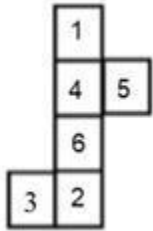



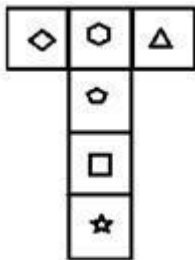
CUBE AND DICE





Q1 A cube is made by folding the given sheet. In the cube so formed, which of the following pairs of numbers will be on opposite sides?



- (A) 1 and 5
- (B) 1 and 2
- (C) 2 and 4
- (D) 3 and 6

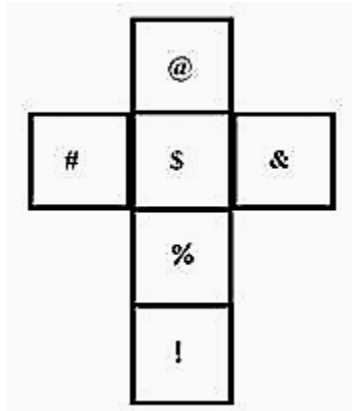
Q2 A cube is made by folding the given sheet. In the cube so formed, what would be the symbol on the opposite side of  ?



- (A) 
- (B) 
- (C) 
- (D) 

Q3 If the given figure is folded to form a cube, which symbol will come opposite "&"?

CUBE AND DICE



(A) \$

(B) @

(C) %

(D) #

Q4 A cube colored pink on all faces is cut into 27 small cubes of equal sizes. How many cubes are painted on one face only?

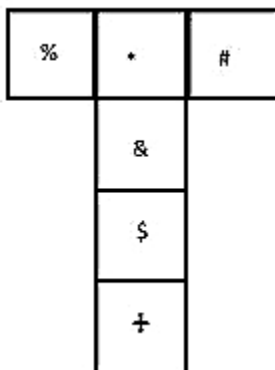
(A) 4

(B) 3

(C) 8

(D) 6

Q5 A cube is made by folding the given sheet. In the cube so formed, what would be the symbol on the opposite side of '+'?



(A) #

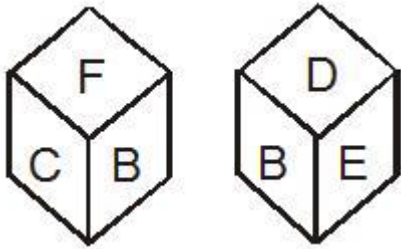
(B) %

CUBE AND DICE

(C) \$

(D) &

Q6 A dice has A, B, C, D, E and F on its faces. Two positions of dice have shown below. What letter will be just opposite of B?



(A) A

(B) C

(C) D

(D) F

Q7 A green color painted solid cube of 125 cm^3 are formed by many small size cubes of equal size.

How many cubes are painted on one face only?

(A) 36

(B) 54

(C) 48

(D) 24

Q8 Answer the following question based on this information-

A red color painted solid cube of 512 cm^3 are formed by many small size cubes of equal size.

How many cubes have three faces painted?

(A) 0

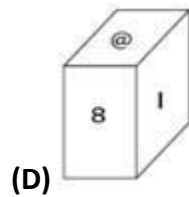
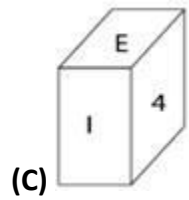
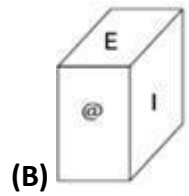
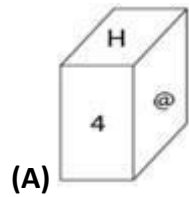
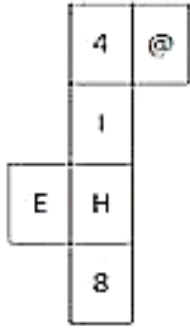
(B) 4

(C) 8

(D) 12

Q9 Choose the box that is similar to the box formed from the given sheet of paper.

CUBE AND DICE



Q10 Different positions of a dice are shown below. Which number will be opposite of number 1?



(A) 6

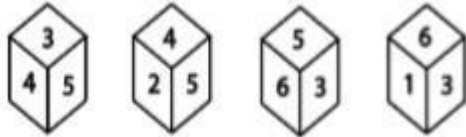
(B) 4

(C) 3

CUBE AND DICE

(D) 2

Q11 Four different positions of the same dice are shown. Find the number on the face opposite to the one having 3.



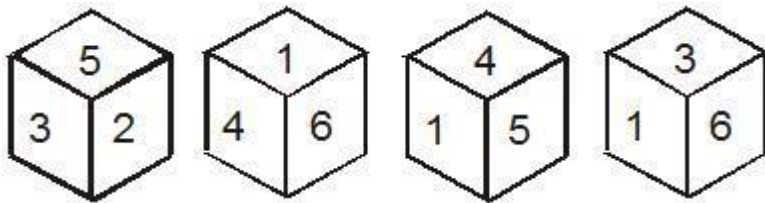
(A) 2

(B) 4

(C) 1

(D) 6

Q12 Four positions of a dice are given below. Identify the number at the bottom when top is 1.



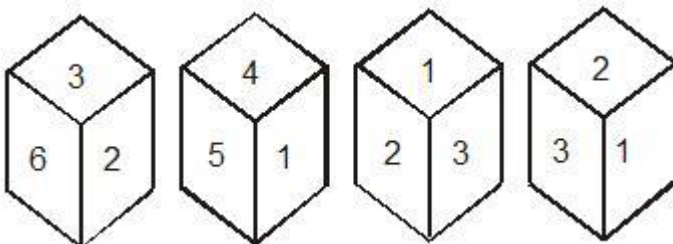
(A) 6

(B) 3

(C) 2

(D) 5

Q13 Four positions of a dice are given below. Identify the number at the bottom when top's number is 6.



01. 5

02. 1

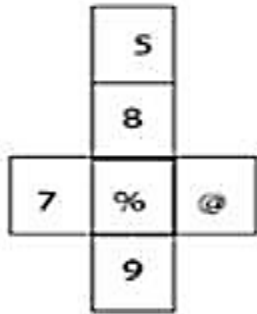
03. 3

CUBE AND DICE

04. 4

05. None of these

Q14 From the options, select the cube that can be formed by folding the given sheet.



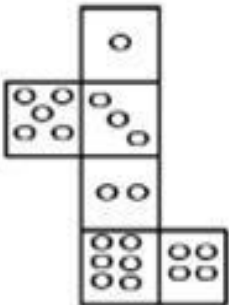
(A)

(B)

(C)

(D)

Q15 If the following figure is folded to form a cube, how many dots would appear on the face opposite the face bearing four dots?



(A) 5

(B) 3

(C) 6

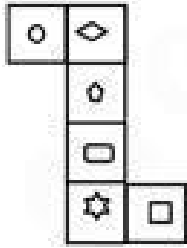
(D) 2

Q16 If the given figure is folded to form a cube, which symbol will come opposite



'?

CUBE AND DICE

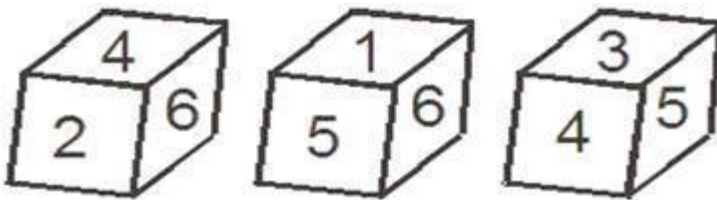


- (A)
- (B)
- (C)
- (D)

Q17 In a solid cube made up of 27 small cubes two opposite sides are painted red, two opposite sides are yellow, and two other sides are white. How many small cubes have the colours yellow and white alone in them?

- (A) 4
- (B) 8
- (C) 12
- (D) 16

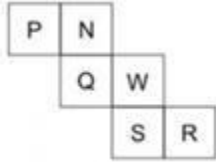
Q18 In the following figures of a dice which number will appear on the face opposite to 3?



- (A) 2
- (B) 6
- (C) 4
- (D) 1

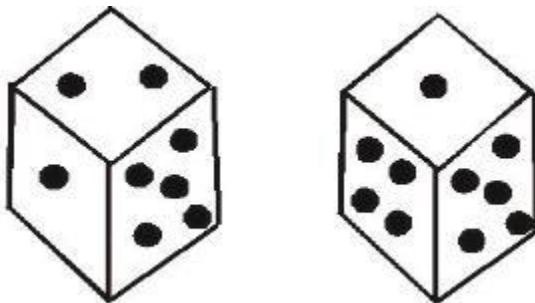
Q19 In the given figure, what will come opposite to face containing 'N'?

CUBE AND DICE



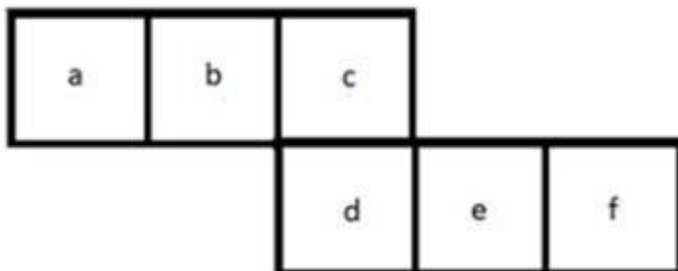
- (A) S
- (B) R
- (C) Q
- (D) W

Q20 Observe the dots on a dice (one to six dots) in the following figures. How many dots are contained on the face opposite to that containing four dots?

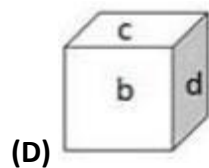
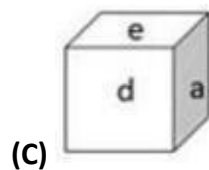
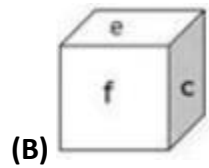
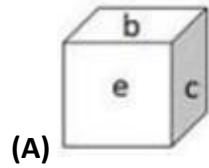


- (A) 2
- (B) 3
- (C) 6
- (D) Cannot be determined

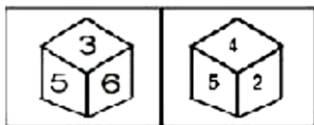
Q21 Select the box that 'CANNOT' be formed by folding the given unfolded box.



CUBE AND DICE



Q22 Study the two different positions of a cube given below with numbers from 1 to 6 marked on its faces. Find out which number is contained on the face opposite to that containing 3.



(A) 2

(B) 4

(C) 5

(D) 1

Q23 The following questions are based on the information given below.

(1) A cuboid shaped wooden block has 6 cm lth, 4 cm breadth and 1cm height.

(2) Two faces measuring $4\text{cm} \times 1\text{cm}$ are coloured in black.

(3) Two faces measuring $6\text{cm} \times 1\text{cm}$ are coloured in red.

(4) Two faces measuring $6\text{cm} \times 4\text{cm}$ are coloured in green.

CUBE AND DICE

(5) The block is divided in to 6 equal cubes of side 1cm from 6 cm side and 4 equal cube of side 1 cm, from 4 cm side. How many cubes having red, green and black colours on atleast one side of the cube will be formed?

(A) 16

(B) 12

(C) 10

(D) 4

Q24 The following questions are based on the information given below.

(1) A cuboid shaped wooden block has 6 cm lth, 4 cm breadth and 1 cm height.

(2) Two faces measuring $4\text{cm} \times 1\text{cm}$ are coloured in black.

(3) Two faces measuring $6\text{cm} \times 1\text{cm}$ are coloured in red.

(4) Two faces measuring $6\text{cm} \times 4\text{cm}$. are coloured in green.

(5) The block is divided in to 6 equal cubes of side 1 cm from 6 cm side and 4 equal cube of side 1 cm, from 4 cm side.

How many small cubes will be formed ?

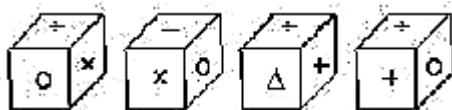
(A) 11

(B) 20

(C) 12

(D) 24

Q25 The four conditions of a cube are shown below. Which symbol will be in front of the symbol Δ ?



(A) \times

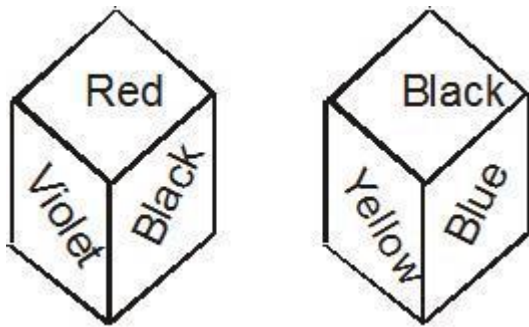
(B) $+$

(C) 0

(D) \div

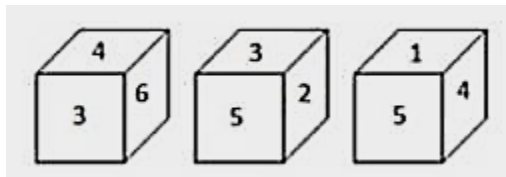
CUBE AND DICE

Q26 The six faces of dice have been coloured with six different colours. Tell which colour will appear on bottom face if top face has Green colour.



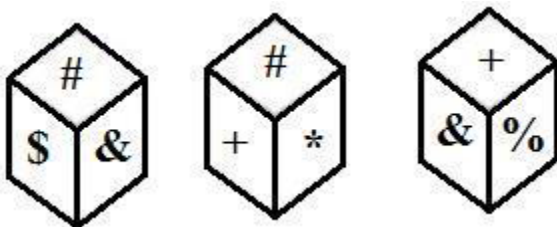
- (A) Black
- (B) Red
- (C) Blue
- (D) Yellow

Q27 Three different positions of a dice are shown below. Which number appears on the face opposite the number 6?



- (A) 1
- (B) 2
- (C) 4
- (D) 5

Q28 Three different positions of the same dice are shown below. Which symbol is on the face opposite the face showing *?



- (A) &

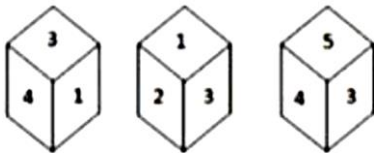
CUBE AND DICE

(B) +

(C) %

(D) #

Q29 Three different positions of the same dice are shown. Which number will be on the face opposite to the one having 2?



(A) 4

(B) 5

(C) 6

(D) 3

Q30 Three different positions of the same dice, which has one to six dots on its six faces, are shown below. When one dot is at the bottom the number of dots on the top will be-



(A) 3

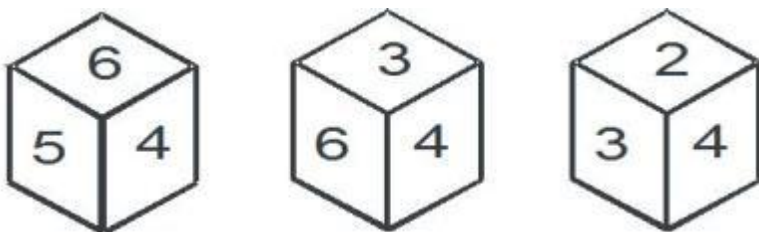
(B) 5

(C) 4

(D) 2

Q31 Three position of a dice are given below.

Which number will be opposite to 4?



(A) 2

CUBE AND DICE

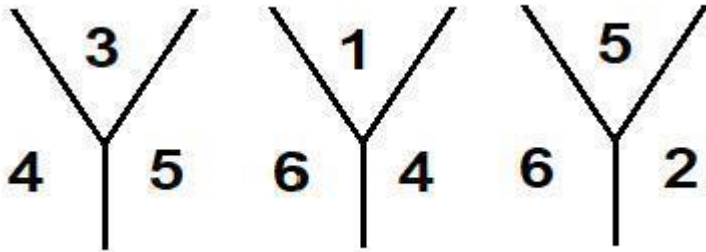
(B) 6

(C) 3

(D) 1

Q32 Three positions of a dice are given below.

Which number is opposite of 5?



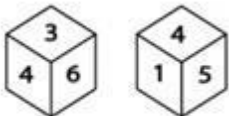
(A) 1

(B) 2

(C) 3

(D) 4

Q33 Two different positions of the same dice are shown below, the six faces of which are numbered 1 to 6. Find the number opposite to the face having 2?



(A) 6

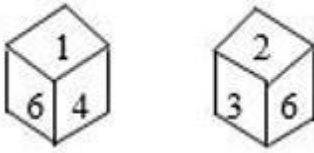
(B) 4

(C) 1

(D) 3

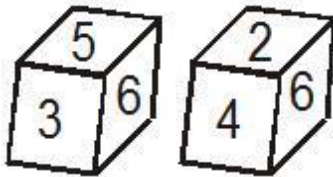
Q34 Two positions of a dice are given below. Which number will be at the top, if the number 1 is on the bottom of the dice?

CUBE AND DICE



- (A) 2
- (B) 6
- (C) 3
- (D) 5

Q35 Two positions of a dice are given below. Which digit will be opposite to 5?



- (A) 1
- (B) 3
- (C) 5
- (D) 2

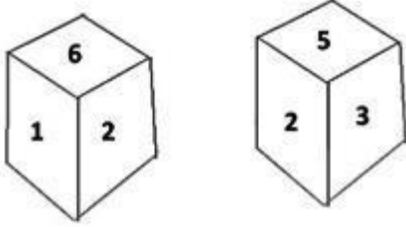
Q36 Two positions of a dice are given below. Which number will be found the opposite to 6?



- (A) 5
- (B) 3
- (C) 1
- (D) 4

Q37 Two positions of a dice are shown. Which number will be opposite to the number '3'?

CUBE AND DICE



(A) 6

(B) 2

(C) 4

(D) 1

Q38 Two positions of the same dice are given. Which number will be at the bottom if '4' is at the top?



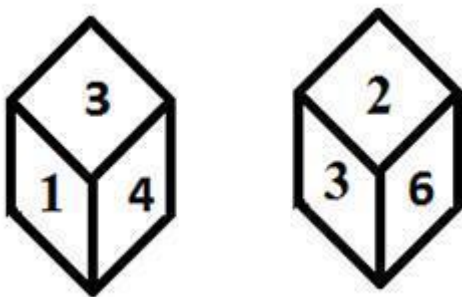
(A) 1

(B) 3

(C) 2

(D) 6

Q39 Two rotated positions of a dice are given below. Which number will be at the top if the number 4 is on the bottom of the dice?



(A) 6

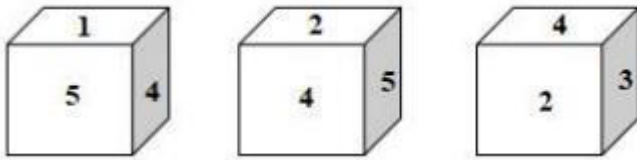
(B) 2

(C) 1

CUBE AND DICE

(D) 4

Q40 Which number will appear on the bottom face in the last cube?



(A) 4

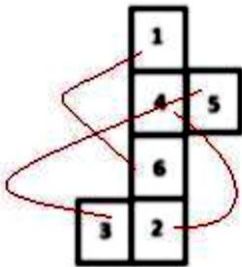
(B) 3

(C) 1

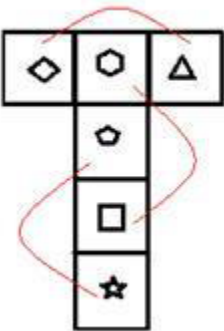
(D) 6

EXPLANATION

Q1.(C)

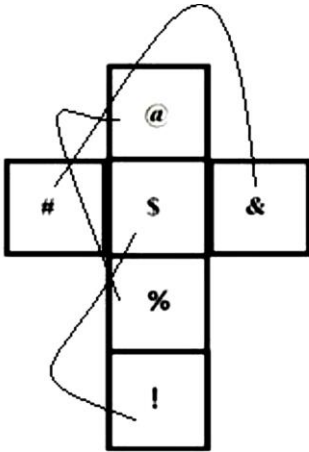


Q2.(B)



Q3.(D)

CUBE AND DICE

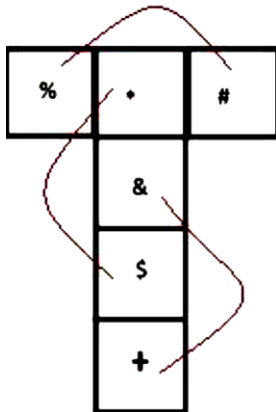


Q4.(D) $N^3 = 27$

$$N = 3$$

$$6(N-2)^2 = 6(3-2)^2 = 6$$

Q5.(D)



Q6.(A) B C F B D E

Q7.(B) $125 = (5)^3$

$$\begin{aligned} &2(l-2) \times (b-2) + 2(b-2)(h-2) + 2(l+2)(h-2) \\ &= 2(5-2) \times (5-2) + 2(5-2)(5-2) + 2(5-2)(5-2) \\ &= 18 + 18 + 18 = 54 \end{aligned}$$

Q8.(C) 8 (Constant)

Q9.(C) 4 ----- H I ----- 8 E ----- @

CUBE AND DICE

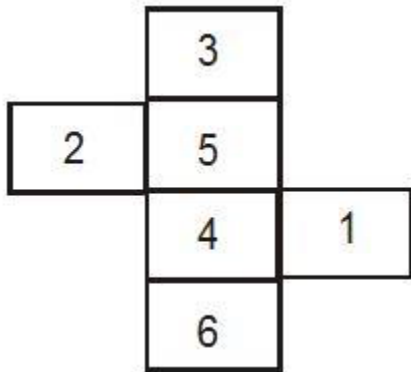
Q10.(B)

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

Q11.(A) 3

2

Q12.(C)



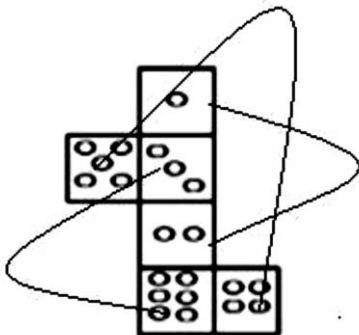
Q13.(B) 6 lies opposite to 1.

Q14.(A) 5-----%

8 -----9

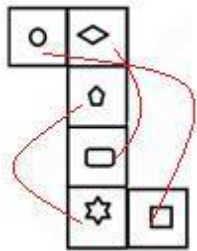
7-----@

Q15.(A)

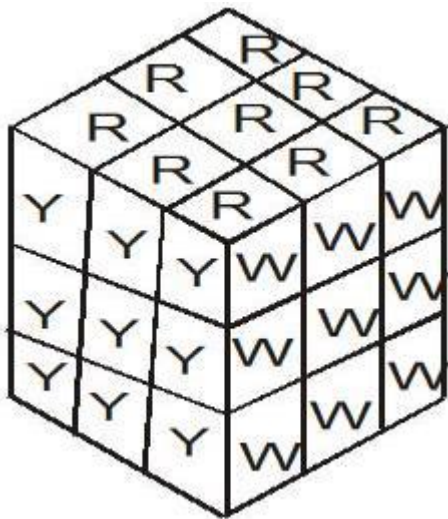


Q16.(D)

CUBE AND DICE

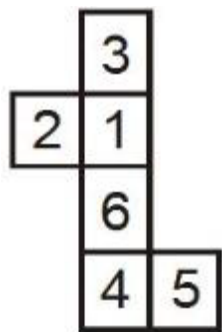


Q17.(A)



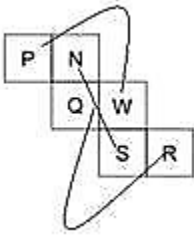
R = Red Y= Yellow W = White

Q18.(B)

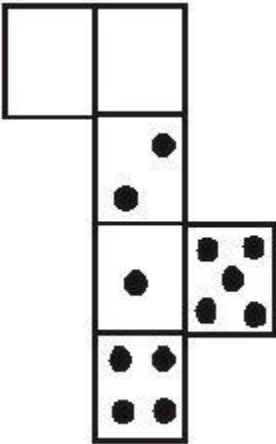


Q19.(A)

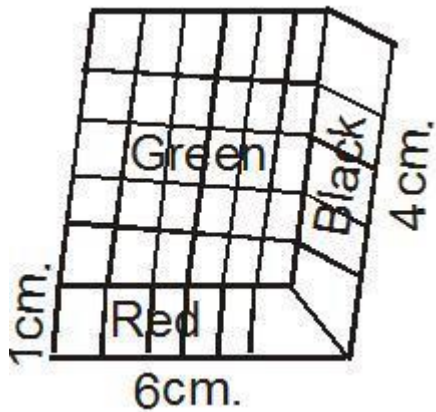
CUBE AND DICE



Q20.(A)



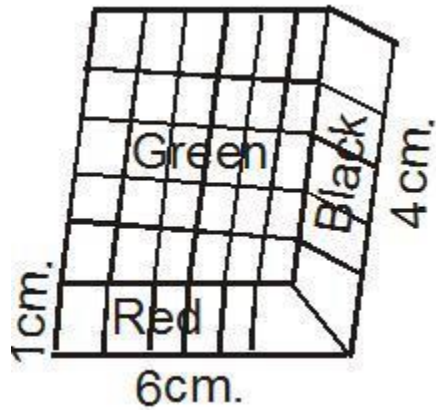
Q23.(D)



Such cubes are related to the corners of cuboid. Since the number of corners of the cuboid is 4. Hence, the number of such small cubes is 4.

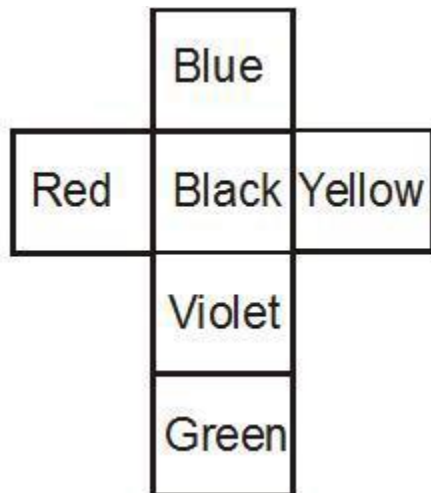
Q24.(D)

CUBE AND DICE



No. of small cubes which can be formed from cuboid. = $6 \times 4 \times 1 = 24$

Q26.(A)



Q27.(D) 3 4 6 5 3 2 4 6 3

3 2 5, 5 1 4, 4 5 1

Q28.(A) + # *

+ % &

Q29.(A) We get the answer from the first two positions.

Q30.(A)

6	2	1	3	6	5
6	5	3,	3	4	2
4					1

CUBE AND DICE

Q31.(D) Number 1 would be found opposite of 4.

Q32.(A) 5 and 1 are not together in any given positions. Therefore, 1 and 5 will opposite to each other.

Q33.(B) 4 3 6

4 1 5, 4 is opposite of 2

Q34.(C) 6 1 4

6 3 2

Q35.(D) 2 will be opposite of 5.

Q36.(C) Number 1 found opposite of 6

Q37.(A) 2 1 6

2 5 3

Q38.(A) 3 1 6

3 4 5

Q39.(B) 3 4 1

3 2 6

Q40.(D) 4 5 1

4 3 2