R20

Code No: R20A1206

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech II Semester Supplementary Examinations, April 2025

Data Warehousing and Data Mining

(IT, CSE-AIML & B.Tech-AIDS)

Roll No										

Time: 3 hours **Max. Marks: 70**

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

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		SECTION-I	BCLL	CO(s)	Marks
1	A	Explain 3-tier Architecture of Data warehousing?	L1	CO-I	[7M]
	B	Define Data Warehouse? Differentiate between OLAP and OLTP?	L2	CO-I	[7M]
		OR			
2	A	What is a Data Cube in a multidimensional data model? Explain briefly about Data Cube with a suitable example?	L1	CO-I	[7M]
	B	Discuss typical OLAP operations with suitable examples?	L1	CO-I	[7M]
3	A	Explain various issues related to data cleaning.	L2	CO-II	[7M]
	B	Explain the data preprocessing techniques in detail	L2	CO-II	[7M]
		OR			
4	A	Explain various Data Mining Functionalities	L3	CO-II	[7M]
	B	Illustrate briefly about any 4 Data mining tasks Primitives with suitable examples?	L2	CO-II	[7M]
		SECTION-III			
5	A	Explain the terms i) support ii) confidence iii) association rule iv) apriori principle	L2	CO-III	[7M]
	B	Find all frequent itemsets using Apriori Algorithm with min support of 40% for the below transaction database TID items 100 B,C,E,J 200 B,C,J 300 B,M,Y 400 B,J,M 500 C,J,M	L5	CO-III	[7M]
		OR			
6	A	Explain the methods for compact representation of frequent itemsets with relevant examples (closed frequent itemsets, maximal frequent itemsets)	L2	CO-III	[7M]

	B	Generate frequent itemsets for the following data using FP-Growth algorithm with min support=50% Transaction List of items	**L5**	**CO-III**	**[7M]**

T1	***I1,I2,I3***
T2	***I2,I3,I4***
T3	***I4,I5***
T4	***I1,I2,I4***
T5	***I1,I2,I3,I5***
T6	***I1,I2,I3,I4***

SECTION-IV

7	A	Explain the working of a Decision Tree with an example	**L2**	**CO-IV**	**[7M]**
	B	Discuss the working of Naïve Bayes Classifier in finding the conditional probability	**L3**	**CO-IV**	**[7M]**
		OR			
8	A	Discuss General Approaches to solving a classification problem	**L3**	**CO-IV**	**[7M]**
	B	Explain K-Nearest Neighbor Classification-Algorithm and Characteristics.	**L2**	**CO-IV**	**[7M]**

SECTION-V

9	A	Explain about various hierarchical clustering methods.	**L2**	**CO-V**	**[7M]**
	B	Explain about K-Means clustering.	**L2**	**CO-V**	**[7M]**
		OR			
10	A	Define clustering? Explain about types of data in cluster analysis	**L1**	**CO-V**	**[7M]**
	B	Describe key issues, strength and weakness in hierarchal clustering.	**L2**	**CO-V**	**[7M]**

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