

Code No: 117CD

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November/December - 2017

DATA WAREHOUSING AND DATA MINING

(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

(25 Marks)

- 1.a) Define data warehouse. [2]
- b) List the Data warehouse Characteristics. [3]
- c) How can you go about filling in the missing values for this attribute? [2]
- d) Why is the word data mining a misnomer? [3]
- e) Give a note on Closed Frequent Item Set. [2]
- f) Write the FP-graph algorithm. [3]
- g) How prediction is different from classification? [2]
- h) What is rule classification? [3]
- i) Give a note on k means algorithm. [2]
- j) List the Key Issues in Hierarchical Clustering. [3]

PART - B

(50 Marks)

- 2.a) Make a comparisons between the MOLAP and HOLAP. [5+5]
 - b) Discuss the star and snowflake schema in detail with suitable example. [5+5]
- OR
- 3.a) Write the difference between designing a data warehouse and an OLAP cube. [5+5]
 - b) Give a brief note on ROLAP. [5+5]
4. Explain concept hierarchy generation for the nominal data. [10]
- OR
- 5.a) Describe the Feature Subset Selection. [5+5]
 - b) Illustrate the Data Transformation by Normalization. [5+5]

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6. Make a comparison of Apriori and ECLAT algorithms for frequent item set mining in transactional databases. Apply these algorithms to the following data:

TID	LIST OF ITEMS
1	Bread, Milk, Sugar, TeaPowder, Cheese, Tomato
2	Onion, Tomato, Chillies, Sugar, Milk
3	Milk, Cake, Biscuits, Cheese, Onion
4	Chillies, Potato, Milk, Cake, Sugar, Bread
5	Bread, Jam, Mik, Butter, Chilles
6	Butter, Cheese, Paneer, Curd, Milk, Biscuits
7	Onion, Paneer, Chilies, Garlic, Milk
8	Bread, Jam, Cake, Biscuits, Tomato

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7. Briefly explain the Partition Algorithms. [10]

8. Discuss K- Nearest neighbor classification-Algorithm and Characteristics. [10]

OR

9. How does the Naïve Bayesian classification works? Explain in detail. [10]

- 10.a) Give a brief note on PAM Algorithm.

- b) What is the drawback of k-means algorithm? How can we modify the algorithm to diminish that problem? [5+5]

OR

11. What are the different clustering methods? Explain in detail. [10]

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