Probability - Points to Remember

1. Probability of an Event:

In the experimental approach to probability, we find the probability of the occurrence of an event by performing the experiment a number of times and adequate recording of the happening of the event.

2. Basic Terms Related to Probability:

(i) In the theoretical approach to probability, we try to predict what will happen without performing the experiment.

(ii) An outcome of a random experiment is called an elementary event.

(iii) An event associated with a random experiment is a compound event if it is obtained by combining two or more elementary events associated to the random experiment.

(iv) An event A associated with a random experiment is said to occur if any one of the elementary events associated with event A is an outcome.

(v) An elementary event is said to be favourable to a compound event A if it satisfies the definition of the compound event.

3. Calculation of Probability:

If there are n elementary events associated with a random experiment and m of them are favourable to an event A, then the probability of occurrence of event A is denoted by P(A) and is defined as the ratio
mn i.e. PA= Favourable number of elementary events Total number of elementary events

4. Range of Probability:

For any event A associated with a random experiment, we have

(i) $0 \leq PA \leq 1$

(ii) PA=1-PA

(iii) The probability of a sure event is 1.

(iv) The probability of an impossible event is 0.

5. The sum of the probabilities of all the outcomes (elementary events) of an experiment is 1.