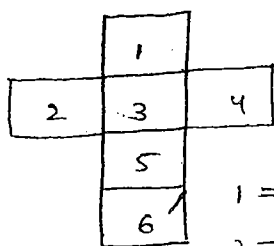
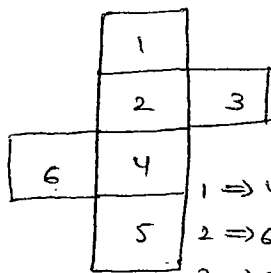
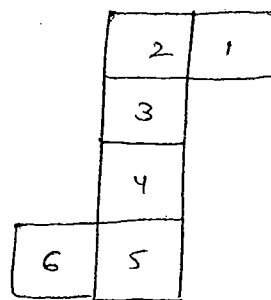


NON VERBAL TEST OF REASONINGCUBES AND DICES

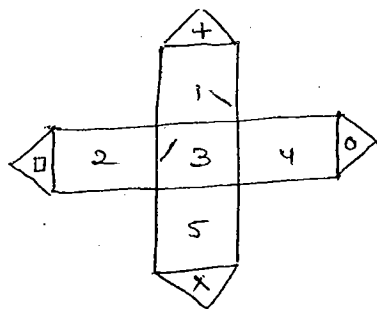
$1 \Rightarrow 5$
 $2 \Rightarrow 4$
 $3 \Rightarrow 6$



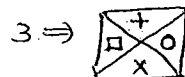
$1 \Rightarrow 4$
 $2 \Rightarrow 6$
 $3 \Rightarrow 5$
 (opposite faces)



$1 \Rightarrow 6$
 $2 \Rightarrow 4$
 $3 \Rightarrow 5$

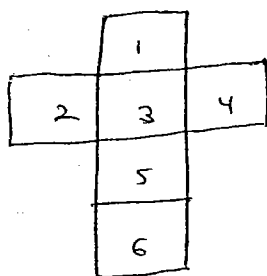
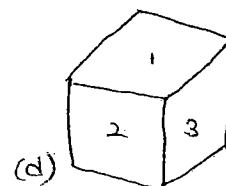
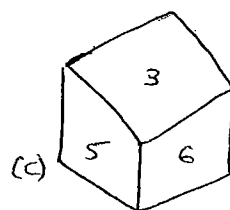
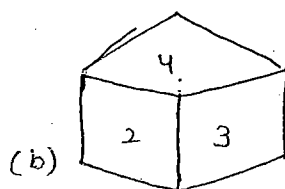
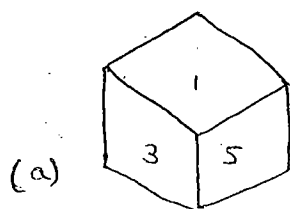


$1 \Rightarrow 5$
 $2 \Rightarrow 4$



Model - I:-

1. In each of the following question one figure is given, if that figure is folded the following cubes are formed.



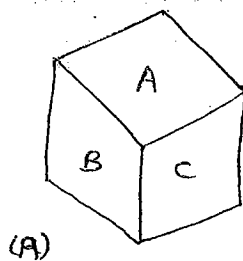
opp
 $1 \Rightarrow 5$
 $3 \Rightarrow 6$
 $2 \Rightarrow 4$

Ans:- (d)

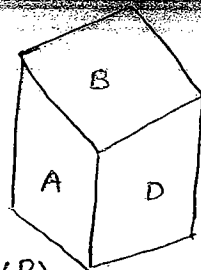
In (d) fig. 1 is opposite to 5
it is not $3 \Rightarrow 6$, $2 \Rightarrow 4$.

In other (a) fig. 1 is adjacent to 5 not correct.
(b) 2 is adjacent to 4 not correct.
(c) 3 is adjacent to 6 not correct.

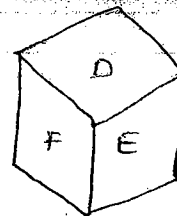
2)



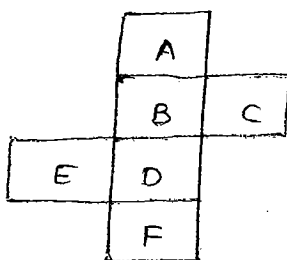
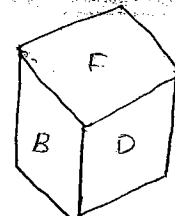
(B)



(C)



(D)



opposite
 $A \Rightarrow D$
 $B \Rightarrow F$
 $E \Rightarrow C$

a) (A) & (B) only

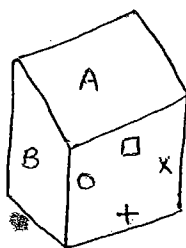
b) (A) & (C) only

c) (D) only

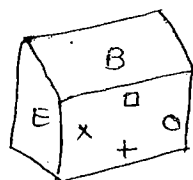
d) All the above

[b]

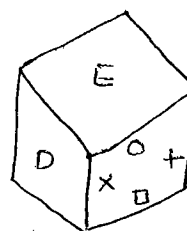
3)



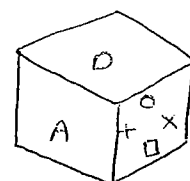
(A)



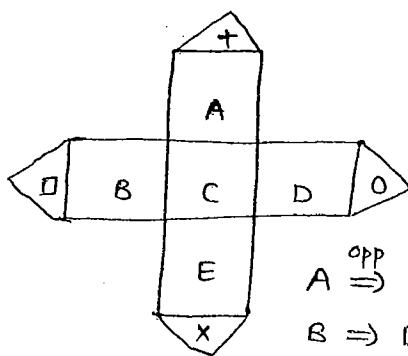
(B)



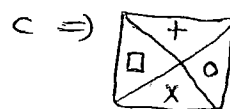
(C)



(D)



opp
 $A \Rightarrow E$
 $B \Rightarrow D$



a) (A) & (B) only

b) (A) & (C) only

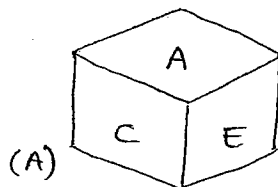
c) (A) & (D) only

d) All the above.

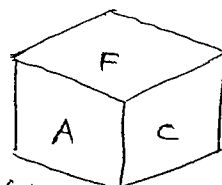
[c]

Model - II :-

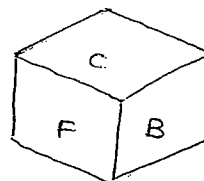
4)



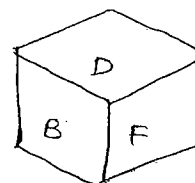
(A)



(B)



(C)



(D)

From above four positions of cube which base is opposite to face 'C'. [D]

adjacent
 $D \Leftarrow C \Rightarrow A, E, F, B$

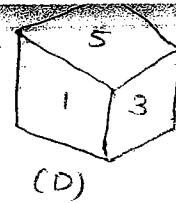
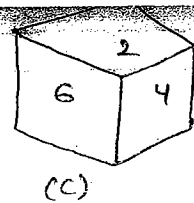
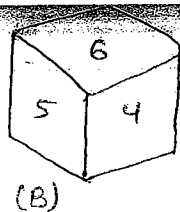
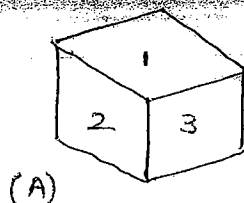
adjacent
 $(A) \rightarrow C \Rightarrow A, E$

$(B) \rightarrow C \Rightarrow A, F$

$(C) \rightarrow C \Rightarrow F, B$

$(D) \rightarrow C$ is not given

5.



In above four positions of cube if face '2' is top and which face is bottom. [D]

$$5 \leftarrow 2 \xrightarrow{\text{opp}} 1, 3, 4, 6$$

Data:-

A wooden cube of 8cm is painted with three different colors i.e., red, blue, green. Red painted on top and bottom and remaining faces and that oppose it are painted with remaining colors and cut into a cubical blocks of each face 2cm and answer the following questions.

1. How many cubes are there which are only one face painted with any color and remaining faces are unpainted. [D]
 A) 4 B) 8 C) 12 D) 24
2. How many cubes are there which are only two faces painted with in any color and remaining faces are unpainted. [C]
 A) 8 B) 12 C) 24 D) 32
3. How many cubes are there which are only three faces painted with in any color and remaining faces are unpainted. [B]
 A) 4 B) 8 C) 10 D) 12
4. How many cubes are there which are three faces painted with three different colors and remaining faces are unpainted. [A]
 A) 8 B) 10 C) 12 D) 16
5. How many cubes are there which are one face painted with red color and remaining faces are unpainted. [B]
 A) 4 B) 8 C) 12 D) 14

6. How many faces are there two faces painted with red and blue and remaining faces are unpainted. [B] (2)

- A) 4 b) 8 c) 12 d) 16

7. How many cubes are there which are two faces painted with red or blue. The remaining faces are painted (or) may not be painted. [C]

- A) 8 B) 12 c) 16 d) 20

8. How many cubes are there which are two faces painted with green color and remaining faces are unpainted

- A) 4 B) 8 c) 10 d) None

9. How many cubes are formed in all. [C]

- A) 24 B) 32 c) 48 d) 64

$$\begin{aligned} n^3 \\ n = \frac{8}{2} = 4 \\ \Rightarrow (4)^3 = 64 \end{aligned}$$

10. How many cubes are there which are no face painted with any color. [B]

- A) 4 b) 8 c) 12 d) None

$$\begin{aligned} (n-2)^3 \\ \Rightarrow (4-2)^3 \\ \Rightarrow 8 \end{aligned}$$

11. How many cubes are there which are at least one face painted with any color. [d]

- A) 24 B) 32 c) 48 d) 56

$$\begin{aligned} n^3 - (n-2)^3 \\ \Rightarrow 4^3 - 2^3 \\ \Rightarrow 56 \end{aligned}$$

12. How many cubes are there which are at least two faces painted with any color. [C]

- A) 12 b) 24 c) 32 d) 44

13. How many cubes are there which are at least three faces painted with any color. [B]

- A) 4 b) 8 c) 12 d) None

Answers:-

1. $4 \times 6 \text{ (faces)} = 24$
2. $2 \times 12 \text{ (edges)} = 24$
3. $1 \times 8 \text{ (corners)} = 8$
4. $1 \times 8 = 8$
5. $4 + 4 = 8$
 $R + R$
6. Red & ~~Blue~~ ^{Red} = $4 + 4 = 8$
~~Blue~~
7. Red & blue = $8 + 8 = 16$
8. None.
9. $n^3 = (4)^3 = 64$

$$n = \frac{8 \text{ cm}}{2 \text{ cm}} = 4 \text{ parts}$$

$$10. (n-2)^3 = (4-2)^3$$

$$= 8$$

$$11. \text{Total} = 64$$

$$\text{No faces} = \frac{8}{56}$$

$$\text{(or)} n^3 - (n-2)^3 = 56$$

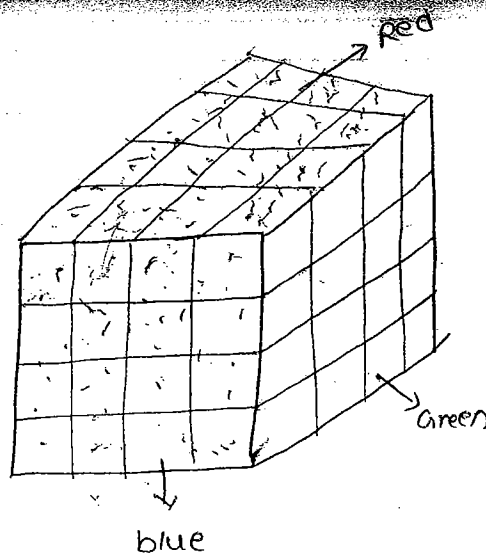
$$12. \text{Atleast one} = 56$$

$$\text{Only one} = \frac{24}{32}$$

(or)

$$\frac{\textcircled{2} + \textcircled{3} \text{ qs}}{24 + 8 = 32}$$

$$13. 1 \times 8 = 8$$



opp. of green also green
 opp. of Red also Red
 opp. of blue also blue

Cube Analysis:-

1. No. of faces = 6
2. No. of edges = 12
3. No. of corners = 8

Q. A wooden cube of 18 cm painted with three different colors i.e., red, blue and green. Red painted on top and bottom and remaining faces at that opposite are painted with remaining colors and cut into a cubicle blocks of each face 2cm and answer the above problem questions.