

Statistics - ICom Part 1 Statistics Full Book Short Questions Preparation

Q1. What is an ogive.

Ans 1: A graph showing the cumulative frequencies plotted against the upper boundaries is called a cumulative frequency polygon or an ogive. The graphs corresponding to a 'less than' and 'more than' cumulative frequency distributions are called 'less than' and 'more than' ogives respectively.

Q2. Define weighted arithmetic mean.

Ans 1: The weighted mean is the mean which takes into account the weight of each value.

Q3. 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 denoted by $E(x)$ is defined by
 $E(x) = \sum x \cdot p(x)$

Q4. What is the base period?

Ans 1: The period with which prices in other periods are compared is called the base period or reference period.

Ans 2: The base period is usually a year because a month or a quarter is too short a period to be used as base.

Q5. Define the range of grouped data.

Ans 1: There are two ways of defining the range for grouped data.

Ans 2: 1- Range = class mark of highest class - class mark of lowest class.

Ans 3: 2- Range = upper class boundary of highest class - lower class boundary of lowest class.

Q6. How would you draw the histogram of a frequency distribution with unequal class interval sizes.

Ans 1: First we adjust the class frequencies of the frequency distribution by dividing each class frequency by its corresponding class interval size. The heights of the rectangles are taken equal to these adjusted class frequencies against the class boundaries along the X-axis in the usual way.

Q7. What is a market basket.

Ans 1: The goods and services are called the market basket it consists of

Ans 2: 1- Food

Ans 3: 2- House rent

Ans 4: 3- Clothing 4- fuel and light 5- education

Ans 5: 6- miscellaneous items 7- Two mean as of

Q8. What is the consumer price index number.

Ans 1: The consumer price index number also called the cost of living or retail price index, is designed to measure changes in the cost of living. It is the cost of goods and services of daily use purchased by a particular class of people in a town or area.

Q9. Define relative frequency.

Ans 1: The frequency of a class divided by the total frequency is called the relative frequency.

Q10. What is an array?

Ans 1: An arrangement of numerical data in ascending or descending order is called an array.

Q11. Define coefficient of variation.

Ans 1: The coefficient of variation is defined as $C.V = \frac{S.D}{\bar{X}} \times 100$

Q12. Find mode and median of letter "STATISTICS"

Ans 1: Mode = S and T For median arrange the letters. A, C, I, S, S, S, T, T, T Median = Mid value = S

Q13. 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 generated mechanically by use of programmable calculators or digital computers.

Q14. Define hypergeometric experiment.

Ans 1: An experiment in which a random sample is chosen without replacement from a finite population is said to be hypergeometric experiment.

Q15. Define simple price relative.

Ans 1: A price relative computed for a single commodity is called the simple price relative. It is given by

Ans 2: Price relative = $P_n / P_o \times 100$, where p_o is the base year price and p_n is given year price.

Q16. When the distribution is Leptokurtic,

Ans 1: If the value of $b_2 = m_4 / m_2^2$ is greater than 3 then the distribution is leptokurtic.

Q17. Give two examples of Mutually Exclusive Events.

Ans 1: 1- If we roll a die, all the six faces of a die are mutually exclusive.

Ans 2: 2- If we toss a coin a head and tail are mutually exclusive.

Q18. Is it possible that first moment about mean is 10

Ans 1: No, it is not possible that first moment about mean is 10. The first moment about mean is always equal to zero.

Q19. How the distribution function is represented graphically in the discrete and continuous case.

Ans 1: The distribution function of a discrete random variable is represented by a step function, while for the continuous random variable it is represented by a curve. In both cases, it increases from 0 to 1.

Q20. What is Class Boundary?

Ans 1: Class boundaries are the true class limits. Class boundary is the midpoint of the upper class limit of one class and the lower class limit of the subsequent class.
