Dr. V. S. Krishna Govt. Degree College (A)
Visakhapatnam

Department of Computer Science
Syllabus  Book
Module – 1 : Fundamentals of Computers


Module - 2: MS Word and MS Power Point


Formatting Your Text and Documents : Auto format, Line spacing, Margins, Borders and Shading.

Working with Headers and Footers: Definition of headers and footers, creating basic headers and footers, creating different headers and footers for odd and even pages.

Tables : Creating a simple table, Creating a table using the table menu, Entering and editing text in a table, selecting in table, adding rows, changing row heights, Deleting rows, Inserting columns, Deleting columns, changing column width.

Graphics : Importing graphics, Clipart, Insert picture, Clip Art Gallery, using word’s drawing features, drawing objects, text in drawing.

Templates : Template types, using templates, exploring templates, modifying templates.

Macros : Macro, Recording macros, editing macros, running a macro.

Mail Merge : Mail Merge concept, Main document, data sources, merging data source and main document. Overview of word menu options word basic tool bar.

Power Point : Basics, Terminology, Getting started, Views

Creating Presentations : Using auto content wizard, Using blank presentation option, Using design template option, Adding slides, Deleting a slide, Importing Images from the outside world, Drawing in power point, Transition and build effects, Deleting a slide, Numbering a slide, Saving presentation, Closing presentation, Printing presentation elements.
Module - 3 : MS Access

MS Access

Creating a Simple Database and Tables: Creating a contacts Databases with the wiz, The Access Table Wizard, Creating Database Tables without the wizard, Field Names, Data Types and Properties, Adding, deleting fields, renaming the fields in a table.

Forms: The Form Wizard, Saving Forms, Modifying Forms

Entering and Editing Data: Adding Records, Duplicating previous entries without Retyping, Undo, Correcting Entries, Global Replacements, Moving from Record to Record in a table.

Finding, Sorting and Displaying Data: Queries and DynaSets, Creating and using select queries, Returning to the Query Design, Multilevel Sorts, Finding incomplete matches, Showing All Records after a Query, Saving Queries, Crosstab Queries.

Printing Reports : Simple table, Form and Database printing, Defining advanced Reports, Manual Reporting, properties in Reports, Saving Reports.


Module-4: MS Excel

Excel Basics: Overview of Excel features, Getting started, Creating a new worksheet, Selecting cells, Entering and editing text, Entering and editing Numbers, entering and editing Formulas, Referencing cells, moving cells, copying cells, sorting cell data, inserting rows, inserting columns, Inserting cells, Deleting parts of a worksheet, clearing parts of a worksheet.

Formatting : Page setup, changing column widths and Row heights, auto format, changing font sizes and Attributes, centering text across columns, using border buttons and Commands, changing colors and shading, hiding rows and columns.


Excel Charts: Chart parts and terminology, Instant charts with the chart wizard, creation of different types of charts, printing charts, deleting charts – Linking in Excel


Reference Books :


**SEMESTER –I PRACTICALS**

**Fundamentals & PC Software**

**MS-WORD**

1. Design a visiting card for Managing Director of a Company with following specification
   
i. Size of visiting card is 3.5” x 2”
   
ii. Name of a company with big font using Water Mark
   
iii. Phone number, fax number and e-mail address with appropriate symbols
   
iv. Office and residence address separated by line.

2. Create a letter head of a company
   
i. Name of Company on the top of the page with big font and good style
   
ii. Phone numbers, fax numbers, e-mail address with appropriate symbols
   
iii. Main products manufactured to be described at the bottom
   
iv. Slogans if any should be specified in bold at the bottom

3. **Creation of your Bio-Data:** consisting Name, email-id, Contact Address, Carrier Objective, Educational qualifications, social activities, achievements.

**MS-POWERPOINT**

1. Make a Power point presentation on your strengths, weaknesses, hobbies, factors that waste your time.
2. Make a Power point presentation on any Current affair (Not less than 8 slides)
3. Make a Power point presentation to represent your College profile.
4. Make a Power point presentation of all the details of the books that you had studied in B.Sc. First Year.

**MS-ACCESS**

1. Create a database using MS-ACCESS with atleast 5 records
   
   **TABLE1 STRUCTURE:**
   
   REGISTER NUMBER NAME DOB GENDER CLASS
   
   **TABLE2 STRUCTURE:**
   
   REGISTER NUMBER M1 M2 M3 M4 M5 TOTAL
   
   Maintain the relationship between two tables with REGISTER NUMBER as a Primary Key and answer the following queries:

   Show the list of students with the following fields as one query

   **REGISTER NUMBER NAME GENDER TOTALMARKS**
2. Maintain the relationship between above two tables with REGISTER NUMBER as a Primary Key and answer the following reports:
   Reports must have following columns
   Report1 with REGISTER NUMBER, NAME, MARKS OF ALL SUBJECTS and TOTAL
   Report2 with REGISTER NUMBER, TOTAL, PERCENTAGE.

3. Create a database using MS-ACCESS with at least 5 records
   TABLE1 STRUCTURE:
   EMP-CODE EMP-NAME AGE GENDER DOB
   TABLE2 STRUCTURE:
   EMP-CODE BASIC-PAY

   Maintain the relationship between two tables with EMP-CODE as a Primary Key generate the following reports:

   REPORT1:
   EMP-CODE EMP-NAME BASIC-PAY DA HRA GROSS-SALARY

   REPORT2:
   EMP-CODE EMP-NAME AGE GENDER GROSS-SALARY

MS-EXCEL

1. Create an electronic spreadsheet in which you enter the following decimal numbers and convert into Octal, Hexadecimal and Binary numbers Vice versa.
   Decimal Numbers: 35, 68, 95, 165, 225, 355, 375, 465
   Binary Numbers: 101, 1101, 111011, 10001, 110011001, 111011111.

2. The ABC Company shows the sales of different products for 5 years. Create column chart, 3D-column and Bar chart for the following data

<table>
<thead>
<tr>
<th>YEAR</th>
<th>PRODUCT-1</th>
<th>PRODUCT-2</th>
<th>PRODUCT-3</th>
<th>PRODUCT-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>1000</td>
<td>800</td>
<td>900</td>
<td>1000</td>
</tr>
<tr>
<td>2004</td>
<td>800</td>
<td>80</td>
<td>500</td>
<td>900</td>
</tr>
<tr>
<td>2005</td>
<td>1200</td>
<td>190</td>
<td>400</td>
<td>800</td>
</tr>
<tr>
<td>2006</td>
<td>400</td>
<td>200</td>
<td>300</td>
<td>1000</td>
</tr>
<tr>
<td>2007</td>
<td>1800</td>
<td>400</td>
<td>400</td>
<td>1200</td>
</tr>
</tbody>
</table>

3. Create a suitable examination database and find the sum of the marks(total) of each student and respective class secured by the student rules:
   Pass if marks in each subject >=35
   Distinction if average>=75
   First class if average>=60 but <75
   Second class if average>=50 but <60
   Third class if average>=35 but <50
   Fail if marks in any subject is <35

Display average marks of the class, subject wise and pass percentage.
Module - 1 : C Language fundamentals


Module-2 : Functions


Module -3 : Programming in C


Module-4: Pointers and others


Operations on Bits : Bit operators – Bit fields
The preprocessor : The # define statement – The # # operator – The #include statement – conditional compilation.

More on Data Types : Enumerated Data Types – The typedef statement – Data Type conversions

Input and Output Operations in “C” : Character I/O – formatted I/O – Input and Output Operations with Files – Special functions for working with Files.

Miscellaneous and Advanced features: The Goto Statement, the null statement, working with unions- the comma operator-type qualifiers.
Prescribed Books :


Reference Books :

3. Rajaraman, Introduction to Information Technology, PHI.

SEMESTER – II PRACTICALS

C-PROGRAMMING LAB CYCLE

1. Program for
   i. Sum of factors of a number
   ii. Sum of digits of a number
2. Program to check whether a given number is
   i. Prime number or not
   ii. Perfect number or not
   iii. Armstrong number or not
3. Program using recursion for
   i. Factorial of a given number
   ii. Fibonacci series
4. Program for roots of a quadratic equation
5. Program using functions
   i. Without return value
   ii. With return value
   iii. With parameters
   iv. Without parameters
6. Program to find largest/smallest of n numbers by using arrays
7. Program for sorting an array
8. Program for matrix addition & subtraction
9. Program for matrix multiplication
10. Program for transpose of a given matrix
11. Program for (with and without string functions)
    i. Comparison of two strings
    ii. Concatenation of two strings
    iii. Length of a string
12. Program to process student information. Student structure consists Sno, Sname, Marks in 6 subjects, Total, average. Calculate total and average of n students and assign grade with following criteria.
    Grade A : All pass and avg \( \geq 75 \)
    Grade B: All pass and avg \( \geq 60 \) and avg\( <75 \)
    Grade C: All pass and avg\( \geq 50 \) and avg\( <60 \)
    Grade D: All pass and avg\( \geq 40 \) and avg\( <50 \)
    Grade E: If fails in one or more subjects.
15. Program for sum of diagonal elements of a square matrix?
19. Program to create a file to store and retrieve strings using fputs() and fgets().
23. Program to create table of Triangular Numbers.
24. Program for reversing digits of a no.
Module – 1: Searching & Sorting Techniques
Searching: Linear Search, Binary Search.

Module-2:

Module-3:

Module-4:

Prescribed books:

Reference Books:

Data Structures Lab Cycle
1. Binary search
2. Linear search
3. Bubble sort
4. Selection sort
5. Insertion sort
6. Quick sort
7. Stack using array
8. Queue using array
9. Single linked list
10. Double linked list
11. Stack using linked list
12. Queue using linked list
13. Circular queue
14. Program for tree traversals
Module-1: 
Java Fundamentals
Fundamentals of Object Oriented programming: Object Oriented paradigm – Basic concepts of Object Oriented Programming – Benefits of OOP – Applications of OOP.

Module-2: 
 Control Statements, Class, Objects Methods

Module– 3:
Arrays, Strings, Vectors and Interfaces in Java

Module –4: Multithreaded programming and Applets.
Prescribed books:
1. E.Balaguruswamy, Programming with Java, A primer, 3e, TATA McGraw-Hill Company (2008). (Chapters: 1 to 14)

Reference Books:

Java Lab Cycle:
1. Hello World
2. Area of Circle & Rectangle
3. Prime Number unto n
4. Arithmetic operations
5. Display a duplicate element in an array
6. Single Inheritance
7. Overriding in JAVA
8. String Manipulations
9. Vector Allocation
10. Multithreading
11. Bank Transactions using interfaces
12. Applet Program calculator

**Database Systems:** Introducing the database and DBMS. Importance of Databases over File Systems, Problems with File System Data Management. Advantages of DBMS.

**Data Models:** Define Data model, types of Data models and importance of Data Models.

**The Relational Database Model:** A logical view of Data, Keys, Integrity Rules, Relational Set Operators, The Data Dictionary and the system catalog, Relationships with in the Relational Database, Codd’s relational database rules.

**Book 1:** Chapter 1

Module-2: Data Modeling and Normalization.

**Entity Relationship Model:** Define ER Model, Developing ER Diagram.

**Advanced Data Modeling:** The Extended Entity Relationship Model, Entity integrity: Selecting Primary keys.

**Normalization of database tables:** Define Normalization, Need of Normalization, The Normalization Process: 1NF, 2NF, BCNF, 3NF.

**Book 1:** chapter 3

**Book 2:** Chapter 3(page 77 to page 100)

Module-3: Interaction with Databases and Construction of Information System

**Introduction to SQL:** Data Definition Commands, Data Manipulation Commands, Select queries. Advanced Data Definition Commands, Advanced Select queries, Joining Database Tables.

**Book 1:** Chapter 7(page 265 to page 287)

**Book 2:** Chapter 4(page 149 to 170)

**Advanced SQL:** Relational Set Operators, SQL Join Operators, Sub queries SQL Functions, and Oracle Sequences.

**Book 1:** Chapter 2(page 35 to page 44), Chapter 8(page 296 to page 306)

**Book 2:** Chapter 5

Module-4: Transaction Management in DBMS Environment.

**Transaction Management, Concurrency Control and Security:** Define transaction, Concurrency control, Concurrency control with locking Methods, Concurrency control with time stamping methods, concurrency control with optimistic methods, database recovery management.

**Book 1:** Chapter 12

Prescribed Books:

**Book 1:** Modern Database Management, Sixth Edition, Hoffer, Prescott, and McFadden.

**Book 2:** Database Management Systems, Designing and Building Business
Oracle Lab Cycle:
Employees(eno, ename, zip, hdate)
Parts(pno, pname, qoh, price, level) (hint: qoh: quality on hand)
Customers(cno, cname, street, zip, phone)
Orders(ono, cno, eno, received date, shipped date)
odetails(ono, pno, qty)
zipcodes(zip, city)

Solve the following queries
1. Get all pairs of customer numbers for customers based on same zip code.
2. Get part numbers for parts that have been ordered by at least two different customers.
3. For each odetail row, get ono, pno, pname, qty and price values along with the total price for the item. (total price=price*qty)
4. Get customer name and employee pairs such that the customer with name has placed an order through the employee.
5. Get customer names living in fort dodge or liberal.
6. Get cname values of customers who have ordered a product with pno 10506.
7. Get pname values of parts with the lowest price.
8. Get cname values of customers who have placed at least one order through the employee with number 1000.
9. Get the cities in which customers or employees are located.
10. Get the total sales in dollars on all orders.
11. Get part name values that cost more than the average cost of all parts.
12. Get part names of parts ordered by at least two different customers.
13. Get for each part get pno, pname and total sales
14. For each part, get pno, pname, total sales, whose total sales exceeds 1000
15. Get pno, part names of parts ordered by at least two different customers.
16. Get cname values of customers who have ordered parts from any one employee based in wichita or liberal.

Employee database
An enterprise wishes to maintain a database to automate its operations. enterprise divided into to certain departments and each department consists of employees. the following two tables describes the automation schemas

Dept (deptno, dname, loc)
Emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)
1. Create a view, which contain employee names and their manager names working in sales department.
2 Determine the names of employee, who earn more than their managers.
3. Determine the names of employees, who take highest salary in their departments.
4. Determine the employees, who located at the same place.
5. Determine the employees, whose total salary is like the minimum salary of any department.
6. Update the employee salary by 25%, whose experience is greater than 10 years.
7. Delete the employees, who completed 32 years of service.
8. Determine the minimum salary of an employee and his details, who join on the same date.
9. Determine the count of employees, who are taking commission and not taking commission.
10. Determine the department does not contain any employees.
11. Find out the details of top 5 earner of company.
12. Display those managers name whose salary is more than average salary of his employees.
13. Display those employees who joined the company before 15th of the month?
14. Display the manager who is having maximum number of employees working under him?
15. Print a list of employees displaying ‘less salary’ if less than 1500 if exactly 1500 display as ‘exact salary’ and if greater than 1500 display ‘more salary’?
16. Display those employees whose first 2 characters from hire datelast 2 characters of salary?
17. Display those employees whose 10% of salary is equal to the year of joining?
18. In which year did most people join the company? display the year and number of employees.
19. Display the half of the enames in upper case and remaining lower case
20. Display ename, dname even if there no employees working in a particular department(use outer join).

University database
University wishes to computerise their operations by using the following relations.
Student (snum:integer, sname: string, major: string, level: string, age: integer)
Class (name: string, hour:integer, room: string, fid: integer)
Enrolled (sum: integer, cname: string)
Faculty (fid: integer, fname: string, deptid: integer)
Depart (deptid: integer, dname: string, loc: integer)

By using above schema definitions, resolve the following queries
1. Find the names of all juniors (level=jr) who are enrolled in a class taught by smith.
2. Find the age of the oldest student who is either a history major or is enrolled in the course of smith.
3. Find the names of all classes that either meet r128 or have five or more students enrolled.
4. Find the names of all students who are enrolled in two classes that meet at the same hour.
5. Find the names of faculty members who teach in every room in, which some class is taught.
6. Find the names of faculty members for whom the combined enrollment of the courses that they teach is less than five.
7. Print the level and average age of students for that level, for each level.
8. Print the level and average age of the student for that level, for all levels except jr.
9. Find the names of students who are enrolled in the maximum number of classes.
10. Find the names of the students who are not enrolled in any class.
Elective: I
Title: GUI Programming

Module-1: Familiarization about the Visual Basic IDE Components.
Getting Starting with Visual Basic 6.0: Defining VB, Object related concepts, VB Program Development Process, VB Program Components, VB Environment.
VB Fundamentals: Constants, Variables, Data types, operators, Special rules Concerning Numeric/String Expressions, Branching and Loops.
Working with Controls: VB Control Tools, Working with controls, Naming forms and Controls, Assign property values to forms and controls. Menus, Mouse Events and Dialog Boxes: Introduction, Mouse Events, and Dialog Boxes

Book 1: Chapters: 1,2,3,4,5

Module-2: Data Access And Distributing
Data Access: Data Access Objects, Remote Data Objects and ActiveX Data Objects, Using the ADO Data Control.
Debugging and Error Handling: Using break points, The debug windows, The Debug Object, Conditional Compilation, Setting and Existing Error trap
Distributing: Registration, Packaging and Deploying: The standard setup package, The Internet setup package, Deploying the Application.

Book 2: Chapters: 8,9,10

Module 3: Using The Form And Menu Objects
Form Objects: Form Life Time, MDI Versus SDI Applications, Handling Data Validation.
Menu Objects: Implementing a most recently used list, Using Context Menus, Placing images on menus.
Using ADO For Data Access: Overview of OLE DB and ADO, General ADO Techniques, ADO techniques with form based applications.

Book 2: Chapters: 11,14

Module 4: Using Object Oriented Techniques and Building ActiveX Components:
Object Oriented Fundamentals: Encapsulation, Polymorphism, and Inheritance.
Using Object Oriented Programming in VB: Form based OOP Techniques, Application Partitioning, User defined Interfaces.
Building ActiveX Components: Building ActiveX Control Components, Building ActiveX Code Components.

Book 2: Chapters: 15,16

Prescribed Text Book:

Reference Books :
Visual Basic Lab

- Greatest of three Numbers (Text Boxes)
- My Piggy Bank (Text boxes and Command Buttons)
- Character Check
- Check Whether the Given Number is Prime or Not
- Reverse of a Given Number
- Checking Whether the Given Number is Palindrome or not
- Multilingual Hello (using Check Boxes)
- Implementation of Calculator (using Command Buttons)
- Calculation of NCR (using functions)
- Addition and Deletion of Items using Combo Box
- Course selection (using Option Buttons)
- Moving of items between two lists (using List Box)
- Temperature Conversion using Frames and Option Buttons
- Monthly Loan Payment
- Implementation of States and Officials using Menus
- Changing the color of a Shape Using POPUP Menu
- Metronome (Timer and Scrollbar)
- Quadratic equation using Error Handling
- Random numbers sorting (Using Arrays)
- Develop a Visual Basic Application to generate Electricity Bill.
Elective-II
Title: Operating Systems

Module – 1: OS Fundamentals and Structure of OS.
System structures: Operating System services, System calls, Types of system calls, Operating system Design and Implementation, Operating System Structure, System Boot.
Process concept: Process scheduling, Operations on processes, Inter process communication, Examples of IPC Systems
Chapters: 1(1.1,1.5 to 1.9), 2(2.1, 2.3 to 2.8, 2.10), 3(3.1 to 3.5)

Module-2: Multithreading and Process Synchronization.
Multithreaded Programming: Multithreading models, Thread Libraries, Threading issues.
Process Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms, Thread Scheduling.
Process Synchronization: The Critical section problem, Peter’s Solution, Semaphores, Classic problems of Synchronization, Monitors.
Chapters: 4(4.1 to 4.4), 5(5.1 to 5.3,5.5), 6(6.1to 6.3,6.5 to 6.7), 7(7.1 to 7.7)

Module-3: Memory Management Strategies.
Memory Management: Background, swapping, contiguous Memory allocation, paging, structure of the page table, Segmentation.
Virtual Memory management: Demand paging, Page Replacement, Allocation of frames, Thrashing.
Chapters: 8(8.1 to 8.6), 9(9.1, 9.2, 9.4, 9.5), 10(10.1 to 10.3,10.5,10.6)

Module-4: File system and I/O Management
File system: File system structure; file system implementation, directory implementation Allocation methods, free space management, efficiency and performance, recovery
I/O System: overview, I/O hardware, Application I/O interface, Kernel I/O interface

Prescribed Book :
1. Abraham Silberschatz, Peter Baer Galvin, Greg Gagne, Operating System Principles,
Reference Books :
1. William Stallings, Operating Systems Internals and Design
LAB CYCLE
1. Write a shell script to accept two numbers and perform all arithmetic operations on it.
2. Write a shell script to find largest of three numbers using conditional execution operators
3. Write a shell script to accept the name of the file from standard input and perform the following tests on it
   a) File executable
   b) File readable
   c) File writable
   d) Both readable & writable
4. Write a shell script which will display the username and terminal name who login recently in to the Unix system.
5. Write a shell script to find number of files in a directory
6. Write a shell script to print the following format
   1
   12
   123
   1234
   ........
7. Write a shell script which will display the number of days in the given month and year
8. Write a shell script to check whether a given number is perfect number or not
9. Write a shell script for concatenation of two strings using arguments
10. Write a shell script to demonstrate break and continue statements
11. Write a shell script to satisfy the following menu options
    a. Display current directory path
    b. Display today’s date
    c. Display users who are connected to the Unix system
    d. Quit
12. Write a shell script to delete all files whose size is zero bytes from current directory
13. Write a shell script to display reverse numbers from given argument list
14. Write a shell script to display factorial value from given argument list
Module-1:

**Introduction to Software Engineering**: definition, size factors, quality and productivity factors, managerial Issues-Planning a Software Project: Defining the problem, developing a solution strategy, planning the development process.

Module-2:


Module-3:


Module-4

Verification and Validation Techniques: quality Assurance, walkthrough and Inspections, static analysis, symbolic execution, Module testing and debugging, system testing, formal verification.

Text book: Software Engineering Concepts
Author: Richard Fairley
Title: Web Technologies

MODULE-1 : HTML Basics

MODULE-2 : Introduction to the Style Sheets and Java Scripts.
Cascading Style Sheets: Introduction, Using styles: Simple examples, Defining your own styles, Properties and values in styles, Style sheets - A worked example, Formatting blocks of information, Layers.

MODULE-3 : Objects in Java Script and DHTML.
Objects in Java Script: Data and objects in java script, Regular expressions, Exception Handling, Built in objects, Events.
Dynamic HTML with Java Script: Data validation, Opening a new window, Messages and Confirmations, The status bar, Writing to a different frame, Rollover buttons, Moving images, Multiple pages in a single download, A text-only menu system, Floating logos.

MODULE-4 : Web Based Softwares and Protocols.
Useful Software: Web browsers, Perl, Web servers, mod_perl, Databases, Accessing your ISP, Exercises.

Prescribed Book:
Reference Books:
Web Technologies Lab

Lab Cycle
1. Write a HTML program illustrating text formatting.
2. Illustrate font variations in your HTML code.
3. Prepare a sample code to illustrate links between different sections of the page.
4. Create a simple HTML program to illustrate three types of lists.
5. Embed a real player in your web page.
6. Embed a calendar object in your web page.
7. Create an applet that accepts two numbers and perform all the arithmetic operations on them.
8. Create nested table to store your curriculum.
9. Create a form that accepts the information from the subscriber of a mailing system.
10. Using “table” tag, align the images as follows:

11. Divide the web page as follows:

12. Design the page as follows:
13. Illustrate the horizontal rulers in your page.
14. Create a help file as follows:

15. Write a Java Script to accept the first, middle and last names of the user and print the name.
16. Write a Program in Java Script to add two numbers.
17. Write a script to find the factorial of a given number using functions.
18. Write a script to print all primes with in the given range.
19. Write a program to sort the array elements using “Bubble Sort” Technique.
20. Create a student registration system with the following fields:
   Name, Regdno, Gender, street, city, state, pincode, stdcode, phone, dbirth, college, experience, course code. Create a main object called “Stu_info” with all the fields and “College” and “Experience” as sub objects with in the main object. Create separate object definition for College and Experience with the following fields:
   College: Name, Location, Degree
   Experience: Employer, Location, Duties and Period
21. Write a script to read information of ‘n’ students from the user and store them into the table as follows:
22. Write the script for the various validations given below:
   a. Candidate code should be generated
   b. Date of Birth should not be null and age should be more than 21.
   c. All alphabet fields should be validated.
   d. All number fields should accept only numbers.
   e. Total experience should be calculated and displayed after accepting input for the “From” and “To” fields in the table.
34. Create a bio-data format with the following fields:
   Name, candidate code, Date of birth, Gender, Address1, Address2, Phone, Passport number, Qualification and Percentage.
   Also, create the following fields for entering present employment details:
   Company name Company Address1, Address2, Address3, Phone, Fax, E-mail, Total Experience and Project details.
   Create a table with the columns given below in a 3 row structure:
   Employer name, Location, From, To, Field
Title: PHP, MySQL and Apache

Module-1 : Installing and Configuring MySQL, Apache and PHP

Module-2 : PHP Basics
The Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output. Working with Functions: What is function?, Calling functions, Defining Functions, Returning the values from User-Defined Functions, Variable Scope, Saving state between Function calls with the static statement, more about arguments. Working with Arrays: What are Arrays?, Creating Arrays, Some Array-Related Functions. (Chapters: 5,6,7,8)

Module-3 : Working with Objects and Forms
Working with Objects: Creating Objects, Object Instance Working with Strings, Dates and Time: Formatting strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP. Working with Forms: Creating Forms, Accessing Form Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using HiddenFields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads. (Chapters: 9,10,11)

Module-4 : Introduction to Cookies, Working with Files, Directories and Images.
Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session IDs in the Query String, Destroying Sessions and Unsetting Variables. (Chapters:12,13,14)

Introduction to MySQL and Interfacing with Databases through PHP
Understanding the database design process: The Importance of Good Database Design, Types of Table Relationships, Understanding Normalization. Learning basic SQL Commands: Learning the MySQL Data types, Learning the Table Creation Syntax, Using Insert Command, Using SELECT Command, Using WHERE in your Queries, Selecting from Multiple Tables, Using the UPDATE command to modify records, Using REPLACE Command, Using the DELETE Command, Frequently used string functions in MySQL, Using Date and Time Functions in MySQL.

Prescribed Book:

Reference Book:
PHP and MySQL Lab
MySQL Lab Cycle
Cycle -1
An Enterprise wishes to maintain the details about his suppliers and other corresponding
details. For that he uses the following details.
Suppliers (sid: Integer, sname: string, address: string)
Parts (pid: Integer, pname: string, color: string)
Catalog (sid: integer, pid: integer, cost: real)
The catalog relation lists the prices charged for parts by suppliers.
Write the following queries in SQL:
1. Find the pnames of parts for which there is some supplier.
2. Find the snames of suppliers who supply every part.
3. Find the sname of supplier who supply every red part.
4. Find the pnames of parts supplied by London Supplier abd by no one else.
5. Find the sid’s of suppliers who charge more for some part than the average cost of that part.
6. For each part, find the sname of the supplier who charges the most for that part.
7. Find the sid’s of suppliers who supply only red parts.
8. Find the sid’s of suppliers who supply a red and a green part.
9. Find the sid’s of suppliers who supply a red or green part.
10. Find the total amount has to pay for that supplier by part located from London.

Cycle – 2
An organisation wishes to maintain the status about the working hours made by his employees.
For that he uses the following tables.
Emp (eid: integer, ename: string, age: integer, salary: real)
Works (eid: integer, did: integer, pct_time: integer)
Dept (did: integer, budget: real, managerid: integer)
An employee can work in more than one department; the pct_time field of the works relation
shows the percentage of time that a given employee works in a given department.
Resolve the following queries.
1. Print the names and ages of each employee who works in both Hardware and Software
departments.
2. For each department with more than 20 full time equivalent employees (i.e., where the
parttime and full-time employees add up to at least that many full-time employees), print the
did’s together with the number of employees that work in that department.
3. Print the name of each employee whose salary exceeds the budget of all of the departments
that he or she work in.
4. Find the managerid’s of managers who manage only departments with budgets greater than
1,000,000.
5. Find the enames of managers who manage the departments with largest budget.
6. If a manager manages more than one department, he or she controls the sum of all the
budgets for those departments. Find the managerid’s of managers who control more than
5,000,000.
7. Find the managerid’s of managers who control the highest amount.
8. Find the average manager salary.

PHP Lab Cycle
1. Write a PHP program to Display “Hello”
2. Write a PHP Program to display the today’s date.
3. Write a PHP Program to read the employee details.
4. Write a PHP Program to display the
5. Write a PHP program to prepare the student marks list.
6. Write a PHP program to generate the multiplication of two matrices.
7. Write a PHP Application to perform demonstrate the college website.
8. Write a PHP application to add new Rows in a Table.
9. Write a PHP application to modify the Rows in a Table.
10. Write a PHP application to delete the Rows from a Table.
11. Write a PHP application to fetch the Rows in a Table.
12. Develop an PHP application to make following Operations
   i. Registration of Users.
   ii. Insert the details of the Users.
   iii. Modify the Details.
   iv. Transaction Maintenance.
      a) No of times Logged in
      b) Time Spent on each login.
      c) Restrict the user for three trials only.
Application Development using SE
MODULE I:


INPUT/OUTPUT UNITS: Description of computer Input Units- Other input methods- Computer Output Units- Computer Memory: Memory cell – Memory organization- Read Only Memory-Serial Access Memory- Physical Devices Used to construct Memories- Magnetic hard disk –Floppy Disk Drives- Magnetic Tape Drives.

PROCESSOR: Structure of Instructions- Description of Processor- A Machine language Program-An Algorithm to simulate a Hypothetical computer

BINARY ARITHMETIC: Binary addition- Binary subtraction-Signed Numbers- Two’s Complement Representation of Numbers-Addition/Subtraction of Numbers in Two’s Complement notation –Binary Multiplication-Binary Division- Floating Point Representation of Numbers-Arithmetic operations with Normalized Floating point Numbers.

MODULE II:


Text Books:

1. Title: Fundamentals of Computers , V.Rajaraman, Prentice-Hall of India Limited, New Delhi
2. Title: Let’s Learn Internet, M.K.Goel, Sterling Publishers Limited, New Delhi