Statistics - ICS Part 1 Statistics Chapter 8 Short Questions Preparation

Q1. What do you know mean by expected value.

Ans 1: Let x be a random number variable with probability function ,The mathematical expectation of the discrete random variable x donated by E(x) is defined by
E(x)=x.p(x)

Q2. Define continuous random variable.

Ans 1: A random variable whihc takes on an infinite number of values on a continuous scale in a given interval is called a continuous random variable for example, the distance travelled by a car between two locations is a continuous random variable. it may assume any of the values int he interval (a,b)

Q3. How the distribution function is represented graphically in the discrete and continuous case.

Ans 1: Teh distribution function of a discrete random variable is represneted by a step function, While for the continuous random variable. It is represented by a courve. In both cases, It incrrease from 0 to 1

Q4. Differentiate betwen discrete and continuous random variable

Ans 1: Discrete Random Variable.: A random variable which takes on only a finite numebr of valeus or a sequence of whole numbers is called a discrete random variable.

Ans 2: Continuous Random Variable: A random variable which takes on an infinite number of values on a continuous scale in a given interval is called a continuous random variable.

Q5. Give an example of random variable.

Ans 1: Rolling a die is a random experiment and its outcome, i.e. the occurrence of 1,2,3,4,5 or 6 is a random variable.

Q6. How can random numbers be generated.

Ans 1: Random numbers can be generated manually as well as mechanically Random numbers can be generated manually by drawing cards from numbered cards or by spinning numbered wheels. These numbers can be genereated mechanically by use of programmable calculators or digital computers.

Q7. Define probability distribution for a discrete random variable.

Ans 1: Probability distribution of a discrete random variable is a table consisting of all possible values with their respective

probabilities.

Q8. Write down the propeties of a random experiment.

Ans 1: 1- Experiments in which outcomes vary from trial to trial

Ans 2: 2- Triials are independent

Q9. Define probability density function.

Ans 1: The probability density function of a continuous random variable x is specified by a curve such that the total area under the cause is 1.0.

Q10. How would you represent the discrete probabiliyt distribution.

Ans 1: A discrete probability distribution may be represented in tabular and graphical forms and as a mathematical equation. In graphical form, it is displayed as a bar diagram and as a histogram.
