

5S-COMPUTER SCIENCE
RDBMS AND VISUAL BASIC

UNIT-I : Fundamental of DBMS : Architecture of a database system,, data independence, database models; Relational Hierarchical, network; data dictionary.

UNIT-II: Relational Model : Relations, Domains and Attributes keys, E-R diagrams, Reducing E-R diagrams to tables, function dependency, Normalization Process, Normal forms : 1NF, 2NF, 3NF, 4NF, BCNF.

UNIT-III : Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY,GROUP BY and HAVING;

UNIT-IV : Introduction to Visual Basic : Visual programming, event driven programming, VB Environment : New Project window, property window, Form layout window, toolbar, menu bar, tool box, form window;

Managing Control : Form properties, pointer tool, label control, text box, command button, picture box, image control, event procedure.

UNIT-V : Creating Menus : Application wizard for menu, menu editor, creating menu, adding code to menus, data types & variables.

Operators : Conditional operators, logical operators, control structures : If-else, Nested If—else, select case, goto, do loop, for loop, nested for loop.

UNIT-VI : Introduction to Internal Functions : MsgBox(), named constant, default buttons, specifying icons. Input box(), title, caption; using check box and option button in form.

VB Programmes : Private and public procedure, passing data by reference and value, passing control as arguments

Internal Functions: Numeric functions, data type functions, string functions, special functions.

Books Recommended:

1. An introduction to database system, C.J.Date – Narosa Publication.
2. Database Management System: Mujumdar and Bhattacharya- TMH.
3. Essential of Oracle - Tom Lewis.
4. Oracle the Complete Reference - Koch & Loney.
5. Visual Basic 6.0 in 21 days - Greg Perry, Techmedia.
6. VB Guide 6.0, Black Book, Peter Norton, Techmedia.
7. Mastering VB 6.0 , Evangelous Petroustos, BPB.

Practicals :

Group A - Minimum 8 Practical based on RDBMS.

AND

Group B - Minimum 8 Practical based on VB.

Study Tour : Study tour may be arranged to Computer Industry or Software development, Organisation or Software Technology Park or IT Park.

Software : Software's legal version based on syllabus.

Hardware : (1)A minimum 10 (Ten) Computer system per batch and with latest specification.

(2) Minimum 2 laser printer.

(3) Internet facility with Broad Band connections.

**B.SC. FINAL COMPUTER SCIENCE
SEMESTER-VI
6S-COMPUTER SCIENCE
PL/SQL AND ADVANCED VISUAL BASIC**

UNIT-I : Data Integrity, types of integrity constants. **Functions :** Number Functions - AVG, MAX, MIN, SUM, COUNT, TO-NUMBER, GREATEST, LEAST, ABS, MOD, FLOOR, CEIL, TRUNC, SQRT, SIGN, SIN, COS, LOG, EXP. Character Function : INITCAP, LOWER, UPPER, INSTR, LENGTH, LTRIM, RTRIM, LPAD, RPAD, SOUNDIX, DECODE.

Joins and Unions : Self, equi and outer join, unions and intersection.

UNIT-II: PL/SQL : Features and block structure, variables and constant, data types, control structure. **Cursor :** Concepts of cursor, types, declaring, opening, using cursors, fetching data, closing a cursor, cursor attributes. **Transaction :** Rollback, commit and autocommit, save point, rollback segment.

UNIT-III : Securities of Database : Users, creating users, roles, creating roles, types of privileges, GRANT and REVOKE command, data locks.

UNIT-IV : Dialog Box Control : Need for dialog box control, adding the dialog box control, producing the color dialog box control, handling the cancel button, producing the font dialog box, producing the open dialog boxes, producing file save dialog boxes, producing the print dialog boxes.

Mouse and Control : Mouse response, list box controls, combo box control, timer control, working with arrays, declaring arrays, multiple list boxes.

UNIT-V : Working with Forms : Form collections, accessing the form collection using the subscripts, the count property, uploading forms, placing text on forms, format with print, positioning the print method, multiple forms, placing tool bars on forms.

UNIT-VI : Working with Files : Open statement, file modes, locking the file, close statement, working with sequential access file, print# statement, input# statement, write# statement,

working with random access file, put statement, get statement, defining user defined data types, file control, file related commands.

Books Recommended :

1. Database Management System, Mujumdar & Bhattacharya, TMH.
2. Oracle the Complete Reference, Koch & Loney, TMH.
3. Understanding Oracle, Perry and Latic, BPB.
4. Essential of Oracle 8, Tom Lewis.
5. Visual Basic 6.0, The Complete Reference, Noel Jerke, TMH.
6. Guide VB 6.0 Black Book, Peter Nortan Techmedia.
7. Mastering VB 6.0, Evangelos Petroutsos, BPB.
8. Visual Basic 6.0 in 21 days, Greg Perry, Techmedia.

Practicals :

Group A - Minimum 8 Practicals based on Unit-I, II, III.

AND

Group B - Minimum 8 Practicals based on Unit-IV, V, VI.