SEMESTER- VI

COURSE CODE :- DSE 3
COURSE TITLE :- DSE-III/DATA WAREHOUSE AND DATA MINING APPLICATION
CREDIT :- 4

Marks distribution
Full Marks: 20 (MSE) + 80 (ESE) = 100 Times: 3 hrs Pass Marks: 45
This paper consists of 70 marks and divided into two groups:
Group-A: Objective questions (Compulsory) : 1 x 10 = 10
Group-B: Descriptive questions (6 out of 9 questions) : 7 x 10 = 70
Total = 80
The questions must cover the entire syllabus with equal distribution of marks as far as practicable.

Module 1: Overview and Concepts of Data Warehousing Overview of Data warehousing Strategic information and the need for Data warehousing, Defining a Data warehouse, Evolution of Data warehousing, Data warehousing and Business Intelligence The Building Blocks of Data warehouse

Module 2: Defining features - Subject-oriented data, Integrated data, Time-variant data, Nonvolatile data, Data granularity Data warehouses and Data marts Architectural Types - Centralized, Independent data marts, Hub-and-Spoke,

Module 3: Data Staging, Data Storage, Information Delivery, Metadata, and Management and Control components Business Requirements and Data warehouse Requirement Gathering methods and Requirements Definition Document (contents) Business Requirements and Data Design - Structure for Business Dimensions and Key Measurements,

Module 4 : Data warehouse Architecture and Infrastructure Architectural components Concepts of Data warehouse architecture - Definition and architecture in the areas of Data acquisition, Data storage, and Information delivery Distinguishing characteristics

Module 5: Data Mining Overview of Data mining - Definition, Knowledge Discovery Process (Relationships, Patterns, Phases of the process).

Module 6: OLAP versus Data mining Some aspects of Data mining - Association rules, Outlier analysis, Predictive analytics etc) Concepts of Data mining in a Data warehouse environment

Module 7: Data Mining Classifiers- K-NN, SVM, Navie bayes(In brief introduction for Practical approaches)

Books Recommended:

1. Data Warehousing Fundamentals for IT Professionals, Second Edition by Paulraj Ponniah, Wiley

2. Data Warehousing, Data Mining, & OLAP - Second Edition by Alex Berson and Stephen J. Smith, Tata McGraw Hill Education

PRACTICAL: DATA WARE HOUSING AND MINING

Statistical analysis with different types of data's