



**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY::PUTTUR
(AUTONOMOUS)**

Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)



Subject with Code: Web Technologies (25MC9124)

Course & Branch: MCA

Year & Sem: II-MCA & I-Sem

Regulation: R25

**UNIT –I
INTRODUCTION TO PHP AND FILE HANDLING IN PHP**

1	a)	Explain the different data types supported in PHP with suitable examples.	[L2][CO1]	[6M]
	b)	Illustrate the declaration and manipulation of Variables, and Strings in PHP with an example program.	[L3][CO1]	[6M]
2	a)	Explain the different types of Arrays available in PHP with suitable examples.	[L2][CO1]	[6M]
	b)	Write a PHP program to create an indexed array of 10 integers and display the largest and smallest elements.	[L3][CO1]	[6M]
3		Explain important string handling functions in PHP with suitable examples.	[L2][CO1]	[12M]
4	a)	Compare for, while and do-while control structures in PHP with suitable examples.	[L4][CO1]	[6M]
	b)	Develop a PHP program that identifies and prints all prime numbers from 1 to 50 using looping and conditional statements.	[L6][CO1]	[6M]
5		Design a PHP program to read and display data entered through various HTML form controls such as text boxes, radio buttons, check boxes, and list boxes.	[L6][CO2]	[12M]
6	a)	Explain the concept of sessions and cookies in PHP.	[L4][CO2]	[6M]
	b)	Write a PHP program to maintain user login information using sessions and cookies.	[L3][CO2]	[6M]
7	a)	Explain the different file opening modes and closing available in PHP with suitable examples.	[L2][CO2]	[6M]
	b)	Develop a PHP program to create a text file, write data into it, and display its contents.	[L6][CO2]	[6M]
8	a)	Describe the various file handling functions in PHP used for opening, reading, writing, appending, and closing files.	[L2][CO2]	[6M]
	b)	Write a PHP program to append new data to an existing text file and display the updated file contents.	[L3][CO2]	[6M]
9	a)	Explain the directory handling functions in PHP. Write the syntax and purpose.	[L2][CO2]	[6M]
	b)	Develop a PHP program to copy the contents of one file to another and display a success message after completion.	[L6][CO2]	[6M]
10	a)	Explain the methods used for handling binary files in PHP. Compare text file handling and binary file handling.	[L4][CO2]	[6M]
	b)	Write a PHP program to delete a file and display all files available in a specified directory.	[L3][CO2]	[6M]

UNIT –II
HTML AND XML

1	a)	Explain the basic structure of an HTML document. Describe the purpose of commonly used HTML tags with suitable examples.	[L2][CO3]	[6M]
	b)	Describe the purpose of HTML font formatting tags with suitable examples.	[L2][CO3]	[6M]
2	a)	Differentiate between Ordered List, Unordered List, and Description List in HTML with suitable examples.	[L4][CO3]	[6M]
	b)	Write an HTML program to create a nested list displaying the departments and courses offered by a college.	[L3][CO3]	[6M]
3	a)	Explain the structure of an HTML table. Describe the table tags with examples.	[L2][CO3]	[6M]
	b)	Develop an HTML program to create a timetable using tables with rowspan and colspan attributes.	[L6][CO3]	[6M]
4	a)	Explain the HTML tag and its attributes with suitable examples.	[L2][CO3]	[6M]
	b)	Write an HTML program to create an image gallery where each image acts as a hyperlink to another web page.	[L3][CO3]	[6M]
5	a)	Explain the purpose of HTML forms and describe the commonly used form controls with suitable examples.	[L2][CO3]	[6M]
	b)	Develop an HTML program to design a student registration form using appropriate form controls.	[L6][CO3]	[6M]
6	a)	Explain Cascading Style Sheets. Discuss the advantages of CSS in web page design.	[L2][CO3]	[6M]
	b)	Compare Inline, Internal, and External CSS with suitable examples.	[L4][CO3]	[6M]
7	a)	Define XML. Explain the features and advantages of XML over HTML.	[L2][CO4]	[6M]
	b)	Write an XML document to represent student information using appropriate tags and attributes.	[L3][CO4]	[6M]
8	a)	Explain XML attributes and elements. Compare them with suitable examples.	[L4][CO4]	[6M]
	b)	Explain XHTML. Compare HTML and XHTML with suitable examples.	[L4][CO4]	[6M]
9	a)	Explain the purpose and structure of Document Type Definition. Write an example DTD for a student database.	[L2][CO4]	[6M]
	b)	Compare XML DTD and XML Schema with suitable examples.	[L4][CO4]	[6M]
10	a)	Explain the Document Object Model. Describe the DOM tree structure with a neat diagram.	[L2][CO4]	[6M]
	b)	Explain XML parsing. Differentiate between DOM Parser and SAX Parser in Java.	[L4][CO4]	[6M]

UNIT –III

INTRODUCTION TO SERVELTS

1	a)	Explain the Common Gateway Interface and discuss its limitations that led to the development of servlets.	[L2][CO5]	[6M]
	b)	Write a Java Servlet program to display "Welcome to Java Servlets" using the HttpServlet class.	[L3][CO5]	[6M]
2	a)	Describe the complete life cycle of a servlet with a neat diagram.	[L1][CO5]	[6M]
	b)	Explain the Servlet API with its important interfaces and classes.	[L2][CO5]	[6M]
3	a)	Explain the init(), service(), and destroy() methods of the servlet life cycle with example code.	[L2][CO5]	[6M]
	b)	Discuss the steps involved in deploying a servlet in a web application, with reference to the WEB-INF directory structure.	[L2][CO5]	[6M]
4	a)	Differentiate between GenericServlet and HttpServlet with suitable examples.	[L4][CO5]	[6M]
	b)	Write a servlet program to read parameters submitted through an HTML form using getParameter() and getParameterValues().	[L3][CO5]	[6M]
5	a)	Explain how initialization parameters are declared in the deployment descriptor and read using ServletConfig.	[L2][CO5]	[6M]
	b)	Differentiate between request parameters and initialization parameters with suitable examples.	[L4][CO5]	[6M]
6	a)	Explain the doGet() and doPost() methods of HttpServlet with a suitable example.	[L2][CO5]	[6M]
	b)	Write a servlet to handle an HTTP GET request and generate a dynamic HTML response.	[L3][CO5]	[6M]
7	a)	Explain the purpose and key methods of the HttpServletRequest and HttpServletResponse interfaces.	[L2][CO5]	[6M]
	b)	Describe how cookies are created, sent, and retrieved in a servlet with a program example.	[L3][CO5]	[6M]
8	a)	Explain the HttpSession interface and demonstrate how session tracking is implemented in a servlet.	[L3][CO5]	[6M]
	b)	Compare cookies and sessions as mechanisms for maintaining state in web applications.	[L4][CO5]	[6M]
9	a)	Explain the steps involved in connecting a servlet to a database using JDBC.	[L2][CO5]	[6M]
	b)	Write a servlet program to insert and retrieve records from a database table using JDBC.	[L3][CO5]	[6M]
10		Design a servlet-based application to register student details into a database and display them in a tabular format.	[L6][CO5]	[12M]

UNIT –IV
INTRODUCTION TO JSP

1	a)	Explain the anatomy of a JSP page with its basic structure.	[L1][CO5]	[6M]
	b)	Describe the JSP processing life cycle and how a JSP page is translated and executed.	[L2][CO5]	[6M]
2	a)	Explain JSP declarations with an example illustrating variable and method declaration.	[L2][CO5]	[6M]
	b)	Discuss the different types of JSP directives with suitable examples.	[L2][CO5]	[6M]
3	a)	Explain JSP expressions and demonstrate their use with a suitable example.	[L2][CO5]	[6M]
	b)	Write a JSP code snippet to display the current date and time on a web page.	[L3][CO5]	[6M]
4	a)	List and explain the implicit objects available in JSP.	[L1][CO5]	[6M]
	b)	Explain the role of the request and response implicit objects with suitable examples.	[L2][CO5]	[6M]
5	a)	Describe how JavaBeans are used in JSP pages with the <jsp:useBean> tag.	[L2][CO5]	[6M]
	b)	Write a JSP program that uses a JavaBean to display student registration details.	[L3][CO5]	[6M]
6	a)	Explain how cookies are used for session tracking in JSP with a program example.	[L3][CO5]	[6M]
	b)	Explain the use of the session implicit object for session tracking in JSP.	[L2][CO5]	[6M]
7	a)	Differentiate between JSP declarations, scriptlets, and expressions.	[L4][CO5]	[6M]
	b)	Explain the steps involved in connecting to a database in JSP using JDBC.	[L2][CO5]	[6M]
8	a)	Write a JSP program to retrieve and display records from a database table.	[L3][CO5]	[6M]
	b)	Compare JSP and Servlets in terms of development approach and maintainability.	[L4][CO5]	[6M]
9	a)	Explain the out implicit object and demonstrate its use in generating dynamic content.	[L2][CO5]	[6M]
	b)	Discuss the page and include directives with suitable examples.	[L2][CO5]	[6M]
10	a)	Design a JSP-based login application that validates user credentials against a database.	[L6][CO5]	[6M]
	b)	Illustrate with a diagram how a JSP page gets converted into a servlet during execution.	[L4][CO5]	[6M]

UNIT –V
CLIENT-SIDE SCRIPTING

1	a)	Explain the features of JavaScript as a client-side scripting language.	[L1][CO6]	[6M]
	b)	Discuss the rules for declaring variables in JavaScript with suitable examples.	[L2][CO6]	[6M]
2	a)	Explain the scope of variables in JavaScript with suitable examples.	[L2][CO6]	[6M]
	b)	Write a JavaScript function to validate an email address entered in a form.	[L3][CO6]	[6M]
3	a)	Explain different ways of defining functions in JavaScript with examples.	[L2][CO6]	[6M]
	b)	Write a JavaScript program to calculate the factorial of a number using a function.	[L3][CO6]	[6M]
4	a)	Explain event handlers in JavaScript with examples of onclick and onsubmit.	[L2][CO6]	[6M]
	b)	Write a JavaScript program to change the background color of a webpage when a button is clicked.	[L3][CO6]	[6M]
5	a)	Explain the Document Object Model and how JavaScript is used to manipulate HTML elements.	[L2][CO6]	[6M]
	b)	Write a JavaScript program to dynamically add and remove list items using DOM manipulation.	[L3][CO6]	[6M]
6	a)	Discuss the different types of form validation that can be performed using JavaScript.	[L2][CO6]	[6M]
	b)	Write a JavaScript program to validate that all required fields in a registration form are filled before submission.	[L3][CO6]	[6M]
7	a)	Explain the difference between var, let, and const in JavaScript variable declaration.	[L4][CO6]	[6M]
	b)	Design a JavaScript-based form that validates username, password, and confirm-password fields.	[L6][CO6]	[6M]
8	a)	Explain how JavaScript can be used to access and modify the properties of HTML elements using the DOM.	[L2][CO6]	[6M]
	b)	Write a JavaScript program to display a confirmation dialog box before form submission.	[L3][CO6]	[6M]
9	a)	Compare client-side scripting with server-side scripting, highlighting the role of JavaScript.	[L4][CO6]	[6M]
	b)	Explain how the onload and onchange event handlers are used in JavaScript with suitable examples.	[L2][CO6]	[6M]
10	a)	Illustrate with an example how JavaScript can be used to validate numeric and alphabetic input in a form.	[L4][CO6]	[6M]
	b)	Design an interactive web page using JavaScript that validates a complete registration form including name, email, phone number, and password.	[L6][CO6]	[6M]

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