

## CHAPTER 15

# Probability

### Compound Event:

If an event has more than one “Elementary event” of the random experiment is called "Compound event”.

### Example:

On rolling a die, we have sample space  $S = \{1, 2, 3, 4, 5, 6\}$ .

Then, the events

$E$  : Getting an even number =  $E = \{2, 4, 6\}$

$F$  : Getting an odd number =  $F = \{1, 3, 5\}$  are all compound events.

### Equally likely events:

Events that have an equal chance of occurrence are called “Equally likely events”.

### Example:

When a coin is tossed both heads and tails have an equal chance of occurrence.

### Not equally likely events:

Events that do not have an equal chance of occurrence are not “Equally likely events”.

**Example:**

Suppose that there are 4 red balls and 6 green balls in a bag. There are more green balls than red balls. Hence, when a ball is randomly picked, the chances of getting a green ball are more.

**Sure Event:**

The whole sample space (s) of an event say “E” is “1”, then event “E” is called a “Certain event or Sure event”.

**Example:**

On throwing a die, we have sample space  $S = \{1, 2, 3, 4, 5, 6\}$ .

Let  $E =$  Event of getting a number is less than 7.

Then.  $E = \{1, 2, 3, 4, 5, 6\}$ . So, E is a “Sure event”.

