# DEPARTMENT OF CSE&AI

## Data Warehousing and Mining

### UNIT-1

1. Differentiate OLAP and OLTP systems.
2. What are key features of Data Warehouse?
3. Illustrate 3-Tier Data warehouse architecture with neat diagram.
4. Briefly compare the following concepts with example Star and Snowflake schema's
5. Discuss about Multi-dimensional data model with a neat Diagram.
6. Explain about Typical OLAP operations.
7. Explain about
   i. Bitmap indexing
   ii. Join indexing
8. Explain about Data Warehouse Implementation
9. Advantages of the star and snowflake schemas

### UNIT-2

1. Explain the process of knowledge discovery (KDD).
2. Briefly explain about Motivating Challenges
3. Briefly explain about the Data Mining tasks.
4. Explain about
   i. Relational Database ii. Data Warehouse iii. WWW
5. Explain about data pre-processing techniques with neat diagrams.
6. Discuss about measures of similarity and dissimilarity.
7. Briefly explain about Data Reduction Techniques.
8. What is meant by Data mining? Explain in Detail.

### UNIT-3

1. Discuss about General Approach to solving a classification Problem.
2. Draw and explain a decision tree for mammal classification problem.
3. Explain about working of a Decision Tree with a neat Diagram.
4. Explain about model over fitting.
5. Describe the Evaluating the performance of the classifier.
6. Explain Naïve Bayesian classification technique with an example.
7. Explain about
   i.Training Dataset ii.Test Dataset

### UNIT-4

1. Illustrate the frequent item set generation using the Apriori algorithm.
2. Explain about FP-GROWTH Algorithm with an example.
3. Define basic concepts of Association Analysis.
4. Briefly explain about Market Basket Analysis.
5. Explain about
   i. Support ii. Confidence
6. Illustrate the Apriori Principle with an example.
7. Explain about Association Rule mining with an example.

### UNIT-5

1. Illustrate Agglomerative Hierarchical clustering Algorithm .
2. Explain about K-means Clustering algorithm.
3. Demonstrate DBSCAN clustering with a suitable diagram.
4. What is Cluster? Explain different types of Clusters?
5. Illustrate k-means clustering technique with an example.
6. Illustrate Agglomerative Hierarchical clustering technique with an example.
7. Discuss about strengths and weaknesses of DBSCAN.
8. What is meant by Cluster Analysis? Explain in detail.