PROBABILITY

Probability

Deals with the measurement of uncertinity of the occurrence of some event in terms of percent or ratio

Sample Space

Collection of all possible out comes
eg : In a throw of a die S. S. = (1,2,3,4,5,6)

Outcome

different possibilities which can occure
eg : In tossing a coin outcome are Head and Tail

Experiment

Any kind of activity
eg : Tossing a coin

Event

Sort of an experiment
eg : getting six in a throw of a die

Equally likely outcomes

There is equal uncerteinty of each outcome of an experment

A bag contains 5 red balls, 8 white balls, 4 green balls and 7 blackballs. If one ball is drawn at random, then probability that it is :

(a) Black i.e. P(B) = $\frac{7}{24}$

(b) Green P(G) = $\frac{4}{24}$! $\frac{1}{6}$

(c) P(Not red) = 1–P (Red) ! 1&$\frac{5}{24}$! $\frac{24 \&5}{24}$! $\frac{19}{24}$

Probability of an event A = P (A) ! $\frac{\text{Number of outcomes in favour of A}}{\text{Total number of possible outcomes}}$

$0 \leq P(A) \leq 1$

Probability of getting a number greater than 7

Probability of getting Tuesday after Monday

0	1/4	1/2	3/4	1
No Chance	Poor Chance	Even Chance	Good Chance	Sure Chance

When a coin is tossed

Total number of outcomes = 2 ie. T,H

Probability of getting head P(H) = $\frac{1}{2}$

Probability of getting tail P(T) = $\frac{1}{2}$