1. Define data mining. Why data mining? Explain KDD process.
2. Explain Data Mining Techniques.
3. Define data warehouse & explain data warehouse architecture.
4. Data Mining Origin (Evolution of data mining)
5. Differentiate between Database and Data Warehouse.

# Assignment: 2

1. Define data, attributes & types of attributes.
2. What do you mean by data pre-processing? Explain different tasks in data pre- processing.
3. Define data smoothing. Explain binning method for data smoothing.
4. What is data cube & multidimensional view?
5. Explain OLAP with its operations.
6. Explain FASMI characteristics of OLAP tool.

# Assignment: 3

1. Explain classification.
2. Explain Decision Tree Classifier with example
3. Explain different types of attribute selection measure.
4. Explain Rule Based Classifier with example
5. Explain Nearest Neighbor Classifier with example
6. Explain Bayesian Classifier
7. Explain Artificial Neural Network Classifier
8. Explain Overfitting, underfitting, k-fold cross validation, confusion matrix.

# Assignment: 4

1. Explain market basket analysis.
2. Explain Apriori Algorithm
3. Explain frequent item set generation with example.
4. Explain FP growth algorithm with example.
5. Explain Cluster Analysis. Differentiate between classification & cluster.
6. Explain K-means Clustering with example
7. Explain Hierarchical Clustering
8. Explain Agglomerative & divisive hierarchical clustering
9. Explain DBSCAN Clustering

# Assignment: 6

1. Explain Basic principles to Protect Information Privacy
2. List Uses and Misuses of Data Mining

# Assignment: 7

1. Explain Web content mining, web usage mining & web structure mining.
2. Explain Time-series data mining

# Assignment: 8

1. Explain Characteristics of search engine
2. Explain Search Engine functionality
3. Explain Ranking of Web pages with example

# Assignment: 9

1. Explain ETL (Extract, Transform, Load)
2. Explain load manager, warehouse manager & Query manager.
3. Explain Data Warehouse Processes, Managers and their functions
4. Explain different types of schema (Star, snowflake……..)
5. Explain Guidelines for Data Warehouse Implementation

# Assignment: 10

1. Explain Calculating storage requirement & CPU requirements