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Question Paper Code: BCSB13



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

M.Tech II Semester End Examinations (Regular) - May, 2019

Regulation: IARE-R18

## DATA PREPARATION AND ANALYSIS

**Time: 3 Hours**

**(CSE)**

**Max Marks: 70**

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**Answer ONE Question from each Unit**

**All Questions Carry Equal Marks**

**All parts of the question must be answered in one place only**

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### UNIT – I

1. (a) Find out the actual information from data. Explain the steps for preparation of data for analysis. [7M]  
(b) List out the various data formats. Explain in detail about data formats with suitable examples. [7M]
2. (a) What is scalability? Investigate on the importance of scalability in data analysis. [7M]  
(b) Summary of the issues to consider when defining and planning a data analysis project. [7M]

### UNIT – II

3. (a) Analyze the importance of consistency checking in data cleaning. [7M]  
(b) Compare and contrast the homogeneous and heterogeneous dataset. [7M]
4. (a) Describe screening data. Explain the process of data transformation in detail. [7M]  
(b) Define data segmentation and analyze the key benefits of data segmentation. [7M]

### UNIT – III

5. (a) Define clustering and illustrate the process of clustering with a neat sketch. [7M]  
(b) How to find distance between two observations? Illustrate the concept of distance. [7M]
6. (a) Identify the prerequisites for generating an association rule. [7M]  
(b) Illustrate the process of k-means clustering with a sample set of observations. [7M]

### UNIT – IV

7. (a) What is visualization? Describe the importance of GeoLocated data in detail. [7M]  
(b) How to use correlation to understand the relationship between variables? Explain. [7M]
8. (a) Define time series data and explain how to find patterns in time series data? [7M]  
(b) Enumerate and explain the various steps in designing visualization. [7M]

## UNIT – V

9. (a) Discuss in detail about the two primary issues of interaction in data visualization. [7M]  
(b) Compare and contrast the hierarchy and network type of visualization. [7M]
10. (a) Give a brief review of general aspects of interaction on data visualization. [7M]  
(b) Enumerate the challenges in interactive data visual analysis with necessary explanation. [7M]

