

B.Sc. First Year (Data Science) NEP Semester-II  
**BSCDS23 - Data Analysis**

P. Pages : 1

Time : Two Hours



**GUG/S/25/15263**

Max. Marks : 40

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1. a) Discuss the future trends in Data Science and their impact on industries. **4**  
b) Discuss the ownership of data and its ethical implications. **4**

**OR**

- c) Describe the process of data cleaning with suitable examples. **4**  
d) Explain the concept of messy data and the methods used to clean data. **4**
2. a) Define Numerosity Reduction and discuss its importance. **4**  
b) What is Data Acquisition? Why is it important in Data Science? **4**

**OR**

- c) How is data compressed in Data Science? Explain with an example. **4**  
d) What is Dimensionality Reduction? Explain its techniques. **4**
3. a) What is Data Wrangling? Explain its importance in Data Science. **4**  
b) Explain how datasets can be combined and merged with examples. **4**

**OR**

- c) Describe the role of regular expressions in Data Wrangling. **4**  
d) Explain the functions of findall(), search(), split(), and sub() with examples. **4**
4. a) How is Simple Linear Regression performed in R? **4**  
b) Explain simple data visualization techniques in R. **4**

**OR**

- c) What are the common statistical processes used in R? **4**  
d) Write an R script to read data from a CSV file and display its structure. **4**
5. a) Define Data Science as a Discipline. **2**  
b) Define Data Transformation. **2**  
c) Explain any one tool used in Data Wrangling. **2**  
d) How do you read a CSV file in R. **2**

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