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| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl.  No. | Course | Name of the Subject | Total Marks | Mid. Sem.  Exam. | Sem.  End  Exam | Teaching  Hours | Credits |
| 5 | Elective – DSC  1F/Inter-disp. | 1. **Computer Applications**   5.4. Data Base Management System  5.5 Web Technology  Practical (5.4 =50marks)  Practical (5.5 =50marks) | 100 | 25 | 75 | 4 | 4 |
| 6 | Elective – DSC  2F/Inter-disp. | 100  100 | 25  - | 75  100 | 4  2+2 | 4  4 |

**SRI VENKATESWARA UNIVERSITY : TIRUPATI**

B.A. / B.Sc., (COMPUTER APPLICATIONS)

**SEMESTER V**

***1-5-113***

***ELECTIVE 2 - COMPUTER APPLICATIONS***

**DSC F 5.4 - DATABASE MANAGEMENT SYSTEM**

**Unit-I: Overview of Database Management System:** Introduction, Data and Information, Database, Database Management System, Objectives of DBMS, Evolution of Database Management Systems, Classification of Database Management System.

**Unit-II:** File-Based System, Drawbacks of File-Based System , DBMS Approach, Advantages of DBMS, Data Models , Components of Database System, Database Architecture, DBMS Vendors and their Products.

**Unit-III: Entity–Relationship Model:** Introduction, The Building Blocks of an Entity–Relationship, Classification of Entity Sets , Attribute Classification, Relationship Degree, Relationship Classification, Generalization and Specialization, aggregation and composition, CODD’S Rules, Relational Data Model , Concept of key, Relational Integrity. Normalization (1NF,2NF,3NF & BCNF).

**Unit-IV: Structured Query Language:** Introduction, History of SQL Standard, Commands in SQL, Data types in SQL, Data Definition Language (DDL), Selection Operation Projection Operation, Aggregate Functions, Data Manipulation Language, Table Modification, Table Truncation, Imposition of Constraints, Set Operations.

**Unit -V: PL/SQL:** Introduction, Structure of PL/SQL, PL/SQL Language Elements ,Data Types, Control Structure,, Steps to Create a PL/SQL Program, Iterative Control ,Cursors , Steps to Create a Cursor , Procedure, Function ,Packages ,Exceptions Handling, Database Triggers, Types of Triggers.

**Text Books:**

1. S. Sumathi, S. Esakkirajan, Fundamentals of Relational Database Management Systems.

2. Ivan Bayross, SQL, PL/SQL The Programming Language of Oracle, BPB Publications.

**Reference Books:**

1. Paneerselvam: Database Management Systems, PHI.

2. Bipin C. Desai, “An Introduction to Database Systems”, Galgotia Publications.

3. Korth, Database Management systems.

4. Navathe, Database Management systems.

**1-5-114**

**DSC F 5.5 - WEB TECHNOLOGY**

**Unit-I:**

**Introduction**: HTML, XML, and WWW, Topologies, Bus, Star, Ring, Hybrid, Tree, Lan,Wan,Man.

**HTML**: Basic HTML, Document body, Text, Hyper links, Adding more formatting, Lists, Tables using colors and images.

**Unit-II:**

**More HTML**: Multimedia objects, Frames, Forms towards interactive, HTML document heading.

**Cascading Style Sheets**: Introduction, using Styles, simple examples, your own styles, properties and values in styles, style sheet, formatting blocks of information, layers.

**Unit-III:**

**Introduction to JavaScript**: What is DHTML, JavaScript, basics, variables, string manipulations, mathematical functions, statements, operators, arrays, functions.

**Unit-IV:**

**Objects in JavaScript**: Data and objects in JavaScript, regular expressions, exception handling, built-in objects, events.

**Unit-V:**

**DHTML with JavaScript**: Data validation, opening a new window, messages and confirmations, the status bar, different frames, rollover buttons, moving images, multiple pages in single download, text only menu system.

**Text Books**

1. Web Technology, Chris Bates, Wiley Publications.

**Reference Books**

1. Uttam Kumar Roy, Web Technologies, Oxford University Press.

2. Black Book HTML 5.0

3. Complete reference HTML 5.