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Name of the Bundle	Intermediate Bundle V1	Subject	Aptitude (Reasoning)
Topic	Dice, Mirror and Water Image	Last updated on	19 August 2024

CONCEPT 1 - STANDARD DICE Vs NORMAL DICE

- 1) Which of the following faces is opposite to 6 in a Standard dice?
 - a) 2
 - b) 1
 - c) 3
 - d) 4

ANS: b) 1

Explanation:

- In a Standard dice, Sum of the opposite face values will be 7.
- Therefore, Opposite face of 6 will be 1.
- 2) Which of the following faces is adjacent to 5 in a General dice?
 - a) 3
 - b) 1
 - c) 2
 - d) 6

ANS: c) 2.

- In a General dice, Sum of the adjacent face values will be 7.
- Therefore, Adjacent face of 5 will be 2.





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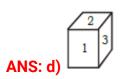
3) Which of the following is a standard dice?











- In a General dice, Sum of the adjacent face values will be 7.
- Therefore, Option a), b), c) will be General dice.
- Hence, Option d) will be the answer.





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4) Which of the following faces is opposite to 4 in the given dice?



- a) 4.
- b) 1
- c) 2
- d) 3

ANS:d) 3

- There are no two adjacent surfaces that have sum 7.
- It is a standard dice.
- Hence, the opposite face of 4 will be 3.





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CONCEPT 2 - When only two positions are given.

1.No Common Faces:

- If there is nothing common in 2 figures then we will check whether the dice is standard or general.
- 5) Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 2.





- a) 1
- b) 5
- c) 2
- d) 3

ANS: b) 5

- There is no two adjacent surfaces have sum 7
- It is a standard dice.
- Opposite to 2 is 5.





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6) Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 6.





- a) 4/3/5
- b) 2/1/4
- c) 4/3/1
- d) 3/4/

ANS: a) 4/3/5

- If any two adjacent faces have sum 7, then the dice is called general dice.
- In general dice, visible faces are opposite to hidden faces.
- Therefore, 4/3/5 will be opposite to 6.



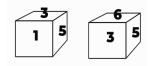
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2.Two Common Faces:

7) Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 6.

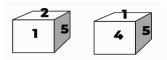


- a) 5
- b) 1
- c) 3
- d) 2

ANS: b) 1

Explanation:

- If there are 2 common faces, the remaining faces will be opposite to each other. Here, 3 and 5 are common faces.
- Therefore, 1 and 6 will be opposite to each other.
- 8) Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 2.



- a) 5
- b) 1
- c) 4
- d) 2

ANS: c) 4

- If there are 2 common faces, the remaining faces will be opposite to each other. Here, 1 and 5 are common faces.
- Therefore, 2 and 4 will be opposite to each other.





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9) Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing F.





- a) B
- b) A
- c) C
- d) D

ANS: b) A

Explanation:

- If there are 2 common faces, the remaining faces will be opposite to each other. Here, B and C are common faces.
- Therefore, A and F will be opposite to each other.
- 10) Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 4.





- a) 3
- b) 2
- c) 1
- d) 5

ANS: d) 5

- If there are 2 common faces, the remaining faces will be opposite to each other. Here, B and C are common faces.
- Therefore, A and F will be opposite to each other.



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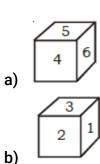
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Торіс	Dice, Mirror and Water Image	Last updated on	19 August 2024

11) Choose the dice from the following options, which is the other position of the dice shown below.

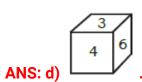












- Two opposite faces can never be seen together or can never be hidden together.
- 4&5 can never be seen (option A) and can never be hidden (B,C)
- Therefore, option D is correct,





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2. One Common Faces:

12) Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 4.



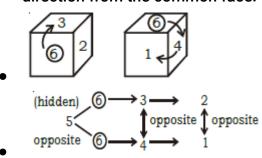


- a) 1
- b) 6
- c) 2
- d) 3

ANS: d) 3

Explanation:

 When there is one common face, then write the faces in the clockwise direction from the common face.



- 4 will be opposite to 3, 2 will be opposite to 1.
- The hidden face 5 will be opposite to the common face 6.





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13) Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 3.



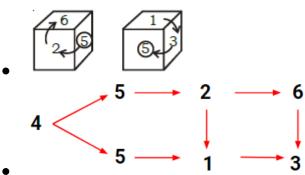


- a) 6
- b) 2
- c) 1
- d) 5

ANS: a) 6

Explanation:

 When there is one common face, then write the faces in the clockwise direction from the common face.



- 2 will be opposite to 1, 6 will be opposite to 3.
- The hidden face 4 will be opposite to the common face 5.



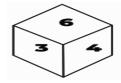


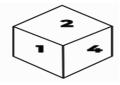
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14) Two positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 4.





- a) 5
- b) 1
- c) 6
- d) 3

ANS: a) 5

Explanation:

• The hidden face 5 will be opposite to the common face 4.



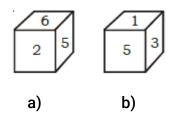


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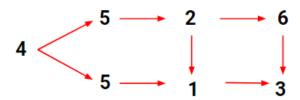
15) What is the no at bottom surface of figure a).



- a) 4
- b) 5
- c) 1
- d) 3

ANS: d) 3

Explanation:



• If top is 6, at the bottom it will be opposite to 6, which is 3.





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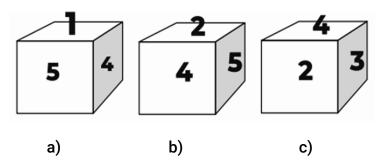
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CONCEPT 3 – When three or more positions are given.

Solve the Question by taking any two positions of only one common.

16) Three positions of the same dice are shown. Select the number that will be on the face opposite to the one showing 3.

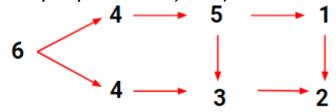


- a) 1
- b) 4
- c) 5
- d) 3

ANS: c) 5

Explanation:

• Compare positions of a) and c) which have one common face which is 4.



• Therefore, 5 will be opposite to 3.





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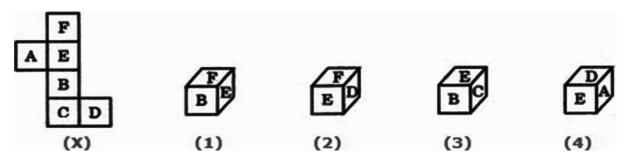
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CONCEPT 4 - Open dice.

Each alternate surface is opposite to each other.

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



- a) 2 only
- b) 1 only
- c) 1 and 3 only
- d) 1, 2, 3 and 4

ANS: a) 2 only

- Each alternate surface is opposite to each other.
- F will be opposite to B, E will be opposite to C, A will be opposite to D.
- Two opposite faces can never be seen together or can never be hidden together.
- F&B, E&C, A&D can never be seen (Figures 1,3 & 4).
- Therefore, Figure 2(option a) is correct.



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CONCEPT 5 - MIRROR IMAGE.

What is a Mirror Image?

The Mirror Image which we see in a plane mirror is a reflection of an object which will appear almost identical to the object but will be reversed in the manner in such a way that the image is exactly perpendicular to the plane mirror.



Example: In the above image, if you closely look at the lady, you can understand that the left hand of the lady will appear to be her right hand and her right hand will appear as the left hand of the lady. You can try these yourselves by standing in front of a mirror.

While seeing in the mirror, left and right will be interchanged, Top and Bottom will remain the same.





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18) Choose the alternative which closely resembles the mirror image of the given combination.

MALAYALAM	
(1) MALAYALAM	(2) MAJAYAJAM
(3) MALAYALAM	(4) MATAYATAM

ANS: (2)

19) Choose the alternative which closely resembles the mirror image of the given combination.

EFFECTIVE	
EFFECTIVE (1)	(2) EVITCEFFE
EVITCEFFE (E)	EFFECTIVE (4)

ANS: (1)



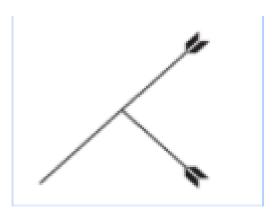


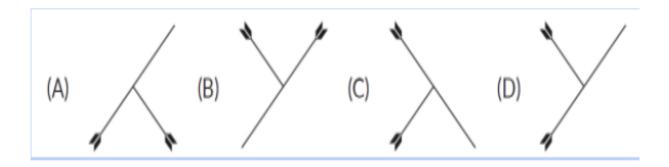
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20) Identify the mirror image of the given figure if the mirror is to be placed vertically to the right of the given image.





ANS: (C)

Explanation: In option A, one of the arrows facing downward in the original image is facing upward in the given option and is not correct. In option B, the original image seems to have shifted to the opposite direction and so option B is not correct. In option D, the smaller arrow seems to have shifted above the longer arrow and the longer arrow which was originally facing downward is now facing upwards and this option is also not correct. Hence the correct answer is Option (C)

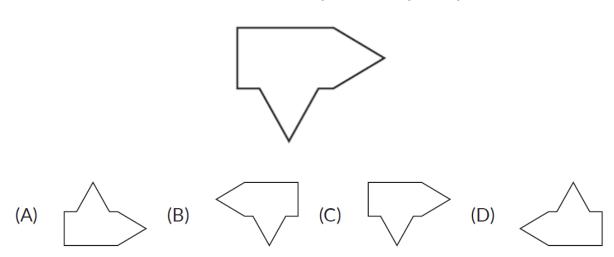


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21) Imagine that a mirror is placed horizontally at the bottom of the figure as shown below, choose the reflection of the image from the given options.



ANS: (A)

Explanation:

The image in option B is the reflection of the object if the mirror is placed near the image and so option B is not the right option. Option C shows the exact image as given in the question and so it is not correct. Option D is the direct opposite figure of its reflection in the mirror and so option D is not correct. Hence as seen closely, option A is the correct option as it is the exact reflection of the image if the mirror is placed below the image.





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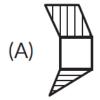
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22) Identify the mirror image of the given figure if the mirror is placed vertically to the left of the figure.

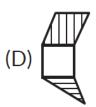


Fig. (X)









Ans: (A)

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CONCEPT 6 – WATER IMAGE

What is Water Image?

A reflection of a particular object in the water is what we call the water image. A perfect example of a water image can be referred back to a story about a dog with a bone.



While seeing in the Water, Top and Bottom will be interchanged, Left and Right will remain the same.







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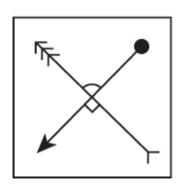
Name of the Bundle	Intermediate Bundle V1	Subject	Aptitude (Reasoning)
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23) Choose the alternative which closely resembles the water image of the given combination.

bridge	
(1) blidge	(5) bridge
(3) pridge	(4) bribge

ANS: (2)

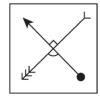
(24) Identify the water image of the given object



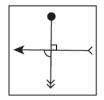
(A)



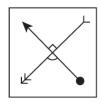
(B)



(C)



(D)



ANS: (B)

Explanation: If we look at option A, the arrow is correctly facing upward but the ball is on the perpendicular arrow which is not correct. In option C, both the arrows are crossed and the ball is on the wrong arrow and so option C is not correct. In option D, one of the arrows is pointing in the correct side but the arrow which is perpendicular to this arrow is reversed and so option D is not correct. The correct option is B as it is the correct water image of the original figure.





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25) Choose the correct water image of the question figure, from the given answer figures (assume that water is along XY).

Question figure:



Answer figures:



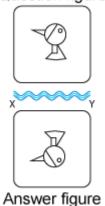






ANS: (1) Explanation:

Question figure



In the water image,

(1)

- The top side of the object becomes the bottom
- The bottom side of the object becomes the top
- The left and right sides of the object remain unchanged

Hence option A is correct.





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Name of the Bundle	Intermediate Bundle V1	Subject	Aptitude (Reasoning)
Topic	Dice, Mirror and Water Image	Last updated on	19 August 2024

26) Choose the correct water image of the question figure, from the given answer figures (assume that water is along XY)

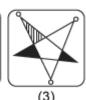
Question figure:



Answer figures:









ANS: (3)





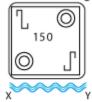
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PONNUSAMY NAGAR, SALEM ROAD(NH-44), NAMAKKAL-637003. TAMILNADU. Mobile: 9942099122, 9942099109, Web: www.selvamtech.edu.in

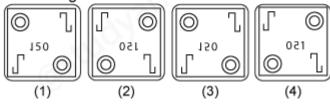
Name of the Bundle	Intermediate Bundle V1	Subject	Aptitude (Reasoning)
Topic	Dice, Mirror and Water Image	Last updated on	19 August 2024

27) Choose the correct water image of the question figure, from the given answer figures (assume that water is along XY).

Question figure:



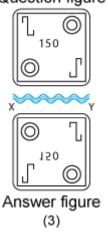
Answer figures:



Answer: (C)

Explanation:

Question figure



In the water image, The top side of the object becomes the bottom The bottom side of the object becomes the top The left and right sides of the object remain unchanged.