

Dr. Babasaheb Ambedkar Open University
Term End Examination January – 2026

Course	: MSCDS	Date	: 20/02/2026
Subject Code	: MSCDS-104	Time	: 11:30am to 01:45pm
Subject Name	: Statistical Methods	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Discuss primary and secondary data. Explain the various methods of collecting primary data with their merits and limitations.
2. Explain different classification of data with suitable examples.
3. Discuss various methods of presenting statistical data. Explain diagrams and graphs with examples.
4. Explain arithmetic mean, median, and mode. Discuss their merits and demerits.
5. Explain measures of dispersion and discuss range, quartile deviation, mean deviation, and standard deviation.

Section B

Answer the following (Attempt any four) (20)

1. Define Statistics and explain any four important functions of Statistics.
2. What is a statistical survey? Explain the concept of frame and scope of a survey.
3. What is sampling? Explain the advantages of sampling over census method.
4. What is data analysis? Explain its role in decision making.
5. What is skewness? Explain positive and negative skewness.
6. Explain Karl Pearson's coefficient of correlation.

Section C

Part – A (Multiple Choice Questions) (10)

- 1 Association of attributes deals with:
A Quantitative data B Qualitative characteristics
C Variables D Continuous data
- 2 Bivariate frequency tables are mainly used to study:
A Correlation B Skewness
C Dispersion D Sampling
- 3 Scatter diagram is used to study:
A Sampling B Classification
C Correlation D Dispersion

- 4 Correlation measures:

A Difference between variables	B Central tendency
C Variability	D Relationship between variables
- 5 Kurtosis measures the:

A Central value	B Spread
C Peakedness of distribution	D Relationship between variables
- 6 Which is the most reliable measure of dispersion?

A Mean deviation	B Quartile deviation
C Range	D Standard deviation
- 7 The median is the value that:

A Occurs most frequently	B Divides data into two equal parts
C Is the average of observations	D Is the largest value
- 8 Frequency polygon is constructed using:

A Class limits	B Cumulative frequencies
C Class mid-points	D Frequencies only
- 9 Which is a graphical method of data presentation?

A Table	B Histogram
C Questionnaire	D Schedule
- 10 A frequency distribution shows:

A Individual observations	B Only raw data
C Qualitative attributes	D Grouped data with frequencies

Part – B (Do as Directed)

(10)

State whether the following statements are true or false

- 1 Complete independence means attributes always occur together.
- 2 Correlation cannot be studied using a bivariate frequency table.
- 3 Rank correlation is used only for quantitative data.
- 4 A symmetrical distribution has zero skewness.
- 5 Dispersion indicates the degree of variation in data.
- 6 Mode is the value which occurs most frequently in a distribution.
- 7 Frequency curve is drawn using class boundaries directly.
- 8 Graphical presentation makes data easier to understand and compare.
- 9 Chronological classification is based on place.
- 10 Primary data is collected directly by the investigator for a specific purpose.
