PRN:		Course Code :	UCA551

000702

Third Year **B.C.A.** Semester End Examination Winter 2024

Data Mining and Warehousing

Day and Date: Tue 26 NOV 2024 Max Marks: **100**

Time : 10:30AM To 01:30PM Duration: **03** hrs

Instructions: 1. All questions are compulsory.
2. Draw Diagrams whenever necessary.
3. Calculator is allowed.

			Marks	Bloom's Level	CO
Q.1		**Attempt the following**			
	a)	Illustrate Data Pre-processing with its need and techniques with a suitable example.	08	2	1
	b)	Explain normalization. Normalize data using min-max technique.	08	4	1

House	Area in Sq.foot	Bed rooms	Price in Lakh
1	1200	3	50
2	1500	4	60
3	1000	2	40
4	1800	5	80

OR

	b)	Describe Discretization with a suitable example.	08	2	1
Q.2		**Attempt the following**			
	a)	Discuss Data warehousing with its characteristics.	08	2	1
	b)	Distinguish Operational database and Data warehouse (OLTP vs. OLAP).	08	2	1
		OR			
	b)	Describe Data warehouse design with its Schema.	08	2	1
Q.3		**Attempt any Two from the following**			
	a)	Discuss Data Mining. Explain steps of Data mining with diagram.	08	2	2
	b)	Explain Classification and its types.	08	2	2
	c)	Describe Decision Tree with an example.	08	2	2
Q.4		**Attempt any Two from the following**			
	a)	Discuss Clustering and K-means Clustering with an example.	08	2	2
	b)	Explain Hierarchical method and its types of clustering with an example.	08	2	3
	c)	Describe Naive Bayes classifier.	08	3	3
Q.5		**Attempt any Two of the following**			
	a)	Describe Association rule of mining and state its advantages.	09	3	4
	b)	Explain Market Basket Analysis with an example.	09	3	4
	c)	Make use of Apriori algorithm, generate association rules with minimum support is 50% and threshold confidence is 70%.	09	4	4

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Tid	Items
100	1,3,4
200	2,3,5
300	1,2,3,5
400	2,5

Q.6 **Attempt any Two of the following**

a)	Describe Web mining and Web content mining.	09	3	4
b)	Illustrate Regression technique and its type.	09	4	4
c)	Elaborate Text Clustering with an example.	09	3	4

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