

Term End Examination July – 2026

Course	: BSCCS	Date	: 23/07/2026
Subject Code	: BSCCS-204	Time	: 11:30am to 01:45pm
Subject Name	: Introduction to Statistic	Duration	: 2.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three)

(30)

1. What is Normal Distribution? Discuss its properties, standard normal curve and applications.
2. Explain Measures of Central Tendency and Mean, Median, and Mode with advantages, disadvantages, and applications of each of them.
3. Discuss in details about Pareto's law of income distribution.
4. Narrate in great details about Time Series and its components.
5. Write a short note on Skewness.

Section B

Answer the following (Attempt any four)

(20)

1. Explain different type of correlation in short.
2. Define measure of dispersion and Quartile Deviation in short.
3. If two balls are drawn from a bag containing 2 white, 4 red and 5 black balls, what is the probability that i) they are both red? ii) one is red and the other black?
4. What do you mean by Correlation? Explain different types of correlation
5. State various uses of Index Numbers in brief.
6. State different properties and applications of Poisson Distribution.

Section C

Part – A (Multiple Choice Questions)

(10)

- 1 _____ is calculated by subtracting the minimum value from the maximum value.
A Variance
B Standard deviation
C Range
D Mean deviation
- 2 A distribution with a longer right tail is called _____.
A Positively Skewed
B Symmetrical
C Negatively Skewed
D Mesokurtic
- 3 A correlation coefficient of 1 indicates _____.
A No relationship
B Weak Relationship
C Perfect Positive Correlation
D Perfect Negative Correlation
- 4 In simple linear regression, the dependent variable is usually represented by _____.
A X
B Y
C β
D α
- 5 The Poisson distribution is characterized by parameter _____.
A μ and σ^2
B p only
C n and p
D λ (lambda)
- 6 In a normal distribution, the mean, median, and mode are _____.
A Equal
B Different
C Zero
D Undefined
- 7 _____ component of a time series represents long-term movement.
A Seasonal Variation
B Cyclical Variation
C Trends
D Irregular Variation

- 8 _____ measure is least affected by extreme values.
 A Mean B Median
 C Harmonic mean D Geometric mean
- 9 _____ index number method uses weighted averages.
 A Simple Aggregative B Relative Frequency
 C Arithmetic Mean D Laspeyres
- 10 The Gini Coefficient ranges between _____.
 A 0 and 1 B -1 and 1
 C 1 and 10 D 0 and 100

Part – B (Do as Directed)

(10)

- 1 The median is the middle value of an ordered dataset. True / False
- 2 Among all the measures of dispersion standard deviation is considered to be the best measure. True / False
- 3 A perfectly symmetrical distribution has zero skewness. True / False
- 4 The probability of an impossible event is 1. True / False
- 5 The Binomial distribution is a discrete probability distribution. True / False
- 6 Regression analysis can be used to predict a dependent variable. True / False
- 7 A correlation coefficient of 1 indicates no linear relationship between variables. True / False
- 8 The Normal distribution is a continuous probability distribution. True / False
- 9 The Lorenz Curve is used to represent income inequality. True / False
- 10 Index numbers measure changes in prices or quantities over time. True / False
