) 6

Solution: Amount of salt in 6 litres of solution $=\frac{5}{100} \times 6=0.3$
Remaining solution $=6-1=5$
Percentage of salt in solution $=0.3 / 5 \times 100=6 \%$
9) An article costs Rs 50 presently. The rate of inflation is $300 \%$. What will be cost of this article after two years?
(AFCAT I 2014)
(a) Rs. 200
(b) Rs. 600
(c) Rs. 800
(d) Rs. 1000

Solution: Use formula: $\mathrm{P}\left(1+\frac{r}{100}\right)^{n}$
Where $r$ is rate and n is time
$50\left(1+\frac{300}{100}\right)^{2}$
$=800$
Hence, answer is (c)
10) 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.
(AFCAT 2013)
(a) 18050
(b) 17500
(c) 1700
(d) 7203

Solution: Let the total number of voter enrolled be $x$ then,
$x \frac{70}{100} \times \frac{98}{100} \times \frac{60}{100}=7203$
$x=\frac{7203 \times 100 \times 100 \times 100}{70 \times 98 \times 60}$
$=17500$
Hence, answer is (b)
11) 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 5 pupils less than the first school passed. The pass \% of in the second school was: (AFCAT 2013)
(a) 75
(b) 84
(c) 72
(d) 64.7

Solution: Number of passed students $=80 \%$ of 75
$=\frac{80}{100} \times 75=60$
Now, total number of pupils $=75+10=85$
Percentage pass $=\frac{55}{85} \mathrm{X} 100=\frac{1100}{17}=64.7 \%$
Hence, average is (d)
12) 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.
(AFCAT II 2012)
(a) 1700
(b) 17590
(c) 17000
(d) 7344

Solution: Let the total no of votes be 100. Then total votes casted $=60$
Total valid votes $=60 \mathrm{X} \frac{96}{100}=57.6$
$75 \%$ of total assumed valid votes
$=57.6 \mathrm{X} \frac{75}{100}=43.2$
Equalizing the assumed and actual values
$\frac{43.2}{100}=\frac{7344}{x}$
$x=17000$ votes
Hence, answer is (c)
13) If the price of kerosene be raised by $9 \%$, find how much per cent a house-holder must reduce his consumption of kerosene so that, not to increase his expenditure?
(a) 8
(b) 8.25
(c) 9
(d) 9.25
(AFCAT II 2012)
Solution: Reduce the consumption $=\frac{r}{100+r} \mathrm{X} 100$
$\frac{9}{100+9}$ X $100=\frac{900}{109}=8.25 \%$
Hence, answer is (b)
14) 65 pupils from a school entered for an examination and $80 \%$ of them passed. Another school entered 10 more pupils than the first school and 4 pupils more than the first school passed. The percentage of pass in the second school was (AFCAT II 2012)
(a) 75
(b) 84
(c) 72
(d) 74.6

Solution: Number of passed pupils $=\frac{80}{100} \times 65=52$
$65+10=75,52+4=56$ out of 75 passed 56 pupils
Percentage passed $=\frac{56}{75} \times 100=\frac{224}{3}=74.6 \%$
Hence, answer is (d)
15) Hari's income is $20 \%$ more than Madhu's income. Madhu's income is less than Hari's income by
(AFCAT I 2012)
(a) $15 \%$
(b) $16.66 \%$
(c) $20 \%$
(d) $22.25 \%$

Solution: Let as assume Madhu's income=Rs. 100
Now Hari 20\% more than Madhu
So Hari have - 120
So Hari have ? 20 extra compare to Madhu $\frac{20}{120}$ X $100=\frac{2}{12}$ X $100=16.66 \%$
Hence, answer is (b)
16) 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 were passed in all subjects, then how many students were appeared in the examination?
(AFCAT II 2011)
(a) 80
(b) 800
(c) 1100
(d) 700

Solution: Passed in English $=75 \%$
Failed in English = 100-75=25\%
Passed in Mathematics $=65 \%$
Failed in Mathematics $=100-65=35 \%$
Fail in both subjects $=15 \%$

Total fail $=\mathrm{A}+\mathrm{B}-\mathrm{C}=25+35-15=45 \%$
Total number of students in the exam
$=\frac{100}{45} \mathrm{X} 495=1100$
Hence, answer is (c)
17) A mixture of 40 litres of milk and water contains $10 \%$ water. How much water should be added to this mixture so that new mixture contains $20 \%$ water?
(a) 4 ltrs
(b) 5 ltrs
(c) 6.5 ltrs
(d) 7.5 ltrs
(AFCAT II 2011)

Solution: Let the amount of water to be added be $x$ litres.
We want the percentage of water to increase from $10 \%$ to $20 \%$ or percentage of non-water to decrease from $90 \%$ to $80 \%$. Note that when we add $x$ litres of water the amount of non-water in mixture in litres remains the same, so:
$0.9 \mathrm{X} 40=0.8(40+x) 0.9 \mathrm{X} 40=0.8(40+x)-->x=5$.
Hence, answer is (b)
18) 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
(AFCAT I 2011)
Solution: Total marks to pass $=\frac{35}{100} \times 500=175$
Total obtained marks in two papers $=62+35=97$
In third paper marks should be $=175-97=78$
Hence, answer is (d)
19) The salary of A \& B together amounts to Rs. 2000. A spends $95 \%$ of his salary and B spends $85 \%$ of his salary. If their savings are same what is the salary of A?
(a) Rs. 750
(b) Rs. 1250
(c) Rs. 1500
(d) Rs. 1600
(AFCAT I 2011)

Solution: Let, A's salary $=$ Rs. $x$
B's salary = Rs. $(2000-x)$
A's saving $=5 \%$ of $x$
B's saving $=15 \%$ of $(2000-x)$
According to the question,
$5 \%$ of $x=15 \%$ of $(2000-x)$
$5 / 100 x=15 / 100(2000-x)$
$x=3(2000-x)=6000-3 x \Rightarrow 4 x=6000$
$x=\frac{6000}{4}=1500$
A's salary = Rs. 1500, Hence, answer is (c)
20) 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 is literate?
(AFCAT I 2011)
(a) 22.5
(b) 32.5
(c) 27.5
(d) 37.5

Solution: Number of males $=60 \%$ of $1000=600$. Number of females $=(1000-$ $600)=400$.
Number of literates $=25 \%$ of $1000=250$.
Number of literate males $=20 \%$ of $600=120$.
Number of literate females $=(250-120)=130$.
Required percentage $=\left(\frac{130}{400} \times 100\right) \%=32.5 \%$
Hence, answer is (b)

## UNSOLVED QUESTIONS

1) If $20 \%$ of $x$ is equal to $30 \%$ of $y$, then what percent of $x$ is $y$ ?
(a) 150
(b) 320
(c) 250
(d) 11
2) Population of a town is 176400 . If the population is increased by $5 \%$. After 2 years, the population will be?
(a) 195609
(b) 194481
(c) 194533
(d) 192662
3) The length of a square is increased by $100 \%$. The percentage of change in its area?
(a) 250
(b) 430
(c) 300
(d) 400
4) Amit's salary is $10 \%$ more than Sumit and Sumit's salary is $10 \%$ more than 12500 . Find out the salary of Amit
(a) 162,525
(b) 151,250
(c) Data Insufficient
(d) 150,000
5) The radius of a circle is increased by 4times. The percent of increase in area is?
(a) 1700
(b) 1230
(c) 1500
(d) 1980
6) Find out $10 \%$ of $30 \%$ of 4500 .
(a) 135
(b) 145
(c) 125
(d) 172
7) By what percentage, a person has to decrease his consumption of DAL, if the price of material increases by $10 \%$ ?
(a) 90
(b) $100 / 11$
(c) 10
(d) $100 / 9$
8) Find. $30 \%$ of $25 \%$ of $3 / 5$ of 9800 .
(a) 319
(b) 322
(c) 432
(d) 441
9) In a fraction, the numerator is increased by $400 \%$ and denominator is increased by $500 \%$, the fraction becomes $10 / 21$. The fraction is?
(a) $4 / 7$
(b) $6 / 11$
(c) $3 / 7$
(d) $5 / 7$
10) When 64 is added to $20 \%$ of $x$, the outcome will be x . find the value of $x$.
(a) 75
(b) 85
(c) 60
(d) 80
11) Amit's expenditure and saving is in the ratio of $5: 3$. After promotion, amit's salary is increased by $12 \%$ and his expenditure is increased by $15 \%$. What is the percentage of decrease in his savings?
(a) 16
(b) 18
(c) 15
(d) 23
12) A container contains 50 litre of solution containing $5 \%$ salt in water. Due to vaporisation, 5 litres of water gets vaporized. The percentage of salt in the reaming solution is?
(a) $5 \%$
(b) $5.5 \%$
(c) $6 \%$
(d) $8.5 \%$
13) Ramesh salary is 3 times more than Akshay. Ramesh's salary is what percentage of Akshay's salary?
(a) 330
(b) 300
(c) 450
(d) 320
14) $50 \%$ of a number is 432 . What is $5 / 6$ of the number?
(a) 710
(b) 690
(c) 720
(d) 740
15) In a fraction, the numerator is increased by $100 \%$, and denominator is increased by $200 \%$ the new fraction obtained is $40 / 93$. The original fraction is?
(a) $19 / 17$
(b) $13 / 4$
(c) $21 / 29$
(d) $20 / 31$
16) What is the difference between $10 \%$ of 500 and $30 \%$ of 200 ?
(a) 25
(b) 10
(c) 7
(d) 9.5
17) Anita bought a home and paid $2 / 5$ of the total cost by paying 5 lakh rupees. What percent of amount is to be given later?
(a) 57
(b) 65
(c) 60
(d) 80
18) If $65 \%$ of a number is 585 , find the number.
(a) 900
(b) 940
(c) 850
(d) 750
19) If $60 \%$ of $x$ is subtracted from $x$, we get 10 . Find the value of $x$.
(a) 45
(b) 30
(c) 55
(d) 25
20) The cost of a table is increased by $10 \%$ and then by $20 \%$. By what percent its new cost is changes so that it comes to its original value.
(a) $30 \%$
(b) $33 \%$
(c) $32 \%$
(d) $35 \%$
21) Raju earns $33 \frac{1}{3} \%$ more than Sunita. By what percent Sunita earns less than Raju
(a) 25
(b) 20
(c) 27.5
(d) $33 \frac{1}{3}$
22) The present population of a town is 194481 and 4 year ago, its population was 160000. Find the rate of increase of population.
(a) $4 \%$
(b) $9 \%$
(c) $5.5 \%$
(d) $5 \%$
23) The price of wheat is increased by $25 \%$. By what percentage its consumption must be reduced to equalize the expenditure
(a) 15
(b) 20
(c) 30
(d) 25
24) For establishing a firm, Amit bought a machine worth Rs 1.62 lakhs. The value of the machine started deprecating at a rate of $10 \%$. Find the price at which Amit sold the machine after 2 years.
(a) 134400
(b) 131090
(c) 131220
(d) 143550
25) Sunita's salary was reduced by $10 \%$. After 1 month, her boss decides to increase the salary to back to the earlier amount. By what percent, will he increase the salary to bring it back to the original salary?
(a) $111 / 9$
(b) 5
(c) $13 / 4$
(d) $16 / 9$
26) Sushil's salary is $40 \%$ less than Vikas. By what percentage, Vikas's salary is more than Sumit?
(a) 49
(b) $662 / 3$
(c) 56
(d) 76
27) The population of a small town is 62,500 . Many people migrated to the town at the rate of $4 \%$. Its population after 2 years will be?
(a) 57,600
(b) 54,700
(c) 55,000
(d) 65,000

## SOLUTIONS

| 1. (a) | 2. (b) | 3. (c) | 4. (b) | 5. (c) | 6. (a) | 7.(b) | 8. (d) | 9.(a) | $10 .(\mathrm{d})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(a) | 12.(b) | 13.(b) | 14.(c) | 15.(d) | 16.(b) | 17.(c) | 18.(a) | $19 .(\mathrm{d})$ | $20 .(\mathrm{c})$ |
| 21.(a) | 22.(d) | $23 .(\mathrm{b})$ | $24 .(\mathrm{c})$ | $25 .(\mathrm{a})$ | $26 .(\mathrm{b})$ | $27 .(\mathrm{a})$ |  |  |  |

## HINTS

1) $\frac{20 \mathrm{XX}}{100}=\frac{30 \mathrm{X} y}{100}$

$$
\begin{aligned}
& x=\frac{3}{2 y} \\
& x=150 \% \text { of } y
\end{aligned}
$$

3) Let the sides of square be $x$

Then the area $=x^{2}$
Increase of sides by $100 \%$, then sides $=2 x$
New area $=4 x^{2}$
Percentage change in area
$\frac{4 x^{2}-x^{2}}{x^{2}}$ X $100=300 \%$
4) Sumit salary $=\frac{110}{100} \times 12500$
$1250 \times 11=13,750$
Amit's salary $=13,750 \times \frac{110}{100}$
151,250
6) $\frac{10 \times 30}{100 \times 100} \times 4500=135$
7) Let 100 kg of dal costs rs100
$100 \mathrm{X} 100=x \mathrm{X} 110$
$\frac{1000}{11}=x$
Percentage change
$\frac{100-(1000 / 11)}{100} \times 100=\frac{100}{11}$
10) $64+\frac{20}{100} \mathrm{X} x=x$

Solving this, $x=80$
11) Let the salary be 100 Following the ratio, the expenditure and saving will be 62.5 and 37.5

After increment of $12 \%$, new salary $=112$
Dividing it in 5:3 $=70$ and 42
Expenditure increased by 15\%
Expenditure of 70 will become 80.5
And saving will become $\underline{31.5}$
Decrease\% in saving $=\frac{37.5-31.5}{37.5}$
X100
= 16\%
20) Let the cost of table $=100$

After 10\% increase in cost $=110$
After 20\% increase on 110
$\frac{120}{100} \times 110=132$
$132-100=32$
21) Let the salary of Sunita $=100$

Then the salary of Raju =
$100+\frac{100}{3}=\frac{400}{3}$
$\frac{100}{(400 / 3)} \times 100=75 \%$
$100-75=25 \%$
25) Let her salary $=100$

After decreasing the salary by $10 \%$
$=90$
Salary to be increased $=10$
$\frac{10}{90} \times 100=\frac{100}{9}=11 \frac{1}{9}$

## Chapter 7

## SIMPLE INTEREST

## SAMPLE QUESTIONS

Example 1: A sum of money gets doubled in 7 years when lent on simple interest. How many years will it take to make it four times?

Solution: Time $=7$ years
Let principal $=P$, then interest will be $P$
Simple interest $=\frac{P \mathrm{XRXT}}{100}$

$$
\mathrm{P}=\frac{\mathrm{PXRX} 7}{100}
$$

$\rightarrow \mathrm{R}=100 / 7$
Now to make the amount 4 times, the interest will be 3 times the principal $=3 \mathrm{P}$ $3 \mathrm{P}=(\mathrm{P} \mathrm{X} \mathrm{100/7} \mathrm{X} \mathrm{T}) / 100$
$\rightarrow 21$ years
Example 2: In how many years, 3000 Rs will become 3840 Rs if the rate is fixed at $7 \%$ ?

Solution: Amount = 3840 Rs;
Principal $=3000$ Rs
So interest $=3840-3000=840$ Rs
Rate $=7$
Using formula: SI $=\frac{\mathrm{P} \mathrm{X} \mathrm{R} \mathrm{X} \mathrm{T}}{100}$
$840=\frac{3000 \times 7 \mathrm{X} \mathrm{T}}{100}$
$\rightarrow \mathrm{T}=4$ years

Example 3: A certain sum of money becomes 1760 Rs in 2 years and 2000 Rs in 5 years. The principal is?
Solution: Difference in the two time periods

$$
=5-2=3
$$

Difference between 2 amounts $=$ $2000-1760=240$

If interest earned in 3 years is 240,
then interest earned in 1 years $=\frac{240}{3}$
$=80$
Now if one year interest $=80$ than
two years interest $=80 \times 2=160$
Then taking case 1
Amount $=1760$ Rs
Interest $=160$ Rs
Principal $=1760-160=1600$ Rs
Example 4: A sum of amount becomes 4 times in 15 years. The rate is?

Solution: Let principal $=\mathrm{P}$
So amount after 15 years $=4 \mathrm{P}$
Interest $=4 \mathrm{P}-\mathrm{P}=3 \mathrm{P}$
Using SI formula
$3 \mathrm{P}=\frac{P \mathrm{X} 15 \mathrm{X} R}{100}$
Rate $=20 \%$

Example 5: A certain sum of money becomes 1170 in 7 years at $8 \%$ rate. The sum of money is?

Solution: Let the principal be $P$
Then interest will be $=1170-\mathrm{P}$
Using SI formula
$1170-\mathrm{P}=\frac{\mathrm{PX} 7 \mathrm{X} 8}{100}$
$117000-100 \mathrm{P}=56 \mathrm{P}$
$156 \mathrm{P}=117000$
$\mathrm{P}($ Principal $)=$ Rs 750
Example 6: Rs 2000 will become 2240 at $4 \%$ rate in " $N$ " years. Here $N$ is?

Solution: Interest $=2240-2000=240$
Using SI formula, we get
$240=\frac{2000 \mathrm{X} 4 \mathrm{X} \mathrm{N}}{100}$
$\mathrm{N}=3$ years
Example 7: A sum of money becomes double in 20 years. It will amount to 3 times in how many years?

Solution: Let principal $=\mathrm{P}$
Then interest $=P$
(amount $=2 \mathrm{P}$, then interest $=\mathrm{P}$ )
Applying SI formula we get
$\mathrm{P}=\frac{\mathrm{P} \mathrm{X} \mathrm{20X} \mathrm{Rate}}{100}$
Rate $=5 \%$
Now if amount becomes 3 times the
principal then interest $=2 \mathrm{P}$
Again applying SI formula
$2 \mathrm{P}=\frac{P \mathrm{X} \text { Time } \mathrm{X} 5}{100}$
Time $=40$ years
Example 8: A sum of 600 becomes 720 in 5 years at certain rate. If the rate is further increased to 3\% then the amount will become?

Solution: Interest $=720-600=120$

Using SI formula we get
$120=\frac{600 \mathrm{X} 5 \mathrm{X} \text { Rate }}{100}$
Rate $=4 \%$
Now increasing the rate by $3 \%$, the
rate will become $=4+3=7 \%$
Again using SI formula, we get
Interest $=\frac{600 \times 5 \times 7}{100}$
Interest $=210$
Amount $=600+210=$ Rs. 810
Example 9: A sum of money becomes 7/6 of the principal in 3 years. The rate of interest is?

Solution: Let principal $=P$
Then, amount $=\frac{7 P}{6}$
Interest $=\frac{7 P}{6}-\mathrm{P}=\frac{P}{6}$
Using SI formula, we get
$\frac{P}{6}=\frac{\mathrm{P} \times 3 \times \text { Rate }}{100}$
Rate $=100 / 18=50 / 9$
Example 10: A certain amount of money amounts to 9800 in 5 years and 12005 in 8 years. The rate of interest is?

Solution: The increase in amount in

$$
\begin{aligned}
& 3 \text { years (from } 5 \text { to } 8 \text { years) } \\
& =12005-9800=2205
\end{aligned}
$$

So interest of one year $=2205 / 3=735$
Now take 9800 as principal and
12005 as amount. So interest will be
2205 in time $=3$
Using SI formula, we get
$2205=\frac{9800 \times 3 \times \text { Rate }}{100}$
Rate $=7.5 \%$

## PREVIOUS YEAR QUESTIONS

1) A man lent a sum of money at rate of SI of $4 \%$. If interest for 8 years is Rs. 340 less than principal, then the principal is
(AFCAT II 2015)
(a) 500
(b) 520
(c) 540
(d) 560

Solution: Let the principal $=\mathrm{P}$
Rate $=4 \%$ and time $=8$ years
Interest $=\mathrm{P}-340$
Using SI formula we get
$\mathrm{P}-340=\frac{\mathrm{P} \times 4 \times 8}{100}$
$\mathrm{P}=500$
2) A sum of becomes double in 16 yrs. How many times will it become in 8 years.
(a) $1 \frac{1}{2}$
(b) $1 \frac{1}{3}$
(c) $1 \frac{3}{4}$
(d) $1 \frac{1}{4}$
(AFCAT I 2015)

Solution: Let principal $=\mathrm{P}$
Then $\mathrm{P}=\frac{\mathrm{Px} 16 \times \mathrm{R}}{100}$
$\mathrm{R}=\frac{25}{4} \%$
In 8 years it will be
$\mathrm{X}=\frac{\mathrm{P} \times 8 \mathrm{x}(25 / 4)}{100}$
$\mathrm{X}=\mathrm{P} / 2$
Amount after 8 years $=P+(P / 2)=1 \frac{1}{2} P$
3) A banker lent 6000 Rs at $10 \%$ and 5000 Rs at $12 \%$ at same time. The banker received 2400 as total interest on both loans. Time of interest is?
(a) 3.5 years
(b) 3 years
(c) 2.5 years
(d) 2 years
(AFCAT II 2014)

Solution: Let time be $=T$
Then
$\frac{6000 \times 10 \times T}{100}+\frac{5000 \times 12 \times T}{100}=2400$
$1200 \mathrm{~T}=2400$
$\mathrm{T}=2$ years
4) If a person paid Rs. 22500 in 10 yrs. at $10 \%$ rate of SI. the amount of the loan
(a) 11225
(b) 11250
(c) 10000
(d) 7500

Solution: Amount $=$ Principal + SI
Let the principal $=\mathrm{P}$
$\mathrm{P}+\frac{\mathrm{P} \times 10 \times 10}{100}=22500$
$\mathrm{P}=$ Rs. 11250
5) A sum of 2600 is lent in 2 equal parts. At rate of $8 \%$ and $12 \%$. The interest earned at the end of the year is 1500 . The sum invested is
(AFCAT 2013)
(a) 1400
(b) 900
(c) 1600
(d) 1200

Solution: Let $\mathrm{P}=100$
First part $=\frac{100 \mathrm{X} 8 \mathrm{X} 1}{100}=8$
Second part $=\frac{100 \times 12 \times 1}{100}=12$
Total interest accrued $=12+8=20$
So if interest earned is 20 for 100 Rs
Then interest earned is 1500 for X
$\frac{100}{20} \times 1500=7500$
6) The SI earned on a sum of money at the end of the 4 years is $1 / 5$ of the principal. The rate of SI is
(AFCAT 2013)
(a) $4 \%$
(b) $5 \%$
(c) $6 \%$
(d) Data insufficient

Solution: Let principal be 100
Then $\frac{100 \mathrm{X} 4 \mathrm{Xr}}{100}=20$
$R=\frac{20}{4}=5 \%$
7) Sirinivasan invests two equal part at rates $10 \%$ and $12 \%$. At the end of the year, the interest earned is 1650 . The sum invested is (AFCAT 2013)
(a) 8500
(b) 15000
(c) 7500
(d) 17000

Solution: Let the principal $=\mathrm{P}$
Then $\frac{\mathrm{PX} 10 \mathrm{X} 1}{100}+\frac{\mathrm{PX} 12 \mathrm{X} 1}{100}=1650$
$\mathrm{P}=(1650 \mathrm{X} 100) / 22=7500$
8) Rs. 800 becomes Rs 956 in 3 years at certain rate. If rate is increased by $4 \%$, what amount will 800 become in 3 years?
(AFCAT I 2011)
(a) 1020
(b) 1052
(c) 1282
(d) 1080

Solution: $\frac{800 \mathrm{X} 3 \times \mathrm{R}}{100}=956-800$
$\mathrm{R}=\frac{13}{2} \%$
New rate will be $\frac{13}{2}+4=\frac{21}{2} \%$
New amount $=800+\frac{800 \times 3 \times 21}{100}=1052$ Rs
9) 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 Rs 600 more. The sum is
(AFCAT II 2015)
(a) Rs 4000
(b) Rs 4950
(c) Rs 5000
(d) Rs 5150

Solution: Interest $=$ Rs. 600 and time $=3$ years
Let rate $1=r$ then rate 2 will be $=(r+4) \%$
$\frac{\mathrm{PX} 3 \mathrm{X}(\mathrm{r}+4)}{100}-\frac{\mathrm{PX} 3 \mathrm{Xr}}{100}=600$
$3 \mathrm{P} r+12 \mathrm{P}-3 \mathrm{P} r=60000$
$12 \mathrm{P}=60000$
P = Rs. 5000
Hence answer is (c)
10) A sum of money invested at simple interest triples itself in 8 years. How many times will it become in 20 yr time?
(AFCAT I 2014)
(a) 8
(b) 7
(c) 6
(d) 9

Solution: $A=P\left(1+\left(\frac{\mathrm{rt}}{100}\right)\right)$
So $\mathrm{A}=3 \mathrm{P}$ (because it triples)
$3 \mathrm{P}=\mathrm{P}\left(1+\left(\frac{8 \mathrm{r}}{100}\right)\right)$
So By this we get $\mathrm{r}=25 \%$
Now when time is 20 years
$\mathrm{A}=\mathrm{P}\left(1+\left(\frac{25 \times 20}{100}\right)\right)=\mathrm{P}(1+5)$
$\mathrm{A}=6 \mathrm{P}$
So it becomes 6 times
Hence, answer is (c)
11) 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 Rs 1500 . Find the sum invested in each.
(AFCAT 2013)
(a) 8500
(b) 15000
(c) 7500
(d) 17000

Solution: Let $\mathrm{P}=0100$
In 1 st case, $\mathrm{SI}=\frac{100 \times 8 \mathrm{X} 1}{100}=$ Rs. 8
In 2nd case, $\mathrm{SI}=\frac{100 \mathrm{X} 12 \mathrm{X} 1}{100}=$ Rs. 12
Total interest $=8+12=$ 0 20
When interest 01500 , then $\mathrm{P}=100 / 20 \mathrm{X} 1500$
= Rs. 7500
Hence, answer is (c)
12) How much time will it take for an amount of Rs. 450 to gain Rs. 81 as interest, if rate of interest is $4.5 \%$ p.a on simple interest?
(AFCAT I 2011)
(a) 4.5 years
(b) 3.5 years
(c) 5 years
(d) 4 years

Solution: $\mathrm{t}=\frac{81 \times 100 \times 2}{450 \times 9}=4$ years
Hence, answer is (d)
13) At what rate of annual simple interest will Rs. 10000 double in 15 years?
(a) $5.5 \%$
(b) $8 \%$
(AFCAT I 2011)
(c) $6.75 \%$
(d) $7.25 \%$

Solution: $r=\frac{\text { SI X } 100}{\mathrm{P} \mathrm{Xt}}=\frac{10000 \mathrm{X} \mathrm{100}}{10000 \times 15}=20 / 3$
$=666 \% \cong 6.75 \%$
Hence, answer is (c)
14) The simple interest on a sum of money is $1 / 9$ of the sum. The number of years is numerically equal to the rate per cent per annum. The rate per cent per annum is
(a) 3.33
(b) 5
(c) 6.66
(d) 10
(AFCAT II 2012)
Solution: $\mathrm{SI}=\frac{P}{9}$ and $R=T$
$\mathrm{SI}=\frac{P \mathrm{X} R X T}{100}$
$\frac{P}{9}=\frac{P \mathrm{XRXT}}{100}$
$\mathrm{R}^{2}=\frac{100}{9}$
$R=\frac{10}{3}=3.33 \%$
Hence, answer is (a)
15) A sum of Rs. 10000 is lent partly at $8 \%$ and the remaining at $10 \%$ per annum, if the interest on the average is $9.2 \%$, the money lent at $10 \%$ is (AFCAT II 2012)
(a) Rs. 6000
(b) Rs. 5500
(c) Rs. 5000
(d) Rs. 4500

Solution: Let $\mathrm{P} 1=x, \mathrm{P} 2=(10000-x)$,
$r 1=8 \%, r 2=10 \%$
According to the question,
$\frac{x \mathrm{X} 8 \mathrm{X} 1}{100}+\frac{(10000-x) \mathrm{X} 10 \mathrm{X} 1}{100}=920$
$8 x-10 x+100000=920 \times 100$
$2 x=8000$
$x=04000$
Money lent at $10 \%=10000-4000=$ Rs 6000
Hence, answer is (a)
16) A sum of Rs 3200 is lent out into two parts, one at $6 \%$ and another at $4 \%$. If the total annual income is Rs 176 , find the money lent at $6 \%$.
(a) Rs. 2400
(b) Rs. 800
(AFCAT II 2012)
(c) Rs. 1600
(d) Rs. 3200

Solution: $\mathrm{P}=x \quad \mathrm{P}=(3200-x)$
$r=6 \% \quad r=4 \%$
According to the question,
$\frac{x \mathrm{X} 6 \mathrm{X} 1}{100}+\frac{(3200-x) \mathrm{X} 4 \mathrm{X} 1}{100}=176$
$6 x-4 x+12800=17600$
$2 x=4800$
$x=$ Rs. 2400
Hence, the money lent at $6 \%=$ Rs 2400
17) A sum of money lent out at simple interest doubled itself in 20 years. In how many years will it triple itself?
(AFCAT I 2012)
(a) 28 years
(b) 30 years
(c) 40 years
(d) 35 years

Solution: $\mathrm{P}=\square x, \mathrm{~A}=\square 2 x, \mathrm{t}=20 \mathrm{yr}$
$\mathrm{SI}=\mathrm{A}-\mathrm{P}=2 x-x=\square x$
$\mathrm{r}=\frac{S I \mathrm{X} 100}{P \mathrm{X} t}=\frac{x \mathrm{X} 100}{x \mathrm{X} 20}=5 \%$
Again $\mathrm{P}=$ Rs. $x$
$\mathrm{A}=3 x, \mathrm{r}=5 \%$
$\mathrm{SI}=\mathrm{A}-\mathrm{P}=3 x-x=2 x$
$\mathrm{t}=\frac{\operatorname{SIX~} 100}{\mathrm{P} \mathrm{X} \mathrm{r}}=\frac{2 x \mathrm{X} \mathrm{100}}{x \mathrm{X} 20}=40 \mathrm{yr}$
Hence, answer is (c)
18) 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?
(AFCAT II 2011)
(a) 8
(b) 10
(c) 12
(d) 14

Solution: Let $\mathrm{P}=$ Rs. $x \Rightarrow \mathrm{~A}=$ Rs. $3 x$
$\mathrm{SI}=\mathrm{A}-\mathrm{P}=3 x-x=$ ? $2 x$
$\mathrm{r}=\frac{\mathrm{SIX} 100}{\mathrm{P} \mathrm{Xt}}=\frac{2 x \mathrm{X} 100}{x \mathrm{X} 20}=10$
2nd Case
$\mathrm{P}=$ Rs. $x \Rightarrow \mathrm{~A}=$ Rs. $2 x$
$\mathrm{SI}=2 x-x=x$
$\mathrm{r}=10 \%$
$\mathrm{t}=\frac{\mathrm{SIX} 100}{\mathrm{P} \mathrm{X} \mathrm{r}}=\frac{x \mathrm{X} 100}{x \mathrm{X} \mathrm{10}}=10$
Hence, answer is (b).
19) Ram borrows Rs 8000 at $12 \%$ p.a simple interest and Mohan borrows Rs 9100 at $10 \%$ p.a. simple interest. In how many years will their borrowed amounts (Debt) be equal?
(a) 18
(b) 20
(c) 22
(AFCAT II 2011)
Solution: $\mathrm{SI}=\frac{8000 \mathrm{x} 12 \mathrm{X} \mathrm{t}}{100}=960 \mathrm{t} \Rightarrow \mathrm{A}=8000+960 \mathrm{t}$
Again, SI $=\frac{9100 \mathrm{X} 10 \mathrm{Xt}}{100}=910 \mathrm{t}$
$\mathrm{A}=9100+910 \mathrm{t}$
According to the question,
$960 \mathrm{t}+8000=910 \mathrm{t}+9100 \Rightarrow 50 \mathrm{t}=1100$
$\mathrm{t}=\frac{1100}{50}=22 \mathrm{yr}$
Hence answer is (c)
20) Reena took a loan of Rs 1200 with simple interest for a certain numbers of years. The numbers of 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
(AFCAT II 2011)
(c) 12
(d) None of these

Solution: Let rate $=\mathrm{R} \%$ and time $=\mathrm{R}$ years.
Then, $\frac{1200 \times R X R}{100}=432$
$12 \mathrm{XR}^{2}=432$
$\mathrm{R}^{2}=36$
$\mathrm{R}=6$
Hence, answer is (b)

## UNSOLVED QUESTIONS

1) A certain amount becomes 1300 in 3 years and 1750 in 6 years by applying simple interest. Find the rate of interest?
(a) $430 / 21$
(b) $300 / 17$
(c) $300 / 29$
(d) 250
2) A sum of money becomes 5 times in five years at simple interest at certain rate R. another sum of money becomes 10 times in 10 years at rate $r$. what is the relation between $R$ and $r$ ?
(a) No Relation
(b) $R=r$
(c) $\mathrm{R}>\mathrm{r}$
(d) $R<r$
3) Find the rate of simple interest if a sum of money doubles in 10 years
(a) 8
(b) 9
(c) 10
(d) 11
4) Find the rate when a sum of money gets triple in 25 years.
(a) $6 \%$
(b) $8 \%$
(c) $5.5 \%$
(d) $7.5 \%$
5) A certain sum of money is lent on simple interest at rate of $6 \%$ for 4 and a half years. the interest on the sum is 81 .find out the principal
(a) 300
(b) 350
(c) 250
(d) 400
6) Simple interest on 500 for 4 years is 80 . Then amount in 6 years will be?
(a) 400
(b) 560
(c) 780
(d) 620
7) In 3 years a sum of money becomes 767 and in 4 years, it becomes 806 . Find out the rate of interest?
(a) $4.5 \%$
(b) $5.5 \%$
(c) $6 \%$
(d) $6.5 \%$
8) Find the rate if a sum of money becomes 815 in 3 years and 854 in 4 years. Find the sum of money.
(a) 700
(b) 645
(c) 698
(d) 655
9) In how many years, a sum of money will become 4 times, if the rate of interest is 6\%.
(a) 37.5 years
(b) 50 years
(c) 35 years
(d) 45 years
10)Amit heard of a scheme that doubles money in 10 year. The scheme changes the provision and decreased the time to 8 year. Find the difference in previous and current rates.
(a) $1.5 \%$
(b) $1.25 \%$
(c) 2.5
(d) $3 \%$
10) A sum of money gives an interest of 1200 in 4 years at rate of $8 \%$ when put on simple interest. The interest accrued on the thrice the principal at rate of $6 \%$ for 3 years.
(a) 3200
(b) 2000
(c) 2025
(d) 1500
11) Amit borrowed 30000 . One part of it was borrowed at $12 \%$ p.a.. While another part was borrowed at $10 \%$ p.a. both at simple interest. The total amount paid after 2 years was 36480 , then find the ratio of amount borrowed at $12 \%$ and $10 \%$
(a) $2: 3$
(b) $9: 4$
(c) $4: 3$
(d) $3: 7$
12) An amount of 40,000 was lent for 3 years on simple interest, resulting in the interest of 12000 . Find the rate of interest.
(a) $12.5 \%$
(b) $10 \%$
14\%
(d) $15 \%$
13) Amit took a loon form a bank. The policy states $6 \%$ rate for $1^{\text {st }}$ year which will increase by $0.5 \%$ after every consecutive year. After 4 years, Amit paid interest 3375. Find out the amount she took for the loan
(a) 12,500
(b) 15,000
(c) 27,000
(d) 25,000
14) Rs 640 was lent on simple interest. One part of it was lent at $6 \%$ rate and another part at $9 \%$. Both the parts gave same interest after first part completed 3 years and second part completed 6 years. Find the first part.
(a) 480
(b) 300
(c) 450
(d) 500
15) An amount is lent on simple interest. The interest after T years and T\% rate is $9 / 25$ of the principal. Find the time and rate.
(a) 4
(b) 5
(c) 6
(d) 4.5
16) If the sum becomes double in 16 years, how much will it increase as compare to the principal in 8 years?
(a)3 times
(b) 4 times
(c) $1 / 2$
(d) 3/2 years
17) A sum 7200 was lent on simple interest at a rate of $25 / 4 \%$. It became 8100 after some time. The time period is
(a) 2 years
(b) 2.5 years
(c)3 years
(d) 4 years
18) A sum of money $A$ is put for $A$ years at A rate of interest at simple interest. The interest produced is
(a) $A / 100$
(b) $A^{2}$
(c) $\mathrm{A}^{3} / 100$
(d) A
19) A sum of money gives interest half the value of principal at $5 \%$ rate in 3.5 years. the amount is
(a) 2500
(b) 3,500
(c) Data insufficient
(d) 6,000
20) A sum of money gives interest equal to $1 / 6$ of the principal in 3 years. The rate of interest is
(a) $45 \%$
(b) $50 / 9 \%$
(c) $42 \%$
(d) $47 \%$
21) Satish took a loan with principal of 8000 , at $20 \%$ for 2 years. After 2 years, he paid 10,000 and a mobile phone to complete the total amount that he has to pay. The price decided for the mobile phone is
(a) 4,000
(b) 1,300
(c) 1,200
(d) 2,400
22) A person divided 5000 and lent both the parts on simple interest. The first part is lent at $4 \%$ and second part at $5 \%$. Both the parts are lent for 2 years. The interest paid after 2 years was 460 . The ratio of two parts is
(a)5:7
(b) $2: 3$
(c) $1: 3$
(d) $1: 5$
23) Rajeev and Sumit borrowed equal amount of money at certain rates and period is in the ratio of $5: 6$. The money they borrowed is
(a) Data insufficient
(b) 4000
(c) 4700
(d) 4500
24) Amit divided his investment of 4000 Rs at interest rates of $3 \%$ and $5 \%$. Both the schemes gave total interest of Rs 144 . The amount lent at higher rate is
(a) 1200
(b) 1500
(c) 2400
(d) 1400
25) A and B lent Rs 1650 and 1800 at rate of $4 \%$ at simple interest. The difference between their interests is 30 . The time of investment is
(a) 4.5 years
(b) 4 years
(c) 3 years
(d) 5 years
26) A sum of money gives interest equal to the half of the principal in 9 years at rate of $4 \%$. The sum is
(a) 2000
(b) 3000
(c) 200
(d) Data Inadequate
27) The difference in interest of two schemes on 500 for 2 years is Rs.2.5. the difference in rates is
(a) $0.25 \%$
(b) $2 \%$
(c) $1.5 \%$
(d) $1 \%$

## SOLUTIONS

| $1 .(\mathrm{b})$ | $2 .(\mathrm{d})$ | $3 .(\mathrm{c})$ | $4 .(\mathrm{b})$ | $5 .(\mathrm{a})$ | $6 .(\mathrm{d})$ | $7 .(\mathrm{c})$ | $8 .(\mathrm{c})$ | $9 .(\mathrm{b})$ | $10 .(\mathrm{c})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $11 .(\mathrm{c})$ | $12 .(\mathrm{a})$ | $13(\mathrm{~b})$ | $14 .(\mathrm{a})$ | $15 .(\mathrm{a})$ | $16 .(\mathrm{c})$ | $17 .(\mathrm{c})$ | $18 .(\mathrm{a})$ | $19 .(\mathrm{c})$ | $20 .(\mathrm{c})$ |
| $21 .(\mathrm{b})$ | $22 .(\mathrm{c})$ | $23 .(\mathrm{b})$ | $24 .(\mathrm{a})$ | $25 .(\mathrm{a})$ | $26 .(\mathrm{d})$ | $27 .(\mathrm{d})$ | $28 .(\mathrm{a})$ |  |  |

## HINTS

6) interest in 4 years $=80$

Interest in 1 years $=20$
Interest in 6 years $=120$
Amount $=500+120=620$
12) $6480=$
$\frac{x \mathrm{X} 12 \mathrm{X} 2}{100}+\frac{(30000-x) \mathrm{X} 10 \mathrm{X} 2}{100}$
$x=12000$ (amount at 12\%)
Amount at $10 \%=30000-12000=$ 18000
Ratio $=12000 / 18000$
14) $3375=$

$$
\begin{aligned}
& \quad \frac{x \mathrm{X}_{6} \mathrm{X} 1}{100}+\frac{x \mathrm{X} 6.5 \mathrm{X} 1}{100} \\
& +\frac{x \mathrm{X} 7 \mathrm{X} 1}{100}+\frac{x \mathrm{X} 7.5 \mathrm{X} 1}{100} \\
& 3375=x(0.06+0.065+0.07+ \\
& 0.075) \\
& x=12500
\end{aligned}
$$

17) Time in which the principal will double= $=16 \mathrm{yr}$ in 8 years, it will increase to $=$ $\frac{16}{8}=\frac{1}{2}$
18) $\frac{8000 \times 20 \times 2}{100}=3,200$ 100
Amount $=8000+3200=11,200$
Amount paid $=10000$
Amount left/ price of mobile phone $=$ $11,200-10,000=1,200$
19) Let the two parts be x and (5000-x)
$\frac{x \mathrm{X} 4 \mathrm{X} 2}{100}+\frac{(5000-x) \mathrm{X} 5 \mathrm{X} 2}{100}=460$
$\mathrm{X}=2000$
Another part $=5000-2000=3000$
Ratio $=2000: 3000$
2:3
20) Let the amount lent at $3 \%$ be x and another
amount will be (4000-x)
$3 \%$ of $x+5 \%$ of $(4000-x)=144$
$3 x+20000-5 x=14400$
$x=2800$
Another amount at 5\% $=4000-2800$ 1200
21) $1800-1650=150$

Time $=\frac{30 \times 100}{150 \times 4}=5$ years
27) Rate, time and ratio of principal and interest are not sufficient to calculate the principal
28) Interest diff $=\frac{\text { Time } X \text { Sum } X \text { Rate Diff }}{100}$
$2.5=\frac{2 \times 500 \times \text { Rate Diff }}{100}$
0.25\%
time and distance

## SAMPLE QUESTIONS

Example 1: A train running at $36 \mathrm{~km} / \mathrm{hr}$ crosses a pole in 1 minute. The length of the train is

Solution: Speed of train $=36 \mathrm{kmph}$
Speed of train in mps $=\frac{36 \times 5}{18}=$
10 mps
Speed $=$ distance $/$ time
$10=\frac{\text { Length of train }}{60 \mathrm{sec}}$
Length of train $=600 \mathrm{~m}$
Example 2: Ankit goes to a place on bike at a speed of 80 kmph and comes back on cycle at 20 kmph . The average speed of Ankit is
Solution: Using formula $=\frac{2 \mathrm{ab}}{\mathrm{a}+\mathrm{b}}=$
$\frac{2 \times 80 \times 20}{80+20}$

3200/100
32 kmph
Example 3: Amit walks at $3 / 4$ of the usual speed and takes 10 minutes more to reach home. The actual time he takes to reach the home is

Solution: Let the actual speed be x , and
time taken to reach home $=\mathrm{t}$
Then
$\mathrm{x} /(3 \mathrm{x} / 4)=(\mathrm{t}+10) / \mathrm{t}$
$\mathrm{t}=30$ minutes
Example 4: Two trains of length 500 m running at speed of 30 kmph and 40 kmph in opposite direction will cross each other in time

Solution: Relative speed $=30+40=70 \mathrm{kmph}$
Total distance to be covered $=$
$500+500=1000 \mathrm{~m}$ or 1 km
Time taken $=\frac{1}{70} \mathrm{hr}$
Or $\frac{6}{7}$ mins
Example 5: A train of length 400 m crosses a 1200 m platform in 80 sec . the speed of the train in kmph is

Solution: Total distance to be covered
$=1200+400=1600 \mathrm{~m}$
Time $=80 \mathrm{sec}$
Speed $=\frac{1600}{80}=20 \mathrm{mps}$
$20 \times \frac{18}{5}=72 \mathrm{kmph}$
Example 6: Rajat walks to his office and rides back to home in 8 hours. If he rides
while going and coming, he would cover It in 6 hours. How much time will it take to walk to office and walk back to home?

Solution: Walking + Riding $=8$

$$
\begin{aligned}
& \text { Riding }+ \text { Riding }=6 \\
& \text { Riding }=3 \mathrm{hr} \\
& \text { Walking }+3=8 \\
& \text { Walking }=5 \mathrm{hr} \\
& \text { Walking }+ \text { Walking }=2 \text { X } 5=10 \mathrm{hr}
\end{aligned}
$$

Example 7: A boat goes at 7 kmph downstream and goes upstream at 3.5 kmph . The speed of boat is

Solution: Using formula $-\frac{1}{2}$ (speed of boat in upstream + speed of boat downstream)

$$
\begin{aligned}
& =\frac{1}{2}(7+3.5) \\
& =\frac{1}{2} \times 10.5 \\
& =5.25
\end{aligned}
$$

Example 8: The speed of boat in still water is 6 kmph and the speed of current is 2 kmph. The time taken by a boat to cover a distance of 20 kms upstream is
Solution: Speed of boat upstream $=6-2$
$=4 \mathrm{kmph}$
Distance $=20$
Time $=\frac{20}{4}=5$ hours
Example 9: A boat moves 1 km downstream in 10 minutes and 1 km upstream in 20 minutes. The speed of boat in still water in kmph is
Solution: Downstream speed $=\frac{1}{10} \mathrm{X} 60$
$=6 \mathrm{kmph}$
Upstream speed $=\frac{1}{20} \times 60=3 \mathrm{kmph}$
Speed of boat in still water $=\frac{6+3}{2}$
$=4.5 \mathrm{kmph}$
Example 10: The ratio of speed of boat upstream and downstream is $3: 7$. The speed of stream is 6 kmph then the speed of boat in still water is
Solution: Let the speeds be 3 x and 7 x

$$
\begin{aligned}
& \text { Then, } 6=\frac{7 x-3 x}{2} \\
& x=3
\end{aligned}
$$

Upstream speed $=3 \times 3=9 \mathrm{Kmph}$
Downstream speed $=7 \mathrm{X} 3=21 \mathrm{Kmph}$
Speed of boat $=\frac{21+9}{2}=15 \mathrm{kmph}$

## PREVIOUS YEAR QUESTIONS

1) The speed of a boat in still water is 10 kmph . If it can travel 26 km downstream and 14 km upstream in same time then the speed of stream in kmph is
(a) 2
(b) 2.5
(c) 3
(d) 4
(AFCAT I 2015)
Solution: Let the speed of stream be S
Then $\frac{26}{10+\mathrm{S}}=\frac{14}{10-\mathrm{S}}$
$40 x=120$
$x=3 \mathrm{kmph}$
2) A train can travel at uniform speed and crosses a platform of 200 m in 10 sec . and a telegraph pole in 5 sec . the speed of the train in kmph is
(AFCAT I 2015)
(a) 36
(b) 39
(c) 72
(d) 78

Solution: Let the length of train be T
Then $\frac{\mathrm{T}+200}{10}=\frac{\mathrm{T}}{5}$
$\mathrm{T}=200 \mathrm{~m}$
Speed $=200 / 5=40 \mathrm{~m} / \mathrm{s}$
Converting It into $\mathrm{kmph}=\frac{40 \times 3600}{1000}=144 \mathrm{kmph}$
3) A train covers a distance of 10 kms in 12 mins. If its speed is decreased by 5 kmph what time will it take to cover the same distance
(AFCAT II 2014)
(a) 14 min 33 sec
(b) 13 min 33 sec
(c) 13 min 20 sec
(d) 15 min 20 sec

Solution: Speed of train in kmph $=10 \mathrm{X} 60 / 12=50 \mathrm{kmph}$
After decreasing the speed $=50-5=45 \mathrm{Kmph}$
Time taken $=(10 / 45) \mathrm{X} 60 \mathrm{~min}=\frac{40}{3} \mathrm{~min}=13 \mathrm{~min} 20 \mathrm{sec}$
4) Speed of a boat in still water is $9 \mathrm{~km} / \mathrm{h}$ and speed of stream is 1.5 kmph . a man rows to a place at a distance of 105 kms and comes back. The total time take for total journey (in hours)is
(AFCAT II 2014)
(a) 16
(b) 18
(c) 24
(d) 28

Solution: Upstream speed $=9-1.5=7.5 \mathrm{kmph}$
Downstream speed $=9+1.5=10.5 \mathrm{kmph}$
Time $=\frac{105}{7.5}+\frac{105}{10.5}=24 \mathrm{~h}$
5) $A$ 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 $9 \mathrm{Km} / \mathrm{h}$ and the speed of the current is $3 \mathrm{Km} / \mathrm{h}$, the distance between $A$ and $B$ is
(AFCAT II 2015)
(a) 9 km
(b) 10 km
(c) 11 km
(d) 12 km

Solution: Let the speed of boat $=9 \mathrm{kmph}$
And Speed and river $=12 \mathrm{kmph}$
Downstream speed of boat $=9+3=12$
Upstream speed of boat $=9-3=6$
Total time taken for going downstream and upstream $=\mathrm{t} 1+\mathrm{t} 2=3 \mathrm{~h}$
Distance covered by boat $=\mathrm{d}$
Then $\mathrm{t} 1+\mathrm{t} 2=\mathrm{d}\left(\frac{1}{12}+\frac{1}{6}\right)=3$
$\mathrm{d}=12 \mathrm{~km}$
Hence, answer will be (d).
6) A steamer moves with a speed of $4.5 \mathrm{~km} / \mathrm{h}$ in still water to a certain upstream point and comes back to the starting point in a river which flows at $1.5 \mathrm{~km} / \mathrm{h}$. The average speed of steamer for the total journey is
(a) $12 \mathrm{~km} / \mathrm{h}$
(b) $9 \mathrm{~km} / \mathrm{h}$
(c) $6 \mathrm{~km} / \mathrm{h}$
(d) $4 \mathrm{~km} / \mathrm{h}$
(AFCAT II 2015)

Solution: Speed of streamer $=4.5 \mathrm{~km} / \mathrm{h}$
Speed of stream $=1.5 \mathrm{~km} / \mathrm{h}$
Speed upstream (v) $=4.5-1.5=3 \mathrm{~km} / \mathrm{h}$
Speed downstream $(V)=4.5+1.5=6 \mathrm{~km} / \mathrm{h}$
Average speed $=\frac{2 v V}{v+V}=\frac{2 \times 3 \times 6}{3+6}=4 \mathrm{~km} / \mathrm{h}$
Hence, answer will be (d).
7) A train 150 m long is running with a speed of $68 \mathrm{~km} / \mathrm{h}$. In what time will it pass a man who is running at $8 \mathrm{~km} / \mathrm{h}$ in the same direction in which the train is going?
(a) 8 sec
(b) 8.5 sec
(c) 9 sec
(d) 9.5 sec
(AFCAT II 2015)
Solution: Length train $=150 \mathrm{~m}$
Speed of train $=\frac{68 \times 5}{18}=18.89 \mathrm{~m} / \mathrm{s}$
Speed of man $=\frac{8 \times 5}{18}=2.22 \mathrm{~m} / \mathrm{s}$
Relative speed of man and speed $=18.89-2.22=16.66 \mathrm{~m} / \mathrm{s}$
Time required $=$ length of train/ speed of train $=\frac{150}{16.66}=9 \mathrm{sec}$
Hence, answer will be (c).
8) 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
(AFCAT II 2015)
(a) 90 m
(b) 100 m
(c) 120 m
(d) 140 m

Solution: Speed of train $=\frac{12000}{600}=20 \mathrm{~m} / \mathrm{s}$
Time taken by train to pass a telegraph post $=6 \mathrm{sec}$
$6=\frac{\text { Length of Train }}{20}$
Length of Train $=120 \mathrm{~m}$
Hence, answer will be (c).
9) A man can row $9 \frac{1}{3} \mathrm{Kmph}$ 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
(AFCAT I 2015)
(a) $3 \frac{1}{3} \mathrm{Kmph}$
(b) $3 \frac{1}{9} \mathrm{Kmph}$
(c) $4 \frac{2}{3} \mathrm{Kmph}$
(d) $4 \frac{1}{3} \mathrm{Kmph}$

Solution: Let the speed upstream $=x \mathrm{kmph}$
Then speed downstream is $=3 x \mathrm{kmph}$ [as per question]
Speed in still water $=1 / 2(\mathrm{a}+\mathrm{b})=>1 / 2(3 x+x)$
As per question we know,
$2 x=9(1 / 3) \quad=>2 x=\frac{28}{3} \quad=>x=\frac{14}{3}$
So, Speed upstream $=\frac{14}{3} \mathrm{~km} / \mathrm{hr}$, Speed downstream $14 \mathrm{~km} / \mathrm{hr}$.
Speed of the current
$=1 / 2\left[14-\frac{14}{3}\right]=\frac{14}{3}=\frac{42}{3} \mathrm{kmph}$
Hence, answer will be (c).
10) 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
(AFCAT I 2015)
(a) 30 Km
(b) 24 Km
(c) 20 Km
(d) 51.6 Km

Solution: Average speed $=\frac{2 a b}{(a+b)}$ here $a=25 \mathrm{~b}=4$
$=\frac{2 \times 25 \times 4}{25+4}=\frac{200}{29} \mathrm{~km} / \mathrm{hr}$.
Distance covered in 5 hours 48 minutes
$=$ Speed $x$ time $=\frac{200}{29} \mathrm{X} \frac{29}{5}$ Distance covered in 5 hours 48 minutes $=40 \mathrm{kms}$
Distance between A and B is $=(40 / 2)=20 \mathrm{~km}$.
Hence, answer will be (c).
11) 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? (AFCAT II 2014)
(a) 6.0 secs
(b) 7.5 secs
(c) 7.0 secs
(d) 8.5 secs

Solution: Speed of the train $=132 \mathrm{~km} / \mathrm{h}=132 \times \frac{5}{18} \mathrm{~m} / \mathrm{s}$
$=\frac{110}{3} \mathrm{~m} / \mathrm{s}$
Required time $=\frac{110+165}{110 / 3}=\frac{275}{110 / 3}=\frac{275 \times 3}{100}=7.5 \mathrm{~s}$
Hence, answer will be (b).

## UNSOLVED QUESTIONS

1. A train is running at a speed of 90 kms per hour. Its speed in metres per second will be
(a) 15
(b) 25
(c) 22
(d) 30
2. A sports person covers the track of 400 m in one minute. His speed in $\mathrm{km} / \mathrm{hr}$ will be
(a) 24
(b) 27.5
(c) 25
(d) 25.5
3. The ratio of time taken by two bikes to cover a certain distance running at a rate of $45 \mathrm{~km} / \mathrm{hr}$ and $15 \mathrm{~m} / \mathrm{s}$ is
(a) $2: 5$
(b) $2: 3$
(c) $3: 1$
(d) $1: 3$
4. Amit is $10 \%$ faster than Sumit. If Sumit runs 8 kms in 1 hr , then what distance (in km ) will Amit cover in same time?
(a) 7.2
(b) 8.8
(c) 9
(d) 7.8
5. A person coves a certain distance at speed of $30 \mathrm{~km} / \mathrm{h}$ and returns at same distance at speed of $20 \mathrm{~km} / \mathrm{hr}$. the average speed is
(a) 25
(b) 30
(c) 15
(d) 24
6. Akshay covers his route to office at 40 kmph in first half distance and 50 kmph in second half distance. The average speed of Akshay is
(a) 50
(b) $40 / 9$
(c) $100 / 3$
(d) $19 / 3$
7. Amit and raj left from the same point on their vehicles and ran at a speed of 30 and 45 kmph . If the difference between their timing of arrival at final point differs by 25 min . the distance is
(a) 36
(b) 62.5
(c) 72
(d) 65
8. A car covered a distance at a speed of 60 and waited for some time in between. It covered another distance at speed of 40 in same time without any breaks. Find the ratio of distance covered
(a) $3: 2$
(b) $5: 3$
(c) $4: 1$
(d) $3: 5$
9. A car completes a journey in 10 hours covering a half of the distance at 20 Kmph and remaining at 30 Kmph . The distance of the journey is
(a) 200
(b) 350
(c) 240
(d) 400
10. A person covered a part of his route at 32 kmph and another part at 40 kmph . The ratio of distance covered at both the speeds is
(a) $3: 7$
(b) $4: 3$
(c) $13: 17$
(d) Data Insufficient
11. A train crosses a pole at 72 kmph in 20 seconds. The length of the train in metres is
(a) 300
(b) 500
(c) 400
(d) 550
12. A train crosses a platform of length 500 meters at a speed of $72 \mathrm{Km} / \mathrm{h}$ in 60 seconds. The length of the train is
(a) 600 m
(b) 800 m
(c) 560 m
(d) 700 m
13. Lalit travelled a distance at a speed of 20 kmph and 30 kmph . If he covered the distance in 10 hours, the total distance he covered is
(a) 240 km
(b) 300 km
(c) 120 km
(d) 250 km
14. An athlete runs across a circular path of radius 21 m in 45 seconds. How much time will he take to cover one rotation of a track of radius 42 m
(a) 40 sec
(b) 1 min
(c) 90 sec
(d) 43 sec
15. Amit covers half of the distance at a certain speed and the remaining at twice the speed. The ratio of time
(a) $3: 5$
(b) $7: 3$
(c) $2: 1$
(d) $7: 9$
16. A train of 180 mtrs crosses a pole in 25 seconds. The time taken by it to cross a platform of 300 mts is
(a) 100
(b) $33(1 / 3)$
(c) $200 / 3$
(d) 90
17. A man covers a distance at a certain speed. If he covers at $3 / 4$ of the normal speed, it takes 15 minutes extra to reach the destination. The normal time in minutes taken by him is
(a) 45
(b) 20
(c) 50
(d) 55
18. A man goes to his office at a speed of 21 kmph and come back at a speed of 24 kmph . The total time taken by the man to complete the to and fro journey is 20 hours. The distance between his office and house is?
(a) 225
(b) 300
(c) 224
(d) 332
19. A man covers a distance in 30 hours. He decreases his speed by $1 / 15$ and covers 10 kms less in same time. The speed of the person is
(a) 10
(b) 5
(c) 4
(d) 7
20. A man walks at $6 / 7$ of its normal speed and takes 12 minutes more to cover the same distance. The time he takes to cover the distance at normal speed is
(a) 2 hr
(b) 3 hr 30 min
(c) 1 hr 12 mins
(d) 2 hr 20 min
21. If a man runs at a speed of $14 \mathrm{~km} / \mathrm{h}$ instead of $10 \mathrm{~km} / \mathrm{h}$ he covers 20 kms more in same time. The distance is
(a) 25
(b) 27.5
(c) 30
(d) 50
22. A car covers a certain distance at a speed of 50 kmph in 10 hrs . What must be the speed of the car to cover the same distance in 7.5 hours?
(a) 200
(b) $100 / 3$
(c) 100
(d) $200 / 3$
23. The speed of the water current is 10 kmph and the speed of boat in still water is 5 kmph. How many hours will it take to cover the distance of 15 kms up streams?
(a) 2
(b) 4
(c) 3
(d) 9
24. A boat takes 8 hours to run 48 km upstream and takes 6 hours to run downstream on same route. How much time will it take to run 28 kms in still water
(a) 5 hr
(b) 4 hr
(c) 7 hr
(d) 9 hr
25. The speed of boat and stream are in the ratio of $4: 1$. the ratio of downstream and upstream is
(a) $3: 1$
(b) $1: 4$
(c) $5: 3$
(d) $3: 5$
26. The speed of boat and stream are 4 Kmph and 2 Kmph . It goes to a place and comes back in 4 hours. The distance between the initial and final place is
(a) 10
(b) 7
(c) 6
(d) 5.5
27. A swimmer takes 6 hours to swim 60 km downstream and 36 km upstream in same time. The speed of the swimmer in Kmph is
(a) 8
(b) 9
(c) 10
(d) 7

## SOLUTIONS

| 1. (b) | $2 .(\mathrm{a})$ | $3 .(\mathrm{d})$ | $4 .(\mathrm{b})$ | $5 .(\mathrm{d})$ | $6 .(\mathrm{b})$ | 7. (b) | 8. (a) | 9. (c) | $10 .(\mathrm{d})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $11 .(\mathrm{c})$ | $12 .(\mathrm{d})$ | $13 .(\mathrm{a})$ | $14 .(\mathrm{c})$ | $15 .(\mathrm{c})$ | $16 .(\mathrm{c})$ | $17 .(\mathrm{a})$ | $18 .(\mathrm{c})$ | $19 .(\mathrm{b})$ | $20 .(\mathrm{c})$ |
| 21.(d) | $22 .(\mathrm{d})$ | $23 .(\mathrm{c})$ | $24 .(\mathrm{b})$ | $25 .(\mathrm{c})$ | $26 .(\mathrm{c})$ | $27 .(\mathrm{a})$ |  |  |  |

## HINTS

5) Formula used $=\frac{D+D}{(D / S 1)+(D / s 2)}$
( D is the distance covered and $\mathrm{S} 1, \mathrm{~S} 2$ is are the speed)
6) Let the half distance be $D$
$\frac{D}{20}+\frac{D}{30}=10$
$\mathrm{D}=120$
7) $\frac{180}{25}=\frac{180+300}{\text { Time }}$

Time $=200 / 3$
18) $\frac{x}{21}+\frac{x}{24}=20 x=224$
19) $30 x-30 \times \frac{14}{15} x=10$ $x=5$
20) Current speed $=\frac{6}{7}$ of the actual speed

Current time $=\frac{7}{6}$ of the actual time taken
$\frac{7}{6}$ of normal time - normal time $=\frac{1}{5}$
hours
Normal time $=\frac{6}{5} \mathrm{hrs}=1 \mathrm{hr} 12 \mathrm{mins}$
21) $14 / 10=(x+20) / x$
$14 \mathrm{x}=10 \mathrm{x}+200$
$\mathrm{X}=50$

## Chapter 9

## TIME \& WORK

## SAMPLE QUESTIONS

Example 1: A and B completes a work in 10 and 15 days. The work will be completed by them together in days?
Solution: Time taken by them to complete the task

$$
\frac{15 \times 10}{15+10}=\frac{150}{25}=6 \text { days }
$$

Example 2: Three people A, B and C completes a work together in 80/3days. If A and B can complete it in 30 days, B and C can complete it in 60 days, then the time taken by A and C to complete the work together is
Solution: To get the work done by A

$$
\begin{aligned}
& \frac{3}{80}=\frac{1}{60}+\frac{1}{A} \\
& \mathrm{~A}=48 \text { days }
\end{aligned}
$$

Time taken by C to complete the work
$\frac{3}{80}=\frac{1}{30}+\frac{1}{C}$
$\mathrm{C}=240$
Time taken by A and C to complete the work is
$\frac{1}{48}+\frac{1}{240}=\frac{1}{40}$
Time taken by A and $\mathrm{C}=40$ days

Example 3: A team of 5 workers was given the small contract to do a work in 6 days. They decided to work 9 hours daily and completed the contract on time. Another contract of same work was given which is to be completed in 9 days, but 2 people left the team. The time that they should devote daily to complete the task is
Solution: $(\mathrm{MDH})_{1}=(\mathrm{MDH})_{2}$

$$
\begin{aligned}
& 5 \times 6 \times 9=3 \times 9 \times H \\
& H=10 \text { hours }
\end{aligned}
$$

Example 4: 18 men can complete a work in 7 days. How many days will 27 men will take to complete the same task
Solution: $(\mathrm{M} \mathrm{X} \mathrm{D})_{1}=(\mathrm{M} \mathrm{X} \mathrm{D})_{2}$

$$
18 \times 7=27 \times D
$$

$$
\mathrm{D}=\frac{14}{3}
$$

Example 5: Amit and Chirag can individually complete a work in 20 and 60 days. Both of them did the work for 10 days and then B left the work. In how many days, will Amit complete the remaining work?
Solution: work done by both of them in 1 days

$$
=\frac{1}{20}+\frac{1}{60}=\frac{1}{15}
$$

Work completed by them in 10 days $=$

$$
\frac{1}{15} \times 10=\frac{2}{3}
$$

Remaining work $=1-\frac{2}{3}=\frac{1}{3}$
Work done by Amit in 1 day $=\frac{1}{20}$
Time taken by Amit to complete the
remaining work $=20 \times \frac{1}{3}=\frac{20}{3}$ days
$=6 \frac{2}{3}$ days
Example 6: Due to leakage in the tank, about half of the water flows out. Due to this, a tap fills the tank in 40 hours. What time will be elapsed to fill the tank without the leakage?

Solution: Time with leakage $=40$ hours
If half of the water flows out then
Actual time $=\frac{40}{2}=20$ hours
Example 7: 3 men or 4 women takes 43 days to build a wall. How much time will 7 men and 5 women will take to complete the wall construction?
Solution: 3 Men $=4$ Women
Men $=\frac{4}{3}$ Women
So 7 men will work equal to $=7 \times \frac{4}{3}$
$=\frac{28}{3}$
So total work force $=\frac{28}{3}+5$
$=\frac{43}{3}$ women
Using formula $(M D)_{1}=(M D)_{2}$

$$
4 X 43=\frac{43}{3} X D
$$

$$
\mathrm{D}=12 \text { days }
$$

Example 8: A bunker is built in 60 days by certain number of soldiers. The number of soldiers is increased by 8 and the construction work is winded up in 50 days. the number of soldiers assigned previously to construct it was
Solution: Using formula (MD) ${ }_{1}=(\mathrm{MD})_{2}$
Men X $60=($ Men +8$)$ X 50
60 men $=50$ men +400
10 Men $=400 \rightarrow$ Men $=40$
Example 9: A tap fills a tank in 15 hours. But leakage form a hole extends the filling to 20 hours. In what time, the filled tank will take to get empty?
Solution: Leakage done in 1 hour $=\frac{1}{15}-\frac{1}{20}$

$$
=\frac{1}{60}
$$

Time taken by hole to empty the tank $=60$ hours

Example 10: A tap fills a tank in 2 hours while another tap empties it in 3 hours. The time taken to fill the tank when both the taps are turned on is

Solution: Both of them will fill the tank in

$$
\frac{1}{2}-\frac{1}{3}=\frac{1}{6}
$$

Or it will take 6 hours to fill the tank when both the taps are on.

## PREVIOUS YEAR QUESTIONS

1) A does $1 / 2$ as much work as $B$ can do and $C$ does $1 / 2$ as much work as $A$ and $B$ Together. If C can finish the work in 40 days, then together they can finish the work in
(AFCAT II 2015)
(a) 30
(b) $13 \frac{1}{3}$
(c) 15
(d) 20

Solution: Work done by C in one day $=\frac{1}{40}$
Work done by A and B in one day $=1 / 20$ (i.e. twice the word done by C )
Work done by AB and C in one day $=\frac{1}{40}+\frac{1}{20}=\frac{3}{40}$
Time taken by $\mathrm{A}, \mathrm{B}$ and C to complete the work $=\frac{40}{3}=13 \frac{1}{3}$
2) $A$ and $B$ can do a piece of work in 30 days. While $B$ and $C$ can do a piece of work in 24 days. C and A can do it in 20 days. If they all worked for 10 days and then B and C left the work. How many days will A take to complete the left work
(a) 12
(b) 18
(c) 20
(d) 22
(AFCAT II 2014)
Solution: $2(A+B+C)=\frac{1}{30}+\frac{1}{24}+\frac{1}{20}=\frac{1}{8}$
$(\mathrm{A}+\mathrm{B}+\mathrm{C})=\frac{1}{16}$
Work done by $\mathrm{A}, \mathrm{B}$ and C in 10 days $=\frac{1}{16} \mathrm{X} 10=\frac{5}{8}$
Remaining work $=1-\frac{5}{8}=\frac{3}{8}$
Work done by A in 1 day $=\frac{1}{16}-\frac{1}{24}=\frac{1}{48}$
Time taken by $A$ to complete the remaining work is $=48 \times \frac{3}{8}=18$ days
3) A can do $1 / 2$ of a piece of work in 8 days while $B$ can do $1 / 3$ of the same work in 8 days. In how many days can both do it together?
(AFCAT II 2015)
(a) 9.6 days
(b) 10.5 days
(c) 11.2 days
(d) 16 days

Solution: (a)
A completes the work in 16 days, $B$ completes the work in 24 days
$(A+B)=\frac{1}{16}+\frac{1}{24}=\frac{5}{48}$
Time taken $=48 / 5=9.6$ days
4) 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
(AFCAT I 2015)
(c) 16 days
(d) 18 days

Solution: $(A+B+C)$ 's 3 days' work $\frac{3}{20}+\frac{1}{30}+\frac{1}{60}$
$=\frac{9+2+1}{60}=\frac{12}{60}=\frac{1}{5}$
( $\mathrm{A}+\mathrm{B}+\mathrm{C}$ )'s can do the whole work
$=3 \times 5=15$ days
(Note A is assisted by B and C every third day)
Hence, Answer will be (b).
5) ' 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
(AFCAT II 2014)
Solution: Suppose, A can do a piece of work in $x$ days
Then B can do a piece of work in $3 x$ days
So, $\quad 3 x-x=10$
$\Rightarrow \quad 2 x=10 \Rightarrow x=5$ days
Hence, B can do a piece of work in 15 days. Answer is (b).
6) 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 will it take to fill the tank?
(a) 12 minutes
(b) 15 minutes (AFCAT II 2014)
(c) 25 minutes
(d) 50 minutes

Solution: A's pipe 1 min work $=\frac{1}{20}$
B's pipe 1 min work $=\frac{1}{30}$
Both $(A+B)$ 's pipes 1 min work $=\frac{1}{20}+\frac{1}{30}=\frac{3+2}{60}=\frac{5}{60}=\frac{1}{12}$
So, both pipes will fill the tank in 12 min . Answer is (a).
7) 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 $1 / 5^{\text {th }}$ 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 (AFCAT I 2014)
(c) 12 minutes
(d) 20 minutes

Solution: Working efficiency of both typist together,
$=\frac{100}{6}=16.66 \%$ per minute
Now, let work efficiency of first typist be x and then second typist will be
(16.66-x)

First typist typed alone for 4 minutes and second typed alone for 6 minutes and they left with $\frac{1}{5}$ (i.e $20 \%$ ) of job, means they have completed $80 \%$ job.
Now,
First Typist typed in 4 minute + Second typed in 6 minutes $=80 \%$
$4 \mathrm{X} x+6 \mathrm{X}(16.66-x)=80 \%$
$4 x+100 \%-6 \mathrm{x}=80 \%$
$x=10 \%$
First Typist typed 10\% per minutes. Then second typed (16.66-10) $=6.66 \%$ per minute

Then, Second typist completes the whole job in $100 / 6.66=15.01=15$ minutes. Hence, Answer will be (b).
8) 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?
(AFCAT I 2014)
(a) 12 days
(b) 10 days
(c) 8 days
(d) 6 days

Solution: Suppose rest of food remaining for $x$ days.
Then $200 \mathrm{X} 31=200 \times 27+(200-120) \mathrm{X} x$
$\Rightarrow 6200=5400+200 x-120 x \Rightarrow 80 x=800$
$x=\frac{800}{80}=10$ days.
Hence, Answer will be (b).

## UNSOLVED QUESTIONS

1. Smeer and Ankit can do a piece of work in 20 and 15 days. In how many days they will complete the work, if the work together.
(a) $5 \frac{2}{3}$
(b) $2 \frac{3}{2}$
(c) $8 \frac{4}{7}$
(d) $4 \frac{5}{6}$
2. $A$ and $B$ complete a work in 10 days. A alone can complete the work in 30 days. Then in how many days can $B$ complete the same work.
(a) 7
(b) 7.5
(c) 5.5
(d) 9
3. Three labours $X, Y$ and $Z$ can complete a work in 10,20 and 30 days. In how many days will they complete the work together?
(a) $4 \frac{2}{3}$
(b) 3
(c) $5 \frac{5}{11}$
(d) $6 \frac{11}{2}$
4. A can do a piece of work in 9 days, while $A$ and $B$ together can do the same work in 6 days. In how many days can $B$ complete the work
(a) 21
(b) 22
(c) 18
(d) 20
5. $A$ and $B$ can complete a work in 12 days, $B$ and $C$ can complete the work in 15 days and $C$ and $A$ can complete the work in 20 days. In how many days can $A$ complete the work alone.
(a) 25
(b) 30
(c) 27
(d) 35
6. $A$ and $B$ can build a wall in 30 days, $B$ and $C$ can complete the wall in 40 days, while C and A can complete the wall in 60 days. In how many days all three of them can complete the wall construction?
(a) $6 / 5$
(b) $80 / 3$
(c) 16
(d) $23 / 5$
7. A can complete a work in 24 days, while B and C can complete the work in 9 and 12days. B and C started the work but left it after 3 days. The remaining work will be completed by A in how many days?
(a) 19 days
(b) 15 days
(c) 10 days
(d) 14 days
8. A and B can complete a work in 14 and 21 days. They being at the work, A left the work 3 days before its completion. The total days spent to complete the work is
(a) $17 / 6$
(b) $51 / 5$
(c) $41 / 3$
(d) 21
9. A works twice as fast as B. B completes a work in 12 days. The time taken by A to complete the work is
(a) 6 days
(b) 2 days
(c) 3 days
(d) 7 days
10. A is thrice as fast as B. A completes a work in 2 days. The time taken by both to complete the work is
(a) $1 / 4$
(b) $1 / 5$
(c) $3 / 2$
(d) $2 / 3$
11. Two workers A and B can do a work in 5 and 6 days individually. They both worked together and paid 660 for it. The share that A will get is
(a) 300
(b) 250
(c) 400
(d) 270
12. A man can complete a work in 10 days. He took the help of one child and completed the work in 6 days. the time in which the boy will complete the work is
(a) 4
(b) $5 \frac{6}{7}$
(c) $5 \frac{3}{4}$
(d) 15
13. 8 men and 10 women completed a work in 15 days while 6 men and 19 women complete the same work in 10 days. how many men can work equal to 2 women
(a) 7
(b) 3
(c) 4
(d) 2
14. A can do a work in 7 days. Also, A can do work twice as fast as B can. In how many days both of them will complete the work together?
(a) 4
(b) $4 \frac{3}{5}$
(c) $4 \frac{2}{3}$
(d) 3
15. Three pipes can fill a tank in 5,10 and 30 hours separately. In how many hours, they will fill the tank together?
(a) 2 hours
(b) 3 hours
(c) $1 / 3$ hour
(d) $1 / 2$ hours
16. Tape $A, B$ and $C$ can fill a tank in 12,15 and 20 hours. If $A$ is opened permanently and $B$ and $C$ are opened in alternate hours then the tank will be full in $\qquad$ hours.
(a) 9
(b) 7
(c) 6
(d) 5
17. Two pipes fills a bucket in 20 and 24 minutes. Another pipe is fitted to withdraw the water from it. If all pipes are turned on then, it takes 15 minutes to fill the tank completely. The time taken by the 3 rd pipe to empty the full tank is
(a) 35 min
(b) 25 min
(c) 40 min
(d) 45 min
18. 12 men can complete a work in 9 days. After they worked for 6 days, 6 more men joined them. In how many days will the remaining work be completed?
(a) 8 days
(b) 2 days
(c) 7 days
(d) 4 days
19. A and B can do a work in 15 and 20 days. They worked together 4 days. The fraction of work remaining is?
(a) $9 / 11$
(b) $1 / 7$
(c) $3 / 8$
(d) $8 / 15$
20. A and B can together complete a job in 7 days. A is $75 \%$ more efficient then B. the time required by A to complete the work alone is
(a) 17 days
(b) 19 days
(c) 11 days
(d) 12 days
21. 4 men and 6 women can complete a job in 8 days. 3 men and 7 women can complete the same job in 10 days. the time taken by 10 women to complete the job is
(a) 40
(b) 50
(c) 45
(d) 55
22. 42 men dig a pond in 25 days. The digging work is done in 14 days by employing more men. How many people were employed later?
(a) 70
(b) 65
(c) 75
(d) 50
23. A father is twice as efficient as his two sons working together. Both his sons can complete the work in 6 and 12 days individually. The time taken by father to complete the same work is.
(a) 5 days
(b) 3 days
(c) 1 day
(d) 2 days
24. A and B can complete a work in 8 and 12 days separately. A did the work for 3 days and then B joins him to complete the work. The time taken to complete the remaining work is
(a) 3 days
(b) 7 days
(c) 4 days
(d) 2 days
25. Ram and shyam can do a work in 6 and 12 days separately. What fraction of work is done by both of them in 2 days?
(a) 1
(b) $1 / 2$
(c) 2
(d) 3

## SOLUTIONS

| 1. (c) | 2. (b) | 3. (c) | 4. (c) | 5. (b) | $6 .(\mathrm{b})$ | 7. (c) | $8 .(\mathrm{b})$ | $9 .(\mathrm{a})$ | $10 .(\mathrm{c})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(a) | $12 .(\mathrm{d})$ | $13 .(\mathrm{b})$ | $14 .(\mathrm{c})$ | $15 .(\mathrm{b})$ | $16 .(\mathrm{b})$ | $17 .(\mathrm{c})$ | $18 .(\mathrm{b})$ | $19 .(\mathrm{d})$ | $20 .(\mathrm{c})$ |
| 21.(a) | $22 .(\mathrm{c})$ | $23 .(\mathrm{d})$ | $24 .(\mathrm{a})$ | $25 .(\mathrm{b})$ |  |  |  |  |  |

## HINTS

5) $2(\mathrm{~A}+\mathrm{B}+\mathrm{C})=\frac{1}{12}+\frac{1}{15}+\frac{1}{20}=\frac{1}{5}$

Or $(\mathrm{A}+\mathrm{B}+\mathrm{C})$ can complete the work in $5 \mathrm{X} 2=$ 10 days.
Subtracting the work done by B and C from work done by all three of them
$\frac{1}{10}-\frac{1}{15}=\frac{1}{30}$
A can complete the wok in 30 days.
7) Work done by B and C in 1 day $=$ $\left(\frac{1}{9}+\frac{1}{12}\right)=\frac{7}{36}$

Work done by B and C in 3 days $=\left(\frac{7}{36}\right) \times 3=$ $\frac{7}{12}$
Remaining work $=1-\left(\frac{7}{12}\right)=\frac{5}{12}$
Work done by A in 1 day $=\frac{1}{24}$
Days required by A to complete the work
$=24 \mathrm{X}\left(\frac{5}{12}\right)=10$ days
8) Work done by B in 3 days $=3 \times \frac{1}{21}=\frac{1}{7}$

Work done by A in 1 day $=\frac{1}{12} \times 2=\frac{1}{6}$
A will complete the work in 6 days
11) Work done by A in 1 hour $=\frac{1}{5}$

Work done by B in 1 hour $=\frac{1}{6}$
Ratio of work done by them $=\frac{1}{6}: \frac{1}{5}$
OR 5:6
$=660 \times \frac{5}{11}=300$
13) $(8$ Men +10 Women) $X 15$
$=(6$ Men +19 Women $)$ X 10
24 Men +30 Women
$=12$ Men +38 Women
3 Men = 2 Women
16) Work done by A and B in 1 hour
$=\frac{1}{12}+\frac{1}{15}=\frac{3}{20}$
Work done by A and C in 1 hour $=\frac{1}{12}+\frac{1}{20}=$ $\frac{2}{15}$
Part of tank filled in 2 hours $=\frac{3}{20}+\frac{2}{15}=\frac{17}{60}$

Remaining work $=\frac{6}{7}$
Work done by A and B in 1 day $=\frac{1}{21}+\frac{1}{14}=\frac{5}{42}$ Time taken by A and B to complete the remaining work $=\frac{42}{5} \times \frac{6}{7}=\frac{36}{5}$
Total time $=\frac{36}{5}+3=\frac{51}{5}$
9) work done by B in 1 day $=\frac{1}{12}$

Part filled in 6 hours $=\frac{17}{20}$
Remaining part $=1-\frac{17}{20}=\frac{3}{20}$
So 1 hour more will be taken by $A$ and $B$ to fill it
Total time $=6+1=7$ hours
22) $42 \times 25=(14 \times \mathrm{M})$

Men $=75$

## SECTION ‘D'

# REASONING \& MILITARY APTITUDE TEST 

- ODD ONE OUT
- SEQUENCING
- WORD ANALOGY
- CLASSIFICATION
- CODING-DECODING
- BLOOD RELATION
- VENN DIAGRAM
- NON-VERBAL ANALOGY
- EMBEDDED FIGURES
- MISSING FIGURES


# Chapter 1 <br> ODD ONE OUT <br> SAMPLE QUESTIONS 

## Find out the odd one:

## Example 1:

(a) Varanasi
(b) Allahabad
(c) Haridwar
(d) Bhuwneshwar

Solution: Here, all the above except Bhuwneshwar are located at the bank of ganga. So the answer is ' $d$ '

## Example 2:

(a) 373
(b) 216
(c) 8
(d) 16

Solution: In this numeric question, it is easily seen that some numbers are cubes of a number except 16 . So here the answer is ' $d$ '

## Example 3:

(a)334
(b) 402
(c) 981
(d) 561

Solution: Here, it is clear that all the numbers except 334 are multiple of three. So correct answer is 'a'

Example 4:
(a) Sangam
(b) Mahi
(c) Yamuna
(d) Saraswati

Solution: The options given above are related to the rivers. Only Sangam is a point of mixing of rivers while all other options are name of rivers. So the answer here is Sangam.

## Example 5:

(a) Disco
(b) Kuchipudi
(c) Bharatnatyam
(d) Ghoomar

Solution: The relation between the options is clearly seen. These terms are related to dance. While other options are considered as Indian folk dance, disco does not belong to India. So, the answer here is " a ".

## Example 6:

(a) Vishakhapatnam
(b) Delhi
(c) Paradip
(d) Kolkata

Solution: Here the relation between Vishakhapatnam, Paradip and Kolkata is that they are the ports of India (located at coast) and Delhi is a land locked area.
Example 7:
(a) Tutor
(b) Lecturer
(c) Candidate
(d) Teacher

Solution: Here, candidate is only option that absorbs knowledge. While others absorb and deliver knowledge.

## Example 8:

(a) Square
(b) Sphere
(c) Cone
(d) Cube

Solution: All the above structures except square are 3D structures
Example 9:
(a) Lead
(b) Brass
(c) Iron
(d) Aluminium

Solution: Brass is an alloy. While others are just metals

## Example 10:

(a) Chinese
(b) Western
(c) Indian
(d) Polish

Solution: Chinese, Indian and polish are the people belonging to a specific nation. While western is just a significant part of any continent or area.

## Example 11:

(a) Adore
(b) Greed
(c) Love
(d) Affection

Solution: Adore, love and affection are similar in meaning. While greed has a different meaning.

## PREVIOUS YEAR QUESTIONS

## Select the odd one out:

(a) Niagara
(b) Alamere
(c) Kempty
(d) Andes

Solution: (d)
(a) Small betrayals
(b) Shooting from the hip
(c) We Indians
(d) Surviving men
(AFCAT II 2015)

Solution: (b)
(a) Brass
(b) silver
(AFCAT II 2015)
(c) Bronze
(d) Steel

Solution: (c)
(a) Documentary
(b) Puppet
(c) Commentary
(d) Feature
(AFCAT II 2015)

Solution: (b)
(a) Deccan
(b) Chatta Nagpur
(c) Kaas
(d) Nanda Devi
(AFCAT II 2015)

Solution: (d)
(a) Othello
(b) Oliver Twist
(c) King Lear
(d) Macbeth
(AFCAT I 2015)
Solution: (c)
(a) Nimitz
(b) Nelson
(c) Yamamoto
(d) Montgomery
(AFCAT I 2015)
Solution: (d)
(a) Blaze
(b) Simmer
(c) Glint
(d) Shimmer
(AFCAT I 2015)
Solution: (c)
(a) Aravalli Hills
(b) Mole hills
(c) Shivalik hills
(d) Satpura hills
(AFCAT I 2015)
Solution: (a)
(a) Beaver
(b) Walrus
(c) Alpaca

Solution: (c)
(a) Tea
(b) Cinchona
(c) Rubber
(d) Chalk
(AFCAT II 2014)
Solution: (d)
(a) Hanger
(b) dock
(c) Platform
(d) Park
(AFCAT II 2014)
Solution: (d)
(a) Deck
(b) stern
(c) Quay
(d) Bow
(AFCAT II 2014)
Solution: (d)
(a) Tall
(b) Thin
(c) Huge
(d) Sharp
(AFCAT II 2014)
Solution: (d)
(a) Tsahgpo
(b) Kanha
(c) Hazaribagh
(d) Bandipur

Solution: (a)
(a) Wheat
(b) Mustard
(c) Rice
(d) Gram
(AFCAT I 2014)

Solution: (c)
(a) Garo
(b) Kangra
(c) Khasi
(d) Jayantia
(AFCAT 2013)
Solution: (c)
(a) Virgo
(b) Cancer
(c) Pisces
(d) Orion
(AFCAT 2013)
Solution: (d)
(a) Shoulder
(b) finger
(c) Foot
(d) Elbow
(AFCAT 2013)

Solution: (c)
(a) Canoe
(b) Yacht
(AFCAT 2013)
(c) Dingy
(d) Igloo

Solution: (d)
(a) Inn
(b) Motel
(c) Club
(d) Hostel
(AFCAT 2013)
Solution: (b)
(a) Advice
(b) Counsel
(c) Direct
(d) Suggest
(AFCAT I 2012)
Solution: (c)
(a) Tumble
(b) Topple
(c) Crumble
(d) Sprain
(AFCAT I 2012)
Solution: (d)
(a) Sobriquet
(b) Alias
(c) Pseudonym
(d) Anonymous
(AFCAT I 2012)
Solution: (a)
(a) Mumbai
(b) Goa
(AFCAT I 2012)
(c) Visakhapatnam
(d) Thiruvananthapuram

Solution: (d)
(a) Petrol
(b) Acetone
(c) Mercury
(d) Kerosene

Solution: (c)
(a) Look
(b) See
(c) Watch
(d) Face
(AFCAT II 2011)
Solution: (d)

## UNSOLVED QUESTIONS

## Find the odd one out

1. (a) Brother
(c) Sister-In-Law
2. (a) January
(c) October
3. (a) Letter
(c) Library
4. (a) Football
(c) Chess
5. (a) Sister
(c) Wife
6. (a) Truck
(c) Sedan
7. (a) Aluminium
(c) Copper
8. (a) Bungalow
(c) Flat
9. (a) Rain
(c) Thunder
10. (a) Himachal Pradesh
(c) Rajasthan
11. (a) Megabyte
(c) Hard Drive
12. (a) China
(c) Iraq
13. (a) Everest - Aravali
(c) Gandhinagar - Ranchi
14. (a) Ganga
(c) Yamuna
15. (a) Printer
(c) Joystick
16. (a) 54
(c) 93
17. 

(a) Colonel
(b) Lieutenant
(c) Sepoy
(d) Brigadier
18. (a) Applaud
(b) Rebuke
(c) Cheer
(d) Praise
19. (a) Incite
(b) Retard
(c) Awaken
(d) Motivate
20. (a)Note Pad
(b) Diary
(c) Notebook
(d) Novel
21. (a) 21
(b) 31
(c) 41
(d) 71
22. (a) 13
(b) 27
(c) 22
(d) 55
23. (a) 966
(b) 1948
(c) 1449
(d) 2401
24. (a) 102
(b) 390
(c) 210
(d) 365
25. (a) 38
(b) 90
(c) 27
(d) 81
26. (a) 1
(b) 77
(c) 16
(d) 64
27. (a) 24
(c) 72
(b) 48
(d) 36
28. (a) Meal
(b) Kneal
(c) Zeal
(d) Deal
29. (a) bat
(c) Shuttle
(b) racket
(d) hockey
30. (a)earth
(c) Neptune
(b) Jupiter
(d) Saturn
31. (a) suggest
(c) Yell
(b) persuade
(d) advices
32. (a) Linux
(b) windows 98
(c) Symbian
(d) mackintosh
33. (a) Best
(b) Bought
(c) Worst
(d) Took

## SOLUTIONS

| 1. (c) | 2. (d) | 3. (c) | 4. (c) | 5. (d) | 6. (a) | 7. (b) | 8. (d) | 9. (d) | 10.(d) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(a) | $12 .(\mathrm{b})$ | $13 .(\mathrm{d})$ | $14 .(\mathrm{d})$ | $15 .(\mathrm{a})$ | $16 .(\mathrm{d})$ | $17 .(\mathrm{c})$ | $18 .(\mathrm{b})$ | $19 .(\mathrm{b})$ | $20 .(\mathrm{d})$ |
| $21 .(\mathrm{a})$ | $22 .(\mathrm{a})$ | $23 .(\mathrm{b})$ | $24 .(\mathrm{d})$ | $25 .(\mathrm{a})$ | $26 .(\mathrm{b})$ | $27 .(\mathrm{c})$ | $28 .(\mathrm{b})$ | $29 .(\mathrm{c})$ | $30 .(\mathrm{a})$ |
| 31.(c) | $32 .(\mathrm{c})$ | $33 .(\mathrm{d})$ |  |  |  |  |  |  |  |

## HINTS

1. Sister-in-law is not direct relation
2. June has 30 days
3. Library consists of books rather than pages
4. Chess is a board game

5 . Son is the only male relative
6. Truck is not a model type of a car
7. Steel is an alloy, not a metal
8. Showroom is not a residential area
9. Current is different from other storm activities
10. Silvasa is a capital
11. Megabyte is not a hard live material
12. France does not belongs to Asia
13. Tajmahal is a monument and Agra is a city
14. Hoobly is a distributary
15. Printer is an output device
16. 71 is not divisible by 3
17. Sepoy is an OR
18. Rebuke means different from
others
19. Retard has different meaning
20. Novel is not a writable material
21. Only 21 is a composite number
22. Only 13 is a prime number.
23. 1948 divisible by 7
24. 365 divisible by 2
25. Only 38 don't has sum of digits $=$ 9
26. 77 is not a square
27. Second digit is double of first. 72 doesn't follow the pattern
28. Kneal word having 5 words
29. Shuttle not used to hit the ball
30. Only earth is a terrestrial planet
31. Yell means shouting, while other means talking politely
32. Symbian is an operating system of mobile phones, other are used in PCs
33. Took is not a superlative verb

## SEQUENCING

## SAMPLE QUESTIONS

Example 1: Which will come last in dictionary?
(a) Delicious
(b) Decorate
(c) Delight
(d) Deceive

Solution: Following the dictionary sequence, 'Delight' will come last
Example 2: Which will come last in logical sequence in any competitive exam?
(a) Selection
(b) Examination
(c) Interview
(d) Notification

Solution: According to the logical sequence, selection is the last step of any competitive exam
Example 3: What is the ascending logical sequence?

1. Office
2. College
3. School
4. Promotion
(a) 2341
(b) 3214
(c) 3214
(d) 2134

Solution: Logically, one encounters school, college, office then promotion in life. So the correct order is 3214
Example 4: Which of the following is the shortest
(a) Dog
(b) Mice
(c) Bull
(d) Cat

Solution: Among the above options, mice is the shortest animal.
Example 5: Which will come first in dictionary
(a) Promotion
(b) Premature
(c) Procurement
(d) Precaution

Solution: Following the sequence, the first word to appear in the dictionary will be "Precaution".
Example 6: Which is lightest in weight among the following given options
(a) Thumb Pin
(b) Spoon
(c) Iron Nail
(d) Pen

Solution: According to the weight, "thumb pin" is the lightest thing
Example 7: Arrange the following as per the ascending fare.

1. Apartment
2. Hut
3. Palace
4. Room
(a) 4321
(b) 2143
(c) 2341
(d) 2413

Solution: According to the basic fares, the correct sequence is 2413
Example 8: Arrange the festivals from year beginning to end

1. Holi
2. Diwali
3. Independence Day
4. Republic day
(a) 3421
(b) 3412
(c) 4132
(d) 2314

Solution: Following the time of occurrence of these festival and remarked days in calendar, 4231 is the correct sequence.
Example 9: Denote correct order of following for beginning to the end

1. Forest
2. Carpenter
3. Factory
4. Furniture
(a) 1243
(b) 4231
(c) 3421
(d) 1324

Solution: Following the sequence of usage of wood, the correct sequence is 1324 Example 10: Which comes last in dictionary?
(a) Curtail
(b) Curious
(c) Cucumber
(d) Cutter

Solution: Dictionary sequences "Cutter" at last place.

## UNSOLVED QUESTIONS

1. Which will come last in the telephone directory
(a) Suresh
(b) Sartaj
(c) Somesh
(d) Surveer
2. Which will come last in dictionary
(a) Pernicious
(b) Precious
(c) Perpetual
(d) Precautions
3. Following the logical sequence, which will come last
(a) Ticket Booking
(b) Traveling
(c) Planning
(d) Boarding
4. What is the correct sequence in descending size of the terms given below
5. Udaipur
2.Milky way
3.Earth
4.Rajasthan
5.India
(a) 34251
(b) 42135
(c) 15423
(d) 23541
6. What is the logical sequence of the following terms in ascending?
7. Grass
2.Snake
(a) 3241
3.Grasshopper
4.Eagle
(c) 2341
(b) 4231
(d) 1324
8. Arrange the following from lower to higher ranks
9. Lt.Colonel
10. Maj. General
11. Lt. General
12. Major
(a) 1423
(b) 4123
(c) 3412
(d) 1234
13. Which will come first in the dictionary
(a) Reputation
(b) Recurrence
(c) Resurrection
(d) Regency
14. What will be sequined of following words from starting to end in dictionary?
15. Curious
16. Curtsy
17. Cucumber
18. Combination
(a) 1324
(b) 4123
(c) 4312
(d) 2134
19. Which will come last in the logical sequence
20. Manufacturing 2.Raw material
21. Promotion
22. Profit
(a) 3421
(b) 4321
(c) 2134
(d) 4231
23. Which will come last in the compilation process?
(a) Rechecking
(b) Publish
(c) Writing
(d) Concept
24. Arrange the following in ascending order of size.
25. MB
26. TB
27. KB
28. ZB
(a) 3124
(b) 3412
(c) 2314
(d) 1234
29. Arrange the fowling in the descending order of size
30. Branch
31. Stem
32. Seed
33. Tree
(a) 3241
(b) 2341
(c) 4213
(d) 4132
34. What is the correct order of length in ascending order?
35. Decimetre
36. Metre
37. Kilometre
38. Centimetre
(a) 4123
(b) 3421
(c) 1324
(d) 1423
39. Which will come $3^{\text {rd }}$ in place when arranged in ascending order logically?
(a) Afternoon
(b) Evening
(c) Dusk
(d) Dawn
40. Which will come second in the dictionary?
(a) Burglar
(b) Bush
(c) Bubble
(d) Burger
41. Arrange the following in increasing size?
42. Mobile
43. SD Card
44. Laptop
(a) 3214
(b) 2134
(c) 4123
(d) 2143
45. Tablet
46. Which will come $2^{\text {nd }}$ last in telephone directory?
(a) Amit
(b) Ankita
(c) Ambika
(d) Anmol
47. Who is the second highest authority in Indian Administration?
(a) Governor
(b) Chief Minister
(c) Prime Minister
(d) President
48. Which will come second in the dictionary?
(a) Curtsy
(b) Correspond
(c) Cunning
(d) Cuisine
49. What is the correct order of price in increasing order?
50. Gold
51. Diamond
52. Silver
(a) 4312
(b) 1432
(c) 4123
(d) 2134
53. Iron
54. Arrange the following in the descending sequence of strength of people in the organisations
55. Army
56. School
57. College
58. Tuition centre
(a) 1234
(b) 3421
(c) 4231
(d) 2431
59. Which of the following will come second last in the dictionary
(a) Olfactory
(b) Origination
(c) Osmoregulation
(d) Omnivorous
60. Which of the following is the smallest among the following (area wise)
(a) Australia
(b) North America
(c) Asia
(d) Africa
61. Comparing the height of $\mathrm{X}, \mathrm{Y}, \mathrm{Z}, \mathrm{A}, \mathrm{B}$ and C in relation to each other. X is taller than $\mathrm{A} . \mathrm{Y}$ is equal to $\mathrm{B} . \mathrm{Z}$ is shorter than $\mathrm{C} . \mathrm{A}$ is taller than Y . who is tallest?
(a) X
(b) Y and B
(c) A
(d) Z
62. Gopal is shorter than Ashok but taller than Kunal. Navin is shorter than Kunal. Jayesh is taller than Navin. Ashok is taller than Jayesh. Who among them is the tallest?
(a) Gopal
(b) Ashok
(c) Kunal
(d) Navin
63. B is twice as old as A but twice younger than F. C is half the age of A but twice the age of $D$. Which two persons from the pair of oldest and youngest?
(a) F and A
(b) F and D
(c) B and F
(d) F and C
64. In an examination, Raj got more marks than Mukesh but not as many as Priya. Priya got more marks than Dinesh and Kamal. Dinesh got less marks than Mukesh but his marks are not the lowest in the group. Who is the second in the descending order of marks?
(a) Priya
(b) Kamal
(c) Raj
(d) None of these

## SOLUTIONS

| 1. (d) | 2. (b) | 3. (b) | 4. (d) | 5. (d) | 6. (b) | 7.(b) | 8. (c) | 9. (c) | 10.(b) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(a) | $12 .(\mathrm{c})$ | $13 .(\mathrm{d})$ | $14 .(\mathrm{b})$ | $15 .(\mathrm{a})$ | $16 .(\mathrm{d})$ | $17 .(\mathrm{b})$ | $18 .(\mathrm{c})$ | $19 .(\mathrm{d})$ | $20 .(\mathrm{a})$ |
| 21.(c) | $22 .(\mathrm{b})$ | $23 .(\mathrm{a})$ | $24 .(\mathrm{a})$ | $25 .(\mathrm{b})$ | $26 .(\mathrm{b})$ | $27 .(\mathrm{c})$ |  |  |  |

## HINTS

24) Clearly, we have: A $<\mathrm{X}, \mathrm{Y}=\mathrm{B}, \mathrm{Z}<\mathrm{C}, \mathrm{Z}<\mathrm{B}, \mathrm{Y}<\mathrm{A}$ thus the sequence becomes $\mathrm{X}>\mathrm{A}>\mathrm{Y}$ $=\mathrm{B}>\mathrm{C}>\mathrm{Z}$.
25) In terms of height we have: Gopal < Ashok, Kunal < Gopal, Navin < Kunal, Navin < Jayesh, Jayesh < Ashok. So, the sequence becomes: Navin < Kunal < Gopal < Jayesh < Ashok
26) Let's A's age be $x$, then B's age is $2 x$. B is twice younger than $F i, e F$ is twice older than B. So, F's age is $4 x$. C is half the age of $A i, e$ C's age is $x / 2$. C is twice the age of $D i, e D$ is half the age of $\mathrm{C} i, \mathrm{e}$ D's age is $\mathrm{x} / 4$. So, the descending order of ages is $\mathrm{F}, \mathrm{B}, \mathrm{A}, \mathrm{C}, \mathrm{D}$.
27) Priya > Raj > Mukesh

Priya $>$ Dinesh and Kamal
Mukesh > Dinesh
Dinesh has not got the lowest marks
Arranging all these, we will get $->$ Priya $>$ Raj $>$ Mukesh $>$ Dinesh $>$ Kamal

WORD ANALOGY

## SAMPLE QUESTIONS

Example 1: Friend: Good:: Enemy : ?
(a) Arrogant
(b) Bad
(c) Nice
(d) Strong

Solution: Basic relation seen here is the behaviour of Friend and enemy. So enemy will be BAD.

Example 2: Food: Hunger::Sleep:?
(a) Bed
(b) Light
(c) Night
(d) Weariness

Solution: As lack of food leads to hunger, similarly, lack of sleep leads to weariness
Example 3: Composer: Song:: Carpenter: ?
(a) Furniture
(b) Road
(c) Car
(d) Bottle

Solution: Here COMPOSER composes the SONG. Similarly, CARPENTER makes FURNITURE Example 4: Hammer : Nail :: $\qquad$ : Wood
(a) Screw Driver
(b) Knife
(c) Trimmer
(d) Saw

Solution: As HAMMER is used on NAILS. Similarly, SAW is used on WOOD.

Example 5: Swim : Fish :: Walk: $\qquad$
(a) Feet
(b) Men
(c) Reptiles
(d) Birds

Solution: As Fish SWIMS. Similarly, MAN "WALKS".
Example 6: Soldier : Regiment :: $\qquad$ : Library
(a) Pages
(b) Cover
(c) Book
(d) Bookmark

Solution: As a SOLIDER belongs to a REGIMENT. Similarly, BOOKS belongs to LIBRARY.

Example 7: Man: Mammal:: Frog : ?
(a) Amphibian
(b) Jumping
(c) Marine
(d) Reptile

Solution: comparing the general biological classification, Man belongs to Mammal class and Frog belongs to Amphibian class.

Example 8: Sukhoi: Russian:: Rafale : ?
(a) American
(b) Supersonic
(c) Indian
(d) French

Solution: Relating the jets with their nation of origin, Rafale belongs to France.
Example 9: Doctor: Disease:: Police : ?
(a) Military
(b) Inspector
(c) Crime
(d) Police Station

Solution: As doctor diagnoses the disease. Similarly, police averts crimes.
Example 10: Mere: Stallion:: Actress : ?
(a) Movie
(b) Actor
(c) Theatre
(d) villain

Solution: Here the gender difference is the relation between the words. So Actress is related to Actor

Example 11: 3: 45:: 4: ?
(a) 60
(b) 44
(c) 65
(d) 40

Solution: 3 X $15=45$. Similarly $4 \mathrm{X} 15=60$. So the correct answer is "A" Example 12: 27: 9:: 216 : ?
(a) 6
(b) 36
(c) 319
(d) 200

Solution: here the relation is $\mathrm{x}^{3}$ : $\mathrm{x}^{2}$
So the correct answer will be 216:36. (b)

## PREVIOUS YEAR QUESTIONS

Loath : Coercion :: ?:?
(AFCAT I 2015)
(a) Detest : Caressing
(b) Irritate : Caressing
(c) Irate: Antagonism
(d) Reluctant: Persuasion

Solution: (c)
Trilogy : Novel :: ?:?
(a) Rice : Husk
(b) Milk : Cream
(c) Serial : Episode
(d) Gun : Cartridge

Solution: (c)
Wife : Marriage :: ?:?
(AFCAT I 2015)
(a) Bank : Money
(b) Nationality : Citizenship
(c) Service : Qualification
(d) Attendance : Register

Solution: (c)
East : Orient :: ?:?
(AFCAT I 2015)
(a) North : Polar
(b) North : Tropic
(c) South : Capricorn
(d) West: Occident

Solution: (a)
Ignominy : Disloyalty :: ?:?
(AFCAT I 2015)
(a) Death : Victory
(b) Martyr : Man
(c) Fame : Heroism
(d) Destruction : Victory

Solution: (c)
Carbon: diamond
(AFCAT II 2014)
Corundum: $\qquad$
(a) Garnet
(b) Pukhraj
(c) Ruby
(d) Pearl

Solution: (b)
Architect: Building
(AFCAT II 2014)
Sculptor:
(a) Museum
(b) Chisel
(c) Stone
(d) Statue

Solution: (d)
Eye: Myopia
(AFCAT II 2014)
Teeth: $\qquad$
(a) Pyorrhoea
(b) Trachoma
(c) Cataract
(d) Eczema

Solution: (a)
Liquor: Drink:: ?
(AFCAT 2013)
(a) Bread: Butter
(b) Sniff : inhale
(c) Tea : Beverage
(d) Water : Sip

Solution: (d)

Barrel: Vial:: ?
(AFCAT 2013)
(a) Book : Pamphlet
(b) Brochure : Compiler
(c) Book : Reader
(d) Length : Height

Solution: (a)
Carnivore: Herbivore:: ?
(AFCAT 2013)
(a) Flesh : Plant
(b) Camel : Giraffe
(c) Horse: lion
(d) Animal : Bird

Solution: (a)
Blizzard: Freeze :: ?:?
(AFCAT II 2015)
(a) Insult: Humiliation
(c) Caution: Careless
(b) Bad: Immora

Solution: (a)
Graceful: Clumsy :: ?:?
(AFCAT II 2015)
(a) Horror: Sympathy
(c) Recapitulate: Synopsis
(d) Jealousy: Respect

Solution: (b)
Zenith: Nadir :: ?:?
(AFCAT II 2015) (a)
Indigent: Poverty
(c) Success: Peak

Solution: (d)
Pedagogy: Teaching :: ?:?
(AFCAT II 2015)
(a) Telepathy: Emotions
(b) Radiology: Sound
(c) Mycology: Fossils
(d) Entomology: Insects

Solution: (d)
Capriciousness: Reliability :: ?:?
(AFCAT II 2015)
(a) Heated: Boiling
(c) Arbitrary: Whimsical

Solution: (b)
East: Orient :: ?:?
(AFCAT I 2015)
(a) North: Polar
(b) North: Tropic
(c) South: Capricorn
(d) West: Occident

Solution: (a)
Ignominy: Disloyalty :: ?:?
(AFCAT I 2015)
(a) Death: Victory
(b) Martyr: Man
(c) Fame: Heroism
(d) Destruction: Victory

Solution: (c)
Loath: Coercion :: ?:?
(AFCAT I 2015)
(a) Detest: Caressing
(b) Irritate: Caressing
(c) Irate: Antagonism

Solution: (c)
(a) Rice: Husk
(b) Milk: Cream
(c) Serial: Episode
(d) Gun: Cartridge

Solution: (c)
Wife: Marriage :: ?:?
(AFCAT I 2015)
(a) Bank: Money
(b) Nationality: Citizenship
(c) Service: Qualification
(d) Attendance: Register

Solution: (c)
Carbon: Diamond
Corundum.....?.......
(AFCAT II 2014)
(a) Garnet
(b) Ruby
(c) Pukhraj
(d) Pearl

Solution: (b)
Architect: Building
Sculptor: ......?.......
(AFCAT II 2014)
(a) Museum
(b) Stone
(c) Chisel
(d) Statue

Solution: (d)
Eye: Myopia
Teeth: $\qquad$ (AFCAT II 2014)
(a) Museum
(b) Stone
(c) Chisel
(d) Statue

Solution: (a)
Conference: Chairman Newspaper:.............
(AFCAT II 2014)
(a) Reporter
(b) Distributor
(c) Printer
(d) Editor

Solution: (d)
Safe: Secure
Protect..............
(AFCAT II 2014)
(a) Lock
(b) Sure
(c) Guard
(d) Conserve

Solution: (c)
'RUSTLE' is to 'LEAVES' as 'PATTER' is to
(AFCAT I 2014)
(a) Snow
(b) Wind
(c) Rain
(d) Storm

Solution: (c)
'INDISCREET' is to 'IMPRUDENT' as 'INDISPOSED' is to
(AFCAT I 2014)
(a) Concerned
(b) Reluctant
(c) Crucial
(d) Clear

Solution: (b)
'ACCIDENT' is to 'CAREFULNESS' as 'DISEASE' is to $\qquad$ (AFCAT I 2014)
(a) Sanitation
(b) Treatment
(c) Medicine
(d) Doctor

Solution: (a)

## A, B, D, G,?, P

(AFCAT I 2014)
(a) I
(b) J
(c) K
(d) L

Solution: (c)

Z, S, W, O, T, K, Q, G, ?, ?
(AFCAT I 2014)
(a) $\mathrm{N}, \mathrm{D}$
(b) $\mathrm{N}, \mathrm{C}$
(c) $0, \mathrm{C}$
(d) $0, \mathrm{D}$

Solution: (b)
BCD , RQP , LMN, TS?
(AFCAT I 2014)
(a) U
(b) V
(c) R
(d) T

Solution: (c)

Crèche: Infants
(AFCAT I 2014)
(a) School: Pupils
(b) Deck: Sailors
(c) Cottage: Guests
(d) Aircraft: Crew

Solution: (c)
Pesticide: Plant
(AFCAT I 2014)
(a) Injection: Disease
(b) Vaccination: Body
(c) Medicine: Cure
(d) Teacher: Student

Solution: (b)
Stare: Glance
(AFCAT I 2014)
(a) Gulp: Sip
(b) Confide: Tell
(c) Hunt: Stalk
(d) Step: Walk

Solution: (d)
Ecstasy: Pleasure
(AFCAT I 2014)
(a) Hatred: Affection
(b) Rage: Anger
(c) Joy: Grief
(d) Mumble: Speak

Solution: (b)
Necromancy: Ghosts
(AFCAT I 2014)
(a) Romance: Stories
(b) Magic: Amulets
(c) Alchemy: Gold
(d) Sorcery: Spirit

Solution: (d)
Firm: Flabby : : Piquant : ?
(AFCAT I 2014)
(a) Salty
(b) Pleasant
(c) Bland
(d) Smell

Solution: (c)
Funk: Vitamins : : Curie: ?
(AFCAT I 2014)
(a) Uranium
(b) Radioactivity
(c) Photography
(d) Radium

Solution: (b)
Contamination: Food : : Infection : ?
(AFCAT I 2014)
(a) Diseases
(b) Body
(c) Germs
(d) Microbes

Solution: (b)
Liquor: Drink : : ?
(AFCAT I 2013)
(a) Bread: Butter
(b) Tea: Beverage
(c) Sniff: Inhale
(d) Water: Sip

Solution: (d)

Evaporation: Cloud : : ?
(AFCAT I 2013)
(a) Mountain: Snow
(c) Pressure: Atmosphere

Solution: (d)
Barrel: Vial : : ?
(AFCAT I 2013)
(a) Book: Pamphlet
(b) Book: Reader
(c) Brochure: Complier
(d) Length: Height

Solution: (a)
Cream: Cosmetics: : ?
(AFCAT I 2013)
(a) Tiger: Forest
(c) Magazine: Editor

Solution: (d)
Carnivore: Herbivore : : ?
(AFCAT I 2013)
(a) Flesh: Plant
(c) Camel: Giraffe
(b) Horse: Lion

Solution: (a)
Surgeon: Scalpel : : ?
(AFCAT II 2014)
(a) Musician: Instrument
(b) Sculptor: Chisel
(c) Carpenter: Cabinet

Solution: (b)
Crèche: Infants : : ?
(AFCAT II 2014)
(a) School: Pupils
(c) Cottage: Guests

Solution: (c)
Pesticide: Plant : : ?
(a) Injection: Disease
(b) Teacher: Student
(c) Medicine: Cure

Solution: (d)
Stare: Glance : : ?
(a) Gulp: Sip
(b) Story: tell
(c) Hunt: Stalk
(d) Step: Walk

Solution: (a)
Fish: Aquarium ::?
(AFCAT II 2014)
(a) Student: Hostel
(b) Bird: Forest
(c) Goods: Consignment
(d) Bee: Apiary

Solution: (d)

## Ecstasy : Pleasure: :?

(AFCAT II 2014)
(a) Hatred: Affection
(b) Rage: Anger
(c) Joy: Grief
(d) Mumble: Speak

Solution: (b)

Necromancy: Ghosts : :?
(a) Romance: Stories
(c) Joy: Grief

Solution: (c)

Coin: Mint : : ?
(AFCAT II 2014)
(a) Grain: Field
(b) Hay: Stable
(c) Wine: Brewery
(d) Book: Publisher

Solution: (d)
Oak: Coniferous : : ?
(AFCAT II 2014)
(a) Chimpanzee: Ape
(b) Animals: Carnivore
(c) Fish: Sea

Solution: (a)
Onam: Kerala : :?
(AFCAT II 2014)
(a) Christmas: Christians
(b) Bhangra: Punjab
(c) Kathak: Uttar Pradesh
(d) Bihu: Asom

Solution: (d)
Calendar: Dates: : Dictionary :?
(AFCAT II 2014)
(a) Vocabulary
(b) Language
(c) Words
(d) Book
(AFCAT II 2014)
(b) Magic: Amulets
(d) Mumble: Speak
(a) Wound
(b) Spear
(c) Weapon
(d) Rifle

Solution: (c)
Eye: Wink : : Heart : ?
(AFCAT II 2014)
(a) Move
(b) Throb
(c) Pump
(d) Quiver

Solution: (b)
Earth: Sun:: Moon:?
(AFCAT II 2014)
(a) Orbit
(b) Sky
(c) Star
(d) Earth

Solution: (d)
Hope: Despair
(AFCAT I 2012)
(a) Work: Failure
(c) Cow: Milk

Solution: (d)

Army: Logistics
(AFCAT I 2012)
(a) War: Logic
(c) Business: Strategy

Solution: (c)
(b) Worship: Adore
(d) Encourage: Dishearten
(AFCAT I 2012)
(a) Skin: Body
(c) Product: Factory

Solution: (b)

Revenge: Vendetta
(AFCAT I 2012)
(a) Sleep: Dream
(b) Sun: Moon
(c) Envy: Jealousy
(d) Heaven: God

Solution: (c)
Refine: Style
(AFCAT II 2012)
(a) Retouch: Photograph
(b) Paint: Wall
(c) Compose: Song
(d) Author: Book

Solution: (a)
Fear: Tremble
(AFCAT I 2012)
(a) Hand: Shake
(b) Heat: Perspire
(c) Distance: Walk
(d) Evening: Star

Solution: (b)
Condone: Offence
(AFCAT I 2012)
(a) Punish: Criminal
(b) Mitigate: Penitence
(c) Overlook: Aberration
(d) Ignore: Loyalty
Solution: (c)

Plant: Flower
(AFCAT I 2012)
(a) Face: Eye
(b) Stem: Tree
(c) Chair: Sofa
(d) Blades: Grass

Solution: (a)

Protoplasm: Cell
(AFCAT I 2012)
(a) Fibre: Plastic
(b) Coin: Money
(c) Chemistry: Elements
(d) Chain: Link

Solution: (b)
Nalanda: Takshshila
(AFCAT I 2012)
(a) Venus: Mars
(b) University: College
(c) Office: Department
(d) Ship: Cargo

Solution: (a)
Foot is to Man as Hoof is to $\qquad$ (AFCAT I 2012)
(a) Dog
(b) Cow
(c) Cat
(d) Rabbit

Solution: (b)
Broad is to Narrow as $\qquad$ is to Lane.
(AFCAT I 2012)
(a) Footpath
(b) Field
(c) Pavement
(d) Road

Solution: (d)
Back is to Backbone as Belly is to $\qquad$ .
(AFCAT I 2012)
(a) Throat
(b) Ribs
(c) Heart
(d) Navel

Solution: (b)
Ankle is to Knee as Wrist is to $\qquad$ .
(AFCAT I 2012)
(a) Elbow
(b) Finger
(c) Hand
(d) Foot

Solution: (a)
Sting is to Bee as $\qquad$ is to Snake.
(AFCAT I 2012)
(a) Slithering
(b) Rats
(c) Poison
(d) Fangs

Solution: (d)
STORY: NOVEL
(AFCAT II 2011)
(a) Sea: Ocean
(b) School: University
(c) Book: Dictionary
(d) Poetry: Drama

Solution: (a)
GRAIN: SALT
(AFCAT II 2011)
(a) Shard: Pottery
(b) Shred: Wood
(c) Blades: Grass
(d) Chips: Glass

Solution: (d)
WAITER: TIP
(AFCAT II 2011)
(a) Student: Marks
(b) Worker: Bonus
(c) Employee: Wages
(d) Clerk: Bribe

Solution: (b)
PAIN: SEDATIVE
(AFCAT II 2011)
(a) Comfort: Stimulant
(b) Grief: Consolation
(c) Trance: Narcotic
(d) Ache: Extraction

Solution: (b)
Light: Blind : :
(AFCAT II 2011)
(a) Speech: Dumb
(b) Language: Deat
(c) Tongue: Sound
(d) Voice: Vibration

Solution: (a)
WAN: COLOUR
(a) Corpulent: Weight
(b) Insipid: Flavour
(c) Pallid: Complexion
(d) Enigmatic: Puzzle

Solution: (c)
PORK: PIG
(AFCAT II 2011)
(a) Rooster: Chicken
(c) Steer: Beef

Solution: (b)
AFTER: BEFORE
(AFCAT II 2011)
(a) First: Second
(c) Contemporary: Historic

Solution: (d)
EAST: ORIENT
(AFCAT II 2011)
(a) North: Polar
(b) South: Capricom
(c) West: Indian

Solution: (a)
DISTANCE: MILE
(AFCAT II 2011)
(a) Liquid: Litre
(b) Bushel: Com
(c) Weight: Scale
(d) Fame: Television

Solution: (a)

TEN: DECIMAL
(AFCAT II 2011)
(a) Seven: Septet
(b) Four: Quartet
(c) Two: Binary
(d) Five: Quince

Solution: (c)
MUNDANE: SPIRITUAL
(AFCAT II 2011)
(a) Common: Ghostly
(c) Routine: Novel
(b) Worldly: Unworldly
(d) Secular: Clerical

Solution: (b)
LAWYER: COURT
(AFCAT II 2011)
(a) Businessman: Market
(b) Chemist: Laboratory
(c) Labourer: Factory
(d) Athlete: Olympics

Solution: (a)
ARMY: LOGISTICS
(a) Business: Strategy
(b) Soldier: Students
(c) War: Logic

Solution: (a)
GRAVITY: PULL
(a) Iron: Metal
(b) North Pole: Directions
(c) Magnetism: Attraction
(d) Dust: Desert

Solution: (c)
FILTER: WATER
(AFCAT II 2011)
(a) Curtail: Activity
(c) Edit: Text
(d) Team: Individual
(AFCAT II 2011)

Solution: (d)
HOPE: ASPIRES
(AFCAT II 2011)
(a) Love: Elevates
(b) Film: Flam
(c) Fib: Lie

Solution: (c)
SADIST: PAIN
(AFCAT II 2011)
(a) Killer: Death
(c) Injury: Bandage

Solution: (a)
SYMPHONY: COMPOSER
(AFCAT II 2011)
(a) Leonardo: Music
(b) Fresco: Painter
(c) Colours: Pallet
(d) Art: Appreciation

Solution: (b)
(a) Wit: Wisdom
(b) Bank: Teller
(c) Manager: Office
(d) Doctor: Patient

Solution: (c)
This test requires you to identify the relationship between two words. Shoe is to foot as sock is to-
(AFCAT II 2011)
(a) Wind
(b) Hand
(c) Foot
(d) Leg

Solution: (d)
Relaxed means the same as the opposite of -
(AFCAT II 2011)
(a) Calm
(b) Angry
(c) Tense
(d) Sleep

Solution: (c)
The benefits of the plan are likely to be transitory.
(AFCAT I 2011)
(a) Significant
(b) Obvious
(c) Temporary
(d) Cumulative

Solution: (c)
The hikers found several crevices in the rocks.
(AFCAT II 2011)
(a) Cracks
(b)Minerals
(c) Canals
(d) Puddles

Solution: (a)
BOOK is to CHAPTER as BUILDING is to
(AFCAT I 2011)
(a) ELEVATOR
(b) LOBBY
(c) ROOF (
d) STOREY

Solution: (d)
CARROT is to VEGETABLE as
(AFCAT I 2011)
(a) DOGWOOD is to OAK
(b) FOOT is to PAW
(c) PEPPER is to SPICE
(d) SHEEP is to LAMB

Solution: (c)
CONCAVE is to CONVEX as
(AFCAT I 2011)
(a) CAVITY is to MOUND
(b) HILL is to HOLE
(c) OVAL is to OBLONG
(d) ROUND is to POINTED

Solution: (a)
GOWN is to GARMENT as GASOLINE is to
(AFCAT I 2011)
(a) COOLANT
(b) FUEL
(c) OIL
(d) LUBRICANT

Solution: (b)
HYPER- is to HYPO- as
(AFCAT I 2011)
(a) DIASTOLIC is to SYSTOLIC
(b) OVER is to UNDER
(c) SMALL is to LARGE
(d) STALE is to FRESH

Solution: (b)
(AFCAT I 2011)
(a) ARRIVAL is to DEPARTURE
(b) FLIGHT is to VOYAGE
(c) LEGAL is to ILLEGAL
(d) MIGRATION is to TRAVEL

Solution: (a)
OCTAGON is to SQUARE as HEXAGON is to
(AFCAT I 2011)
(a) POLYGON
(b) PYRAMID
(c) RECTANGLE
(d) TRIANGLE

Solution: (d)
TELL is to TOLD as
(AFCAT I 2011)
(a) RIDE is to RODE
(b) SINK is to SANK
(c) WEAVE is to WOVE
(d) WEEP is to WEPT

Solution: (d)
SHEEP is to LAMB as HORSE is to
(AFCAT I 2011)
(a) COLT
(b) DOE
(c) FAWN
(d) MARE

Solution: (a)
IGNORE is to OVERLOOK as
(AFCAT I 2011)
(a) AGREE is to CONSENT
(b) CLIMB is to WALK
(c) DULL is to SHARPEN
(d) LEARN is to REMEMBER

Solution: (a)
FREQUENTLY is to SELDOM as
(AFCAT I 2011)
(a) ALWAYS is to NEVER
(b) EVERYBODY is to EVERYONE
(c) GENERALLY is to USUALLY

CONSTANTLY
Solution: (a)

## UNSOLVED QUESTIONS

1. Time: Clock:: Date : ?
(a) Book
(b) Mobile
(c) Newspaper
(d) Calendar
2. Caterpillar : Butterfly :: $\qquad$ : $\qquad$
(a) Tadpole: Frog
(b) Hen: Cock
(c) Cub: Lion
(d) Student: Teacher
3. AIIMS : New Delhi :: Red Fort : $\qquad$
(a) Hyderabad
(b) Mumbai
(c) Pune
(d) New Delhi
4. Wax : Candle :: $\qquad$ : $\qquad$
(a) Sofa: Cotton
(b) Inch: Ruler
(c) Book: Pages
(d) Wood: Furniture
5. Day : Night :: Inception: $\qquad$
(a) Conclusion
(b) Middle
(c) Beginning
(d) Commencement
6. Farmer : Field :: $\qquad$ :
(a) Police: Crime
(b) Soldier: Battlefield
(c) Clerk: Register
(d) Computer: Engineer
7. Ink: Paper :: $\qquad$ : Blackboard
(a) Pen
(b) Chalk
(c) Duster
(d) Computer
8. Lt. General : Command :: Colonel : $\qquad$
(a) Battalion
(b) Platoon
(c) Army
(d) Section
9. Magazine : Editor :: $\qquad$
(a) PO: Bank
(b) TTE: Train
(c) PC: Student
(d) Director: Film
10. Trilogy: Novel :: Serial : $\qquad$
(a) Sequence
(b) Edition
(c) Episode
(d) Parts
11. Sock: Feet :: Gloves
(a) Legs
(b) Nose
(c) Hands
(d) Nails
12. Oxygen: Gaseous :: Mercury :
(a) Pseudo Fluid
(b) Solid
(c) Gas
(d) Liquid
13. Vandalize : Destruct :: Manufacturing : $\qquad$
(a) Sale
(b) Buy
(c) Production
(d) Concept
14. Light : Bulb :: $\qquad$ : Speakers
(a) Video
(b) Music
(c) Guitar
(d) Harmonium
15. Doctor : Surgery ::
(a) Teacher: Principal
(b) Army: Air Force
(c) Poet: Poem
(d) Patient: Treatment
16. Wall : Bricks :: Society : $\qquad$
(a) School
(b) Army
(c) Apartment
(d) Cooperation
17. Radish : Root :: Potato : $\qquad$
(a) Stem
(b) Leaves
(c) Fruit
(d) Roots
18. Teacher : Student :: $\qquad$ : Employee
(a) Task
(b) Boss
(c) Event
(d) Headmaster
19. Shoes: $\qquad$ :: Jewellery : Gold Smith
(a) Car Painter
(b) Cobbler
(c) Laces
(d) Meson
20. Inch Tape: Measurement :: Clock: $\qquad$
(a) Watch
(b) Second
(c) Time
(d) Minute
21. Smoke : Pollution :: War : $\qquad$
(a) Weapon
(b) Destruction
(c) Peace
(d) Conflict
22. Cube : Square :: Sphere: $\qquad$
(a) Cuboid
(b) Cone
(c) Circle
(d) Cylinder
23. Voice : Dumb :: Light : $\qquad$
(a) Candle
(b) Bulb
(c) Blind
(d) Fuse
24. Horse : Grass :: Vehicle : $\qquad$
(a) Tyre
(b) Fuel
(c) Breaks
(d) Horn
25. Plastic : Insulation :: Aluminium : $\qquad$
(a) Conduction
(b) Alloy
(c) Resistance
(d) Metal
26. Michel Phelips : Swimming :: P.T. Usha : $\qquad$
(a) Running
(b) Chess
(c) Hockey
(d) Cricket
27. Feathers : Birds :: Fishes : $\qquad$
(a) Scales
(b) Gills
(c) Eyes
(d) Tail
28. Bodybuilder : Gym :: Patient : $\qquad$
(a) Police Station
(b) Hospital
(c) Shop
(d) Bank
29. Haryana : Chandigarh :: Telangana : $\qquad$
(a) Panner
(b) Jaipur
(c) Hyderabad
(d) Bhopal
30. Picasa : google :: Flicker : $\qquad$
(a) Orkut
(b) Yahoo
(c) Facebook
(d) GMAIL
31. 19: 57 :: 23: $\qquad$
(a) 69
(b) 32
(c) 63
(d) 94
32. 21:3:: 574: $\qquad$
(a) 80
(b) 92
(c) 82
(d) 112
33. 375: 15:: 856 : $\qquad$
(a) 12
(b) 28
(c) 20
(d) 19
34. 3125:4:: 512: $\qquad$
(a) 8
(b) 5
(c) 2
(d) 3
35. 9: 80:: 7: $\qquad$
(a) 48
(b) 49
(c) 50
(d) 55

## SOLUTIONS

| 1.(d) | 2.(a) | 3.(d) | 4.(d) | 5.(a) | 6.(b) | 7.(b) | 8.(a) | 9.(d) | 10.(c) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(c) | $12 .(\mathrm{d})$ | $13 .(\mathrm{c})$ | $14 .(\mathrm{b})$ | $15 .(\mathrm{c})$ | $16 .(\mathrm{c})$ | $17 .(\mathrm{a})$ | $18 .(\mathrm{b})$ | $19 .(\mathrm{b})$ | $20 .(\mathrm{c})$ |
| $21 .(\mathrm{b})$ | $22 .(\mathrm{c})$ | $23 .(\mathrm{c})$ | $24 .(\mathrm{b})$ | $25 .(\mathrm{a})$ | $26 .(\mathrm{a})$ | $27 .(\mathrm{a})$ | $28 .(\mathrm{b})$ | $29 .(\mathrm{a})$ | $30 .(\mathrm{b})$ |
| 31.(a) | $32 .(\mathrm{c})$ | 33.(d) | 34.(d) | 35.(a) |  |  |  |  |  |

## HINTS

31. Relation $=\mathrm{x}: 3 \mathrm{x}$
32. Relation $=7 \mathrm{x}$ : x
33. Relation $=$ number: sum of all digits
34. Relation $=x^{\text {power: }}$ power, $5^{4}: 4:: 8^{3}: 3$
35. Relation $=\mathrm{x}:\left(\mathrm{x}^{2}-1\right)$

CLASSIFICATION

## SAMPLE QUESTIONS

## TYPE 1

Find the word that can be formed from the given word.
Inundation
(a) India
(b) Induce
(c) Inside
(d) Auditions

Solution: India
Doctrine
(a) Tired
(b) Dose
(c) Creep
(d) Drop

Solution: Tired
Compromising
(a) Come
(b) Mission
(c) Course
(d) Couple

Solution: Mission
Ultimatum
(a) Tilt
(b) Time
(c) Urban
(d) Adam

Solution: Tilt
Proposing
(a) Song
(b) Rope
(c) Oppose
(d) Noise

Solution: Song

TYPE 2
Find the word that can't be formed from the given word Demonstrate
(a) Monster
(b) Stand
(c) Deter
(d) Trait

Solution: Trait
Adventure
(a) Tour
(b) Event
(c) Rent
(d) Dried

Solution: Tour

## Semester

(a) Term
(b) Rest
(c) Master
(d) Stem

Solution: Master

## Computerizing

(a) Memory
(b) Utter
(c) Come
(d) Going

Solution: Memory

## Patriotism

(a) Trim
(b) Stop
(c) Motion
(d) Parrot

Solution: Motion
Education
(a) Date
(b) Crane
(c) Cute
(d) Duct

Solution: Crane

## UNSOLVED QUESTIONS

Find the word which can be formed from the given word?

1. Industrialisation
(a) Realize
(b) Assure
(c) Induce
(d) Stallion
2. Computerisation
(a) Patient
(b) Trump
(c) Curious
(d) Praised
3. Tremendous
(a) Mandate
(b) Dump
(c) Remorse
(d) Nerd
4. Quantitative
(a) Tilt
(b) Tune
(c) Attitude
(d) Queue
5. Suggestive
(a) Great
(b) State
(c) Assuage
(d) Guest
6. Multiplication
(a) Tick
(b) Plight
(c) Time
(d) Caution
7. Documentation
(a) Moment
(b) Entertain
(c) Curious
(d) Mute
8. Centimetre
(a) Tame
(b) Motion
(c) Tired
(d) Imminent
9. Nightingale
(a) Angle
(b) Tame
(c) Grim
(d) Granite
10. Recommendation
(a) Mandate
(b) National
(c) Attain
(d) Donate
11. Musician
(a) Sick
(b) Nice
(c) Crane
(d) Asian
12. Mathematics
(a) Thick
(b) Tactics
(c) Trick
(d) Match
13. Sentimental
(a) National
(b) Might
(c) Initial
(d) Tension
14. Promotional
(a) Option
(b) Intention
(c) Rotation
(d) Token
15. Entertainment
(a) Retain
(b) Menace
(c) Ruin
(d) Trend
16. Exhaustive
(a) Suite
(b) Steven
(c) Hatred
(d) Vote

Find the word which can't be formed from the given word.
17. Charmed
(a) Chum
(b) Heel
(c) Deck
(d) Made
18. December
(a) Member
(b) Reeder
(c) Master
(d) Decree
19. Incognito
(a) Going
(b) Ignition
(c) Action
(d) Tong
20. Spasmodically
(a) Sally
(b) Local
(c) Map
(d) Idea
21. Advertisement
(a) Denver
(b) Invert
(c) Tile
(d) Amend
22. Seventeenth
(a) Teeth
(b) Thin
(c) Even
(d) Vent
23. Infrastructure
(a) Secure
(b) Round
(c) Fast
(d) Craft
24. Dictatorship
(a) Tease
(b) Shop
(c) Doctor
(d) Port
25. Tuberculosis
(a) User
(b) Close
(c) Loss
(d) Umber
26. Interrogate
(a) Great
(b) Rotten
(c) Terror
(d) Trait
27. Prognostication
(a) Gnostic
(b) Torn
(c) Progress
(d) Roast
28. Choreography
(a) Chrome
(b) Photo
(c) Grape
(d) Geography
29. Disappointment
(a) Point
(b) Ointment
(c) Spore
(d) Estimate
30. Equivocation
(a) Quit
(b) Innovate
(c) Tunic
(d) Vocal
31. Blandishment
(a) Dent
(b) Lament
(c) Doable
(d) Mash
32. Miraculous
(a) Loss
(b) Cumulous
(c) Carcass
(d) Canoes

## SOLUTIONS

| 1. (d) | 2. (b) | 3. (d) | 4. (d) | 5. (d) | 6. (d) | 7. (a) | 8. (d) | 9. (a) | 10.(a) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11.(d) | 12.(c) | 13.(b) | 14.(a) | 15.(a) | 16.(a) | 17.(c) | 18.(c) | 19.(c) | 20.(d) |
| 21.(c) | 22.(b) | 23.(b) | 24.(a) | 25.(d) | 26.(d) | 27.(c) | 28.(a) | 29.(c) | 30.(d) |
| 31.(c) | 32.(d) |  |  |  |  |  |  |  |  |

## CODING- DECODING

## SAMPLE QUESTIONS

Example 1: If PRECIOUS is written as RPCEOISU then how CATERING would be written?
(a) ACETTERC
(b) AERCSERT
(c) ACETIRGN
(d) AERTRECT

Solution: (c)
Here, we can clearly find out the relation by
PR EC IO US CA TE RI NG
RP CE OI SU AC ET IR GN
Example 2: If REFT is coded as TFER then BORN will be coded as?
(a) BRNO
(b) BNOR
(c) NBRO
(d) NROB

## Solution: (d)

Here, the words are written in opposite format. So BORN will be written as NROB.
Example 3: If LION is coded as IN, then BOMB will be cited as?
(a) MB
(b) OB
(c) BM
(d) OM

Solution: (b)
Here it is clear that the $2^{\text {nd }}$ and $4^{\text {th }}$ letters are selected from the given word. So from BOMB, OB will be selected.

Example 4: If CREED is coded as RCEDE then how BRING will be coded?
(a) RBIGN
(b) NGRBI
(c) BRNIG
(d) GNIRB

Solution: (a)
In this pattern, first two and last two words are written in opposite places and middle word is placed on its actual place. So for BRING, the answer will be RBIGN

Example 5: If JOIN is coded as MOIQ then how PROM will be coded?
(a) MORP
(b) SRTY
(c) SROP
(d) SBER

Solution: (c)

| J | O | I | N | P | R | O | M |
| :--- | :--- | :--- | :--- | ---: | :--- | :--- | :--- |
| +3 |  |  | +3 | +3 |  |  | +3 |
| M | O | I | Q | S | R | 0 | P |

ANS - SROP

Example 6: If PLAY is coded as QNDC, the how CRAW will be coded?
(a) DTDA
(b) DTAD
(c) DCAD
(d) CTDA

Solution: (a)

| P | L | A | Y |
| :--- | :---: | :---: | :--- |
| +1 | +2 | +3 | +4 |
| Q | N | D | C |

So CRAW will be - DTDA

Example 7: If BLADE is written as SAFTA, then how BALE will be written as?
(a) TSPA
(b) PSAT
(c) PSDA
(d) SPTA

Solution: (d)
Here, no perfect pattern is seen. But all word of BALE is seen in BLADE. So BALE $=$ STPA

Example 8: If LOAD $=$ MPBE, DRIVE $=$ ESJWF, then MATTER will be?
(a) NBUUFS
(b) ESRTCT
(c) ERVVER
(d) NNERTE

Solution: (a)
Here the pattern seen is +1 . So MATTER will be coded as - NBUUFS
Example 9: If POLICE is written as QNMHDD, the how DEALT will be coded?
(a) ERDTR
(b) ECDFS
(c) EDBKU
(d)ECFSR

Solution: (c)
The +1 and -1 sequence is operated on alternate words. So DEALT will be coded as EDBKU

Example 10: If BEAR is coded as SBFC, then how ROPE will be coded?
(a) FQRS
(b) FQPS
(c) FRQS
(d) FPQS

Solution: (b)
Sol. Here, +1 method is applied in opposite way. So ROPE will be written as FQPS.

| B | E | A | R | I | S | B | F | C |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| R | O | P | E | I | F | Q | P | S |

## PREVIOUS YEAR QUESTIONS

1) If $A=C, B=D, C=E$ and so on, code the following.
(AFCAT I 2014)
STUDENT
(a) VWVFGPV
(b) UVWFGPV
(c) UUWFGPV
(d) UVVFGPV

Solution: (b)
2) If $A=Z, B=Y$ and so on, then code the following
(AFCAT I 2014)
EDITOR
(a) VWRGLI
(b) VWVGLI
(c) VWRGVI
(d) VWRLLI

Solution: (a)

## UNSOLVED QUESTIONS

1) In a certain code ORANGE is written as ? $\div$ @ •+* and EAT is written as ${ }^{*}$ @ $\$$ '. How can ROTATE be written in that code?
(a) $\div$ ? $@ * \$$
(b) $\div$ ? $@$ •*
(c) $\div$ ? $@ \$ *$
(d) $\div ? \$^{*} @$
2) If PATTERN is coded as OTAETNR. Then how MENTION will be coded
(a) LINTREY
(b) LNEITNO
(c)LIRTEDT
(d)LTRGTYT
3) If FORCE is written as FPTFI, then how SUDDEN will be coded?
(a) SVFGIS
(b) SCURTE
(c) SEREDR
(d) SCIOTY
4) In a certain code, 25 means "your class" and 692 means "creed and class". Which is the code for "and"?
(a) 9
(b) 2
(c) 6
(d) $6 / 9$
5) In a certain coding, 123 means "hot filter coffee", 356 means "very hot day" and 589 as "day and night". Which will be the code for "very"?
(a) 5
(b) 3
(c) 6
(d) 2
6) If ABLE is coded as 23-24-8-1, what will be the code of DARK?
(a) 23-18-3-19
(b) 24-6-17-13
(c) 24-12-22-4
(d) 26-23-14-7
7) If NOR is coded as $2-3-6$, then how REST will be coded?
(a) 6-19-7-8
(b) 6-5-12-9
(c) 9-7-12-3
(d) 12-5-11-7
8) If PROBATE means 1234567 , then how BEAT will be coded?
(a) 47568
(b) 45476
(c) 43976
(d) 43523
9) If TERMINATION means 12345671586 , the how MEAT will be coded?
(a) 3452
(b) 3498
(c) 4231
(d) 4271
10) If BEAR means 1234, how RARE will be coded?
(a) 2342
(b) 4323
(c) 4324
(d) 3421
11) In a certain language LOAD means MPBE and DRIVE means ESJWF. What will be the code for LADE?
(a) MBEF
(b) MFED
(c)MROP
(d) MEEP
12) If POCKET means KLXPVG and LIMIT means ORNRG, then what will be the code for GROUP?
(a) TERSR
(b) TILFK
(c) ERTSA
(d) TYRSL
13) If VUTSROP means EFGHIJK, then what will be the meaning of AVIL?
(a) ZEOR
(b) OSER
(c) HERO
(d) ZERO
14) If TORN means UPSO, then how TERM will be coded
(a) UERY
(b) USSE
(c) UFSN
(d) USFR
15) COFFEE means FFGENB, then what will be the code for MENTAL?
(a) MGFERT
(b) MBUMDL
(c) MVGUYT
(d) MGFTRE
16) If SUGGEST codes for USIEGQV, then what will be the code for MOBILE?
(a) ODMEGT
(b) OMDGNC
(c) OERNTY
(d) ORYETD
17) If FRIEND codes for HUMJTK, then what will be the code for SOUR?
(a) UMYL
(b) UYLM
(c) MLYU
(d) ULYM
18) In a certain language, 'pi na hu' means 'he is good', and 'sa ni hu' means 'she is bad'. Then what will be the code for "good"?
(a) si / na
(b) pi
(c) pi/na
(d) na/ hu
19) In a certain coded language 'he is' code for 'se pa', 'he see' codes for 'la se' and 'pigeon is' means 'ni pa'. What codes for 'is'?
(a) se
(b) pa
(c) la
(d) ni
20) If 'ka do pa' means 'who is good' and 'welcome good guy' is coded as 'ho do zu'. What will be the code for good?
(a) zu
(b) ho
(c) ka
(d) do
21) If GRIM is coded as 2567 and IMPORT means 678951 . What will be the code for RIM?
(a) 554
(b) 546
(c) 521
(d) 567
22) If 'sa ma pa' means 'I am fine', 'mi sa ni' means 'he is fine' and 'pa so ne' means 'I want milk'. The means 'am'?
(a) so
(b) ma
(c) ne
(d) ni
23) Here are some words translated from an artificial language.
"dionot" means neem plant
"blyonot" means neem branch
"blycrin" means apple branch
Which word could mean "mapple syrup"?
(a) blymuth
(b) hupponot
(c) patricrin
(d) crinweel
24) In a certain code language, ‘ $3 \mathrm{a}, 2 \mathrm{~b}, 7 \mathrm{c}^{\prime}$ means ‘Truth is Eternal’; $7 \mathrm{c}, 9 \mathrm{a}, 8 \mathrm{~b}, 3 \mathrm{a}^{\prime}$ means 'Enmity is not Eternal' and ' $9 \mathrm{a}, 4 \mathrm{~d}, 2 \mathrm{~b}, 6 \mathrm{~b}$ ' means 'Truth does not perish'. Which of the following means 'enmity' in that language?
(a) 3 a
(b) 8 b
(c) 9 a
(d) 7 c
25) If Sand is coded as Brick, Brick as House, House as Temple, Temple as Palace then where do you worship?
(a) Palace
(b) Temple
(c) Brick
(d) House
26) In a certain language, ferry is coded as beat, boat is coded as ship, ship is coded as submarine, submarine is coded as cargo and cargo is coded as container. Then which of them drives underwater?
(a) Boat
(b) Submarine
(c) Cargo
(d) Ship
27) In a certain code language $K$ is written as 11 and KEEP is written as 37 . How will the word BEER be written in that code language?
(a) 35
(b) 30
(c) 33
(d) 64
28) In a certain code, RIPPLE is written as 613382 and LIFE is written as 8192 . How is PILLER written in that code?
(a) 318826
(b) 763546
(c) 325163
(d) 452354
29) In a certain code FLOWER is coded as 36 and SUNFLOWER is coded as 81 , then how to code FOLLOWS?
(a) 42
(b) 49
(c) 63
(d) 36
30) In a certain code language: 'dugo hui mul zo' stans for 'work is very hard' 'hui dugo ba ki' for 'Bingo is very smart'; 'nano mul dugo' for 'cake is hard'; and 'mul ki gu' for 'smart and hard' Which of the following word stand for Bingo?
(a) Jalu
(b) Dugo
(c) Ki
(d) Ba
31) In a certain code language \$\#* means 'Shirt is clean', @ D\# means 'Clean and neat' and @ ? means 'neat boy', then what is the code for 'and' in that language
(a) \#
(b) D
(c) @
(d) Data inadequate

## SOLUTIONS

| 1. (c) | $2 .(\mathrm{b})$ | $3 .(\mathrm{a})$ | $4 .(\mathrm{d})$ | $5 .(\mathrm{c})$ | $6 .(\mathrm{d})$ | $7 .(\mathrm{a})$ | $8 .(\mathrm{a})$ | $9 .(\mathrm{d})$ | $10 .(\mathrm{c})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(a) | $12 .(\mathrm{b})$ | $13 .(\mathrm{d})$ | $14 .(\mathrm{c})$ | $15 .(\mathrm{b})$ | $16 .(\mathrm{b})$ | $17 .(\mathrm{d})$ | $18 .(\mathrm{c})$ | $19 .(\mathrm{b})$ | $20 .(\mathrm{d})$ |
| 21.(c) | $22 .(\mathrm{b})$ | $23 .(\mathrm{b})$ | $24 .(\mathrm{a})$ | $25 . \mathrm{d})$ | $26 .(\mathrm{d})$ | $27 .(\mathrm{c})$ | $28 .(\mathrm{a})$ | $29 .(\mathrm{c})$ | $30 .(\mathrm{d})$ |
| 31.(b) |  |  |  |  |  |  |  |  |  |

## Chapter 6

## BLOOD RELATIONS

## SAMPLE QUESTIONS

Example 1: A tells B that you are the son of my grandpa's only child. How is B related to A?
(a) Father
(b) Cousin
(c) Son
(d) Brother

Solution: (d)
B's grandfathers only son is B's father. A is son of B's father. A and B are brother.
Example 2: If A is B's brother, B is C's sister and C is D 's father, D is A 's?
(a) Brother
(b) Sister
(c) Nephew
(d) Cannot be determined

Solution: (d)
A is the brother of B. so A is male. B is sister of C. So, B is female. C is father of D. So, C is male. The sex of $D$ is not known. $A$ and $C$ are brothers of $B$. $A$ is the uncle of $D$. Since, sex of $D$ is not clear, we cannot determine what is $D$ to $A$.

Example 3: $P$ is brother of $Q$. $R$ is the sister of $Q$. How $P$ is related to $R$ ?
(a) Brother
(b) Sister
(c) Uncle
(d) Aunt

Solution: (a)
$P$ is brother of $Q . P$ is male. $R$ is sister of $Q$. $R$ is female. Therefore, $P$ is the brother of $R$.
Example 4: Ankit is the son of Zubin. Manju is the daughter of Anil. Sheela is the mother of Manju. Mohan is the brother of Manju. How is Mohan related to Sheela?
(a) Brother
(b) Father
(c) Son
(d) sister

Solution: (c)
Manju is the daughter of Anil. 'Sheela is the mother of Manju. Therefore, Mohan is the son of Sheela.

Example 5: $P$ is sister of $Q . R$ is the Brother of $S$ who is sister of $P . Q$ is related to $S$ as
(a) Son
(b) Father
(c) Brother
(d) Brother/ Sister

Solution: (d)
$P$ (female) is sister of Q and S (female) is sister of P .so it specifies that $R(M)-S(F)-P(F)-Q(M / F)$. Sex of $Q$ is not specified.

Example 6: $A$ is father of $B$ and $B$ is brother of $C$. How $C$ is related to $A$ ?
(a) Brother
(b) Son/ Daughter
(c) Son
(d) Grand Child

Solution: (b)
A is father of both B and C. C's gender is not specified. So it can be Son or daughter.
Example 7: A is father of B who is brother of $\mathrm{C} . \mathrm{C}$ is mother of D . how D is related to A ?
(a) Son
(b) Daughter
(c) Grandchild (d) Son-In-Law

Solution: (c)
B and C's father is A. C's son is A's grandchild. So answer is Grandchild
Example 8: A is bother of B's son's son. How is B related to A?
(a) Grandfather
(b) Grandson
(c) Father
(d) Son

Solution: (a)
B's son' son is B's grandson who is A's brother. So A is also grandson of B or B is grandfather of A .

Example 9: Lalit said to Anita "your father is my mother's only son". How Anita is related to Lalit?
(a) Mother
(b) Daughter
(c) Sister in Law
(d) Sister

Solution: (b)
Lalit's mother's only son is Lalit himself. So Anita's father is Lalit's mother's son. Or Lalit himself. So Lalit is father of Anita or Anita is daughter of Lalit.

Example 10: Pointing to a man, a woman said, "His mother is the daughter of my mother's only daughter, how is the man related to that woman?
(a) Son
(b) Mother
(c) Brother
(d) Grandson

Solution: (b)
Woman's mother's only daughter is the woman herself. Man's mother is daughter of women's mother. Which specifies that the woman is mother of the man.

## UNSOLVED QUESTIONS

1) My father's $\qquad$ 's son's sister is my aunt
(a) Sister
(b) Father
(c) Brother
(d) Son
2) Amit is his brother's father's only daughter's $\qquad$
(a) Brother
(b) Son
(c) Grandson
(d) Father
3) My daughter-in-law's husband's brother's son's grandfather's father is my $\qquad$
(a) Son
(b) Grandfather
(c) Father
(d) Son-in-Law
4) $A$ and $B$ are brothers. $X$ and $Y$ are couples and $Y$ is brother of $B$. How $Y$ is related to $B$
(a) Son
(b) Brother
(c) Son in Law
(d) Brother in Law
5) A said to B "your son is my son's uncle". How is B related to A?
(a) Brother
(b) Mother
(c) Father
(d) Grandfather
6) Pointing to $X, Y$ said "His mother is the only daughter of my father". How is $X$ 's mother related to $Y$ ?
(a) Mother
(b) Grandmother
(c) Sister
(d) Mother In Law
7) Sujeet introduced a lay by saying "She is my mother's grandson's wife". How is Sujeet related to that lady?
(a) Father In Law
(b) Brother
(c) Father
(d) Husband
8) Pointing to a boy, Anita said "my father's only son is father if his brother". How Anita is related to the boy?
(a) Sister
(b) Aunt
(c) Cousin
(d) Mother
9) Amit said to Bina "My mother's only daughter is your mother". How Amit is related to Bina.
(a) Paternal Uncle
(b) Maternal Uncle
(c) Father
(d) None of These
10) $A$ is mother of $B$ and $C$. if $X$ is the husband of $C$, then how $A$ is related to $X$ ?
(a) Sister
(b) Mother in Law
(c) Mother
(d) None of These
11) Introducing a woman in photo, kunal said "her husband's mother is wife of my father's only son". How is kunal related to the man?
(a) Brother
(b) Son
(c) Father
(d) Son in Law
12) Pointing to a woman, Sumit said "her mother's only daughter is my daughter". How is the women related to the Sumit?
(a) Mother in Law
(b) Daughter
(c) Wife
(d) Mother
13) $A$ is mother of $B$ who is brother of $C . C$ is father of $D$. then how $A$ is related to $D$ ?
(a) Sister
(b) Father
(c) Grandmother
(d) Mother
14) If $W$ is father of $X, X$ is mother of $Y, Y$ is daughter of $Z$, then how $W$ is related to $Z$ ?
(a) Son in Law
(b) Son
(c) Daughter in Law
(d) Brother
15) A is brother of $B$. $C$ is father of $A$. $D$ is brother of $E$. $E$ is daughter of $B$. The uncle of $D$ is
(a) A
(b) B
(c) C
(d) E
16) Anupam said to a lady sitting in a car, "The only daughter of the brother of my wife is the sister-in-law of the brother of your sister." How the husband of the lady is related to Anupam?
(a) Maternal uncle
(b) Uncle
(c) Father
(d) Son in Law
17) Introducing Suchendra, Naman says, "She is the wife of only nephew of only brother of my mother." How Suchendra is related to Naman?
(a) Wife
(b) Sister
(c) Sister-in-law
(d) Data is inadequate
18) A is the son of B. B's sister has a son $D$ and a daughter of E.F is the maternal uncle of $D$. How is A related to D?
(a) Cousin
(b) Nephew
(c) Uncle
(d) Brother
19) $A$ is the father of $C$. But $C$ is not his son. $E$ is the daughter of $C$. $E$ is the Spouse of $A$. $B$ is the brother of C.D is the son of B. G is the spouse of B.H is the father of G. Who is the grandmother of D ?
(a) A
(b) C
(c) F
(d) H
20) $K$ is the brother of $N$ and $X . Y$ is the mother of $N$ and $Z$ is the father of $K$. which of the following statements is not definitely true?
(a) $K$ is the son of $Z$
(b) Y is the wife of Z
(c) K is the son of Y
(d) $K$ is the father of $X$
21) Pointing to a man in a photograph, a woman said, "His brother's father is the only son of my grandfather". How is the woman related to the man in the photograph?
(a) Sister
(b) Mother
(c) Grandmother
(d) Aunt
22) If Neha says, "Amruta's father Raj is the only son of my father-in-law, Mahesh"; then how Bindu, who is sister of Amruta, is related to Mahesh?
(a) Daughter
(b) Wife
(c) Daughter-in-law
(d) None of these
23) Pointing to a gentleman, Deepak said, "His only brother is the father of my daughter's father", how is the gentleman related to Deepak?
(a) Father
(b) Grandfather
(c) Uncle
(d) Brother-in-law
24) $A$ is the husband of $B$ and $X$ is mother of $C$ and $B$. how $R$ is related to $P$ ?
(a) Sister
(b) Mother
(c) Daughter
(d) Mother In Law
25) Q's mother is sister of $P$ and daughter of $M$. $S$ is daughter of $P$ and sister of T. How is $M$ related to T ?
(a) Father
(b) Grandfather
(c) Grandmother
(d) Either Grandfather or

Grandmother
26) Prakash is the son of Pramod. Neha is the daughter of Abhishek. Ruchi is the mother of Neha. Awadhesh is the brother of Neha. How is Awadhesh related to Ruchi?
(a) Brother
(b) Father
(c) Son
(d) Cannot be determined
27) Ankit is the son of Zubin. Manju is the daughter of Anil. Sheela is the mother of Manju. Mohan is the brother of Manju. How is Mohan related to Sheela?
(a) Brother
(b) Father
(c) Son
(d) Cannot be determined

## SOLUTIONS

| 1.(b) | $2 .(\mathrm{a})$ | $3 .(\mathrm{c})$ | $4 .(\mathrm{d})$ | 5.(c) | 6.(c) | 7.(a) | 8.(b) | 9.(b) | $10 .(\mathrm{b})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $11 .(\mathrm{d})$ | $12 .(\mathrm{b})$ | $13 .(\mathrm{c})$ | $14 .(\mathrm{a})$ | $15 .(\mathrm{a})$ | $16 .(\mathrm{d})$ | $17 .(\mathrm{a})$ | $18 .(\mathrm{b})$ | $19 .(\mathrm{a})$ | $20 .(\mathrm{b})$ |
| $21 .(\mathrm{a})$ | $22 .(\mathrm{d})$ | $23 .(\mathrm{c})$ | $24 .(\mathrm{d})$ | $25 .(\mathrm{d})$ | $26 .(\mathrm{c})$ | $27 .(\mathrm{c})$ |  |  |  |

## HINTS

5) B's son $=X$ and A's son $=y$
$X$ is uncle of $Y$
So B is grandfather of A
6) Let $X$ 's mother $=M$
$M$ is the only daughter of $Y$ 's father i.e. Y's father had one daughter $M$. so $Y$ and $M$ are brother and sister.
7) Sujeet's mother's grandson means Sujeets son. And the day is Sujeet's son's wife. Or we can say she is daughter in law of Sujeet and Sujeet is father in law of the lady.
8) Anita's father only son is Anita's brother (B). B is father of boy's brother. Or B has two sons out of which one is that boy. Anita is boys' fathers' sister or boy's aunt.
9) A is mother of $B$ and C's husband is son in law of $A$ or $A$ is mother in law of $X$.
10) $A$ is brother of $B, C$ is father of $A, D$ is brother of $E$ and $E$ is daughter of $B$. Therefore, $A$ is uncle of $E$ and $E$ is sister or $D$ which means $A$ is uncle of $D$.
11) Anupam's son-in-law is the brother of the lady who was sitting in the car. Hence, the husband is also the son-in-law of Anupam.
12) Brother of mother means maternal uncle. Hence only nephew of Naman's maternal uncle means Naman himself. Therefore Suchendra is the wife of Naman.

## Chapter 7

## VENN DIAGRAM

## SAMPLE QUESTIONS

Example 1: Which of the following correctly represents the car, bikes and automobiles?

(a)

(b)

(c)

(d)

Solution: Cars and bikes are different in kind, while both of these fall in the category of automobiles. So the correct figure for it is (b)
Example2: Which of the following can be the correct diagram for computer system, CPU and motherboard?

(a)

(b)

(c)

(d)

Solution: A Computer system contains the CPU and the CPU contains Motherboard. So the correct figure as per the relation is (b).
Example 3: Which of the following correctly represents the relation between the armed forces, air force and CRPF?

(a)

(b)

(c)

(d)

Solution: The armed forces constitute army, navy and air force, while CRPF is not included in armed forces. So the correct figure is (d).
Example 4: Which of the following represents male, female and boys?

(a)

(b)

(c)

(d)

Solution: Male and female are different entities. Boys come under male entity. So the correct option is (c).
Example 5: Which of the following figure represents the correct relation between language, Punjabi and French?

(a)

(b)

(c)

(d)

Solution: Punjabi and French are different languages and both of them come in the category of language. So the correct option is (b).
Example 6: The correct relation between girls, students and athletes is

(a)

(b)

(c)

(d)

Solution: Here, all three entities are related to each other. So the correct figure for it is (a)
Example 7: Which of the following represents continent, country and district?

(a)

(b)

(c)

(d)

Solution: A continent constitutes many countries and a country constitutes many districts. So the correct figure for it is (c).

Example 8: Which figure correctly represents protons, neutrons and electrons?

(a)

(b)

(c)

(d)

Solution: All these three subatomic particles are different in all aspects. So the correct option for it is (a).

Example 9: Which of the following makes relations between human, males and doctors?

(a)

(b)

(c)

(d)

Solution: Some males are doctors and all males and doctors come under human category. So the correct answer is (b).
Example 10: Which of the following represents cat, pet and animals?

(a)

(b)

(c)

(d)

Solution: Some cats are pet, while both these categories fall under animal. So the correct option is (a).

## UNSOLVED QUESTIONS

1. The correct diagram for cabbage, food and vegetable is

(a)

(b)

(c)

(d)
2. The correct relation between banana, grapes and pineapple is represented by

(a)

(b)

(c)

(d)
3. The correct figure representing relation between female, niece and cousin is

(a)

(b)

(c)

(d)
4. Which of the following represents correct relation between gardener, men and computer?

(a)

(b)

(c)

(d)
5. The figure representing the relation between trucks, aeroplanes and goods is

(a)

(b)

(c)

(d)
6. The figure correctly representing the relation between lady finger, vegetable and cabbage is

(a)

(b)

(c)

(d)
7. The figure correctly representing female, uneducated and citizens is

(a)

(b)

(c)

(d)
8. The figure representing army, brigadier and group captain is

(a)

(b)

(c)

(d)
9. Which option correctly represents building, flat and room?

10. The correct option representing science, zoology and physics is

11. The correct option depicting relation between mammals, bat and bird.

(a)

(b)

(c)

(d)
12. The figure representing correct relation between cloths, flower and orange.

(a)

(b)

(c)

(d)
13. The figure representing relation between fish, bird and amphibian is

(a)

(b)

(c)

(d)
14. Which of the following correctly shows a relation between dogs, cats and pets.

(a)

(b)

(c)

(d)
15. Which of the following options represents volleyball player, brilliant and student?

(a)

(b)

(c)

(d)
16. The correct figure depicting the relation between men, teacher and student

(a)

(c)

(d)
17. The figure depicting correct relation between botanist, professors and doctors is

(a)

(b)
(c)

(d)
18. The correct option representing circle, quadrilateral and rectangle is

(a)

(b)

(c)

(d)
19. The option representing the relation between officer, major and commodore is

(a)

(b)

(c)

(d)
20. The correct option showing relation between tall, men and uneducated.

(a)

(b)

(c)

(d)
21. The correct relation between factory, machines and product is

22. The diagram depicting correct relation between engineer, lawyer and doctor is

(a)

(b)

(c)

(d)
23. The diagram representing Google, Gmail and Wikipedia is

(a)

(b)

(c)

(d)
24. The diagram representing Uttar Pradesh, Agra and Tajmahal is

(a)

(b)

(c)

(d)
25. The correct relation between father, mother and parent is

26. The correct diagram representing sentence, word and chapter is

(a)

(b)

(c)

(d)

## SOLUTIONS

| 1. (a) | $2 .(\mathrm{a})$ | $3 .(\mathrm{d})$ | 4. (d) | 5. (a) | $6 .(\mathrm{d})$ | $7 .(\mathrm{b})$ | 8. (d) | 9. (c) | $10 .(\mathrm{c})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $11 .(\mathrm{c})$ | $12 .(\mathrm{b})$ | $13 .(\mathrm{c})$ | $14 .(\mathrm{b})$ | $15 .(\mathrm{b})$ | $16 .(\mathrm{d})$ | $17 .(\mathrm{b})$ | $18 .(\mathrm{a})$ | $19 .(\mathrm{d})$ | $20 .(\mathrm{b})$ |
| $21 .(\mathrm{b})$ | $22 .(\mathrm{b})$ | $23 .(\mathrm{a})$ | $24 .(\mathrm{a})$ | $25 .(\mathrm{c})$ | $26 .(\mathrm{d})$ |  |  |  |  |

## HINTS

3. Among all of the women, some are niece and some are cousins
4. Some gardeners are men. Both of them are not related to computer
5. Truck and aeroplanes are different but both of them are partially used to transport goods.
6. Citizens includes male and female. Some females are uneducated
7. Bat is a mammal. Birds are not related to any of these.
8. Some cloths are orange and some flowers are also orange
9. Some botanists and doctors are professors. But botanist are not related to doctors
10. Officers include both major and commodore. But major rank is in army and commodore is in navy
11. All men are not tall. Some women are also tall. All men are not educated. Some tall women are also uneducated.
12. Factories have machine and products inside it.
13. Gmail is an offshoot of Google. While Wikipedia is different website
14. A chapter contains sentences and a sentence contains words.

## Chapter 8

## NON VERBAL ANALOGY

## PREVIOUS YEAR QUESTIONS

Directions: In each of the following questions given below, which of the four figures
should be the next in the problem figure?

1. Problem Figure:


Solution: (c)
2. Problem Figure:


Solution: (c)
3. Problem Figure:


Solution: (a)
4. Problem Figure:


Answer Figures:

(a)

(d)
(AFCAT I 2015)

Answer Figures:

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

Answer Figures:


Answer Figures:

(a)
(b)
(c)

Solution: D
5. Problem Figure:


## UNSOLVED QUESTIONS

Directions: In each of the following questions given below, which of the four figures should be the next in the problem figure?

1. Problem Figure:

2. Problem Figure:

3. Problem Figure:

4. Problem Figure:


Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)
5. Problem Figure:

6. Problem Figure:

7. Problem Figure:

8. Problem Figure:

9. Problem Figure:

10. Problem Figure:

Answer Figures:

(a)
(b)

(c)
(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

Answer Figures:

(a)

(b)

(c)
(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:
$\underset{(a)}{C}$

(b)

)

(c)

(d)

11. Problem Figure:

12. Problem Figure:
13. Problem Figure:

14. Problem Figure:

$$
\begin{array}{ll}
0 & + \\
\Delta & \square
\end{array} \cdot\left[\begin{array}{ll}
+ & 0 \\
\square & \Delta
\end{array}\right] \cdot \begin{array}{ll}
\square & x \\
O & =
\end{array} ? ?
$$

15. Problem Figure:


## Answer Figures:

A
16. Problem Figure:

Answer Figures:

Answer Figures:

Answer Figures:

Answer Figures:

(c)

(d)

(b)
ures:

(a)

(a)
(b)

(d)

(a)

(b)

(c)

(d)

| $x$ | 0 |
| :--- | :--- |
| $\square$ | $=$ |

(a)

(b)

(c)

Answer Figures:

(a)

(b)

(c)

(d)

17. Problem Figure:

18. Problem Figure:

19. Problem Figure:

20. Problem Figure:

21. Problem Figure:


(a)



(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:


Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

| P |
| :--- |
| 8 |
| S |

(a)

| 8 |
| :--- |
| $P$ |
| $S$ |

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)
22. Problem Figure:

$$
\Delta P_{R}^{R}=R^{R_{Q}^{P}} \bullet M\left(Q_{\square}^{N} \bullet ?\right.
$$

23. Problem Figure:

24. Problem Figure:

$$
1: O:: 1: ?
$$

25. Problem Figure:

26. Problem Figure:


Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)
(d)

Answer Figures:

(a)

(b)

(c)

(d)
27. Problem Figure:

28. Problem Figure:

29. Problem Figure:

30. Problem Figure:

31. Problem Figure:

32. Problem Figure:


Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:

(a)

(b)

(c)

(d)

Answer Figures:


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

## SOLUTIONS

| 1. (b) | 2. (d) | 3. (a) | 4. (b) | 5. (b) | 6. (d) | 7. (c) | 8. (c) | 9. (a) | 10.(a) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(c) | $12 .(\mathrm{c})$ | $13 .(\mathrm{b})$ | $14 .(\mathrm{c})$ | $15 .(\mathrm{c})$ | $16 .(\mathrm{d})$ | $17 .(\mathrm{a})$ | $18 .(\mathrm{b})$ | $19 .(\mathrm{d})$ | $20 .(\mathrm{b})$ |
| 21.(a) | $22 .(\mathrm{a})$ | $23 .(\mathrm{b})$ | $24 .(\mathrm{c})$ | $25 .(\mathrm{a})$ | $26 .(\mathrm{d})$ | $27 .(\mathrm{c})$ | $28 .(\mathrm{a})$ | $29 .(\mathrm{a})$ | $30 .(\mathrm{a})$ |

## Chapter 9

## EMBEDDED FIGURES

## PREVIOUS YEAR QUESTIONS

Directions: In each of the following questions given below, problem figure is hidden in the option figures. Find the Correct option.

1. Problem Figure


Solution: (b)
2. Problem Figure


Solution: (c)
3. Problem Figure


Solution: (a)

Answer Figures

(a)
(b)

(AFCAT 2014)

(c)

(d)
(a)

(b)
(AFCAT 2014)

(c)

(d)
(a)

Answer Figures

(AFCAT 2014)

(c)

(d)

[^0]

Solution: (a)

## 5. Problem Figure



Solution: (b)
6. Problem Figure


Solution: (d)
7. Problem Figure


Solution: (b)
8. Problem Figure


Solution: (b)

(a)

(b)

(c)

(d)

Answer Figures (AFCAT I 2012)


Answer Figures
(AFCAT I 2012)

(a)
(b)
(c)

(d)

Answer Figures
(AFCAT I 2012)

(a)

(b)

(c)

(d)

Answer Figures
(AFCAT I 2012)

(c)

(d)


## UNSOLVED QUESTIONS

Directions: In each of the following questions given below, which of the four figures is embedded in the given four figures?

1. Problem Figure


## Answer Figures


(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)

## Answer Figures


(a)

Answer Figures

(a)

4. Problem Figure

(d)

(b)

(b)

(c)

(c)

(d)
5. Problem Figure

6. Problem Figure

7. Problem Figure

8. Problem Figure

9. Problem Figure

10. Problem Figure


Answer Figures

(a)

Answer Figures

(a)

Answer Figures
(b)


(c)

(d)
(a)


(b)

(c)

(d)

(b)

(a)

(c)

(d)

(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)
11. Problem Figure

12. Problem Figure

13. Problem Figure

14. Problem Figure

15. Problem Figure

16. Problem Figure


Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

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

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)
17. Problem Figure

18. Problem Figure

19. Problem Figure

20. Problem Figure

21. Problem Figure

22. Problem Figure


Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

Answer Figures

(b)
(a)


(b)

(c)

(d)

(c)

(d)
23. Problem Figure

24. Problem Figure

25. Problem Figure

26. Problem Figure

27. Problem Figure

28. Problem Figure


Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

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

Answer Figures

(c)

(d)

(a)

(b)

Answer Figures

(a)

Answer Figures

(a)

(b)

(c)

(d)

(a)

(b)

(c)

(d)
29. Problem Figure

30. Problem Figure

31. Problem Figure

32. Problem Figure

33. Problem Figure


Answer Figures

(a)

Answer Figures

(b)

(c)

(d)

(a)

Answer Figures

(a)

(b)

(b)

(c)

(d)

Answer Figures

(c)

(d)
(a)
(b)

(c)

(d)

(b)

## SOLUTIONS

| 1.(b) | $2 .(\mathrm{c})$ | $3 .(\mathrm{b})$ | 4.(c) | 5.(a) | 6.(b) | 7.(d) | 8.(a) | 9.(d) | 10.(a) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(c) | $12 .(\mathrm{a})$ | $13 .(\mathrm{c})$ | $14 .(\mathrm{c})$ | $15 .(\mathrm{b})$ | $16 .(\mathrm{c})$ | $17 .(\mathrm{c})$ | $18 .(\mathrm{a})$ | $19 .(\mathrm{d})$ | $20 .(\mathrm{c})$ |
| 21.(d) | $22 .(\mathrm{a})$ | $23 .(\mathrm{b})$ | $24 .(\mathrm{b})$ | $25 .(\mathrm{d})$ | $26 .(\mathrm{c})$ | $27 .(\mathrm{a})$ | $28 .(\mathrm{d})$ | $29 .(\mathrm{a})$ | $30 .(\mathrm{a})$ |
| 31.(a) | $32 .(\mathrm{c})$ | $33 .(\mathrm{b})$ |  |  |  |  |  |  |  |

## Chapter <br> 10

## MISSING FIGURES

## PREVIOUS YEAR QUESTIONS

Direction: 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.
(AFCAT I 2015)

1. Problem Figure


Solution: (d)
2. Problem Figure


Solution: (c)

## 3. Problem Figure



Solution: (a)

Answer Figures

(a)

(b)

(c)

(d)

(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)
(c)

(d)


## UNSOLVED QUESTIONS

1. Problem Figure

2. Problem Figure

3. Problem Figure

4. Problem Figure

5. Problem Figure


Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)



(d)

7. Problem Figure

8. Problem Figure

9. Problem Figure

10. Problem Figure

11. Problem Figure


Answer Figures

(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)

Answer Figures
ㅍ
(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)
12. Problem Figure

13. Problem Figure

14. Problem Figure

15. Problem Figure

16. Problem Figure

17. Problem Figure


Answer Figures

(a)
(b)

(c)
(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)
18. Problem Figure

19. Problem Figure


## 20. Problem Figure


21. Problem Figure

22. Problem Figure

23. Problem Figure


Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)

## 24. Problem Figure


25. Problem Figure

26. Problem Figure

27. Problem Figure

28. Problem Figure

29. Problem Figure


## Answer Figures


(a)

(b)

(c)

(d)

## Answer Figures


(a)

(c)
(d)

## Answer Figures


(a)

(b)

(c)

(d)

Answer Figures

(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)

## Answer Figures


(a)

(b)

(c)

(d)
30. Problem Figure


Answer Figures


## SOLUTIONS

| 1. (a) | 2. (c) | 3. (c) | 4. (b) | 5. (c) | 6. (b) | 7. (a) | 8. (d) | 9. (d) | $10 .(\mathrm{c})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11.(d) | $12 .(\mathrm{d})$ | $13 .(\mathrm{b})$ | $14 .(\mathrm{d})$ | $15 .(\mathrm{b})$ | $16 .(\mathrm{d})$ | $17 .(\mathrm{b})$ | $18 .(\mathrm{d})$ | $19 .(\mathrm{d})$ | $20 .(\mathrm{d})$ |
| 21.(d) | $22 .(\mathrm{d})$ | $23 .(\mathrm{d})$ | $24 .(\mathrm{d})$ | $25 .(\mathrm{d})$ | $26 .(\mathrm{b})$ | $27 .(\mathrm{d})$ | $28 .(\mathrm{c})$ | $29 .(\mathrm{d})$ | $30 .(\mathrm{c})$ |


[^0]:    4. Problem Figure
    5. Problem Figure
