

B.Sc. Sem.-1 Examination

CC-3-P-101

Statistics

Time : 2-30 Hours]

October-2024

[Max. Marks : 70

- Q.1(a) What are the characteristics of Ideal Questionnaire? 07
 (b) Write difference between Primary data and Secondary data. 07
 or
 (a) Explain: (i) Variable (ii) Attribute (iii) Discrete Variable and (iv) Continuous Variable 07
 (b) What is classification? State the advantages of classification. 07
- Q.2(a) Explain the importance of graphs in Statistics. State the limitations of graphs. 07
 (b) State different types of diagrams. Also Explain the importance of diagram. 07
 or
 (a) Write a note on one dimensional diagram. 07
 (b) Describe the method of drawing a histogram where class-lengths of class of the frequency distribution are (i) equal (ii) unequal. 07
- Q.3(a) What are the properties of a good average? Give examples where arithmetic mean, harmonic mean and geometric mean are appropriate measure for the average. 07
 (b) What are partition values? Give details with notations used to denote them. 07
 or
 (a) What do you mean by the measures of central tendency? Explain them in detail. 07
 (b) What are the merits and demerits of mode and median? 07
- Q.4(a) Explain the concept of dispersion and write the characteristics of an ideal measure of dispersion. 07
 (b) Derive the formulae of first four central moments from raw moments. 07
 or
 (a) Define standard deviation. Discuss merits and demerits of standard deviation. 07
 (b) Write a note on Skewness and kurtosis. 07
- Q.5 Attempt any 7 14
 1 Give the name of methods of collecting primary data.
 2 Explain Nominal measurement of scales with Example.
 3 Explain Ordinal measurement of scales with Example.
 4 What is frequency polygon?

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- 5 Write the formula to calculate Harmonic mean and Geometric mean in case of continuous frequency distribution.
- 6 Write the formula to calculate Median and mode in case of continuous frequency distribution.
- 7 Write the formula to calculate Coefficient of range and coefficient of Quartile Deviation.
- 8 Give the name of methods of collecting primary data.
- 9 Write the formula of central moments - μ_3 and μ_4 .
- 10 What does a straight line in a graph indicates?
- 11 Give empirical relationship between mean, median and mode.
- 12 Why sum of deviations about arithmetic mean is always zero?
- 13 Define Range.
- 14 Define pie diagram.

