## Study Notes on

## Visual Ability

Visual Ability is the process of solving reasoning question by representing the question which are in graphical form to get the solution. Some of the most important chapter comes under visual ability are given below.

## 1. Image \& Figure Counting

Under this topic of visual ability, figure counting known as the process of formation of a defined geometrical figure with the use of pieces of different designs. And image related question are of various types such as Mirror Image, Water Image etc. Mirror Image is the image or reflection of an object into a mirror when the object is placed near it.
Water Image is the reflection of an object into water. It is the vertically inverted image obtained by turning the object upside down.

## Example:

Que-Which of the answer figure is exactly the mirror image of the given figure, when the mirror is held on the line $A B$ ?

## Question Figure:


A.

B.

C.

D.


## Solution: Option (D)

A mirror image (in a plane mirror) is a reflected duplication of an object that appears almost identical but is reversed in the direction perpendicular to the mirror surface. As an optical effect, it results from reflection off of substances such as a mirror or water.


Hence, option D is correct.

## 2. Cube \& Dice

Under this topic of visual reasoning, Cube is a three dimensional figure that can only be made out of square. Square when given a height equal to one of the sides, becomes a cube and Dice is a three dimensional figure with each of its six faces showing different numbers. It has 8 corners and 12 edges. In a dice, all three side i.e. length, breadth, height is equal.

## Example:

Que-Three positions of a dice are given below. Identify the number on the face opposite to 6 ?

A. 1
B. 4
C. 5
D. 8

## Solution- Option (B)



On comparing the positions of 2 nd and 3 rd dice only we find that, $3 \& 5$ are common faces and 4,6 are on its adjacent face. So, clearly 4 is on the opposite face of 6 .
Hence, option ( B ) is the correct response.

## 3. Seating Arrangement

Under this topic of visual ability, Seating Arrangement is a process of making a group of people sit as per given manner. This type Of questions are based on a group of information including a certain set conditions. Information of the arrangement of the persons in a row or column or square or around the circle could be given, and students need to arrange people in the row or column or square or circle according to the information given in the question.

## Example:

Que-Five People B, D, R, C and H are sitting on a circular table facing the centre.

1. D is sitting exactly between C and H
2. $R$ is sitting second to the right of $D$
3. $C$ and $B$ are sitting adjacent to each other.
Q. Who sits second to the right of H ?
A. B
B. C
C. R
D. D

Ans. A

## Solution

By (1), $D$ is sitting exactly between $C$ and $H$, the arrangement will be like:


By (2), $D$ is sitting exactly between $C$ and $H$, the arrangement will be like:


Now since, C and B are sitting adjacent to each other, only possible combination that would be possible is:


Hence, $B$ is second to the right of $H$.

## 4. Venn Diagram

Under this topic of Venn Diagram, it depicts the process of presenting the things or objects or persons or departments or organizations and so on through a manmade figure such as square, circle, rectangle etc.

## Example:

Q. Direction: Study the following figure and answer the following question -


Find the no. of tennis players who do not play hockey?
A. 10
B. 50
C. 55
D. 35

Solution: No. Of tennis player who don't play hockey -
$11+5+14+5=35$.
Therefore, the correct response is option D

## 5. Distance \& Direction

Under this topic of visual ability, Distance \& Direction questions are based on the distance and or direction puzzle. Based on the information given in the question about distance and direction, students need to find out the final direction from the starting point or find out the distance, covered from one point to another.

Given below are some of the most important example to make clear the concept of visual ability-

## Example:

Que- Shipra set out to her grandmother's home. She leaves her house and first took a left turn. Then she took a right turn and a right and a left and a right and was standing in front of her grandmother's door entrance. If Shipra's house is facing East, what direction is her grandmother's home facing?


Hence, She is facing North

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