Problems on Dice & Cube

In such questions one or more than one cube is given and the questions are based on the number of corners, their colour, dimension, points indicated on the dimensions etc.

PRACTICE TEST

1. Two positions of a dice are show below:

When three (3) dots are at the top, how many will be at the bottom?
1) 1 2) 2 3) 4 4) 5

2. Six sides of a block are coloured Green, Blue, Red, Yellow, Orange and White in the following manner.

When Blue is on the top, which colour will be at the bottom?
1) Orange 2) Red 3) White 4) Yellow

3. A cubical block with designs in its faces is presented as viewed from different directions. Find the design on the blank face?

4. Two positions of a block are shown below. Each of the four sides has a cross line, which is not found on the upper or the lower side. Which of the response figures (1), (2), (3) and (4) is correct?

5. The sides of a cube show the colours of a rainbow. Two positions of the cube are shown below. Which of the colours of rainbow is left out?
1) Indigo  2) Green  3) Violet  4) Yellow

6. A cube, on whose sides letters have been written, is shown below in different positions as can be seen from different directions. Find the missing letter?

1) S  2) D  3) Y  4) W

7. Two positions of a parallelepiped are shown below. When the number three will be on the top side of the cube, which number will be at the bottom?

1) 1  2) 4  3) 5  4) 6

8. Two positions of a cube are shown below. When the number four will be at the bottom, which number will be at the top?

1) b  2) 6  3) 4  4) 5

9. Two positions of a dice are shown below. When there are two circles at the bottom, the number of circles at the top will be

1) 5  2) 2  3) 3  4) 6

10. Two positions of a dice are shown below. When 4 is at the bottom, which number will be on the top?

1) 1  2) 2  3) 5  4) 6

11. In a dice a, b, c and d, are written on the adjacent face, in a clockwise order and e and f at the top and bottom. When c is at top, what will be at the bottom?

1) a  2) c  3) e  4) b
12. Two positions of a block are given below:

When ten is at the bottom, what number will be at the top?

1) 8  2) 12  3) 6  4) 4

13. Two positions of a block are shown below:

When six is at the bottom, what number will be at the top?

1) 1  2) 4  3) 5  4) 2

14. Two positions of a dice with 1 to 6 dots on its sides are shown below. If the dice is resting on the side with three dots, what will be the number of dots on the side at the top?

1) 1 or 5  2) 2  3) 3  4) 5

16. Two positions of a block are given below. When I is at the top, which number will be at the bottom?

1) 3  2) 6  3) 2  4) 1

17. Two positions of a block are shown below. When 2 is at the bottom, which number will be at the top?

1) 1  2) 2  3) 3  4) 4

**Directions:** Questions 18 to 20 are based on the information given below.

The six faces of a cube are coloured black, brown, green, red, white and blue.

(i) Red is opposite to black
(ii) Green is between red and black
(iii) Blue is adjacent to white
(iv) Brown is adjacent to blue
(v) Red is at the bottom
18. Which colour is opposite to brown
   (1) White   (2) Red   (3) Green   (4) Blue

19. The four adjacent colours are
   (1) black, blue, brown, red
   (2) black, blue, brown, white
   (4) black, brown, red, white

20. Which of the following can be deduced from (i) and (v) ?
   (1) Black is on the top
   (2) Blue is on the top
   (3) Brown is on the top
   (4) Brown is opposite to black.

**Directions:** (Qs 21 to 30) A solid cube of each side 8 cms, has been painted red, blue and black on pairs of opposite faces. It is then cut into cubical blocks of each side 2 cms.

21. How many cubes have no face painted?
   1) 0  2) 4  3) 8  4) 12

22. How many cubes have only one face painted?
   1) 8  2) 16  3) 24  4) 28

23. How many cubes have only two faces painted?
   1) 8  2) 16  3) 20  4) 24

24. How many cubes have only three faces painted?
   1) 0  2) 4  3) 6  4) 8

25. How many cubes have three faces painted with different colours?
   1) 0  2) 4  3) 8  4) 12

26. How many cubes have two faces painted red and black and all other faces unpainted?
   1) 4  2) 8  3) 16  4) 32

27. How many cubes have only one face painted red and all other faces unpainted?
   1) 4  2) 8  3) 12  4) 16

28. How many cubes have two faces painted black?
   1) 2  2) 4  3) 8  4) None

29. How many cubes have one face painted blue and one face painted red? (the other faces may be painted or unpainted)
   1) 16  2) 12  3) 8  4) 0

30. How many cubes are there in all?
   1) 64  2) 56  3) 40  4) 32

**ANSWERS**

1. (4)  2. (4)  3. (2)  4. (2)  5. (3)  6. (3)  7. (1)  8. (1)
25. (3)  26. (2)  27. (2)  28. (4)  29. (1)  30. (1)