Summary

- Probability is nothing but a numerical measure associated with the occurrence or non occurrence of an event

- A probability values are always assigned on a scale between zero and 1

- Probability is important in decision making because it provides the way to measure, express and analyze the uncertainties associated with future events

- If an event A can happen in 'm' ways out of a total of 'n' equally likely and mutually exclusive ways then the probability of the occurrence of the event is denoted by p=P(A)= m/n is the classical approach of is the classical approach of defining probability

- Classical probability is often called a priori probability because if we keep using orderly examples of unbiased dice, fair coin, etc., we can state the answer in advance (a priori) without rolling a dice, tossing a coin etc

- Classical approach fails when the outcomes are not equally likely, mutually exclusive and the exhaustive number of outcomes is not finite

- In the relative frequency definition the probability is the value which is approached by m/n when n becomes infinity

- The probability obtained by following relative frequency definition is called a posterior or empirical probability as distinguished from a priori probability obtained by the classical approach.