



## DEPARTMENT OF EMPLOYMENT AND TRAINING

### TNPSC GROUP II A MAINS - UNIT II

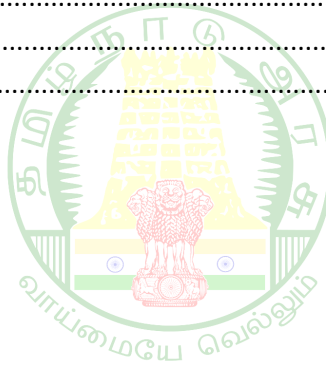
**Course :** TNPSC Group II A Mains Material

**Subject :** General Intelligence and Reasoning

**Topic :** Classification

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## Classification

### Classification - Odd One Out

In classification reasoning, the task is to identify the "stranger" or the odd one out from a group of things based on a specific property or characteristic. The group of items in the question will typically share certain similarities, and one item will differ in one key aspect (such as shape, color, size, habitat, etc.).

Here's how you can approach these kinds of problems:

- ❖ **Examine the properties:** Look at each item carefully and try to identify common traits such as:
  - **Shape** (e.g., **round, square, triangular**)
  - **Color** (e.g., all are red except one that is blue)
  - **Size** (e.g., all are small except one that is large)
  - **Habitat** (e.g., all are aquatic except one that is terrestrial)
  - **Category** (e.g., fruits vs. vegetables, animals vs. objects)
- ❖ **Compare the items:** Group the items by their shared characteristics and see if one item doesn't fit the pattern.
- ❖ **Identify the odd one out:** The item that does not share the key characteristic with the others is the stranger.

**Example:**

**Group of items:** Apple, Banana, Carrot, Mango

- **Category:** Apple, Banana, and Mango are fruits, while Carrot is a vegetable.

Here, **Carrot** would be the stranger because it is a vegetable, while the rest are fruits.

### Types of Classification:

1. Semantic Classification
2. Numerical Classification
3. Letters Classification
4. Figural Classification
5. Mixed Classification

### Semantic classification:

Semantic classification tasks involve categorizing or grouping items based on their meanings, and sometimes identifying odd ones out in a list of related terms. In this case, the task is to compare a set of words, find their common properties, and determine which one is different from the others.

To solve this, follow these steps:

1. **Identify common characteristics:** Look for similarities in the words. These could be related to categories (e.g., animals, fruits, professions, etc.), physical attributes (e.g., size, shape, color), or functional roles (e.g., tools, vehicles, etc.).
2. **Compare each word:** For each word, determine if it shares the same category or properties as the rest. The one that doesn't fit will be the odd one out.

**Example:**

1. In the list

**Tamil Nadu, Kerala, Maharashtra, Puducherry.**

- Tamil Nadu, Kerala, and Maharashtra are **States** in India.
- Puducherry is a **Union Territory** (UT).

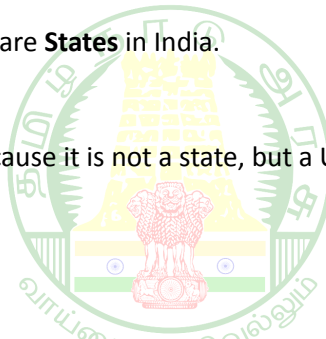
Therefore, **Puducherry** is the odd one out because it is not a state, but a Union Territory.

2. In the list

**Ravi, Ganga, Beas, Sutlej.**

- **Ravi, Beas, and Sutlej** are tributaries of the **Indus River**. These rivers are part of the **Sapta Sindhu** or the "Seven Rivers" that are historically important in the Indian subcontinent.
- **Ganga**, however, is not a tributary of the Indus; it is a major river flowing independently across northern India.

Therefore, **Ganga** is the odd one out because it is not a tributary of the Indus River, unlike the others.



**Numerical Classification:**

Numerical classification tasks involve identifying the type of numbers given in a list, and then determining the one that doesn't fit. This can involve recognizing prime numbers, square numbers, cube numbers, or other types of numbers (like even, odd, etc.).

Sometimes numerical pairs, ratios are also given. We need to analyse the relationship between them and find out odd one

**Here's how you can approach this:**

1. **Prime Numbers:** Numbers greater than 1 that have no divisors other than 1 and themselves. (e.g., 2, 3, 5, 7, 11)
2. **Square Numbers:** Numbers that are the square of an integer (e.g., 1, 4, 9, 16, 25). They can be written as  $n^2$ , where  $n$  is an integer.
3. **Cube Numbers:** Numbers that are the cube of an integer (e.g., 1, 8, 27, 64). They can be written as  $n^3$ , where  $n$  is an integer.

**Example:****1. 4, 9, 27, 16**

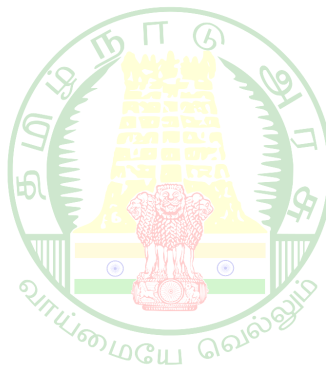
- 4 is a square number ( $2^2$ )
- 9 is a square number ( $3^2$ )
- 27 is a cube number ( $3^3$ )
- 16 is a square number ( $4^2$ )

Here the answer is 27.

**2. (3,6), (4,8),(6,12),(7,21)**

- (3, 6):  $3 \times 2 = 6$
- (4, 8):  $4 \times 2 = 8$
- (6, 12):  $6 \times 2 = 12$
- (7, 21):  $7 \times 3 = 21$

Here the answer is (7,21)



**Letters classification:**

In this type, you are given four random letters or letter clusters, and your job is to figure out which one is different from the others based on certain rules. These rules could be related to vowels, consonants, or place values in the alphabet.

**Example:**

Find the odd one: AB, IJ, RT, XY.

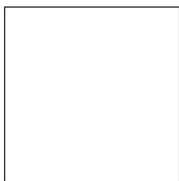
- A and B, I and J, X and Y are consequent letters.
- But R and T are not consequent. Because S lies between them.

**Figural Classification:**

In Figural classification, A set of images are given that follow a specific rule or pattern, and one of the images doesn't follow that pattern.

**Example:**

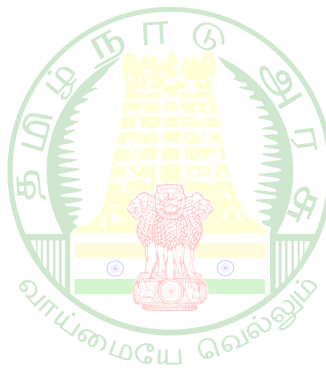
1. Find the odd one.

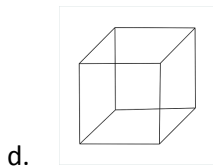
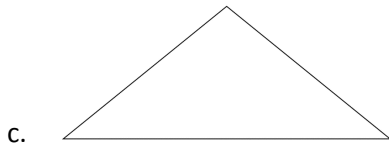


a.



b.





The answer is d.

- Options a,b and c are 2D images.
- Option d is a 3D image.

### **Mixed Classification:**

In **Mixed Classification**, Numbers, letters, and words, all mixed together. The goal is to classify or sort them based on their type.

### **Example:**

1. Find the odd one.
  - a. Harbour : 7
  - b. Admiral : 6
  - c. Ocean : 5
  - d. Ship : 4

The answer is Option b. Admiral

- Harbour is 7 letter word
- Ocean is 5 letter word
- Ship is 4 letter word
- Admiral is a 7 letter word. But 6 is placed there. so option b is an odd one.



**Variety of Questions:**

1. Find the odd one.

- a. Camel
- b. Jaguar
- c. Elephant
- d. Moose

Answer: a. Camel

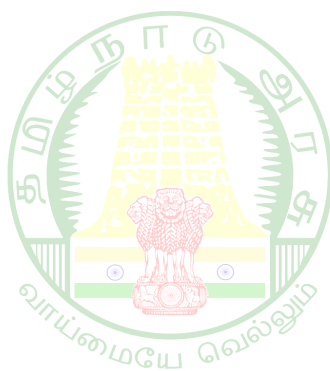
**Explanation:**

Jaguar, Elephant and Moose all live in the forest. Camels live in Desert.

2. Which does not belong to this group?

101, 121, 131, 151

- a. 151
- b. 121
- c. 101
- d. 131



Answer: b. 121

**Explanation:** 101, 131, 151 are prime numbers. 121 is a composite number.

3. Which one is not similar in the given options.

- a. Odometer : Distance
- b. Barometer: Atmospheric Pressure
- c. Dynamometer: Electrical power
- d. Fathometer : Altitude

Answer: d. Fathometer

**Explanation:** Fathometer is used to measure depth of sea. Altimeter used to measure altitude.

4. Find the different one.

- a. MN
- b. UV
- c. AZ
- d. GT

Answer: b. UV

**Explanation:** MN, AZ,GT are paired with opposite letters. But, UV is not an opposite pair.

5. Choose the one that is not similar.

- a. 8H
- b. 3D
- c. 9J
- d. 2C

Answer: a. 8H

**Explanation:** The place value of H is 8. It was matched correctly. The place value of D,J and C is 4,10 and 3 respectively.

6. Choose the one which is different from the rest.

- a. 20
- b. 42
- c. 30
- d. 49

Answer: d. 49.

**Explanation:**

- $(4 \times 4) + 4 = 20$
- $(5 \times 5) + 5 = 30$
- $(6 \times 6) + 6 = 42$



- $(7 \times 7) + 7 = 56$  but 49 was placed.

7. Find the different one.

- a. Triangle - 3
- b. Rectangle - 4
- c. Hexagon - 5
- d. Octagon - 8

Answer: c. Hexagon - 5

**Explanation:**

- Triangle - 3 sides
- Rectangle - 4 sides
- Octagon - 8 sides
- Hexagon - 6 sides

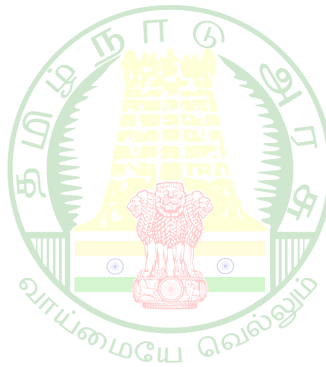
8. Eliminate the odd one.

- a. DEFG
- b. HJKL
- c. MNOP
- d. UVWX

Answer: b. HJKL

**Explanation:**

- DEFG - Consequent letters
- MNOP - Consequent letters
- UVWX - Consequent letters
- HJKL - Not consequent letters. Because I was missed.



9. Find the odd one.

- a. Jaipur
- b. Amaravathi
- c. Kozhikode
- d. Dispur

Answer: c. Kozhikode.

**Explanation:**

All are the capital cities of different states except Kozhikode. Trivandrum is the capital city of Kerala not kozhikode.

10. Choose the different one.

- a. Wrist
- b. Cheeks
- c. Nose
- d. Eyes

Answer: a. Wrist

**Explanation:** Cheeks, nose and eyes are placed in the face. Wrist is placed in hand not face.



11. 3,5,7,9,11. Choose the different one from the above series.

- a. 5
- b. 7
- c. 9
- d. 11

Answer: c. 9

**Explanation:** Except 9 all are prime numbers.

12. Choose the odd one.

- a. 88 : 97
- b. 27 : 38
- c. 62 : 73
- d. 55 : 66

Answer: a. 88 : 97

**Explanation:**

- $27 + 11 = 38$
- $62 + 11 = 73$
- $55 + 11 = 66$
- but  $88 + 9 = 97$ .

13. Which one is not similar to rest?

- a. 816
- b. 657
- c. 753
- d. 159

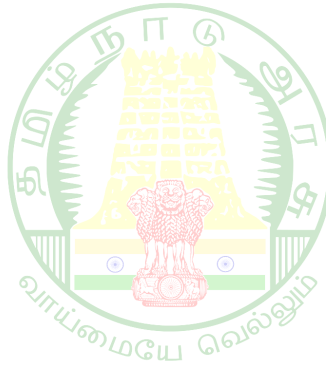
Answer: b. 657

**Explanation:**

- $8 + 1 + 6 = 15$
- $7 + 5 + 3 = 15$
- $1 + 5 + 9 = 15$
- $6 + 5 + 7 = 18$

14. Choose the different one.

- a. Psychology
- b. Zoology
- c. Chemistry
- d. Anatomy



Answer: c. Chemistry

**Explanation:** Except chemistry, all are studied with living things.

15. Choose odd one.

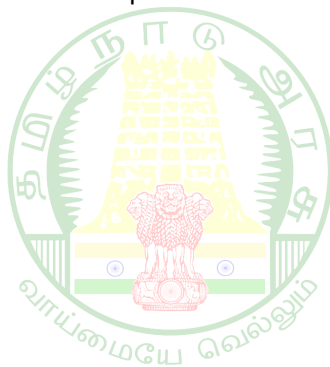
- a. Millimeter
- b. Centimeter
- c. Nanometer
- d. Kilometer

Answer: d. Kilometer

**Explanation:**

Except kilometer, all others are having minus values in power of 10.

- Kilometer =  $10^3$
- Millimeter =  $10^{-3}$
- Centimeter =  $10^{-2}$
- Nanometer =  $10^{-9}$



16. Choose the different one from the rest.

- a. ( 5, 15, 30)
- b. ( 12, 22, 38)
- c. ( 47, 57, 72)
- d. ( 63, 73, 88)

Answer: b. ( 12,22,38)

**Explanation:**

- ( 5, 15, 30) =  $5+10 = 15$ .  $15+15 = 30$
- ( 12, 22, 38) =  $12+10=22$ ,  $22+15 = 37$
- ( 47, 57, 72) =  $47+10= 57$ ,  $57+15 = 72$
- ( 63, 73, 88) =  $63+10 = 73$ ,  $73+15 = 88$

17. Choose the odd one.

- a. ( B,6,C)
- b. (E,12,G)
- c. (D,13,I)
- d. (J,22,L)

Answer: a. (B,6,C)

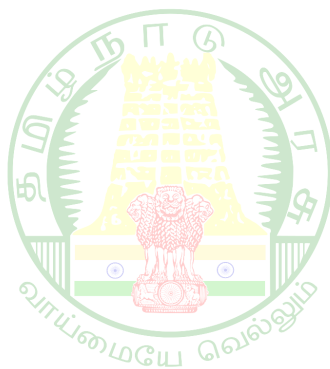
**Explanation:**

Add the place value of given alphabets of each pair.

- $B+C = 5$
- $E+G = 12$
- $D+I = 13$
- $J+L = 22$

18. Find the odd one.

- a. Madurai
- b. Kanchipuram
- c. Kumbakonam
- d. Tenkasi



Answer: c. Kumbakonam

**Explanation:**

Except Kumbakonam, all others are districts.

19. Choose the different one.

- a. Vaigai
- b. Palar
- c. Kaveri
- d. Periyar

Answer: d.Periyar

**Explanation:**

Except periyar river, all other rivers are east running rivers.

20. Choose the odd one.

- a. Andhra Pradesh
- b. Telangana
- c. Tamilnadu
- d. Kerala

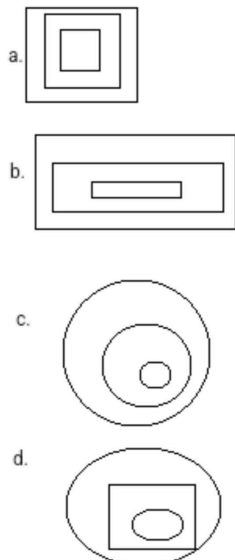
Answer: b. Telangana

**Explanation:**

Except Telangana, all other states having its own coastal areas.



21. choose the odd one



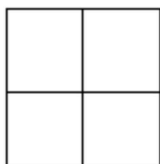
Answer : d

**Explanation:**

Other than d, All options have similar images.

22. Find the odd one.

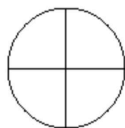
a.



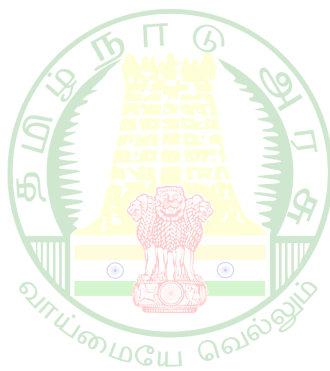
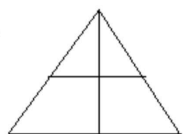
b.



c.



d.

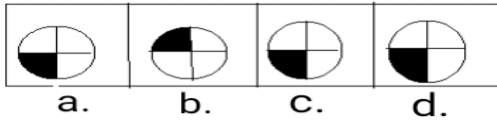


Answer: d.

**Explanation:**

Except option d, others can be divided into equal 4 parts.

23. Identify the different image.



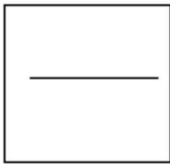
Answer: c.

**Explanation:**

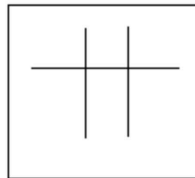
All images are shaded in Clockwise. Based on this rule C image was wrong.

24. Find the different image.

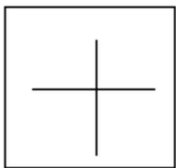
a.



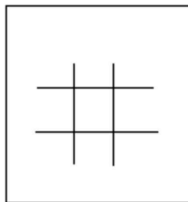
c.



b.



d.



Answer: c

**Explanation:**

1. First image has one Horizontal line
2. Second image has one horizontal and one vertical line
3. Fourth image has 2 vertical and 2 horizontal line
4. In the third image there should be 2 horizontal lines and one vertical line. but it has 2 vertical line and 1 horizontal line



25. Choose the odd one.

a.



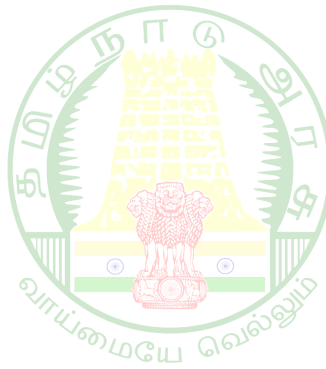
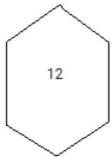
b.



c.



d.



Answer: b

**Explanation:**

- First image: 3 sides  $\times 2 = 6$
- Third image: 4 sides  $\times 2 = 8$
- Fourth image: 6 sides  $\times 2 = 12$
- Second image: 4 sides  $\times 2 = 8$ . But it has 10 instead of 8.

**Practice Questions:**

1. Choose the odd one.

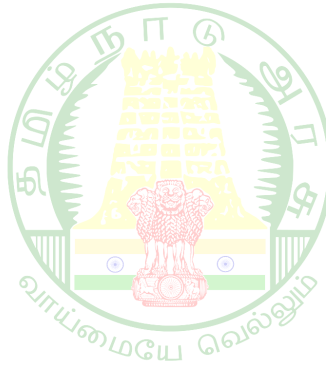
- a. VZ
- b. LP
- c. QT
- d. GK

2. Identify the different one.

- a. ( 11,36,12)
- b. (24,68,10)
- c. (15,45,12)
- d. (13,40,7)

3. Choose the different one.

- a. 11:1321
- b. 8: 512
- c. 9: 729
- d. 12: 1728



4. Choose the Odd one.

- a. C - 24
- b. U - 5
- c. O - 15
- d. J - 17

5. Choose the different one.

- a. Car
- b. Bike
- c. Bicycle
- d. Van

6. Choose the one which is different from the rest.

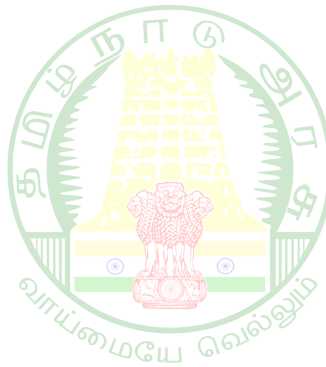
- a. Bangladesh
- b. Pakistan
- c. Sri Lanka
- d. China

7. Find the different one.

- a. Pallavas
- b. Cheras
- c. Cholas
- d. Bimini

8. Choose the odd one out.

- a. CAT
- b. SET
- c. MAT
- d. RAT



9. Choose the different word.

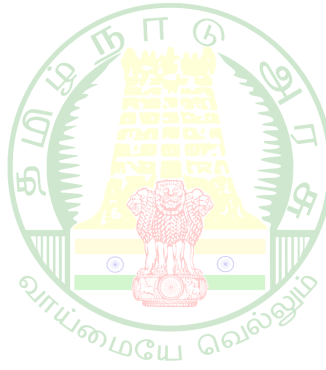
- a. P.V.Sindhu
- b. Saina nehwal
- c. R.Ashwin
- d. Mukund varatharajan

10. Choose the odd one.

- a. AIADMK
- b. DMK
- c. BJP
- d. PMK

**Answers:**

Q. No	1	2	3	4	5	6	7	8	9	10
Ans	c	c	a	b	c	c	d	b	d	c



**Explanations:**

1.Explanation:

V+4 places = Z

L + 4 places = P

G + 4 places = K

Q + 4 places = U but T placed here.

2. Explanation:

$(11+12) \times 2 = 36$

$(24+10) \times 2 = 68$

$(13+7) \times 2 = 40$

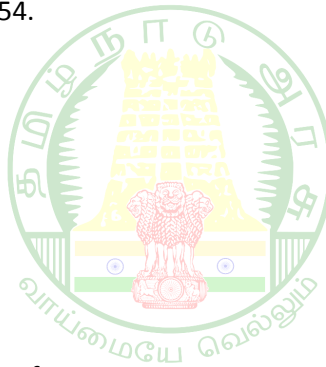
$(15+12) \times 2 = 54$ . but 45 is placed instead of 54.

3. Explanation:

In all ratios,

Second value is cube value of first one.

But 1321 is not cube value of 11. Cube value of 11 is 1331.



4. Explanation:

All are Alphabets with opposite letters place values. The correct value of U is 6.

5. Explanation: Except bicycle, all are need fuel.

6. Explanation: Other than sri lanka, all are sharing their boundaries with india.

7. Except Bamini, all others are ruled in tamilnadu.

8. Explanation: Except SET, all other words containing A as middle letter.

9. Explanation: Except Mukund varatharajan all are sports personalities. Mukund varatharajan is a soldier.

10. Explanation: Except BJP, all others are state parties. BJP is the national party.

