REVISED SYLLABUS OF B.Sc. (Web enabled Technologies)
UNDER CBCS FRAMEWORK WITH EFFECT FROM 2020-2021

PROGRAMME: THREE-YEAR B.Sc (Maths – Physics – Web enabled Technologies)

Market oriented course in Computer Science

Web enabled Technologies

(With Learning Outcomes, Unit-wise Syllabus, References, Co-curricular Activities)

For 1, 2, 3 & 4 Semesters)

(To be Implemented from 2020-21 Academic Year)

Web Enabled Technologies

Semester	Paper	Subject	Hrs.	Credits	IA	ES	Total
FIRST EAR							
SEMESTER I	I	Fundamentals of computers, Web & Python - Programming	4	3	25	75	100
		Python- Programming Lab	2	2	0	50	50
SEMESTER II	II	Graphic Designing & Web Designing : Illustrator , Advanced Photoshop & Wordpress	4	3	25	75	100
		Graphic Designing and web designing Lab	2	2	0	50	50
SECOND YEAR							
SEMESTER III	III	Oop's through Java	4	3	25	75	100
		Java Programming Lab	2	2	0	50	50
SEMESTER IV	IV	HTML, CSS & Java Script	4	3	25	75	100
		HTML, CSS & JavaScript Lab	2	2	0	50	50
	V	PHP – MySql	4	3	25	75	100
		PHP-MySql Lab	2	2	0	50	50

I YEAR I SEMESTER

Semester	Course Code	Course Title	Hours	Credits
I	C1	Fundamentals of computers, Web & Python - Programming	60	3

Course Objectives

To explore basic knowledge on computers, solving common types of computing problems, data types and control structures of Python, programming features of Python

Course Outcomes

Upon successful completion of the course, a student will be able to:

1. Understand the working of a digital computer.
2. Analyze a given problem and develop an algorithm to solve the problem.
3. Improve upon a solution to a problem.
4. Use the Python language constructs in the right way and Design programs in Python.
5. Acquire skills to implement and test Python programs.

UNIT I

Introduction to computers: Definition, Characteristics and limitations of computers - Elements of Computers - Hardware - CPU - Primary and Secondary memory - Input and Output devices. IT enabled services.

Operating System and Windows: Operating Systems: Meaning, Definition, Functions and Types of Operating Systems, Computer Virus, Cryptology. Windows operating system - Desktop, Start menu, Control panel, Windows accessories. Understanding Web Technologies, Difference between Web Applications and Desktop Applications.

UNIT II

Introduction to Python Programming:

Introductions Etc: Resources, A general description of Python Interactive Python - Lexical matters : Lines, Comments, Names and tokens, Blocks and indentation, Doc strings, Program structure, Operators, Code evaluation - Statements and inspection -- preliminaries - Built-in data- types :Numeric types, Tuples and lists, Strings : The new string.format method, Unicode strings , Dictionaries, Files, Other built-in types :The

None value/type, Boolean values, Sets and frozensets - Functions and Classes -- A Preview

UNIT III

Statements : Assignment statement, import statement, print statement, if: elif: else: statement, for: statement, while: statement, continue and break statements, try: except: statement, raise statement, with: statement :Writing a context manager, Using the with: statement, del, case statement.

UNIT IV

Functions, Modules, Packages, and Debugging : Functions: The def statement, Returning values, Parameters, Arguments, Local variables, Global variables and the global statement, Doc strings for functions, Decorators for functions - lambda, Iterators and generators, Modules: Doc strings for modules - Packages,

Unit V

Classes: A simple class, Defining methods, The constructor, Member variables, Calling methods, Adding inheritance, Class variables, Class methods and static methods, Properties, Interfaces, New-style classes, Doc strings for classes, Private members

Reference Books:

1. Fundamentals of Computers by Reema Thareja from Oxford University Press
2. Introduction to Python by Dave Kuhlman

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

B. General

1. Group Discussion
2. Try to solve MCQ's available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports.
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

Semester	Course Code	Course Title	Hours	Credits
I	**C1-P**	Python Programming **Lab**	**30**	**2**

Python Programming Lab

1. Write a Python program to convert temperatures to and from celsius, fahrenheit.
2. Write a Python program that accepts a word from the user and reverse it
3. Write a Python program to get the Fibonacci series between 0 to 50.
4. Write a Python program which takes two digits m (row) and n (column) as input and generates a two-dimensional array. The element value in the i-th row and j-th column of the array should be i*j.
5. Write a Python program that accepts a string and calculate the number of digits and letters
6. Write a Python program to check whether an alphabet is a vowel or consonant
7. Write a Python program to calculate the sum and average of n integer numbers
8. Write a Python program to create the multiplication table (from 1 to 10) of a number
9. Write a Python function to find the Max of three numbers.
10. Write a Python function to calculate the factorial of a number (a non-negative integer). The function accepts the number as an argument.
11. Write a Python function that takes a number as a parameter and check the number is prime or not.
12. Write a Python function to check whether a number is perfect or not.
13. Write a Python function that checks whether a passed string is palindrome or not.
14. Write a Python program for sequential search.
15. Write a Python program to sort a list of elements using the selection sort algorithm.

I YEAR II SEMESTER

Semester	Course Code	Course Title	Hours	Credits
II	C2	Graphic Designing and Web designing (Illustrator Advanced Photoshop &Wordpress)	60	3

Course Objectives

Images and animations took major important role in creation of good structured web design. It is necessary to know the creation of own images, editing of created images, 2D animation. This paper provides all above to the students.

Course Outcomes

Upon successful completion of the course, a student will be able to:

1. Develop skills in digital imaging using Photoshop which is useful for webpage design.
2. Acquire skills in creation of logos and emblems with the help of Illustrator.
3. Understand basic principles of Web designing.
4. Setup a domain and hosting account.
5. Create websites with the help of Word press.

UNIT I

Introduction to Graphic Design: Multimedia fundamentals, What is Graphic Design, What is Raster Graphic & Vector Graphic, Uses & Difference between Raster Graphic & Vector Graphic, Media and Types of Media, difference between multimedia and Graphic Designing, Colour formats, Types of Colour Formats for various types of media. Basic Colours & Colour Theory.

Photoshop: Getting started with Photoshop, page layout and back ground, Photoshop program window-title bar, menu bar, options bar, image window, image title bar, Status bar, ruler, palettes, tool box, screen modes, saving files, reverting files, closing files.

UNIT II

Working with images - image size and resolution, image editing, color modes & adjustments, back grounds. **Making selections** –lasso tools, sections tools, polygon lasso tool, magnetic lasso tool, magic hand tool, grow and similar commands, moving a portion of image, editing selections, filling a selection, transforming selection, painting,

drawing and retouching tools. **Layers and Filters :** layers, type tool, converting layers, image masking, filters – the filter menu, artistic filter, blur filter, brush store filters, distort filters, noise filters, pixelate filter, lighting effects, difference clouds, sharpen filters, printing.

UNIT III

Illustrator : Understanding the GUI of the Illustrator - Understanding Tool Box – Using menus
-Drawing Basic Shapes - Drawing with Pencil Tool - Drawing with Pen Tool - Using Brushes - Creating Compound Paths - Working with Color and Strokes - Editing Objects - Layers & Groups- Transparency & Graphic Styles - Transforming & Moving Objects - Basic Text - Blending Shapes& Colors.

UNIT IV

Word press: Introduction to word press, servers like wamp, bitnami e.tc, installing and configuring word press, understanding admin panel, working with posts and pages, using editor, text formatting with shortcuts, working with media-Adding, editing, deleting media elements.

UNIT V

Working with widgets, menus. Working with themes-parent and child themes, using featured images, configuring settings, user and user roles and profiles, adding external links, extending word press with plug-ins. Customizing the site, changing the appearance of site using CSS.

REFERENCE BOOKS

1. Adobe Photoshop Class Room in a Book by Adobe Creative Team.
2. Photoshop: Beginner's Guide for Photoshop - Digital Photography, Photo Editing, Color Grading & Graphic...19 February 2016 by David Maxwell
3. **Xue Bai Michael Ekedahl, The web warrior guide to Web Programming, Thomson (2006).**

RECOMMENDED CO-CURRICULAR ACTIVITIES:

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C. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content

and outside the syllabus content. Shall be individual and challenging)

2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

D. General

1. Group Discussion
2. Try to solve MCQ's available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports like "Creating a website for your college using Wordpress"
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

Semester	Course Code	Course Title	Hours	Credits
II	C2-P	Graphic designing and web designing lab	30	2

PHOTOSHOP:

Commercial Work: Photo base multi color visiting card – Multi color wedding cards – Paper adds (Photo base) Pomp lets (Photo base) Broachers (Photo base) – Advertisement designing – Pomp lets (Photo base) – Broachers (Photo base).

Digital Work: Pass port designing , Maxi Modeling , Digital Modeling - Black and White Photo Color conversation , Marriage album designing.

Flex Modeling: Front light board designing , Back light board designing.

Illustrator:

Cartoon drawing-logo creation – 3D objects creation – move title creation – brush effects based title-filter effects backgrounds.

WordPress:

1. Installation and configuration of word press.

2. Create a site and add a theme to it.

II YEAR III SEMESTER

Semester	Course Code	Course Title	Hours	Credits
III	**C3**	**OOP's through JAVA**	**60**	**3**

Course Objectives

As the business environment becomes more sophisticated, the software development (software engineering is about managing complexity) is becoming increasingly complex. As of the best programming paradigm which helps to eliminate complexity of large projects, Object Oriented Programming (OOP) has become the predominant technique for writing software in the past decade. Many other important software development techniques are based upon the fundamental ideas captured by object-oriented programming.

Course Outcomes

At the end of this course student will:

1. Understand the concept and underlying principles of Object-Oriented Programming
2. Understand how object-oriented concepts are incorporated into the Java programming language
3. Develop problem-solving and programming skills using OOP concept
4. Understand the benefits of a well structured program
5. Develop the ability to solve real-world problems through software development in high- level programming language like Java
6. Develop efficient Java applets and applications using OOP concept
7. Become familiar with the fundamentals and acquire programming skills in the Java language.

UNIT I

FUNDAMENTALS OF OBJECT – ORIENTED PROGRAMMING : Introduction, Object

Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features: **OVERVIEW OF JAVA LANGUAGE**: Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. **CONSTANTS, VARIABLES & DATA TYPES:** Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Symbolic Constants, Type casting, Getting Value of Variables, Standard Default values; **OPERATORS & EXPRESSIONS**.

UNIT II

DECISION MAKING & BRANCHING: Introduction, Decision making with if statement, Simple if statement, if. Else statement, Nesting of if. else statements, the else

if ladder, the switch statement, the conditional operator. **LOOPING**: Introduction, The While statement, the do-while statement, the for statement, Jumps in loops.

CLASSES, OBJECTS & METHODS: Introduction, Defining a class, Adding variables, Adding methods, Creating objects, Accessing class members, Constructors, Method overloading, Static members, Nesting of methods;

UNIT III

INHERITANCE: Extending a class, Overloading methods, Final variables and methods, Final classes, Abstract methods and classes;

ARRAYS, STRINGS AND VECTORS: Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes;

INTERFACES: MULTIPLE INHERITANCE: Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables;

UNIT IV

MULTITHREADED PROGRAMMING: Introduction, Creating Threads, Extending the Threads, Stopping and Blocking a Thread, Lifecycle of a Thread, Using Thread Methods, Thread Exceptions, Thread Priority, Synchronization, Implementing the 'Runnable' Interface.

MANAGING ERRORS AND EXCEPTIONS: Types of errors : Compile-time errors, Run- time errors, Exceptions, Exception handling, Multiple Catch Statements, Using finally statement,

UNIT V

APPLET PROGRAMMING: local and remote applets, Applets and Applications, Building Applet code, Applet Life cycle: Initialization state, Running state, Idle or stopped state, Dead state, Display state.

PACKAGES: Introduction, Java API Packages, Using System Packages, Naming conventions, Creating Packages, Accessing a Package, using a Package.

MANAGING INPUT/OUTPUT FILES IN JAVA: Introduction, Concept of Streams, Stream classes, Byte Stream Classes, Input Stream Classes, Output Stream Classes, Character Stream classes: Reader stream classes, Writer Stream classes, Using Streams, Reading and writing files.

REFERENCES BOOKS:

1. E.Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGraw-Hill Company.
2. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series, TATA McGraw-Hill Company.
3. Deitel &Deitel. Java TM: How to Program, PHI (2007)
4. Java Programming: From Problem Analysis to Program Design- D.S Mallik
5. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press (2008)

RECOMMENDED CO-CURRICULAR ACTIVITIES:

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E. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
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F. General

1. Group Discussion
2. Try to solve MCQ's available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,

3. Problem-solving exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports.
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

Semester	Course Code	Course Title	Hours	Credits
III	**C3-P**	OOP's Through JAVA Lab	**30**	**2**

1. Write a program to perform various String Operations
2. Write a program on class and object in java
3. Write a program to illustrate Function Overloading & Function Overriding methods in Java
4. Write a program to illustrate the implementation of abstract class
5. Write a program to implement Exception handling
6. Write a program to create packages in Java
7. Write a program on interface in java
8. Write a program to Create Multiple Threads in Java
9. Write a program to Write Applets to draw the various polygons
10. Write a program which illustrates the implementation of multiple Inheritance using interfaces in Java
11. Write a program to assign priorities to threads in java

Semester	Course Code	Course Title	Hours	Credits
IV	**C4**	**HTML, CSS & Java Script**	**60**	**3**

Course Objectives

Creation of static web pages using CSS and Java script

Course Outcomes

Upon successful completion of the course, a student will be able to:

1. Create a static webpage.
2. Acquainted with HTML basic tags, frames, lists, table, etc.
3. Create a webpage using cascading style sheets and HTML.
4. Validate web pages with the help of javascript

UNIT I

HTML: Introduction to HTML, CSS, JavaScript. HTML structure, elements, attributes, headings, paragraphs, styles, HTML formatting, Quotations, Comments, images, tables, lists, blocks and classes, HTML CSS, HTML frames, file paths, layout, symbols, HTML responsive.

UNIT II

HTML forms: HTML form elements, input types, input attributes, HTML5, HTML graphics, HTML media – video, audio, plug ins, youtube. **HTML API'S :** Geolocation, Drag/drop, local storage, HTML SSE.

UNIT III

CSS: CSS home, introduction, syntax, colours, back ground, borders, margins, padding, height/width, text, fonts, icons, tables, lists, position, over flow, float, CSS combinators, pseudo class, pseudo elements, opacity, tool tips, image gallery, CSS forms, CSS counters, CSS responsive.

UNIT IV

An introduction to Java Script: What is dynamic html, Java Script, Javascript—The basics, Variables, String manipulation, Mathematical functions, Statements, Operators, Arrays, Functions.

UNIT V

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.

REFERENCE BOOKS

1. Chris Bates, Web Programming Building Internet Applications, Second Edition, Wiley (2007)
2. Paul S.Wang Sanda S. Katila, An Introduction to Web Design Plus Programming, Thomson(2007).
3. Robert W.Sebesta, Programming the World Wide Web, Third Edition, Pearson Education (2007).
4. Thomas A.Powell, The Complete Reference HTML & XHTML, Fourth Edition, Tata McGraw Hill (2006).
5. Abders Moller and Michael Schwartzbach, An Introduction to XML and Web Technologies, Addison Wesley (2006).
6. Joel Sklar, Principles of Web Design, Thomson (2007).

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G. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
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4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

H. General

1. Group Discussion
2. Try to solve MCQ's available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills.
6. Individual and group project reports like "Create a web page for a shopping mall".
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

Semester	Course Code	Course Title	Hours	Credits
IV	**C4-P**	**HTML, CSS and JavaScript lab**	**30**	**2**

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. Write a Program in Java Script to add two numbers.
11. Write a script to find the factorial of a given number usingfunctions.
12. Write a script to print all primes with in the given range.
13. Write a program to sort the array elements using "Bubble Sort" technique.
14. Write a program in Java Script to implement "Binary Search" technique.
15. Write a script to print all perfect numbers with in the given range.
16. Using DHTML, invert the behavior of <h1> to <h6> tags.
17. Create an inline style sheet for your web page.
18. Create an external style sheet for creating a font family.
19. Illustrate the creation of embedded style sheet.

II YEAR IV SEMESTER
PHP & My SQL

Semester	Course Code	Course Title	Hours	Credits
IV	C5	PHP & MySQL	60	3

Course Objectives

To introduce the concept of PHP and to give basic Knowledge of PHP. Learn about PHP Syntax., Arrays, PHP Loops, PHP and MySQL connectivity, PHP form validation, PHP form handling. Overview of MySQL and PHPMyAdmin, Understand basic concepts of how a database stores information via tables, Understanding of SQL syntax used with MySQL, Learn how to retrieve and manipulate data from one or more tables, Know how to filter data based upon multiple conditions, Updating and inserting data into existing tables, Learning how the relationships between tables will affect the SQL, The advantages of store procedures with storing data using variables and functions, How SQL can be used with programming languages like PHP to create dynamic websites for visitors, Review of some sample PHP projects interacting with MySQL.

Course Outcomes

After completing this course satisfactorily, a student will be able to:

1. Introduction to web development with PHP
2. How to code a PHP application
3. Introduction to relational databases and MySQL
4. How to use PHP with a MySQL database
5. How to use the MVC pattern to organize your code
6. How to test and debug a PHP application
7. How to work with form data
8. How to code control statements
9. How to work with strings and numbers
10. How to work with dates
11. How to create and use arrays
12. How to work with cookies and sessions
13. How to create and use functions
14. How to use regular expressions, handle exceptions, and validate data

Unit-1:

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.

Unit-2:

Working with Arrays: What are Arrays?, Creating Arrays, Some Array-Related Functions. **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.

Unit-3:

Working with Forms: Creating Forms, Accessing Form Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads**. 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, Using Sessions in an Environment with Registered Users.

Unit-4:

Working with Files and Directories: Including Files with inclue(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories, Open Pipes to and from Process Using popen(), Running Commands with exec(), Running Commands with system() or passthru().

Working with Images: Understanding the Image-Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images, Image Creation from User Input.

Unit-5:

Interacting with MySQL using PHP: MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data. **Creating an Online Address Book:** Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Sub-entities to a Record.

REFERENCE BOOKS

1. **Julie C. Meloni, PHP MySQL and Apache, SAMS Teach yourself, Pearson Education (2007).**
2. **Xue Bai Michael Ekedahl, The web warrior guide to Web Programming, Thomson (2006).**

RECOMMENDED CO-CURRICULAR ACTIVITIES:

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I.Measurable

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3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

J. General

1. Group Discussion
2. Try to solve MCQ's available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports like building a complete website with a back end database.
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

semester	Course Code	Course Title	Hours	Credits
IV	C5-P	PHP & MySql LAB	30	2

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 snames 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 suppler 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.

Print the names and ages of each employee who works in both Hardware and Software departments.

1. For each department with more than 20 full time equivalent employees (i.e., where the part-time 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.
2. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.
3. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.
4. Find the enames of managers who manage the departments with largest budget.
5. 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.
6. Find the managerid's of managers who control the highest amount.
7. 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.
        d) Delete the user if he spent more than 100 Hrs of transaction.