

Code No: 872AD

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA II Semester Examinations, October/November - 2022****DATA MINING****Time: 3 Hours****Max.Marks:75**

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

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- 1.a) "Data Mining is an essential step in KDD Process" Justify your answer.  
b) What is preprocessing? Explain about Data Transformation techniques. [7+8]
- 2.a) Discuss about Data Discretization and Binaryzation in brief.  
b) Write any two techniques used for Data Reduction with examples. [7+8]
- 3.a) How to find all frequent item sets using Apriori algorithm for the given data where  $\text{min-sup} = 2$ .

Transactional Data for an *AllElectronics* Branch

<i>TID</i>	<i>List of item IDs</i>
T100	I1, I2, I5
T200	I2, I4
T300	I2, I3
T400	I1, I2, I4
T500	I1, I3
T600	I2, I3
T700	I1, I3
T800	I1, I2, I3, I5
T900	I1, I2, I3

- b) Discuss about closed frequent item set. [8+7]
- 4.a) List out different kinds of Association Rules with an example each.  
b) Discuss about maximal frequent Item set. [8+7]
5. Explain about Decision Tree Induction method for classification with suitable example [15]
- 6.a) How does you solve a classification problem using Bayesian Belief Networks? Explain with an example.  
b) Discuss about the measures for selecting the best fit. [8+7]
- 7.a) Explain about k-means Algorithm with an example.  
b) Write a note on outlier detection. [8+7]
8. What is Text mining? Discuss in detail. [15]

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