



**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.Y

Program: MCA

Branch Code:09

Pattern: 2022

Name of Course: Web Technology

Course Code: MCA221004

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 indicate the Course Outcome.

| Q. No. | Details | Stepwise Marks | Max. Marks | CO No. |
|--------|--|--|------------|--------|
| Q.1 | Explain how headings, paragraphs, line breaks, colors, and fonts are used in HTML5 (give a one-line example for each). Ans: Headings Paragraphs Line breaks Colors Fonts | mark 1 mark 1 mark 1 mark 1 mark | [6] | CO1 |
| Q.2 | Apply JavaScript number, string, and array properties to create a small script that prints one example of each. Ans: Number property String property Array property Working script | 1 mark 1 mark 1 mark 3 mark | [6] | CO2 |
| Q.3 | a) Apply XML rules to create a small XML document showing structure, entity references, and a DTD. (8 Marks) Ans: XML rules explanation XML document structure Entity references DTD creation <p style="text-align: center;">OR</p> b) Use the differences between XML and HTML to reorganize a sample webpage into XML format. (8 Marks) Ans: XML vs HTML differences explained Rewritten XML example | 2 marks 2 marks 2 marks 2 marks 4 marks 4 marks | [16] | CO3 |
| | c) Apply JSON concepts to create a JSON file and show how element nesting and acceptable values work. (8 Marks) Ans: JSON structure theory Nesting explanation | 3 marks 3 marks | | CO3 |



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|------------|--|---|------|-----|
| | <p>Multiple data types</p> <p align="center">OR</p> <p>d) Use JSON formatting methods to document a JSON element, showing an alternative to standard indenting. (8 Marks)</p> <p>Ans: Explanation of JSON formatting & purpose Description of standard indentation vs alternative methods Example using JSON.stringify() formatting options Example of alternative formatting (minified / custom spacing)</p> | <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> | | |
| | <p>a) Apply PHP basics to build a small web page showing strings, numbers, and control statements. (8 marks)</p> <p>Ans: PHP introduction String & number variables Control structure usage</p> <p align="center">OR</p> <p>b) Use PHP arrays and functions to process and display a set of user inputs. (8 marks)</p> <p>Ans: Explanation of PHP arrays Explanation of PHP functions Example program using array + function Output/processing explanation</p> | <p>2 marks</p> <p>2 marks</p> <p>4 marks</p> <p>2 marks</p> <p>2 marks</p> <p>3 marks</p> <p>3 marks</p> | | CO4 |
| Q.4 | <p>c) Apply web-app architecture rules to arrange the structure of a simple PHP application. (8marks)</p> <p>Ans: Explanation of web-app architecture concept Explanation of MVC / layered approach Proper folder structure for a PHP application – 2 marks Short example showing how files interact</p> <p align="center">OR</p> <p>d) Use PHP and SQL together to design a small database and run a basic MySQL query. (8 marks)</p> <p>Ans: Database theory SQL table creation PHP query execution</p> | <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> <p>3 marks</p> <p>3 marks</p> <p>2 marks</p> | [16] | CO4 |
| Q.5 | <p>a) Apply Angular components, templates, and data binding to build a small interactive UI. (8 marks)</p> <p>Ans: Component explanation Template + data binding Example</p> <p align="center">OR</p> <p>b) Use NgModule and directives (structure & template) to organize and control an Angular page. (8 marks)</p> <p>Ans: Meaning & purpose of NgModule Structural directives explanation Template directives explanation Short Angular example showing NgModule + directives</p> | <p>3 marks</p> <p>3 marks</p> <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> | [16] | CO5 |



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|--|--|---|--|------------|
| | <p>c) Apply Angular forms and services by creating a form and injecting a service to process the data. (8marks)</p> <p>Ans:</p> <p>Angular Forms concept</p> <p>Angular Services concept</p> <p>Example of form + service</p> <p>Explanation of interaction</p> <p style="text-align: center;">OR</p> <p>d) Use API methods (GET, POST, PUT, DELETE) to connect an Angular app to a backend server. (8 marks)</p> <p>Ans:</p> <p>API/HTTP methods explanation</p> <p>Angular HttpClient usage</p> <p>Code sample of all four methods</p> <p>Short explanation</p> | <p>2 marks</p> <p>2 marks</p> <p>3 marks</p> <p>1 marks</p> <p>2 marks</p> <p>2 marks</p> <p>3 marks</p> <p>1 marks</p> | | <p>CO5</p> |
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