

Statistics - ICS Part 1 Statistics Chapter 7 Short Questions Preparation

Q1. Define Independent events.

Ans 1: The Events a and B are said to independent if the occurrence or nonoccurrence of event A does not affect the probability of occurrence of B. This means that irrespective whether event A has occurred or not, the probability of occurrence of B is to going to be same.

Q2. When does probability becomes negative.

Ans 1: The probability cannot be negative for ever.

Q3. What are random numbers?

Ans 1: Random numbers are a sequence of digits from the set $\{0,1,2,3...9\}$ so that each digit has the same probability of being selected.

Q4. Define exhaustive or completely exhaustive or collectively exhaustive outcomes.

Ans 1: When a list of outcomes that can result from an experiment includes every possible outcome, the list is said to be completely or collectively exhaustive. In the experiment of tossing a coin, the list head and tail is completely exhaustive.

Q5. What is the subjective approach to probability.

Ans 1: In this approach, probabilities are based on the personal beliefs of the person making the probability estimate.

Q6. Draw the sample space when four coins are tossed.

Ans 1: $S = \{HHHH, HHHT, HHTH, HTHH, HHTT, HTHT, HTTH, HTTT, THHH, THHT, THTH, TTHH, THTT, TTHT, TTTH, TTTT\}$

Q7. Write down the application of random number.

Ans 1: The random number have wide application in the simulation techniques which have been applied to many problems where direct experimentation is not possible, or the experiment takes so much time.

Q8. What is a random experiment.

Ans 1: A random experiment is a process which generates raw data, for example, tossing a coin rolling a die and drawing a ball from a bag containing balls of different colours are random experiments.

Q9. Give two example of random variable.

Ans 1:

1. In tossing a coin no of heads is a random variable.
2. In rolling a die no of dots on the upper face is a random variable,

Q10. Define mutually exclusive eents.

Ans 1: Two events A and B are said to be mutually exclusive if the event A occurs, B cannot occur or vice versa,. That is , they cannot both occur at the same time.
