

END TERM EXAMINATION

FOURTH SEMESTER [BCA] MAY-JUNE 2026

Paper Code: BCA-212T

Subject: Introduction to Data Science

Time: 3 Hours

Maximum Marks: 60

Note: Attempt all questions as directed. Internal choice is indicated.

- Q1. Attempt **any Four** of the following questions: (4x5=20)
- (a) Explain applications of Data Science in various fields.
 - (b) Explain the concept of slicing array with suitable example.
 - (c) How can we find different patterns in data? Explain with an example.
 - (d) What is the difference between Bias and Variance?
 - (e) Differentiate between Normal and Poisson distribution.
 - (f) What do you understand by Correlation Analysis.
 - (g) Define Data Science. How it is different from data analytics.
 - (h) What are different Data Collection strategies. Explain with an example.
- Q2. What are the different stages in a Data Science Project. Explain it in detail. (10)
- OR**
- Q3. Explain all steps of Data Pre-processing with suitable examples. (10)
- Q4. (a) What are the various types of statistical functions in Pandas? Explain it with suitable examples for each. (7)
- OR**
- (b) Differentiate between Skewness and Kurtosis. (3)
- Q5. Explain Descriptive Statistics in detail. How Descriptive Statistics play a pivotal role in Data Science (10)
- OR**
- Q6. Define Population and Sample. Explain different types of Sampling with suitable examples. (10)
- OR**
- Q7. Explain Bayesian Statistics and Inferential Statistics with its role in Data Science. (10)
- OR**
- Q8. How can we make suitable prediction in Data Science. Explain it using clinical data. (10)
- OR**
- Q9. Explain different patterns in Data with suitable examples. (10)
