SNS COLLEGE OF TECHNOLOGY

An Autonomous Institution

Coimbatore-35

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Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

VERBAL QUANTITATIVE APPTITUDE AND REASONING II

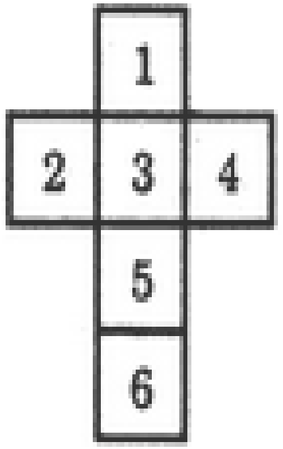
II YEAR/ IV SEMESTER

UNIT 3– VERBAL REASONING III

TOPIC – PROBLEMS ON CUBES

CUBES

Form I



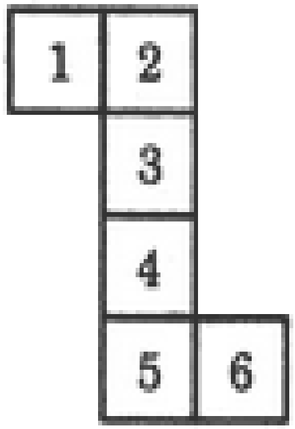
In this case:

1 lies opposite 5;

2 lies opposite 4;

3 lies opposite 6.

Form II



In this case:

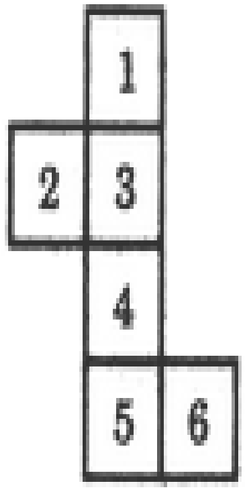
1 lies opposite 6;

2 lies opposite 4;

3 lies opposite 5.

CUBES

Form III



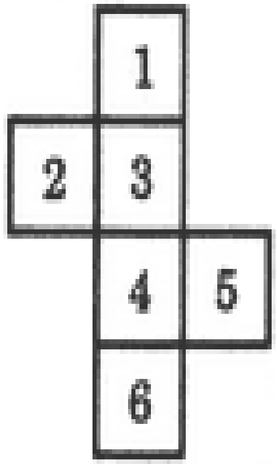
In this case:

1 lies opposite 4;

2 lies opposite 6;

3 lies opposite 5.

Form IV



In this case:

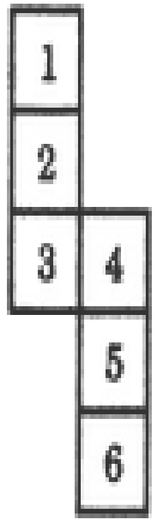
1 lies opposite 4;

2 lies opposite 5;

3 lies opposite 6.

CUBES

Form V



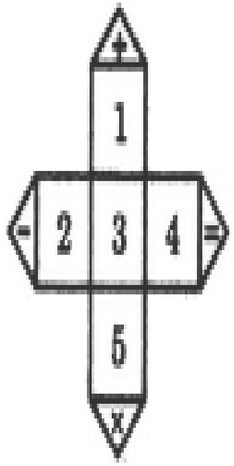
In this case:

1 lies opposite 3;

2 lies opposite 5;

4 lies opposite 6.

Form VI



In this case:

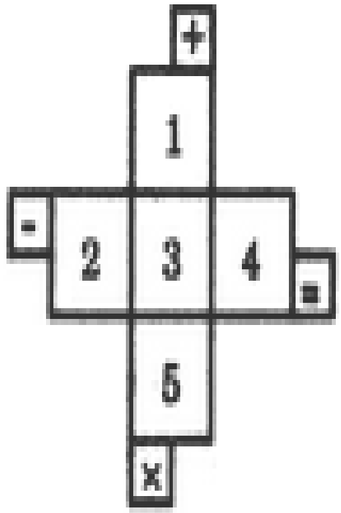
 will be the one of the faces of the cube and it lies opposite 3;

2 lies opposite 4;

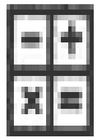
1 lies opposite 5.

CUBES

Form VII



In this case:



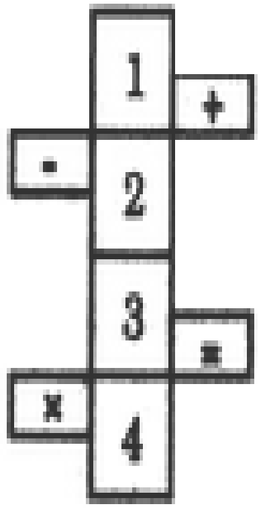
will be the one of the faces of the cube and it lies opposite 3;

2 lies opposite 4;

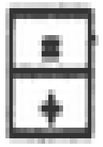
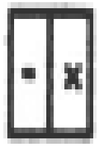
1 lies opposite 5.

CUBES

Form VIII



In this case:

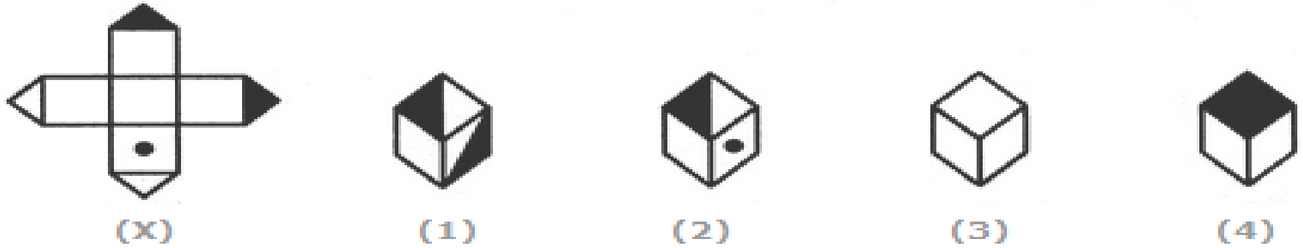
 and  are two faces of the cube that lie opposite to each other.

1 lies opposite 3;

2 lies opposite 4;

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).



A. 1 and 2 only

B. 2 and 4 only

C. 2 and 3 only

D. 1 and 4 only

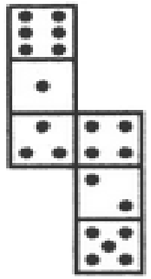
Answer: Option **C**

Explanation:

The fig. (X) is similar to the Form VI. So, when a cube is formed by folding the sheet shown in fig. (X), then  is one of the faces of the cube. However, the cube in fig. (1) has two such faces and fig. (4) has a face which is completely shaded. So, these two cubes cannot be formed. Hence, only the cubes in figures (2) and (3) can be formed.

CUBES

How many dots lie opposite to the face having three dots, when the given figure is folded to form a cube?



A. 2

B. 4

C. 5

D. 6

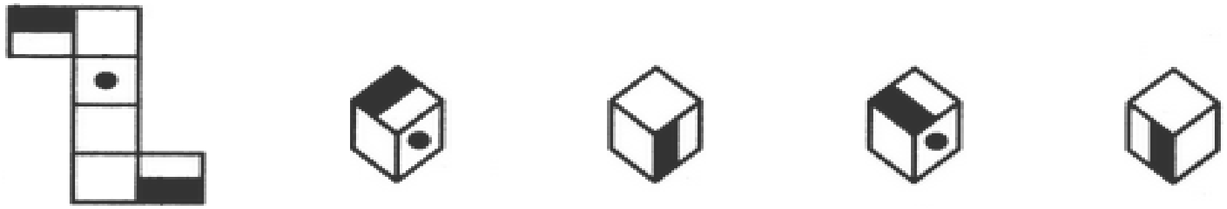
Answer: Option **D**

Explanation:

The given figure is similar to **Form V**. Therefore, when this figure is folded to form a cube then the face bearing six dots will lie opposite the face bearing three dots.

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).



(X) (1) (2) (3) (4)

A. 1 and 2 only

B. 2 and 3 only

C. 2 and 4 only

D. 1, 2, 3 and 4

Answer: Option **D**

Explanation:

The fig. (X) is similar to **Form II**. So, when a cube is formed by folding the sheet shown in fig. (X), then the two half-shaded faces lie opposite to each other and one. of the three blank faces appears opposite to the face bearing a dot. Clearly, each one of the four cubes shown in figures (1), (2), (3) and (4) can be formed by folding the sheet shown in fig. (X).

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).

A. 1 only

B. 1 and 3 only

C. 1, 3 and 4 only

D. 1, 2, 3 and 4

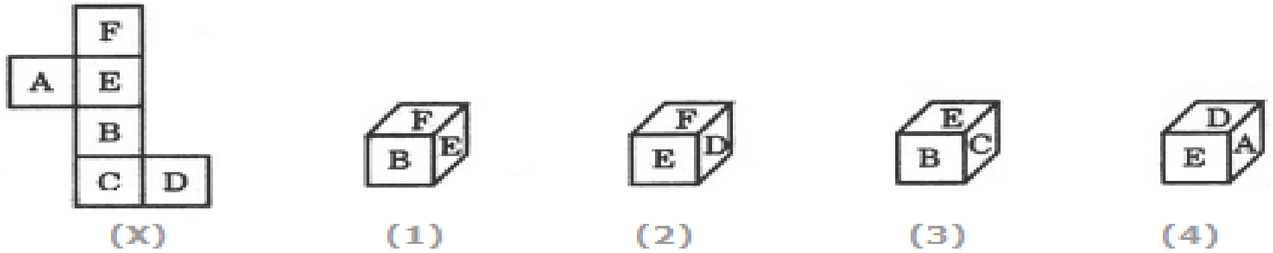
Answer: Option **C**

Explanation:

When the sheet in fig. (X) is folded, then one of the faces of the cube formed will be of the form  and this face will lie opposite the face bearing a square. Also, one of the blank faces lies opposite another blank face and the third blank face lies opposite the face bearing an '=' sign. Clearly, all the three blank faces cannot appear adjacent to each other. So, the cube shown in fig. (2) which has all the three blank faces adjacent to each other cannot be formed. Hence, only the cubes shown in figures A, C and D can be formed.

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).



A. 1 only

B. 2 only

C. 1 and 3 only

D. 1, 2, 3 and 4 only

Answer: Option **B**

Explanation:

The fig. (X) is similar to the **Form III**. So, when the sheet in fig. (X) is folded to form a cube, then 'F' appears opposite 'B', 'E' appears opposite 'C' and 'A' appears opposite 'D' Therefore, the cube in fig. (1) which shows 'F' adjacent to 'B' the cube in fig. (3) which shows 'E' adjacent to 'C' and the cube in fig. (4) which shows 'A' adjacent to 'D' cannot be formed. Hence, only the cube in fig.(2) can be formed.

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).

A. 2 and 3 only

B. 1, 3 and 4 only

C. 2 and 4 only

D. 1 and 4 only

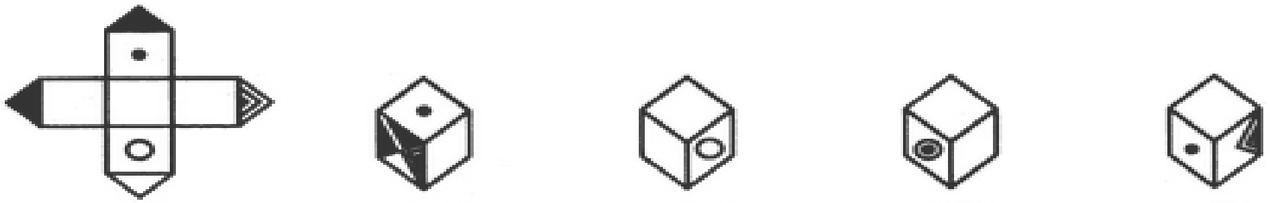
Answer: Option **B**

Explanation:

The fig. (X) is similar to the **Form V**. So, when the sheet in fig. (X) is folded to form a cube, then the face bearing a dot lies opposite to one of the shaded faces. Therefore, the cube shown in fig. (2) which has both the shaded faces adjacent to the face bearing the dot, cannot be formed. Hence, the cubes shown in figures (1), (2) and (4) can be formed.

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).



A. 1 and 2 only

B. 1, 2 and 3 only

C. 1 and 3 only

D. 1, 2, 3 and 4

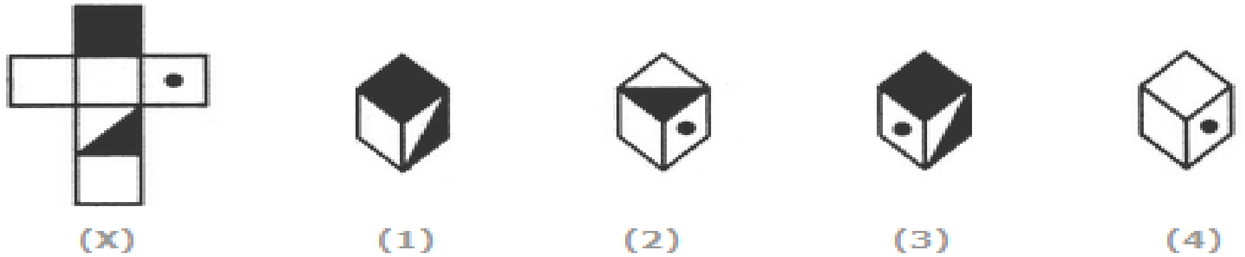
Answer: Option **A**

Explanation:

The fig. (X) is similar to the **Form VI**. So, when a cube is formed by folding the sheet shown in fig. (X), then  is one of the faces of the cube and this face lies opposite to a blank face. Also, a face bearing a circle lies opposite to one bearing a dot. Clearly, this cube does not have faces as shown in the cubes in figures (3) and (4). Hence, only the cubes shown in figures (1) and (2) can be formed.

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).



A. 1 and 3 only

B. 2, 3 and 4 only

C. 2 only

D. 3 and 4 only

Answer: Option **C**

Explanation:

The fig. (X) is similar to the **Form I**. So, when the sheet in fig. (X) is folded to form a cube, then the completely shaded face lies opposite to the half shaded face. Therefore, the cubes shown in figures (1) and (3) which have the completely shaded face adjacent to the half-shaded face cannot be formed. Since Fig 4 does't have at-least one shaded face, it cannot be formed. Hence, only the cubes in figure (2) can be formed.

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).

(X) (1) (2) (3) (4)

A. 1 and 2 only

B. 2, 3 and 4 only

C. 4 only

D. 3 and 4 only

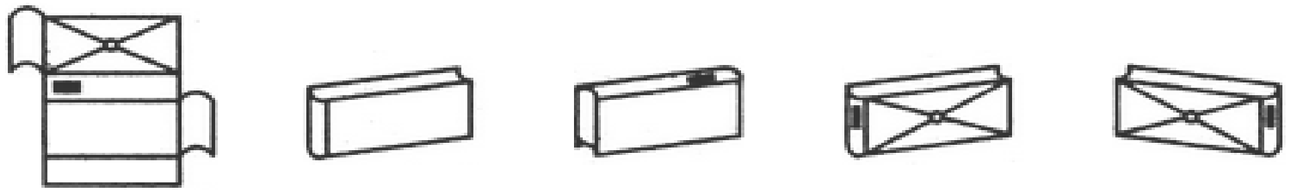
Answer: Option **D**

Explanation:

The fig. (X) is similar to the **Form V**. So, when the sheet in fig. (X) is folded to form a cube, then the face bearing a square lies opposite to the face bearing a circle. Therefore, the cubes shown in figures (1) and (2) which have the faces bearing the square and the circle adjacent to each other, cannot be formed. Hence, only the cubes in figures (3) and (4) can be formed.

CUBES

Which of the following finished patterns can be obtained from the piece of cardboard (X) shown below?



(X) (1) (2) (3) (4)

A. 1

B. 2

C. 3

D. 4

Answer: Option **A**

Explanation:

The pattern on fig. (X) and also the fact that the faces are rectangle, indicate that only fig. (1) can be obtained by folding fig. (X).

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).

A. 1 and 3 only

B. 2 and 4 only

C. 3 and 4 only

D. 1 and 4 only

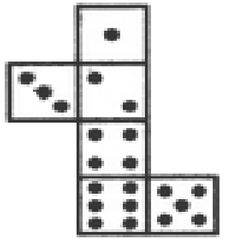
Answer: Option **A**

Explanation:

The fig. (X) is similar to **Form I**. So, when the sheet shown in fig. (X) is folded to form a box (cuboid), then the two rectangular-shaded faces lie opposite to each other, two rectangular white faces lie opposite to each other and the two square shaped faces (one shaded and one white) lie opposite to each other. Clearly, the cuboids shown in figures (2) and (4) cannot be formed as in each of the two cuboids the two shaded rectangular faces appear adjacent to each other. So, only the cuboids in figures (1) and (3) can be formed.

CUBES

When the following figure is folded to form a cube, how many dots lie opposite the face bearing five dots?



A. 1

B. 2

C. 3

D. 4

Answer: Option **C**

Explanation:

The given figure is similar to **Form III**. Therefore, when this figure is folded to form a cube then the face bearing three dots will lie opposite the face bearing five dots.

CUBES

Choose the box that is similar to the box formed from the given sheet of paper (X).

A. 1 only

B. 1, 2 and 3 only

C. 2 and 3 only

D. 1, 2, 3 and 4

Answer: Option **D**

Explanation:

The fig. (X) is similar to the **Form V**. So, when the sheet in fig. (X) is folded to form a cube, then the face bearing a dot appears opposite to a blank face, the face bearing a '+' sign appears opposite to another blank face and the face bearing a circle appears opposite to the third blank face. Clearly, all the four cubes shown in figures (1), (2), (3) and (4) can be formed.

THANK YOU