

Logical Reasoning

VERBAL REASONING

1. Which of the following options will complete the given series?

1, 6, 15, (...?), 45, 66, 91

- (a) 25 (b) 26
(c) 27 (d) 28

2. How many pairs of letters are there in the word PHILOSOPHICAL which have as many letters between them as in the English alphabet?

- (a) Nine (b) Four
(c) Seven (d) Six

3. Harsh starts walking straight facing south. After 15 metres he turned to his right, walked 10 metres and turned to his left. Again after walking a distance of 5 metres he turned to his left. Which direction is he facing now?

- (a) West (b) East
(c) North-East (d) South-West

4. Study the set of numbers given below and answer the question which follow:

427 581 839 275 589

If two is subtracted from the first digit of each of the numbers and then the first and the third digits are interchanged, which of the following will be the lowest?

- (a) 427 (b) 581
(c) 839 (d) 275

5. Pointing to Kartik, Vivan said, "His mother's brother is the father of my son Nitin." How is Kartik related to Vivan?

- (a) Uncle (b) Brother
(c) Nephew (d) Father

6. If it is possible to make a meaningful word from the first, fourth, seventh and ninth letters of the word FABRICATION using each letter only once, third letter of the word would be your answer. If more than one such word can be formed, your answer would be 'S' and if no such word can be formed, answer is 'M'.

- (a) I (b) F
(c) M (d) S

7. How many such symbols are there in the given arrangement, each of which is immediately preceded by a consonant and also immediately followed by a consonant?

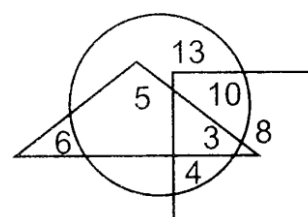
*3P1%TRA5#DM7K*EG28\$H

- (a) None (b) One
(c) Two (d) Three

8. In a certain code language LANGOUR is written as RZMTLFL and CERTAIN is written as NVIGZRC. How will ALPHABET be written in that code language?

- (a) TLPHABEA (b) TOKSAYVA
(c) TOKSAZYA (d) TOKSZYVA

9. In the given diagram, square represents women, triangle represents sub-inspectors of police and circle represents graduates. Which numbered area represents graduate women who are sub-inspectors of police?



- (a) 5 (b) 3
(c) 8 (d) 13

10. Find the missing number, if a certain rule is followed row-wise or column-wise.

6	6	6
5	7	5
4	3	?
120	126	320

- (a) 4 (b) 8
(c) 12 (d) 16

11. If 'x' denotes '-', '+' denotes '-', '-' denotes '+' and '-' denotes 'x' then what is the value of $136 + 4 \div 5 - 68 \times 75$?

- (a) 165 (b) 146
(c) 173 (d) 163

12. Which would be the proper order of the following (in ascending order)?

1. Triiiion
 2. Thousand
 3. Billion
 4. Hundred
 5. Million
- (a) 1, 2, 4, 3, 5 (b) 1, 5, 3, 2, 4
(c) 4, 2, 3, 5, 1 (d) 4, 2, 5, 3.

13. In the given question, a group of letters is followed by four combinations of digits/symbols. You have to find out which of the combinations correctly represents the group of letters based on the following coding system and the conditions and select the correct option of that combination.

Letter	R	A	T	K	F	Q	E	P	J	I	M	U	D	H
Digit / Symbol	3	@	2	1	9	4	©	%	5	8	\$	6	7	#

Conditions:

- (i) If the first letter is a consonant and the last letter is a vowel, their codes are to be interchanged.
- (ii) If both the first and the last letters are vowels, both are to be coded as H
- (iii) If both the first and the last letters are consonants, both are to be coded as the code for the last letter.

UDKFME

- (a) #719\$© (b) 6719\$©
(c) #719\$^ (d) ©719\$6

14. Study the following information carefully and answer the following question.

- (i) A, B, C, D, E, F, G, and H are eight students, each having a different height.
- (ii) D is shorter than A but taller than G.
- (iii) E is taller than H but shorter than C.
- (iv) B is shorter than D but taller than F
- (v) C is shorter than G.
- (vi) G is not as tall as F.

Which of the following statements is definitely INCORRECT?

- (a) G is shorter than F
- (b) C is shorter than F.
- (c) F is taller than C
- (d) None of these

15. Which of the following is third to the left of the eighteenth digit from the left end of the given arrangement?

7 6 1 7 9 2 4 1 5 6 4 9 2 3 4 15 8 4 8 12 7

- (a) 8 (b) 3
(c) 4 (d) 5

16. Mohit is 16th from the top and twelfth from the bottom in merit in the class- How many students are there in the class?

- (a) 29 (b) 28
(c) 27 (d) None of these

17. Read the following information and answer the following question.

- (i) L, M, N, O, P, Q, R and S are sitting around a circle facing the centre,
- (ii) N, who is third to the left of R is not a neighbour of R and M.,
- (iii) S is the neighbour of O and R and is third to the right of M.

(iv) L is not the neighbour of O who is second to the left of N,

What is the position of Q?

- (a) Immediate right of R
(b) immediate left of N
(c) Third to the right of M
(d) Second to the left of S

18. Arrange the given words as they occur in the dictionary and then select the correct option.

1. Dissipate
 2. Dissuade
 3. Disseminate
 4. Distract
 5. Dissociate
 6. Dissect
- (a) 6, 3, 1, 5, 2, 4 (b) 1, 6, 3, 2, 4, 5
(c) 3, 6, 1, 2, 5, 4 (d) 4, 6, 3, 1, 5, 2

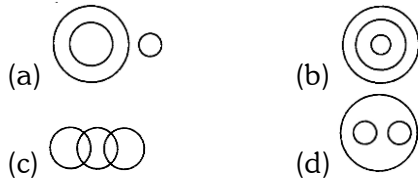
19. Select the combination of numbers so that the letters are arranged accordingly to form a meaningful word.

H	B	M	R	S	U	O
1	2	3	4	5	6	7

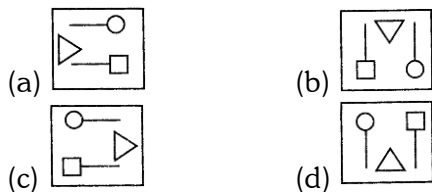
- (a) 3, 4, 2, 7, 6, 1, 5
(b) 5, 2, 7, 1, 4, 6, 3
(c) 4, 1, 7, 3, 2, 6, 5
(d) 4, 1, 7, 3, 2, 5, 6

NON-VERBAL REASONING

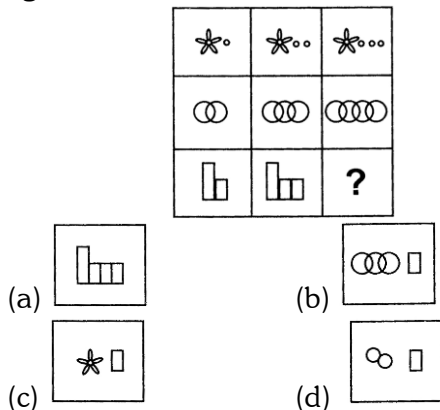
- 20** Which of the following Venn diagrams best represents the relationship amongst "Aeroplane, Pilot, Air hostess"?



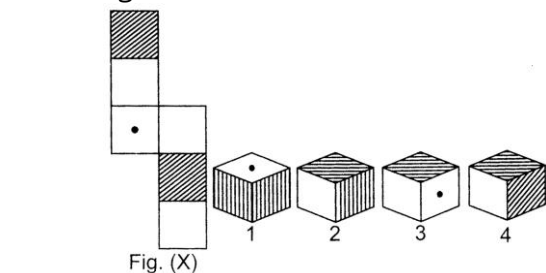
- 21** Select the odd one out.



- 22** Which of the following options will replace the question mark (?) to complete the given figure matrix?

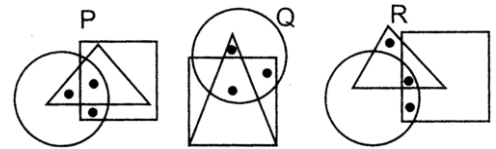


- 23** Fig. (X) given on the left hand side is folded along the lines to form a cube. Choose the boxes from the options which may be formed on closing the cube.



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

- 24** Select the pair which satisfies the same conditions of placement of dots.



- (a) PQ
(b) QR
(c) PR
(d) None of these

- 25** Select the figure from the options which is NOT exactly embedded in the given Fig. (X) as one of its part.

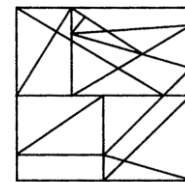
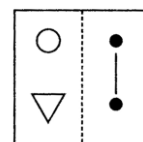


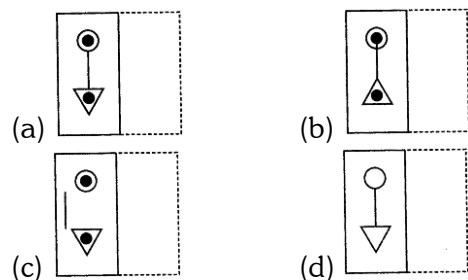
Fig. (X)



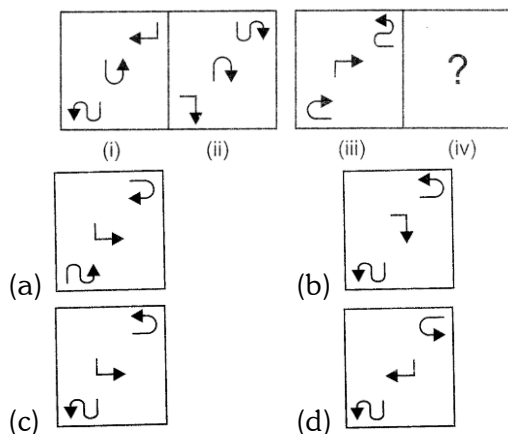
- 26** A square transparent sheet with a pattern and a dotted line on it is given. Find how the pattern would appear when the transparent sheet is folded along the dotted line.



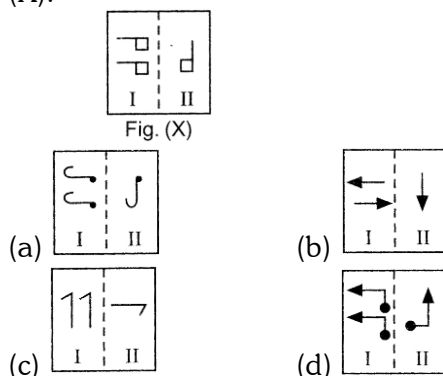
Transparent sheet



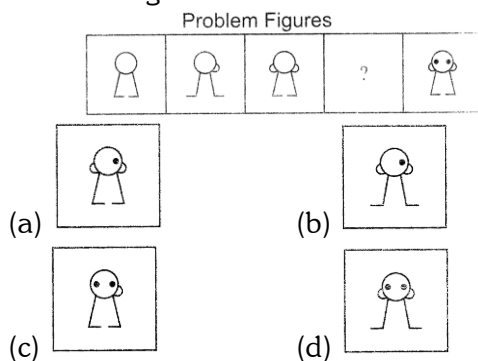
- 27** There is a certain relationship between figures (i) and (ii). Establish a similar relationship between figures (iii) and (iv) by selecting a suitable figure from the options that will replace (?) in figure (iv).



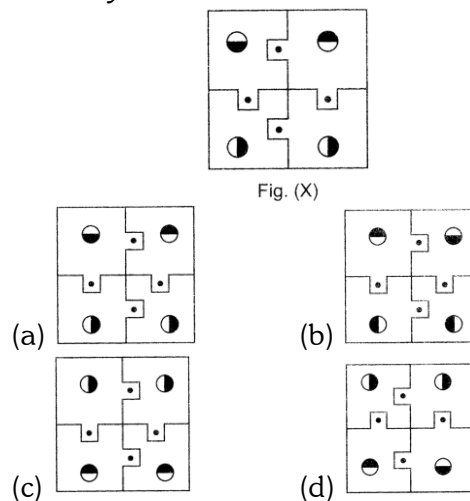
- 28** Select the pair from the given options that has a relationship similar to that in the Fig. (X).



- 29** Select a figure from the option figures, which will continue the series established by the Problem Figures.



- 30** Which of the following is the correct mirror image of Fig. (X), if the mirror is placed vertically to the left?



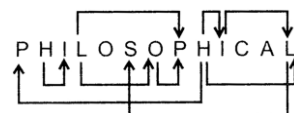
ANSWER KEY

1. D	2. A	3. B	4. B	5. C
6. D	7. A	8. D	9. B	10. B
11. D	12. D	13. C	14. D	15. C
16. C	17. B	18. A	19. C	20. D
21. C	22. A	23. B	24. A	25. B
26. A	27. C	28. D	29. B	30. B

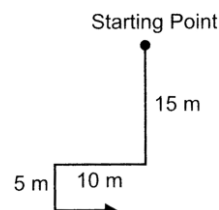
SOLUTION

1. (d): The pattern followed is
 1 6 15 28 45 66 91
 +5 +9 +13 +17 +21 +25
 So, the missing number is 28.

2. (a):



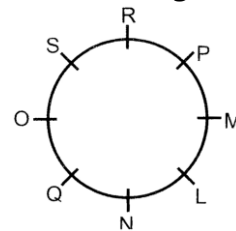
3. (b):



4. (b): The set of numbers after subtracting two from the first digit of each of the numbers is
 227 381 639 075 389
 Now interchanging first and third digits, the new set of numbers is
 722 183 936 570 983
 The lowest number is 183.
5. (c): Kartik's mother's brother is the father of Vivan's son.
 i.e., Kartik's mother's brother is Vivan.
 So, Kartik is Nephew of Vivan.
6. (d): The specified letters are F, R, A, I.
 The meaningful words formed are FAIR and FIAR.
7. (a)
8. (d): Interchange first and last letters of the given word. Now, except the first and last letters of the word, replace each letter of the word by the same positioned letter from the right end of English alphabet. So, ALPS-IABET becomes TOKSZYVA.
9. (b): Number 3 represents the common area of triangle, square and circle.
10. (b): The rule followed is
 $6 \times 5 \times 4 = 120$
 $6 \times 7 \times 3 = 126$
 So, $8 \times 5 \times \boxed{8} = 320$
11. (d): The expression becomes,
 $136 \div 4 \times 5 + 68 - 75$
 $= 34 \times 5 + 68 - 75 = 170 + 68 - 75 = 163$
12. (d): The proper order is
 Hundred, Thousand, Million, Billion, Trillion.
13. (c)
14. (d): The order from the tallest to the shortest is;
 A, D, B, F, G, C, E, H
15. (c): The series is
 76179241564923 $\boxed{4}$ 15 $\boxed{8}$ 48127

Eighteenth digit from left end is 8.
 Third to the left of 8 is 4.

16. (c): Total number of students
 $= 16 + 12 - 1 = 27$.
17. (b): The correct sitting arrangement is:



So, Q is sitting immediate left of N.

18. (a): Dictionary arrangement of words is
 Dissect, Disseminate, Dissipate, Dissociate, Dissuade, Distract.
 i.e., 6, 3, 1, 5, 2, 4
19. (c): The meaningful word formed will be

R	H	O	M	B	U	S
4	1	7	3	2	6	5

20. (d)
21. (c)
22. (a): One element is increased in each step in moving row wise.
23. (b)
24. (a)
25. (b)
26. (a)
27. (c)
28. (d)
29. (b)
30. (b)