#### **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.

## SRI VENKATESWARA UNIVERSITY :TIRUPATI

## THIRD YEAR BA / B.Com (CA) / B.Sc- 5th SEMESTER EXAMINATIONS

### **DSC F 5.4 - DATABASE MANAGEMENT SYSTEM**

Time: 3Hrs Max. Marks:75

## Section - A

Answer any Five of the following. All Questions carry equal marks. 5x3=15 Marks

1.

- a) What is DBMS? Objectives of DBMS.
- b) Write about Data types in SQL.
- c) Describe classification of entity sets.
- d) What is a procedure? Explain the steps to create a procedure.
- e) Write about primary key and foreign key constraints.
- f) Briefly explain Embedded SQL.
- g) Write about Data Models.
- h) Write about Relationship Classification.
- i) Write about exceptions in PL/SQL
- j) What is view and how to create a view in SQL.

## Section - B

Answer one question from each unit. All Questions carry equal marks. 5×12=60 Marks

## **UNIT-1**

2. Explain about file system.

(OR)

3. Explain classification of DBMS.

## UNIT-2

4. Explain the process of converting ER Diagram to Tables. (OR)

5. Define Specialization and Generalization. Explain the constraints on Generalization and Specialization with examples.

UNIT-3

6. Explain 1NF, 2NF,3NF and BCNF.

(OR)

7. Explain CODD's rules.

## UNIT-4

8. Explain DDL Commands with Syntax and examples.

(OR)

- 9. a) Explain join operations in SQL.
  - b) Explain Aggregate functions in SQL.

## **UNIT-5**

- 10. Explain PL/SQL Structure with suitable example (OR)
- 11. What is a Trigger? Explain the creation of different types of triggers with syntax.

#### 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.

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# THIRD YEAR BA / B.COM(CA) / B.Sc - 5TH SEMESTER EXAMINATIONS

## **DSC F 5.5 – WEB TECHNOLOGY**

Time: 3Hrs Max. Marks:75

#### Section - A

Answer any Five of the following. All Questions carry equal marks. 5×3=15 Marks

1.

- k) What is internet? And applications of Internet.
- I) What is network topology and types of topologies?
- m) Describe <HR> Tag.
- n) What is a frame? Explain the steps to create a frame in HTML.
- o) Write about box and color properties.
- p) Briefly explain string manipulations.
- q) Write about document object model.
- r) How to create new window in DHTML.
- s) How to create message and confirmation window in javascript.
- t) Write about status bar.

## Section - B

Answer one question from each unit. All Questions carry equal marks. 5×12=60 Marks

#### UNIT-1

2. What is HTML? Explain structure of HTML and give suitable example.

(OR)

3. Explain about hyperlinks in HTML.

# **UNIT-2**

(OR)

4. What is style sheet? How to create a table with style sheets.

5. Define different styles is CSS with examples.

	UNIT-3					
6	Explain javascript functions with suitable example.					
0.	(OR)					
	(OIV)					
7.	A). Write a program to demonstrate the radio buttons in javascript.					
	B). How to handle a list in javascript with proper example.					
	UNIT-4					
8.	A). Describe regular expressions in javascript.					
	B). How to handle errors in javascript.					
	(OR)					
9.	a) Explain join operations in SQL.					
	b) Explain Aggregate functions in SQL.					
	UNIT-5					
10	10. Explain rollover buttons with suitable example.					
	(OR)					
11	11. Explain about text only menu system with suitable example.					