CLASS NOTES-ANSWERS

EXERCISE 3.4

1. Tell whether the following is certain to happen, impossible, can happen but not certain.

(i) You are older today than yesterday.

(ii) A tossed coin will land heads up.

(iii) A die when tossed shall land up with 8 on top.

(iv) The next traffic light seen will be green.

(v) Tomorrow will be a cloudy day

Answer:

(i) Event: You are older today than yesterday.

So, it is certain to happen.

(ii) Event: A tossed coin will land heads up.

Probability: when a coin is tossed, there are two chances of getting a {H} and {T}.

So, it can happen but not certain.

(iii) Event: A die when tossed shall land up with 8 on top.

Probability: When a dice is tossed, there are only six chances i.e. {1,2,3,4,5,6,}.

So, it is impossible.

(iv) Event: The next traffic light seen will be green.

So, it is certain to happen.

(v) Event: Tomorrow will be a cloudy day.

So, it is certain to happen.

2. There are 6 marbles in a box with numbers from 1 to 6 marked on each of them.

(i) What is the probability of drawing a marble with number 2?

(ii) What is the probability of drawing a marble with number 5?

Answer: Given, Total number of marbles from 1 to 6 marked in a box = 6

$$\text{Probability} = \frac{Number\ of\ favourable\ outcomes}{Number\ of\ possible\ outcomes}$$

(i) Probability (drawing marble with number 2) = $\frac{1}{6}$

(ii) Probability (drawing marble with number 5) = $\frac{1}{6}$

3. A coin is flipped to decide which team starts the game. What is the probability that your team will start?

Answer: A coin has two faces - Head and Tail. One team can opt either Head or Tail.

$$\text{Probability} = \frac{Number\ of\ favourable\ outcomes}{Number\ of\ possible\ outcomes}$$

Probability (our team starts first) = $\frac{1}{2}$