

School of Computing Science and Engineering

B.Tech CSE
ETE - Jun 2023

Time : 3 Hours

Marks : 100

Sem IV - E2UC406B / BTCS9213 / BTCS9203
Data Mining and Warehousing

Your answer should be specific to the question
asked Draw neat labeled diagrams wherever
necessary

1. Explain about Rare and Negative Pattern with suitable example K3 CO3 (5)
2. Explain the Role of Concept Hierarchies. K2 CO2 (5)
3. What are the steps in designing the data warehouse? Explain K1 CO1 (5)
4. Briefly explain about Data Transformation Strategy K4 CO3 (10)

OR

- Discuss the concept of Mining Multidimensional Associations K4 CO3 (10)
5. Illustrate some applications of clustering. K4 CO3 (10)
 6. Explain the following in OLAP K1 CO1 (10)
 - a) Roll up operations
 - b) Drill Down operation
 - c) Slice operation
 - d) Dice operation
 - e) Pivot operation
 7. How will you examine index OLAP data by bitmap indexing and join indexing? K2 CO2 (10)

8. Find all frequent item sets for the given training set using FP growth. K3 CO3 (15)

TID ITEMS BOUGHT
T100 {M, O, N, K, E, Y}
T200 {D, O, N, K, E, Y}
T300 {M, A, K, E}
T400 {M, U, C, K, Y}
T500 {C, O, O, K, I, E}
9. Describe the concept of Data Reduction Techniques K4 CO3 (15)

OR

- Suppose a group of 12 sales price records has been sorted as follows: K4 CO4 (15)
5, 10, 11, 13, 15, 35, 50, 55, 72, 92, 204, 215.
Partition them into three bins by each of the following methods:
(a) equal-frequency (equal-depth) partitioning
(b) equal-width partitioning
10. Explain and Apply the Apriori algorithm for discovering frequent item sets of the table. K3 CO4 (15)

Trans ID	Items Purchased
101	Milk,bread,eggs
102	Milk,juice
103	Juice,butter
104	Milk,bread,eggs
105	Coffee,eggs
106	Coffee
107	Coffee,Juice
108	Milk,bread,cookies,eggs
109	Cookies,butter
110	Milk,bread

Illustrate each step of the Apriori Algorithm