



Jamballa 212126

Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)

Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – February 2026

I Semester

Class : III B.Sc.
Major : Psychology

Time: 2 hours
Maximum Marks: 60

23BPSC11 QUANTITATIVE DATA ANALYSIS

Course Outcomes:

At the end of the course, students will:

1. Understanding the nature of measurement and its various levels.
2. Developing skills to use quantitative techniques such as measures of central tendency, variability, and correlation
3. Knowing how to use the normal probability curve as a model in scientific theory
4. Grasping concepts related to hypothesis testing and developing related computational skills
5. Learning basic techniques of descriptive and inferential statistics

Part - A

6 x 1 = 6

Choose the Correct Answer

1. This measurement level allows classification of data into categories without any order is termed as CO1 K1
 - a. Interval
 - b. Nominal
 - c. Ordinal
 - d. Ratio
2. The measure of central tendency is most affected by extreme scores is CO1 K1
 - a. Mean
 - b. Median.
 - c. Mode
 - d. Semi-interquartile range
3. The semi-interquartile range is best described as a measure of CO1K1
 - a. Correlation
 - b. Central tendency
 - c. Dispersion
 - d. Skewness
4. A Z-score of +2 indicates that a score is CO2 K1
 - a. Two units above the mean.
 - b. Two standard deviations below the mean
 - c. Two standard deviations above the mean
 - d. Equal to the mean
5. In a perfectly normal distribution, the mean, median, and mode are CO2 K1
 - a. Negatively skewed
 - b. Positively skewed
 - c. Equal and located at the center
 - d. Unequal and randomly placed
6. The correlation coefficient is most appropriate when data are ranked is CO2 K1
 - a. Pearson's r
 - b. Point-biserial correlation
 - c. Phi coefficient
 - d. Spearman's rho

Part - B

3 x 6 = 18

Answer ALL Questions

Each answer should not exceed 400 words or two pages

7. a. Briefly mention about the levels of measurement. CO1 K2
(Or)
7. b. Compute Mean, Median and Mode for the following data CO1 K5
9 7 6 2 1 4 7 5 7 3 8
8. a. Compute Standard Deviation for the following data CO1 K5
5 4 2 3 1
(Or)
8. b. Write short notes on skewness. CO2 K2
9. a. Calculate Rank Difference Method for the following data CO2 K5

| TRAITS | JUDGE X | JUDGE Y |
|--------|---------|---------|
| A | 2 | 1 |
| B | 1 | 2 |
| C | 4 | 5 |
| D | 3 | 6 |
| E | 6 | 4 |
| F | 5 | 3 |

9. b. Explicate on Kurtosis. (Or)

CO2 K3

Part - C

3 x 12 = 36

Answer ALL questions

Each answer should not exceed 800 words or four pages

10. a. Compute true mode for the following data

CO1K5

| SCORES | f |
|-----------|----|
| 195 - 199 | 1 |
| 190 - 194 | 2 |
| 185 - 189 | 4 |
| 180 - 184 | 5 |
| 175 - 179 | 8 |
| 170 - 174 | 10 |
| 165 - 169 | 6 |
| 160 - 164 | 4 |
| 155 - 159 | 4 |
| 150 - 154 | 2 |
| 145 - 149 | 3 |
| 140 - 144 | 1 |

(Or)

10. b. Enumerate on Standard Scores.

CO1 K3

11. a. Calculate Standard deviation for the following data

CO1 K5

| SCORES | f |
|-----------|----|
| 195 - 199 | 1 |
| 190 - 194 | 2 |
| 185 - 189 | 4 |
| 180 - 184 | 5 |
| 175 - 179 | 8 |
| 170 - 174 | 10 |
| 165 - 169 | 6 |
| 160 - 164 | 4 |
| 155 - 159 | 4 |
| 150 - 154 | 2 |
| 145 - 149 | 3 |
| 140 - 144 | 1 |

(Or)

11. b. Give detailed account on normal distribution curve.

CO2 K3

12. a. Elucidate on Correlation.

CO2 K3

12. b. Compute Pearson Coefficient of Correlation for the following data (Or)

CO2 K5

| X | Y |
|----|----|
| 10 | 9 |
| 6 | 4 |
| 9 | 6 |
| 10 | 9 |
| 12 | 11 |
| 13 | 13 |
| 11 | 8 |
| 9 | 4 |

III Psychology
15
GPH - 38