

NRT/KS/19/2025

Bachelor of Science (B.Sc.) Semester–I Examination
STATISTICS (Descriptive Statistics–I)
Optional Paper–2

Time : Three Hours]

[Maximum Marks : 50

N.B. :—All questions are compulsory and carry equal marks.

1. (A) Discuss various scales of measurement giving a suitable example of each. 10

OR

(E) Explain the questionnaire method of data collection giving requisites of a good questionnaire.

(F) What is pilot survey ? Explain its importance in the questionnaire method. 5+5

2. (A) Define independence of attributes in case of dicholomous classification of two attributes. Also, explain positive, negative, perfect positive and perfect negative association.

Define Yule's coefficient of association and derive its limits.

Also, define coefficient of colligation and establish the relationship between them. 10

OR

(E) Explain the method of conducting population census in India.

(F) In a dichotomous classification of three attributes, derive the conditions of consistency of data.

5+5

3. (A) Define a discrete variable and a continuous variable. Explain ungrouped and grouped frequency distributions, giving suitable example of each. Also, explain cumulative frequencies of less than type in each case.

(B) Describe :

(i) Geographical :

(ii) Chronological

(iii) Qualitative classifications giving an examples of each. 5+5

OR

(E) Differentiate giving an example of each of the following :

(i) Inclusive and Exclusive classification

(ii) Class limits and class boundaries

(F) Explain various parts of a table. State the requisites of a good table. Give two advantages of tabular representation. 5+5

4. (A) Explain various types of bar diagrams that are used in diagrammatic representation of data. Also, give two advantages and two limitations of diagrammatic representation of data. 10

OR

(E) Describe the construction of graphs that are used to represent the frequency distribution of a continuous variable. In this context, explain the use of frequency density. 10

5. Solve any **ten** of the following :

- (A) Give an example each of nominal data and ordinal data
- (B) When was the first population census conducted in India ?
- (C) What is primary data ? Give three sources of secondary data.
- (D) Give one example of controlled experiment.
- (E) What is meant by scruting of data ?
- (F) State the main drawback of mail questionnaire method.
- (G) Give Sturge's rule and explain its use.
- (H) What is stem and leaf chart ?
- (I) Explain the use of tally marks in classification.
- (J) What is Pictrogram ?
- (K) Name the diagrams that can be used to represent :
 - (i) The variation in yield of rice in Maharashtra State,
 - (ii) Distribution of University students according to the faculty in which they are admitted.
- (L) What is an Ogive ? Which Ogive is non-decreasing ? 1×10=10