

**CORE COURSE XX: 6B20BCA-E01 DATA MINING AND DATA
WAREHOUSING**

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HRS
VI	6B20BCA-E01	3	3	3

COURSE OUTCOME

CO1: Understanding the importance of data mining and data warehousing.

CO2: Understand the data management aspects data preprocessing model and inference considerations, complexity considerations, post processing of discovered structures visualization and online updating

Unit I

Introduction; data warehousing – what is, Multidimensional data model, OLAP operations, warehouse schema, Data warehousing Architecture, warehouse server, Metadata, OLAP engine, data warehouse Backend Process.

(12Hrs)

Unit II

Data mining – what is, KDD vs data mining, DBMS vs data mining, DM Techniques, issues and challenges, Applications. (Case studies) *

(8 Hrs)

Unit III

Association rules – What is, Methods, a priori algorithm, partition algorithm, Pincer-search algorithm, FP-tree growth algorithm, incremental and Border algorithms, Generalized Association rule.

(12 Hrs)

Unit IV

Clustering techniques – Paradigms, Partitioning Algorithms, k – Medoid algorithms, CLARA, CLARANS, hierarchical clustering, DBSCAN, Categorical Clustering, STIRR.

(10 Hrs)

Unit V

Decision trees – what is, tree construction principles, Best split, Splitting indices, Splitting criteria, decision tree construction algorithms, CART, ID3, C4.5, CHAID. Introduction to web, spatial and temporal datamining.

(12 Hrs)

Books for Study:

1. Arun K. Pujari, Data Mining Techniques, 2nd Ed, Univeristy Press

Books for Reference:

1. Jiawei Han, Micheline Kamber and Jian Pei, Data Mining: Concepts and Techniques, 3rd Ed, Morgan Kaufmann
2. Margaret H. Dunham, Data Mining - Introductory and Advanced Topics, Pearson

Marks including choice:

Unit	Marks
1	12
2	12
3	12
4	12
5	12