N.B.K.R. INSTITUTE OF SCIENCE AND TECHNOLOGY::VIDYANAGAR

(AUTONOMOUS)

Department : Computer Science and Engineering

Academic year : 2025-2026

Class : III B.TECH I SEM A, B, C & D

Branch : CSE

SUBJECT : DATA WAREHOUSING AND DATA MINING (23A05504d) **Reg:** R-23

ALL UNITS ASSIGNMENT QUESTIONS

UNIT – I

1	**a.**	Define Data Warehousing. Write the procedure to build a Data Warehouse with a neat sketch.
	b.	What is Data Model? Discuss briefly about Multidimensional Data Models?
2	**a.**	Explain type of various Data Warehouse Schemas for Decision Support.
	b.	What is the role of Concept Hierarchies in Data Warehouse?
3	**a.**	Illustrate the difference between OLTP and OLAP.
	b.	Discuss various OLAP Operations

UNIT– II

1	**a.**	Describe the steps involved in Data Mining when viewed as a process of Knowledge Discovery. And Illustrate Major issues in Data Mining.
	b.	Illustrate Major issues in Data Mining.
2	**a.**	What are the Data Objects and Attribute types? Explain in Detail.
	b.	Discuss Basic Statistical Description of Data.
3	**a.**	Discuss various steps involved in Data Preprocessing (Cleaning, Integration, Reduction, and Transformation).
	b.	Explain Data Visualization Techniques

UNIT– III

1 **a.** How different patterns are Mined in Data Mining Process to get Association and Correlatic by using Market Bucket Analysis.

b. Discuss about Apriori Algorithm based on Transactional data for all electronics branch Illustrate

TID	items
T1	I1, I2 , I5
T2	I2,I4
T3	I2,I3
T4	I1,I2,I4
T5	I1,I3
T6	I2,I3
T7	I1,I3
T8	I1,I2,I3,I5
T9	I1,I2,I3

2 **a.** Discuss the Pattern Evaluation Method.

b. Explain Pattern Mining in Multilevel and Multidimensional space.

3 **a.** Discuss about Constraint based frequent pattern mining.

b. How mining is classified using frequent patterns? Explain.

UNIT– IV

1 **a.** Illustrate Classification of Decision tree Induction with an Example.

b. Explain support vector machines and Lazy Learners.

2 **a.** Suppose the data for clustering {1, 3, 5, 15, 33, 11, 25}. Consider k=2, cluster the given data using k-means clustering algorithm.

b. Explain Grid Based Methods in cluster analysis.

3 **a.** Explain Density Based Methods in cluster analysis.

b. What is Outlier Analysis? Explain Outlier detection Methods.

UNIT – V

1 **a.** What is WEKA TOOL? List out the applications and advantages.

b. Discuss in detail about Getting started, Exploring from WEKA Explorer

2 **a.** Explain about learning algorithms from WEKA Explorer.

b. Explain Clustering algorithms in WEKA Explorer

3 Briefly Explain about Association – rule learners From WEKS Explorer.