

A9.2-R5.1 : WEB APPLICATION DEVELOPMENT USING PHP

DURATION : 03 Hours

MAXIMUM MARKS : 100

OMR Sheet No. :

Roll No. :

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Answer Sheet No. :

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Name of Candidate : _____ ; **Signature of Candidate :** _____

INSTRUCTIONS FOR CANDIDATES :

- Carefully read the instructions given on Question Paper, OMR Sheet and Answer Sheet.
- Question Paper is in English language. Candidate has to answer in English language only.
- There are **TWO PARTS** in this Module/Paper. **PART ONE** contains **FOUR** questions and **PART TWO** contains **FIVE** questions.
- **PART ONE** is Objective type and carries **40** Marks. **PART TWO** is Subjective type and carries **60** Marks.
- **PART ONE** is to be answered in the **OMR ANSWER SHEET** only, supplied with the question paper, as per the instructions contained therein. **PART ONE** is **NOT** to be answered in the answer book for **PART TWO**.
- Maximum time allotted for **PART ONE** is **ONE HOUR**. Answer book for **PART TWO** will be supplied at the table when the Answer Sheet for **PART ONE** is returned. However, Candidates who complete **PART ONE** earlier than one hour, can collect the answer book for **PART TWO** immediately after handing over the Answer Sheet for **PART ONE** to the Invigilator.
- **Candidate cannot leave the examination hall/room without signing on the attendance sheet and handing over his/her Answer Sheet to the invigilator. Failing in doing so, will amount to disqualification of Candidate in this Module/Paper.**
- After receiving the instruction to open the booklet and before answering the questions, the candidate should ensure that the Question Booklet is complete in all respects.

DO NOT OPEN THE QUESTION BOOKLET UNTIL YOU ARE TOLD TO DO SO.

PART - ONE

(Answer all questions; each question carries ONE mark)

1. Each question below gives a multiple-choice of answers. Choose the most appropriate one and enter in the "OMR" answer sheet supplied with the question paper, following the instructions therein. **(1x10)**

1.1 Which of the following is a type of website ?

- (A) Static
- (B) Dynamic
- (C) E-commerce
- (D) All of the options

1.2 What does LAMP stand for ?

- (A) Linux, Apache, MySQL, PHP
- (B) Linux, Apache, MySQL, Python
- (C) Linux, Angular, MySQL, PHP
- (D) Linux, Apache, MongoDB, PHP

1.3 Which command is used to create a new directory in Linux ?

- (A) mkdir
- (B) rmdir
- (C) ls
- (D) cd

1.4 In HTML, which tag is used to create a hyperlink ?

- (A) <link>
- (B) <href>
- (C) <a>
- (D) <url>

1.5 Which of the following is NOT a JavaScript data type ?

- (A) String
- (B) Number
- (C) Boolean
- (D) Character

1.6 What is the primary purpose of AJAX ?

- (A) To style web pages
- (B) To enable asynchronous web page updates
- (C) To manage cookies
- (D) To connect to databases

1.7 In PHP, which function is used to include the content of one file into another ?

- (A) include()
- (B) require()
- (C) import()
- (D) both (A) and (B)

1.8 What type of loop will execute at least once ?

(A) for
(B) while
(C) do...while
(D) None

1.9 Which SQL command is used to delete records from a database?

(A) DELETE
(B) REMOVE
(C) DROP
(D) TRUNCATE

1.10 What type of attack is SQL Injection?

(A) A method to authenticate users
(B) An attack that targets web applications by injecting SQL queries
(C) A technique to enhance website performance
(D) A form of data encryption

2. Each statement below is either TRUE or FALSE. Choose the most appropriate one and enter your choice in the "OMR" answer sheet supplied with the question paper, following the instructions therein. (1x10)

2.1 PHP is a client-side scripting language.

2.2 CSS is used to control the layout of web pages.

2.3 MySQL is a NoSQL database.

2.4 JavaScript can manipulate HTML elements through the DOM.

2.5 Sessions and cookies are both used for managing user sessions in web applications.

2.6 HTML5 is the latest version of HTML.

2.7 PHP supports object-oriented programming.

2.8 The GET method appends data to the URL.

2.9 AJAX uses XML for data exchange only.

2.10 Cross-Site Scripting (XSS) is a security vulnerability that allows attackers to inject scripts into web pages viewed by other users.

3. Match words and phrases in column X with the closest related meaning/words(s)/phrase(s) in column Y. Enter your selection in the "OMR" answer sheet supplied with the question paper, following the instructions therein. (1x10)

X		Y	
3.1	PHP	A	Cascading Style Sheets
3.2	HTML	B	Asynchronous JavaScript and XML
3.3	MySQL	C	Hypertext Pre-processor
3.4	CSS	D	Structured Query Language
3.5	AJAX	E	Database Management System
3.6	GET	F	Security vulnerability
3.7	POST	G	CSS framework for responsive design
3.8	SQL Injection	H	Highlevel Text Markup Language
3.9	JavaScript	I	Appends data to the URL
3.10	Bootstrap	J	Sends data in the body of the request
		K	Client-side scripting language
		L	Hypertext Markup Language
		M	Asynchronous Java Server with XML

4. Each statement below has a blank space to fit one of the words(s) or phrase(s) in the list below. Enter your choice in the "OMR" answer sheet supplied with the question paper, following the instructions therein. (1x10)

A	server	B	XML	C	GET
D	<form>	E	Is	F	mysqli_connect()
G	CSRF	H	Loop	I	Website
J	Cookie	K	Client	L	Session
M	Post				

4.1 The _____ is a collection of web pages served from a single web server.

4.2 The _____ command in Linux is used to list files in a directory.

4.3 In HTML, the _____ tag is used for creating a form.

4.4 The _____ method in PHP is used to retrieve form data sent via the URL.

4.5 A _____ is a mechanism for storing information about a user's session on the client side.

4.6 _____ is a subset of SGML.

4.7 PHP code is executed on the _____ side of a web application.

4.8 The _____ function in PHP is used to establish a connection to a MySQL database.

4.9 Cross-Site Request Forgery (CSRF) is a type of _____ vulnerability.

4.10 The _____ structure in PHP allows you to execute a block of code repeatedly.

PART - TWO
(Answer any FOUR Questions)

5. (a) Describe the different types of websites and explain the characteristics of static and dynamic websites.

(b) Explain the architecture of a web application using the LAMP stack. Discuss the role of each component in this architecture. (8+7)

6. (a) Discuss the key features of the Linux operating system and its advantages for web development.

(b) Explain the installation process of PHP and MySQL on a Linux server. Include steps for configuring Apache server. (8+7)

7. (a) Explain the concept of HTML forms and describe the various input types and their attributes.

(b) Discuss the role of CSS in web design. Provide examples of different CSS properties and how they affect the appearance of HTML elements. (8+7)

8. (a) Describe the various techniques for client-side validation using JavaScript. Provide examples of common validation scenarios.

(b) Explain AJAX and its importance in modern web applications. Discuss how it enhances user experience by allowing asynchronous updates. (8+7)

9. (a) Explain the concepts of session and cookie management in web applications. Discuss their differences and how they can be used for authentication.

(b) Discuss common security vulnerabilities in web applications, including SQL Injection and Cross-Site Scripting (XSS). Explain strategies to mitigate these vulnerabilities. (8+7)

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SPACE FOR ROUGH WORK

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