



**K. K. Wagh Institute of Engineering Education and Research,
Nashik**

(An Autonomous Institute from A. Y. 2022-23)

MARKING SCHEME

Exam Seat No.:

End-Sem Examination-I

Winter 2025

Academic Year: 2025-26

Sem: I

Class: F.YMCA

Program: MCA

Branch Code:09

Pattern: 2024

Name of Course: Web Technologies

Course Code: 2409513

Max. Marks: 60

Duration: 2:30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

(keep space)

1. This question paper contains 2 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome

Q. No.	Details	Max. Marks	CO No.	BT Level
Q.1	a) Describe how HTML5 is used in modern web development and explain in what ways it improves the user experience compared to older versions of HTML. (6 Marks) ➤ Explanation on the role of HTML5 = 3 Marks ➤ Explanation on how it enhances user experience = 3 Marks	[6]	CO1	L2
Q.2	a) Write and apply a JavaScript function to determine whether a given number is even or odd, and demonstrate how the logic works with an example. (6 Marks) ➤ Code = 4 Marks	[6]	CO2	L3



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	<p>➤ Their Explanation = 2 Marks</p>			
Q.3	<p>a) Use real-world scenarios to illustrate how XML and JSON can be applied, and explain how their advantages and disadvantages affect their usage in those situations. (8 Marks)</p> <p>➤ Advantages of XML and JSON = 4 Marks ➤ Disadvantages of XML and JSON = 4 Marks</p> <p align="center">OR</p> <p>b) Describe JSON documentation. Illustrate how JSON elements are documented with acceptable values, data types, and nesting rules. Provide an example of documentation for a JSON object. (8 Marks)</p> <p>➤ Explanation of Json Documentation = 4 Marks ➤ Example = 4 Marks</p>	[16]	CO3	L3
	<p>c) Develop a sample JSON file for a library system and demonstrate how it can be applied in practice. Then, explain how its structure and usage differ from an equivalent XML representation (8marks)</p> <p>➤ Code for JSON File = 5 Marks ➤ Their Comparison = 3 Marks</p> <p align="center">OR</p> <p>d) What is JSON? Demonstrate the working of JSON with a practical example. (8 marks)</p> <p>➤ Explanation on JSON = 4 Marks ➤ Example = 4 Marks</p>		CO3	L3
Q.4	<p>a) How would you implemmt the control statements in PHP with a focus on if-else, switch, and foreach, using suitable example. (8 marks)</p> <p>➤ Explanation of Control Statements = 5 Marks ➤ Example = 3 Marks</p> <p align="center">OR</p> <p>b) Develop a PHP script to insert form data (name, email) into a MySQL database. Explain its flow and error handling.</p>	[16]	CO4	L3



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	(8 marks)			
	<ul style="list-style-type: none"> ➤ PHP script = 4 Marks ➤ Explanation of its Flow = 4 Marks 			
	<p>c) How to create and use a PHP array concept which helps to store student scores and calculate the average using a loop.</p> <ul style="list-style-type: none"> ➤ Code = 5 Marks ➤ Their Explanation = 3 Marks <p align="center">OR</p> <p>d)) Design a sample MySQL database schema for a small application, and then implement it in PHP by writing and executing SQL queries to insert, retrieve, and update data. Demonstrate the implementation with working PHP code and explain how each part of the code applies the schema and performs the database operations. (8marks)</p> <ul style="list-style-type: none"> ➤ Implementation of Database = 4 Marks ➤ SQL Queries = 4 Marks 	CO4	L3	
Q.5	<p>a) Explain how ASP processes a client request. Illustrate the role of core ASP objects in managing user input. Provide an example of a simple ASP form processing. (8 marks)</p> <ul style="list-style-type: none"> ➤ Explanation of ASP Processes = 4 Marks ➤ Example = 4 Marks <p align="center">OR</p> <p>b) Describe the stages of the JSP lifecycle and apply your understanding by explaining how these stages help in designing efficient JSP pages. (8 marks)</p> <ul style="list-style-type: none"> ➤ Each Stage = 1 * 7 = 7 Marks ➤ Their Explanation = 1 Marks 	[16]	CO5	L3
	<p>c) Apply your understanding of the .NET Framework by identifying the features that support rapid web application</p>		CO5	L3



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<p>development in ASP.NET Web Forms and MVC, and demonstrate how the page lifecycle differs when these two approaches are used in real development scenarios. (8marks)</p> <ul style="list-style-type: none">➤ Key .NET Framework features for web development = 4 Marks➤ Lifecycle differences: 4 Marks <p style="text-align: center;">OR</p> <p>d) Illustrate the role of the <code>form</code> tag in ASP and how it supports server-side scripting in web applications. (8marks)</p> <ul style="list-style-type: none">➤ Role of Form tag Explanation = 5 Marks➤ Their Example = 3 Marks			
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