Code No: 156EZ **R18**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, July - 2023

DATA MINING

(Computer Science and Engineering – Artificial Intelligence and Machine Learning)

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 the relation between Data warehousing and Data Mining?	[2]
b)	What is evolution analysis?	[3]
c)	What is an Association Rule?	[2]
d)	Explain correlation measure "lift".	[3]
e)	What is attribute selection measure?	[2]
f)	What are the application areas of lazy learner?	[3]
g)	What is Manhattan distance measure?	[2]
h)	List out the partitioning methods.	[3]
i)	Define Web content mining.	[2]
j)	What is Spatial Data Mining?	[3]

PART – B

(50 Marks)

2.a) Explain the Data Mining Functionalities.
b) Describe in brief about Data warehouse implementation. [5+5]

OR

3. What is data preprocessing? Why do we need data preprocessing? Explain various data preprocessing techniques. [10]

4.a) Discuss the importance of Association Rule Mining.
b) Explain about the Apriori algorithm for finding frequent item sets with an example. [5+5]

OR

5.a) What are the advantages of FP-Growth algorithm?
b) Give the difference between Boolean association rule and quantitative association rule. [5+5]

6.a) How rules can be extracted from decision tree? What are various rule accessing measures?
b) Explain decision tree induction algorithm for classifying data tuples and with suitable example. [5+5]

OR

7.a) Explain about Lazy Learner in detail with example.
b) External various methods to evaluate a classifier or predictor. [5+5]

8. Classify various Clustering methods. Explain any one Partitioning based clustering methods. [10]

OR

9.a) Discuss about the Grid based methods.
b) Explain Outlier Analysis. [5+5]

10. Discuss in detail about Data Mining steps to identify sequence patterns in Transactional Databases. [10]

OR

11. Explain Multimedia Data mining. [10]

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