
SAMPLE PAPER 5
End Term Examination
Data Analysis Using R and Python
Time: 3 Hours Maximum Marks: 70

SECTION A (Compulsory)

7 × 2 = 14 Marks

1. What is the purpose of data visualization?
2. Give an example of a numeric vector in R.
3. What is a histogram?
4. Define Python list slicing.
5. What does `merge()` do in Pandas?
6. Define skewness.
7. What is the meaning of “data types”?

SECTION B

Attempt any four questions.

1. Explain the steps involved in data cleaning with practical examples.
2. Discuss R control structures with examples.
3. Describe `ggplot2` mapping, layering, and aesthetics in detail.
4. Write a detailed note on Pandas Series and DataFrames.
5. Explain string operations in Python with examples.
6. Discuss data aggregation and summarization techniques.
7. Explain factor variables in R and their use in analysis.
8. Describe NumPy arrays, shapes, and reshaping operations.