

Code No: 5658AH

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech-I Semester Examinations, July/August - 2021

DATA MINING

(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

**Answer any Five questions
All questions carry equal marks**

- 1.a) Discuss about classification of data mining systems.
b) Is data mining a multi disciplinary field? Justify your answer. [8+7]
2. Use a flowchart to summarize the following procedures for attribute subset selection:
a) stepwise forward selection
b) a combination of forward selection and backward elimination. [7+8]
- 3.a) Differentiate between operational database systems and data warehouse.
b) How are concept hierarchies useful in OLAP? [7+8]
- 4.a) Explain 'data cube as a lattice of cuboids'.
b) How does the star-cubing algorithm use star tree to compute an iceberg cube. [7+8]
5. What are the limitations of Apriori algorithm? How can you further improve the efficiency of Apriori based mining? [15]
- 6.a) What is vertical data format? What are its advantages?
b) Discuss the role of binning in mining quantitative association rules. [8+7]
7. Explain basic algorithm for decision tree induction and the need of attribute selection measures in this algorithm. [15]
8. How does DBSCAN algorithm discover arbitrary shaped clusters with high density? Explain with an example. [15]

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