

Max. Marks: 50

SOLUTIONS

Time allowed: 45 mins

1. 'Angle is related to 'Degree' in the same way as 'Rain' is related to
(1) Rain gauge (2) Flood (3) Monsoon (4) Centimetre

Ans. (4)

Sol. 'Angle is measured in'Degree' in the same way as 'Rain' is measured in Centimetre.

2. 44 is related to 21 in the same way as 64 is related to
(1) 31 (2) 32 (3) 33 (4) 34

Ans. (1)

Sol. $21 \times 2 = 42 + 2 = 44$
In the same way $31 \times 2 = 62 + 2 = 64$

Direction : In the question Nos. 3 and 4 except one alternative, other alternatives are alike in a certain way. Select the odd alternative in Questions Nos. 3 and 4.

3. (1) Grapes (2) Orange (3) Turnip (4) Guava

Ans. (3)

Sol. Turnip is a not fruit.

4. (1) JMLK (2) CGFE (3) PSRQ (4) VYXW

Ans. (2)

Sol. In all except option 2 difference is +3, -1, -1.

5. Find the missing term in the following series : 501, 500, 492, ?, 401, 276, 60.
(1) 467 (2) 465 (3) 456 (4) 476

Ans. (2)

Sol. Difference of $1^3, 2^3, 3^3, 4^3, \dots$

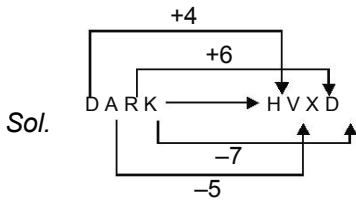
6. Find the missing group of letters in the following series : YAK, VDI, SGG, PJE, ? .
(1) MMC (2) MNC (3) MLC (4) MMD

Ans. (1)

Sol. First letter of every term having difference of two letters backward.
Second letter of every term having difference of two letters forward.
Third letter of every term having difference of one letter backward.

7. In a certain code, DARK is written as HVXD. How will NOTE be written in that code ?
 (1) RKZX (2) RJZX (3) RJZZ (4) RTZW

Ans. (2)



8. If SYSTEM is coded as 131625, TERMS may be coded as
 (1) 62251 (2) 62415 (3) 62451 (4) 64251

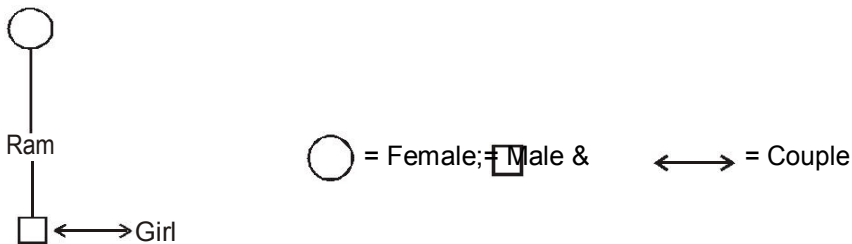
Ans. (3)

Sol. 1 stands for S, 3 stand for Y, 6 stands for T, 2 stands for E and 5 stands for M.
 So, TERMS is coded 62451.

9. Ram said, "This girl is wife of the grandson of my mother." How is Ram related to the girl ?
 (1) Father (2) Father-in-law (3) Grandfather (4) Husband

Ans. (2)

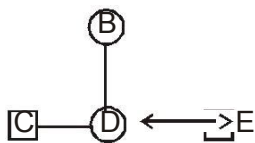
Sol. The girl is daughter in law of Ram.



10. B is mother of D and C is brother of D. D is wife of E. How is E related to C ?
 (1) Brother-in-law (2) Father-in-law (3) Uncle (4) Brother

Ans. (1)

Sol. C is the brother of D and D is the Wife of E
 So, E is brother in law of C.



11. There are 36 students in a class. The number of boys is twice the number of girls. Sarita's position is 19th and 13 boys are forward to her position. How many girls are backward from Sarita's position ?

- (1) 5 (2) 7 (3) 9 (4) 6

Ans. (4)

Sol. Total number of boys = 24 and Total number of girls = 12
 So, 5 girls are ahead of Sarita so 6 girls are backward from Sarita's position.

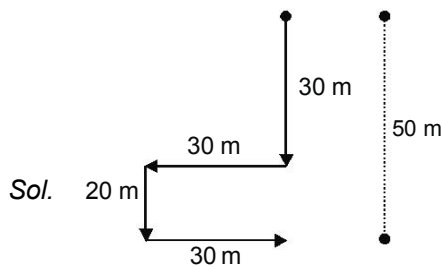
12. A is taller than B but shorter than C. D is shorter than B but not as short as E. Who among them is the tallest ?
 (1) D (2) B (3) C (4) E

Ans. (3)

Sol. The order of height is $C > A > B > D > E$.

13. Amar walks 30 meters towards south, then turning to his right he walks 30 metres. Then turning to his left he walk 20 metres. Again turning to his left he walks 30 metres. How far is he from his starting position ?
 (1) 30 metres (2) 20 metres (3) 10 metres (4) 50 metres

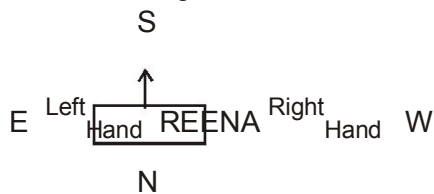
Ans. (4)



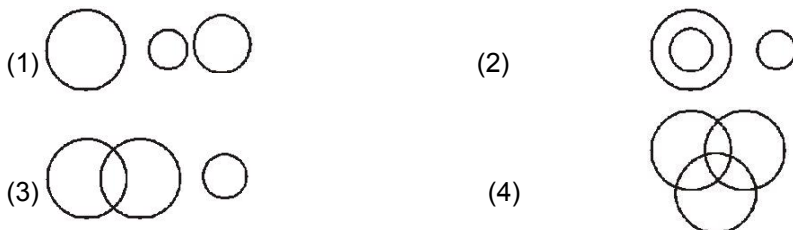
14. At the time of sunrise, Reena's shadow is right side to her. Which direction will be Reena's mouth ?
 (1) East (2) West (3) North (4) South

Ans. (4)

Sol. Reena is facing towards South so Reena's shadow is right side to her.

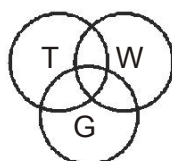


15. Which of the following Venn diagrams represents Teacher, Gents, Writer ?

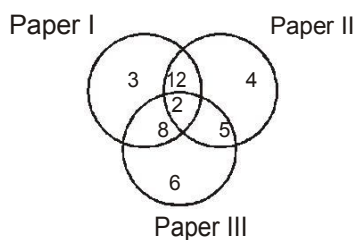


Ans. (4)

Sol. Some teachers may be writers as well as gents.



16. In the Venn diagram, numbers represent the persons reading the newspapers. The diagram is based on surveying 50 persons in a population of 5000. How many persons can be expected to read at least two newspapers ?



- (1) 2500 (2) 2700 (3) 3000 (4) 3125

Ans. (2)

Sol. The number of persons can be expected to read at least two newspapers = $12 + 8 + 2 + 5 = 27$

Now, there are 27 persons read at least two newspaper out of 50.

So, out of 50 there are 27 persons

$$\text{out of 5000 there are } \frac{27}{50} \cdot 5000 = 2700 \text{ persons}$$

17. Which letter is exactly in the middle of 20th letter from the right and 11th letter from left in English alphabet ?

- (1) I (2) J (3) H (4) O

Ans. (1)

Sol. Letter I is exactly in the middle of letter G and letter K.

18. Which one of the following words can be formed from the letters of the word 'REVERENCE' ?

- (1) NEAR (2) SEER (3) PEER (4) NEVER

Ans. (4)

Sol. NEVER can be formed from the letters of the word 'REVERENCE'.

19. In the equation given below, which two signs should be interchanged to get the value ?

$$3 \div 5 \times 8 + 2 - 10 = 13$$

- (1) + and - (2) \times and \div (3) \div and - (4) \div and +

Ans. (4)

Sol. After interchanging \div and +,

$$3 + 5 \times 8 \div 2 - 10 = 13$$

20. In the equation $4 \times 6 \overset{W}{6} \overset{W}{2} = 20$, which mathematical sign is to be used for $\overset{W}{}$ symbol to correct the value of the equation ?

- (1) - and + (2) - and \div (3) + and - (4) \div and \times

Ans. (1)

Sol. - and + sign is to be used for $\overset{W}{}$ symbol.

$$4 \times 6 - 6 + 2 = 20$$

21. Choose the correct alternative from the following words in a logical sequence :

- a. Tree b. Furniture c. Plant d. Seed
 e. Wood

- (1) d, b, e, a, c (2) b, d, e, a, c (3) b, d, a, e, c (4) d, c, a, e, b

Ans. (4)

Sol. d, c, a, e, b is the correct order.

22. Arrange the following in a logical order :

- a. Square b. Line c. Angle d. Triangle

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

Ans. (1)

Sol. b, c, d, a is the correct order.

23. After 10 years A's age will be twice as old as B was 10 years before. If at present A is 9 years older than B, the present age of B is

- (1) 19 years (2) 29 years (3) 39 years (4) 49 years

Ans. (3)

Sol. $A + 10 = 2(B - 10)$ (1)

$A = B + 9$ (2)

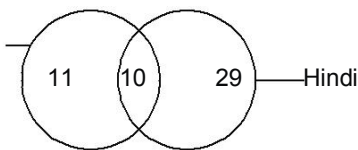
After solving equation (1) and (2) present age of B is 39 years.

24. There are 50 students admitted to a class. Some students can speak only English and some can speak only Hindi. 10 students can speak both English and Hindi. If the number of students who can speak English is 21 then how many student can speak Hindi, how many can speak only Hindi and how many can speak only English ?

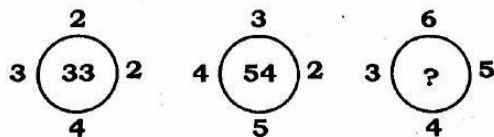
- (1) 39, 29, 11 (2) 37, 27, 13 (3) 28, 18, 22 (4) 21, 11, 29

Ans. (1)

Sol. English



25. In the following question, which number will come in place of question mark (?) sign ?



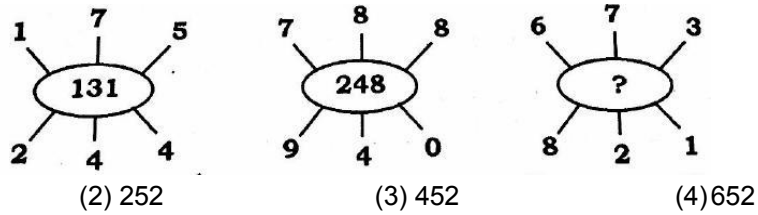
- (1) 78 (2) 82 (3) 86 (4) 94

Ans. (3)

Sol. $4^2 + 3^2 + 2^2 + 2^2 = 33$

Similarly $4^2 + 3^2 + 6^2 + 5^2 = 86$

26. In the following figures digits follow a certain pattern. What will replace question mark (?) sing ?



Ans. (2)

Sol. $5 - 4 = 1, 7 - 4 = 3, 2 - 1 = 1$

Similarly $3 - 1 = 2, 7 - 2 = 5, 8 - 6 = 2$

27. In the following question, there is a certain relation between two terms in the left side of the sign ::, Similar type of relation is there between the two terms in the right side of the sign :: . Select the correct option from the given alternatives. $864 : 981 :: ? : ?$

- (1) 749 : 648 (2) 636 : 525 (3) 636 : 749 (4) 525 : 625

Ans. (3)

Sol. $8^2 = 64 : 9^2 = 81$ so $6^2 = 36 : 7^2 = 49$

Question (28 – 30)

Direction : Read the following information carefully and answer the questions given below it :

Following are the criteria for shortlisting candidates for interview in a company:

The candidate must–

- (i) have passed Secondary with at least 70% marks.
- (ii) have passed Higher Secondary with at least 60% marks.
- (iii) have passed Graduate in any stream with at least 50% marks.
- (iv) have knowledge of computer.

In the following questions, answer should be given based on the above details.

28. Rahul has secured 72% marks in Secondary. He completed his graduation with 68% marks. He has now enrolled in PG degree.

- (1) eligible under (i) only (2) eligible under (ii) only
 (3) eligible under (iii) only (4) eligible under (i) and (iii)

Ans. (4)

Sol. Eligible under (i) and (iii)

29. Maya has completed post graduate examination after passing graduation exam with 60% marks. She has secured 75% marks in Secondary and 66% marks in Higher Secondary.

- (1) eligible under (i), (ii) and (iii) (2) eligible under (i), (ii) and (iv)
 (3) eligible under (ii), (iii) and (iv) (4) eligible under (i) and (iii)

Ans. (1)

Sol. Eligible under (i), (ii) and (iii)

30. Rohit has secured 55% marks in Computer Science in graduation. He has passed his Secondary Examination with 65% marks and Higher Secondary Examination with 60% marks.

(1) eligible under (i) and (ii)

(2) eligible under (i), (ii) and (iv)

(3) eligible under (ii), (iii) and (iv)

(4) eligible under (i), (ii), (iii) and (iv)

Ans. (3)

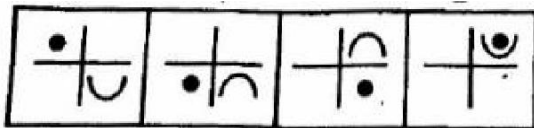
Sol. Eligible under (ii), (iii) and (iv)

Question (31 – 32)

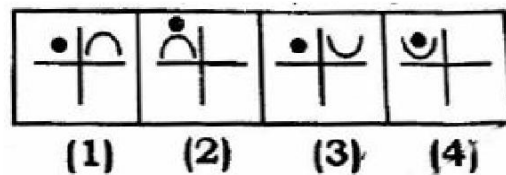
Directino : In Question Nos. 31 and 32 there are two sets of figures. One set contains problem-figures while the other has answer-figures There is a sequence according to which the problem-figures are arranged. You have to select one figure from the set of answer-figures which can be placed in sequence after the set of problem-figures. Find out the correct figure.

31.

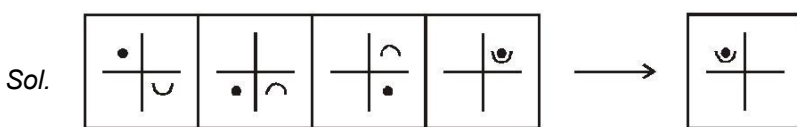
Problem-figures



Answer-figures

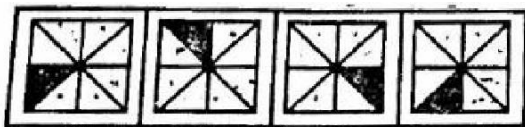


Ans. (4)

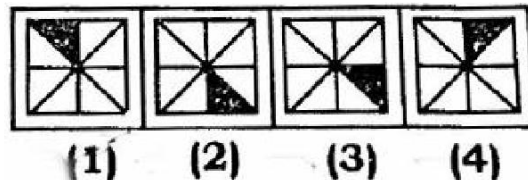


32.

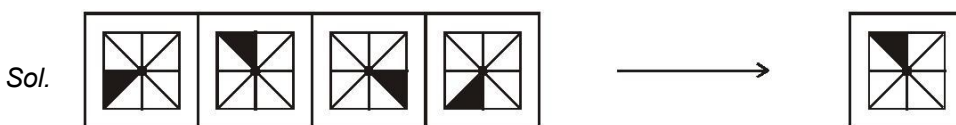
Problem-figures



Answer-figures

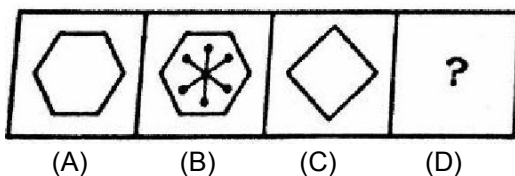


Ans. (1)

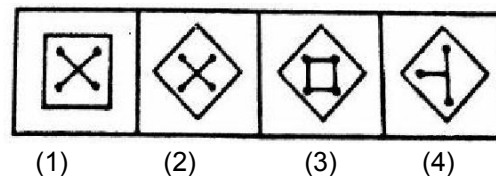


33. Two sets of the figures are given in the question. Figures A, B, C and D are problem-figures and figures 1, 2, 3 and 4 are answer-figures. There is a definite relationship between figures A and B. Establish a similar relationship between C and D by choosing a figure D from the answer-figures.

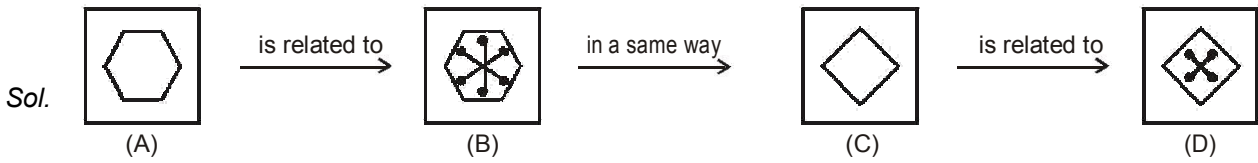
Problem-figures



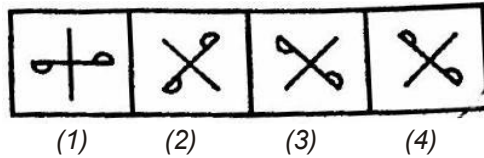
Answer-figures



Ans. (2)



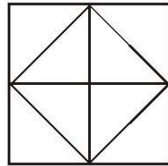
34. In the question there are four figure given. One of them does not correlate with the rest of the figures. Find out the odd figure



Ans. (4)

Sol. In all except option 4, there is symbol in opposite direction.

35. How many triangles are there in the diagram given below?

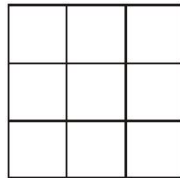


- (1) 8 (2) 10 (3) 12 (4) 14

Ans. (3)

Sol. 8 triangles from using one part and 4 triangles from using two parts are there so total 12 triangles.

36. How many squares are there in the diagram given below?



- (1) 14 (2) 13 (3) 10 (4) 9

Ans. (1)

Sol. Total number of squares = $3 \times 3 + 2 \times 2 + 1 \times 1 = 14$.

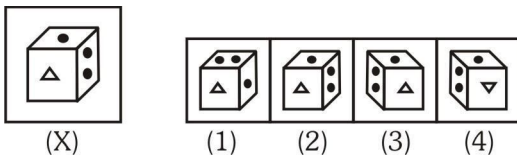
37. Mirror image of PROPER is

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

Ans. (2)

Sol. **RƆƆƆR**

38. The mirror image of the given figure (X) from the following four alternatives is



Ans. (3)



39. Water image of D 6 Z 7 F 4 is

(1) D Ɔ Ɔ Δ E †

(2) D Ɔ Ɔ Δ E †

(3) D Ɔ Ɔ Δ E †

(4) D Ɔ Ɔ Δ E †

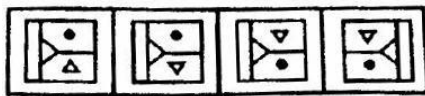
Ans. (3)

Sol. D Ɔ Ɔ Δ E †

40. The water image of the given figure (X) from the four following alternatives is



(X)



(1)

(2)

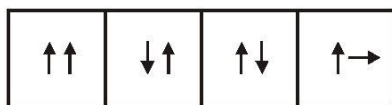
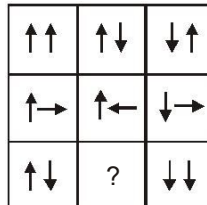
(3)

(4)

Ans. (2)



41. Which is the alternative that completes the figure matrix?



(1)

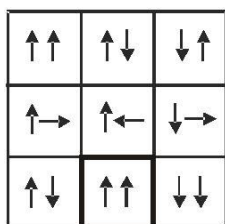
(2)

(3)

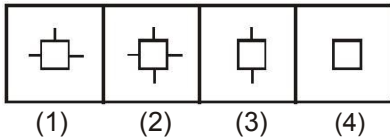
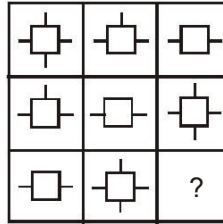
(4)

Ans. (1)

Sol. In each row second arrow of first figure is reversed in second figure & then third figure is formed from second when both arrow are in reversed direction.

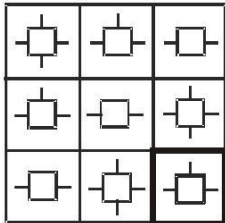


42. Which is the alternative that completes the figure matrix?



Ans. (1)

Sol. In each row or column there is a square with 2, 3 & 4 lines.



43. A cube is painted on all of its surfaces and then divided into 64 equal smaller cubes. How many smaller cubes will not have been coloured on all the surfaces?

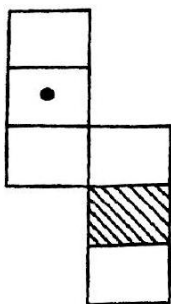
- (1) 24 (2) 16 (3) 8 (4) 0

Ans. (3)

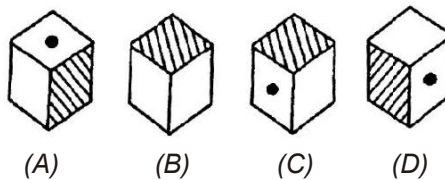
Sol. $(n - 2)^3 = (4 - 2)^3 = 2^3 = 8$

So, there are 8 smaller cubes in the middle.

44. Choose from alternatives, the box that will be formed when figure (X) is folded:



(X)

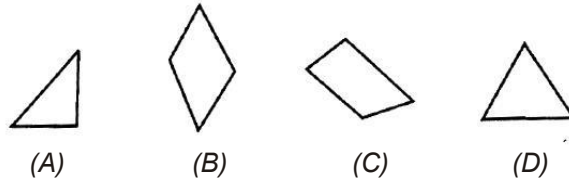


- (1) A, B & D (2) A, B & C
 (3) B only (4) B & D

Ans. (3)

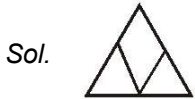
Sol. From expanded form are opposite to . So, figures A, C & D are not formed.

45. Four figures A, B, C and D are given in the question. Which of the three figures will form a triangle?

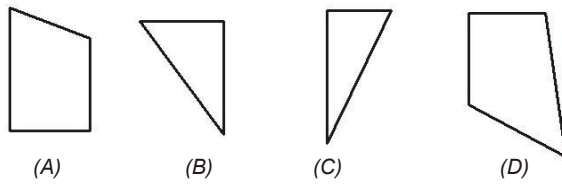


- (1) A B D (2) A B C (3) B C D (4) A C D

Ans. (1)

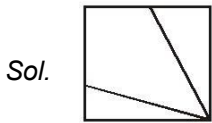


46. Four figures A, B, C and D are given in the question. Which of the three will form a square?

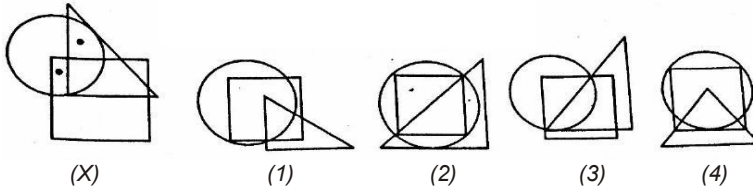


- (1) A B C (2) A B D (3) B C D (4) A C D

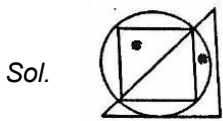
Ans. (3)



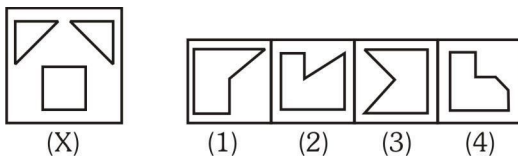
47. In the given figure X, the position in which dot is placed can appear in the same pattern in which of the following answer-figures?



Ans. (2)

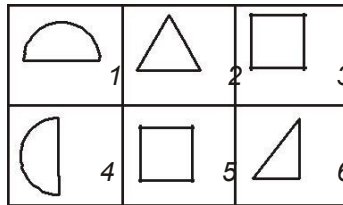


48. Which correct answer-figure will be formed by joining the parts of the figure X?



Ans. (3)

49. Which of the following alternatives represents group of similar figure?



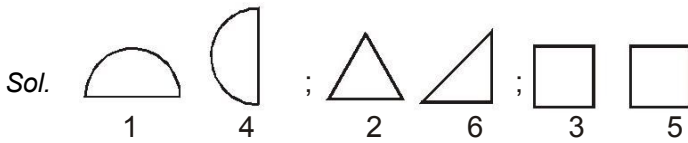
(1) 1,4; 2,6; 3,5

(2) 1,2; 3,4; 5,6

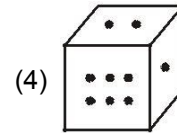
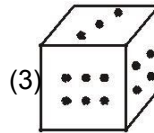
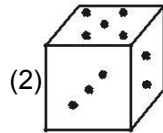
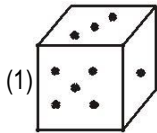
(3) 1,4; 2,5; 3,5

(4) 1,6; 2,4; 3,5

Ans. (1)



50. Choose right alternative of the following if total sum of numbers of opposite faces of a dice always remains 7 :



Ans. (1)

Sol. In all except option 1, the sum of two adjacent faces is 7. So, option 2, 3 & 4 not formed.

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