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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M. Tech II Semester Examinations, July/August - 2021
DATA WAREHOUSING AND DATA MINING
(Computer Science)

Time: 3 Hours   **Max. Marks: 75**

Answer any five questions
All questions carry equal marks
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1.a)   What is data mining? Briefly explain the data mining tasks.
  b)   How to mine rare items from transactional database? Explain with an example.   [7+8]

2.a)   Differentiate between classification and prediction tasks.
  b)   What characteristics of neural networks make them best classifiers?
  c)   Describe the significance of learning rate and bias in back propagation algorithm.[5+5+5]

3.a)   How to classify linearly inseparable data using support vector machine?
  b)   Illustrate genetic operators used in data classification.   [7+8]

4.a)   Which approach is preferred DBSCAN or DENCLUE? Justify your answer.
  b)   Explain expectation-maximization algorithm for clustering large data.   [8+7]

5.a)   Make a comparison of text mining with web content mining.
  b)   Demonstrate Page Rank algorithm used in web structure mining.   [7+8]

6.a)   How to convert unstructured text to structured text to perform mining? Give illustration.
  b)   What different data mining tasks can be performed on text databases?   [7+8]

7.a)   What is temporal data? Explain association rule mining on temporal data.
  b)   Write the steps in GSP algorithm for sequence mining.   [8+7]

8.a)   Discuss different types of movements and trend analysis in time series analysis.
  b)   Explain spatial and non-spatial data in data cube.
  c)   Illustrate clustering task on spatial database.   [5+5+5]

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