

Date: 06/11/2016

Max. Marks: 50

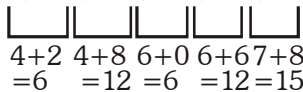
SOLUTIONS

Time allowed: 45 mins

Directions (Q.1-Q.3) There is a number series following a pattern. One place is left blank. Find the correct answer from the options.

1. 42, 48, 60, 66, 78 _____
 (1) 68 (2) 93 (3) 101 (4) 104

Ans. (2)

Sol. 42, 48, 60, 66, 78, 93


2. $\frac{2}{\sqrt{5}}, \frac{3}{5}, \frac{4}{5\sqrt{5}}, \frac{5}{25} ?$
 (1) $\frac{6}{5\sqrt{5}}$ (2) $\frac{6}{125}$ (3) $\frac{7}{25}$ (4) $\frac{6}{25\sqrt{5}}$

Ans. (4)

Sol. Multiply by $\frac{1}{\sqrt{5}}$

3. 15, 31, 64, 131, ?
 (1) 266 (2) 256 (3) 192 (4) 524

Ans. (1)

Sol. $15 \times 2 = 30 + 1 = 31$
 $31 \times 2 = 62 + 2 = 64$
 $64 \times 2 = 128 + 3 = 131$
 $131 \times 2 = 262 + 4 = 266$

4. In a certain code language "HEALTH" is written as GSKZDG, then how will "North" be written in that code?
 (1) OPSUI (2) GSQNM (3) FRPML (4) IUSPO

Ans. (2)

Sol. 

5. In a certain code language if 'SIR' is written as 'P S P I P R' then 'MAN' can be written as
 (1) PMANP (2) PMPAPN (3) MANP (4) MPANP

Ans. (2)

Sol. S I R → P S P I P R
 M A N → P M P A P A

6. Arrange the following words according to dictionary arrangement
 (a) Eagle (b) Earth (c) Eager (d) Early
 (e) Each
 (1) a, e, b, d, c (2) b, a, d, c, e (3) b, c, e, d, a (4) e, c, a, d, b

Ans. (4)

Sol. Each → Eager → Eagle → Early → Earth

Directions (Q. 7-8) The letters given below follow a definite pattern. Find out the missing letters to complete the pattern.

7. ba__cb__b__bab__
 (1) ca bb (2) ac bb (3) bc aa (4) ba cc

Ans. (4)

Sol. babc | babc | babc
 Pattern follow → babc

8. ab__ __baa__ __ ab __
 (1) baabb (2) aabab (3) aaaaa (4) aabaa

Ans. (4)

Sol. aba | aba | aba | aba
 Pattern follow → aba

9. Select the combination of numbers so that the letters arranged accordingly will form a meaningful word

D	I	F	E	R	N
1	2	3	4	5	6
(1) 1, 4, 3, 6, 2, 5	(2) 6, 4, 3, 5, 2, 1	(3) 3, 5, 2, 4, 6, 1	(4) 5, 4, 3, 2, 6, 1		

Ans. (3)

Sol. F R I E N D
 3 5 2 4 6 1

Direction : In the questions (10-11) : some symbols have been given different meanings Read them Properly and answer the questions with accurate options.

÷	means	>
-	means	=
=	means	<
Δ	means	+
<	means	×
>	means	-
+	means	÷

- 10.** (1) $6 \Delta 3 < 5 \div 4 < 2 \Delta 6$
 (3) $8 + 4 > 5 \div 4 + 2 \Delta 6$

- (2) $6 < 3 \Delta 5 = 4 \Delta 2 < 6$
 (4) $6 + 3 > 5 \div 4 + 2 \Delta 6$

Ans. (1)

Sol. $6 \Delta 3 < 5 \div 4 < 2 \Delta 6$
 $6 + 3 \times 5 > 4 \times 2 + 6$
 $6 + 15 > 8 + 6$
 $21 > 14$

- 11.** (1) $2 < 4 < 5 - 6 + 3 < 2$
 (3) $2 > 4 > 5 = 6 + 2 < 2$

- (2) $2 \Delta 4 < 5 \div 6 < 3 < 2$
 (4) $2 < 4 \Delta 5 = 6 \Delta 3 > 2$

Ans. (3)

Sol. $2 > 4 > 5 = 6 + 2 < 2$
 $2 - 4 - 5 < 6 \div 2 \times 2$
 $2 - 9 < 3 \times 2$
 $-7 < 6$

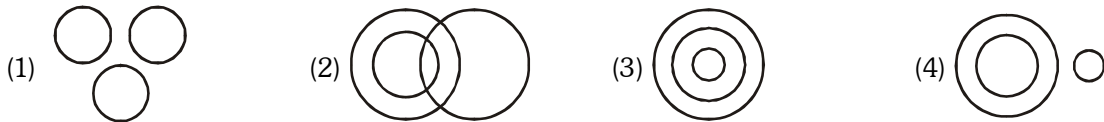
12. Some students are sitting in row. B is sitting on the extreme left of the row, K is sitting between V and R, V is sitting next to M, M is sitting next to B and Q is sitting next to R, who are sitting adjacent to V?

- (1) Q and K (2) R and Q (3) M and K (4) K and R

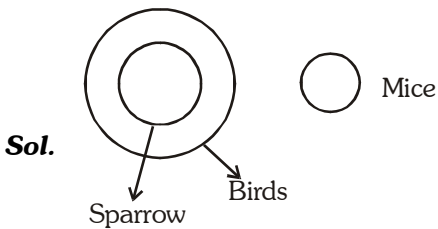
Ans. (3)

Sol. B M V K R
 K, M Adjacent to V

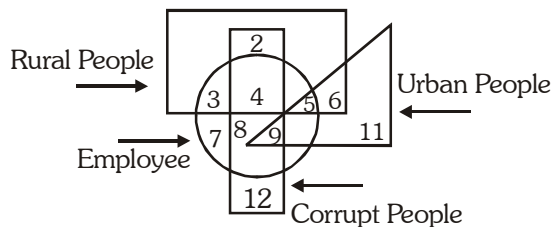
13. Which figure represents sparrows, Birds and Mice ?



Ans. (4)



14. Find the urban, corrupt employee in the following diagram :



- (1) 11 (2) 9 (3) 7 (4) 12

Ans. (2)

Sol. Common to triangle, rectangle & circle.

15. A is taller than B but shorter than C, D is taller than A but shorter than C, E is taller than B but shorter than A. Who is the tallest among them ?

- (1) D (2) C (3) B (4) A

Ans. (2)

Sol. $C > A > B, A > E > B$

$C > D > A,$

$\Rightarrow C > D > A > E > B$

$\Rightarrow C$ is the tallest

Directions (Q : 16-19) What will come in place of question mark(?)

16.

44	64	100
34	49	169
54	81	?

- (1) 81 (2) 144 (3) 225 (4) 64

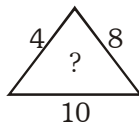
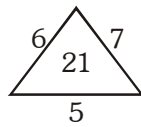
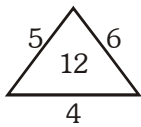
Ans. (1)

Sol. $44 \Rightarrow (4+4)^2 \Rightarrow 8^2 \Rightarrow 64 \Rightarrow (6+4)^2 \Rightarrow 10^2 \Rightarrow 100$

$34 \Rightarrow (3+4)^2 \Rightarrow 7^2 \Rightarrow 49 \Rightarrow (4+9)^2 \Rightarrow 13^2 \Rightarrow 169$

$54 \Rightarrow (5+4)^2 \Rightarrow 9^2 \Rightarrow 81 \Rightarrow (8+1)^2 \Rightarrow 9^2 \Rightarrow 81$

17.



- (1) 30 (2) 22 (3) 42 (4) 32

Ans. (1, 4)

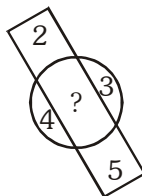
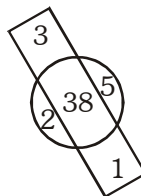
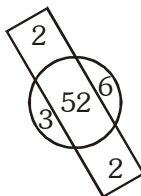
Sol. Case-I : $(5 \times 4) - (6) - (2) = 12$

$(6 \times 5) - (7) - (2) = 21$

$(4 \times 10) - (8) - (2) = 30$

Case-II : $\frac{5 \times 6 \times 4}{10} = 12, \frac{6 \times 7 \times 5}{10} = 21, \frac{4 \times 8 \times 10}{10} = 32$

18.



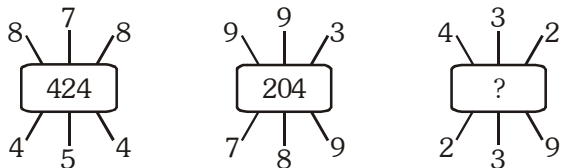
- (1) 32 (2) 44 (3) 61 (4) 53

Ans. (4)

Sol. $2^2 + 6^2 + 2^2 + 3^2 = 4 + 36 + 4 + 9 = 53 - 1 = 52$

$3^2 + 5^2 + 1^2 + 2^2 = 9 + 25 + 1 + 4 = 39 - 1 = 38$

$2^2 + 3^2 + 4^2 + 5^2 = 4 + 9 + 16 + 25 = 54 - 1 = 53$

19. 
- (1) 6611 (2) 207 (3) 193 (4) 607

Ans. (3)

Sol. $878 - 454 = 424$
 $993 - 789 = 204$
 $432 - 239 = 193$

20. Which of the following words cannot be made from the letters given in question ?
 D E T E R M I N A T I O N

- (1) MINT (2) TEAM (3) TAMED (4) NORTH

Ans. (4)

Sol. H is not in given word.

Directions (Q 21-23) There are five persons P, Q, R, S and T. One is football player. One is chess player and one is hockey player. P and S are unmarried ladies and do not Participate in any game. None of the ladies plays chess or football. There is a married couple in which T is the husband. Q is the brother of R and is neither a chess player nor a hockey player

Person	Info	Game played
P	Unmarried lady	Unmarried lady
Q	Brother of R	—
R	Married lady	Hockey
S	Unmarried lady	—
T	Husband	Chess

21. Who is the Football player ?
 (1) P (2) Q (3) R (4) S

Ans. (2)

22. Who is the wife of T ?
 (1) P (2) Q (3) R (4) S

Ans. (3)

23. Who is the hockey Player ?
 (1) P (2) Q (3) R (4) S

Ans. (3)

24. Sunny Walked 6 metres facing towards East, then took a right turn and walked a distance of 9 metres. He then took a left turn and walked a distance of 6 metres. How far is he from the starting point ?
 (1) 15 metres (2) 21 metres (3) 18 metres (4) 14 metres

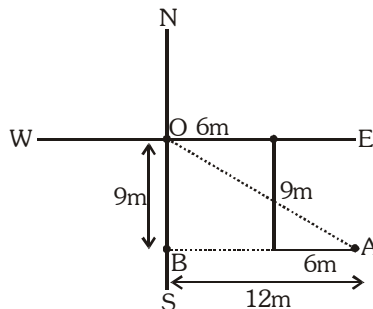
Ans. (1)

Sol. $OA^2 = OB^2 + BA^2$

$$OA = \sqrt{(9)^2 + (12)^2}$$

$$OA = \sqrt{81 + 144}$$

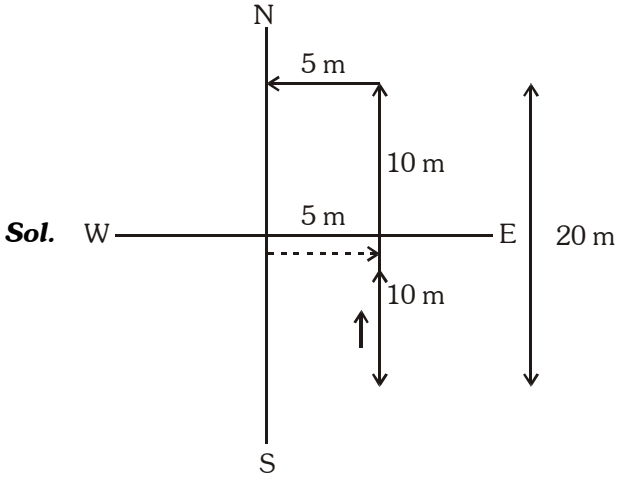
$$OA = \sqrt{225} = 15 \text{ m}$$



25. A walks 5 metres towards east then turns south and walks 10 metres, then turns back and walks 20 metres, now he turns left and walks 5 metres, where is he from the starting point and in which direction ?

- (1) 20 metres due north (2) 10 metres due north
 (3) 10 metres due north (4) 15 metres due north east

Ans. (2)

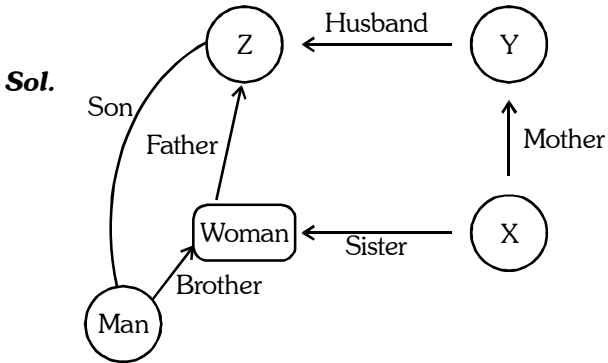


⇒ 10m Due to North

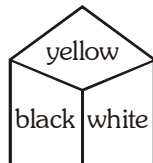
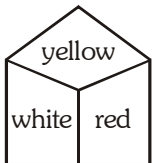
26. Pointing to a man in the photograph, a woman says, "He is the son of my sister's mother's husband." How is the man related to the woman ?

- (1) Father (2) Grand Father (3) Uncle (4) Brother

Ans. (4)



27. Which colour will come at the opposite of red colour ?

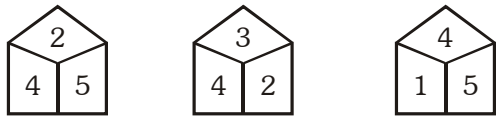


- (1) Blue (2) Black (3) White (4) Yellow

Ans. (2)

Sol. By observation

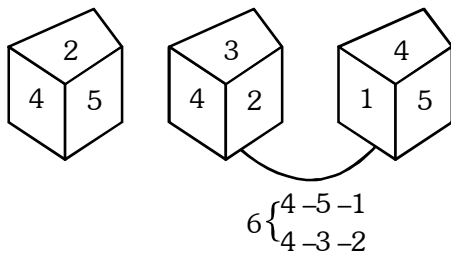
28. Which number will come at the bottom of last cube ?



- (1) 3 (2) 4 (3) 6 (4) 1

Ans. (3)

Sol. $5 \leftrightarrow 3$, $2 \leftrightarrow 1$, $6 \leftrightarrow 4$

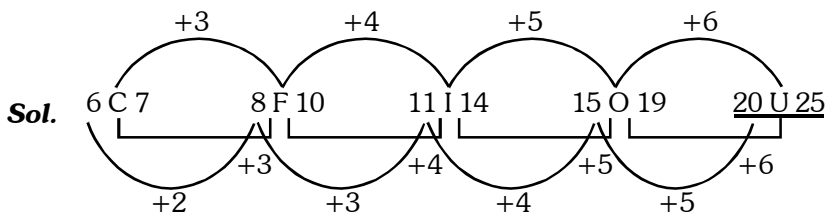


29. Which of the Following will come in place of the question mark (?) in the following sequence ?

6 C 7, 8 F 10, 11 J 14, 15 O 19, ?

- (1) 25 U 20 (2) 20 U 25 (3) 20 U 24 (4) 19 U 25

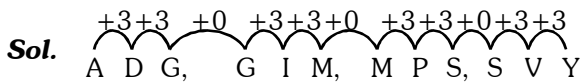
Ans. (2)



30. A D G, G J M, M P S, ?

- (1) SVW (2) SVY (3) SUW (4) SWY

Ans. (2)



31. A person is to climb up a tree 60 feet high, In every second, he climbs 5 feet, but slips 4 feet, After how many seconds, he will be able to touch the top of the tree.

- (1) 60 (2) 59 (3) 58 (4) 56

Ans. (4)

Sol. 1 second \Rightarrow 1 m \Rightarrow (5 - 4) m

55 second \Rightarrow 55 m

In 56th sec (55 + 5) m \Rightarrow 60 m

\Rightarrow 56 sec

Direction (Q. 32-34) questions are based on the sum of multiplication. Solve it and answer the serial number for correct option.

$$\begin{array}{r} \text{A B C D E} \\ \times 4 \\ \hline \text{E D C B A} \end{array} \quad \begin{array}{r} 2\ 1\ 9\ 7\ 8 \\ \times 4 \\ \hline 8\ 7\ 9\ 1\ 2 \end{array}$$

32. Value of A is?

- (1) 7 (2) 2 (3) 8 (4) 4

Ans. (2)

Sol. 2

33. Value of B is?

- (1) 9 (2) 8 (3) 1 (4) 6

Ans. (3)

Sol. 1

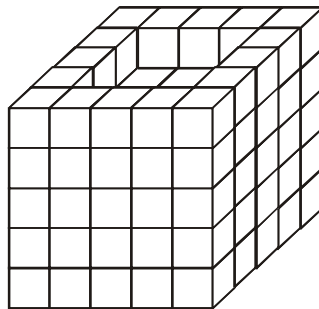
34. Value of D is ?

- (1) 3 (2) 4 (3) 5 (4) 7

Ans. (4)

Sol. 7

Direction (Q.35-37) Some equal cubes are arranged in the form of a block as shown in figure. All the visible surfaces of the block except the bottom are Painted.



35. How many cubes have no face Painted ?

- (1) 27 (2) 32 (3) 36 (4) 40

Ans. (1)

Sol. Total number of cubes = 116

No of cubes Painted = 89

Cubes will no surface painted = $116 - 89 = 27$

36. How many cubes have only one face Painted ?

- (1) 9 (2) 45 (3) 57 (4) 62

Ans. (3)

Sol. $12 \times 4 + 9 = 57$

37. How many cubes have only two faces Painted ?

- (1) 0 (2) 16 (3) 20 (4) 24

Ans. (2)

Sol. $4 \times 4 = 16$

38. Ramesh and Santosh are ranked Eighth and Twelfth respectively from the top in a class of 42 students. What will be their respective ranks from the bottom in the class ?

- (1) 34th and 30th (2) 31st and 35th (3) 36th and 32th (4) 35th and 31st

Ans. (4)

Sol. Rank from starting (Ramesh) = 8
 Rank from end = $42 - 8 + 1 = 35$ th
 Rank from Starting (Santosh) = 12th
 Rank from end = $42 - 12 + 1 = 31$ st

39. How many such 5's are there in the following number sequence each of which is immediately preceded by 3 or 4 but not immediately followed by 8 or 9 ?

3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0

- (1) Two (2) Three (3) Four (4) Five

Ans. (4)

Sol. 3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0

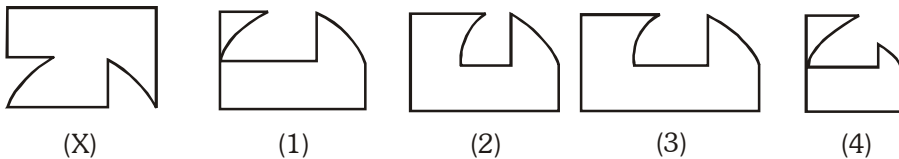
40. Arrange the following properly and choose the proper combination of sequence from given 4 options.

- (1) Diwali (2) Independence day (3) Christmas
 (4) Republic day (5) Holi
 (1) 1, 3, 5, 2, 4 (2) 4, 5, 2, 1, 3 (3) 2, 4, 1, 5, 3 (4) 4, 5, 1, 2, 3

Ans. (2)

Sol. Republic day, Holi, Independence day, Diwali, Christmas

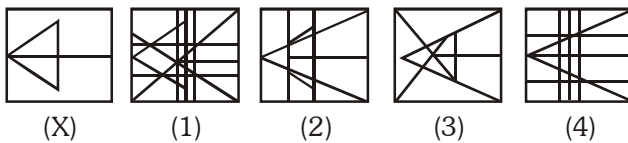
41. Which figure can be fitted to figure (X) so that it may become a complete square?



Ans. (1)

Sol. By observation

42. Figure (X) is hidden in which of the given four figures ?



Ans. (4)

Sol. By observation

43. Which figure among 1, 2, 3, 4 will replace the question mark according to series

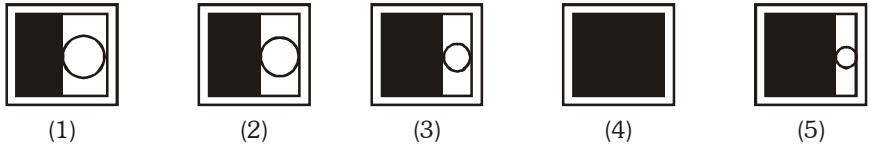


- (1) (2) (3) (4)

Ans. (2)

Sol. By observation

44. Find the two figures in the following which are out of Position and require inter changing of position to put the entire serial in order.

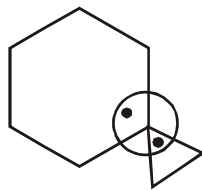


- (1) 2 and 3 (2) 2 and 3 (3) 1 and 5 (4) 4 and 5

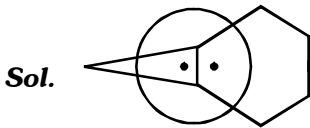
Ans. (4)

Sol. By observation

45. In Problem figure two dots are placed. This figure is followed by four answer figure, only one figure among them fulfilling the same conditions as in problem figure.



Ans. (4)



Directions (Q.46 and Q.47) : In each of the following questions there is a relationship between two figures on the left side of the sign ::, The same relationship exists between the two, to the right side of sign ::, find the correct alternative.

Question figure



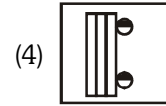
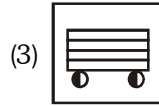
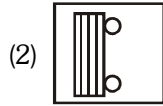
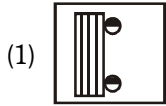
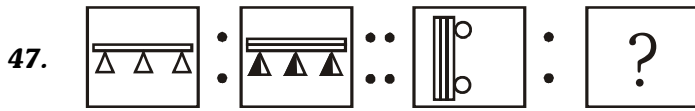
Answer figure



Ans. (2)

Sol. $\left| \begin{array}{c} \text{---} \\ | \\ \text{---} \end{array} \right| : \triangle \rightarrow \text{No. of lines} = 3$

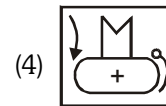
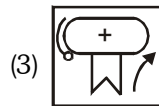
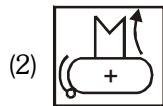
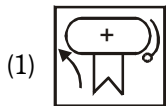
$\left| \begin{array}{c} \text{---} \\ | \\ \text{---} \\ | \\ \text{---} \end{array} \right| : \text{Hexagon} \rightarrow \text{No. of lines} = 6$



Ans. (1)

Sol. By observation

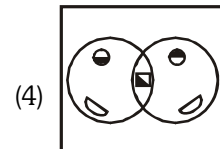
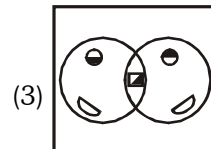
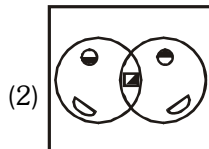
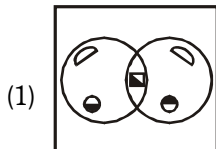
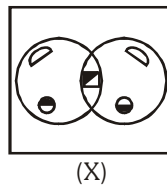
48. Find the mirror image of figure 'x'



Ans. (4)

Sol. By observation

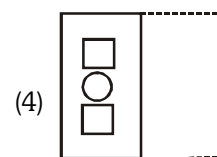
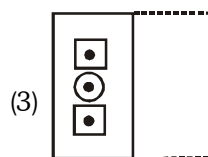
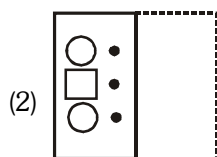
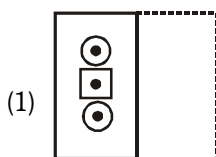
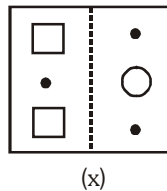
49. Find the water image of figure (X)



Ans. (4)

Sol. By observation

50. A square transparent paper with a pattern is given. Find out from amongst the four alternative figures which would belike the one when the paper is folded at dotted line.



Ans. (3)

Sol. By observation