HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

B.C.A. Semester – VI
BCA-603: Data Warehousing & Mining

Teaching Scheme (per week)		Teaching Scheme (per semester)		Examination Scheme					
				INT		EXT		TOTAL	
Th. (hours)	Pr. (hours)	Total Hours	Credit	Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)
4	--	40	4	30	--	70	--	100	--

Unit – I [18 MARKS]

Data Warehouse: An Overview, Architectural, Prospective and Modeling:

Definition, Usage and trends, DBMS V/S Data Warehouse, Data Mart, Data Warehouse, Process and Architecture, Characteristics of Data Warehouse, Need for Data Warehouse, Basic Elements of Data Warehouse, Basic Principal of Data warehousing Modeling, User Requirements, Requirement Modeling, Temporal Data Modeling, Temporal Data Modeling Style.

Unit-2 [17 MARKS]

Multidimensional Data Modeling an Overview, Usage Serve, Metadata:

Multidimensional Data Model, Schema for Multidimensional Database: Star and Snowflake Model, MDDM Base Concepts, Requirement Analysis Using MDDM, Geographical Information System and Relational Database, DB2 Spatial Extender, OLAP V/S OLTP, ROLAP V/S MOLAP, Types of OLAP server, Metadata: Types of Metadata, Source of Metadata.

Unit – 3 [18 MARKS]

Data Mining:

An Overview: definition, Data mining as process and Functionality, KDD V/S Data mining, Data Mining Techniques: Classification, Association Detection, Sequential Pattern Detection, Automatic Cluster Detection, Similar Time Sequence Detection, Data Mining Application, Discovery V/S Verification Mode.

Unit – 4 [17 MARKS]

Advanced Topics, Trends and Web Mining:

Mining Complex Data Objects: Spatial Mining, Temporal Mining, Multimedia database, Web content mining, Web Structure and usage mining, Data Generalization and summarization, Mining Class Comparison and Characterization, Application, Additional Themes on mining, Trends in mining.

TEXT BOOKS:
    1. IBM an Introduction to Building the Data Warehouse PHI Publication.
    2. Data Mining: Concept and Techniques. J. Han, M. kamber,

Question Paper Scheme:

University Examination Duration: 3 Hours

Q-1 – Unit -1   (18 Marks)
    S. Objective / Short Questions
    T. Descriptive / Long Questions

Q-2 – Unit -2   (17 Marks)
    S. Objective / Short Questions
    T. Descriptive / Long Questions

Q-3– Unit -3   (18 Marks)
    S. Objective / Short Questions
    T. Descriptive / Long Questions

Q-4 – Unit -4   (17 Marks)
    S. Objective / Short Questions
    T. Descriptive / Long Questions

Note: All Objective/ Short Questions are compulsory, no option will be given.