

Code No: 157BC

R18

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, January/February - 2023

DATA MINING
(Common to CSE, IT, ITE)

Time: 3 Hours

Max. Marks: 75

Note: i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART - A

(25 Marks)

- 1.a) What is data warehouse? [2]
- b) List out the applications of data mining. [3]
- c) What is meant by association rule mining? [2]
- d) Write a short note on SPM algorithm? [3]
- e) Why are decision trees useful? [2]
- f) List the advantages of using decision trees. [3]
- g) Discuss the two approaches to improve quality of hierarchical clustering. [2]
- h) List the applications of cluster analysis. [3]
- i) Define data stream mining. [2]
- j) Give the taxonomy of web mining. [3]

PART - B

(50 Marks)

- 2.a) Explain how to integrate data mining system with a data warehouse.
- b) "Data preprocessing is necessary before data mining process". Justify your answer. [5+5]

OR

- 3.a) Differentiate between data mining and data warehouse.
- b) Discuss the major issues in data mining. [5+5]

- 4.a) Write a short notes on constraint based association mining.
- b) Describe various types of association rules. [5+5]

OR

5. Explain in detail about frequent pattern mining in data mining. [10]

6. Describe Bayesian Belief Network with an example. [10]

OR

- 7.a) Briefly explain classification problems and general approaches to solve them.
- b) Explain the merits and de-merits of the lazy learning method. [5+5]

QA

QA

QA

QA

QA

QA

QA

QA

8. Explain the following.
a) Cluster analysis.
b) Grid-based methods.

[5+5]

QA

QA

QA

QA

QA

QA

QA

QA

- 9.a) How density based method is used for clustering?
b) Illustrate K-mean algorithm with an example.

[4+6]

10. Explain the following.
a) Spatial data mining.
b) Text mining.

[5+5]

QA

QA

QA

QA

QA

QA

QA

QA

11. Discuss various kinds of patterns to be mined from web/server logs in web usage mining.

[10]

QA

QA

QA

QA

QA

QA

QA

QA

---ooOoo---

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA

QA