



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:III
Class:PG-II	Program:MCA
Branch Code:M.C.A.	Pattern:2024
Name of Course:Full Stack Development	Course Code:2409603
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.

1. This question paper contains Two 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 and level of Blooms Taxonomy of the Question/sub-question.

Marks CO

Question No. 1

- 1a) Explain what a Map object is in JavaScript and how a Map differs from a regular JavaScript object. (6) CO1

Question No. 2

- 2a) Write a Node.js program using fs.appendFile() to add the line "This is additional text." to an existing file. (6) CO2

Question No. 3

- 3a) Create an HTTP GET route /info that returns a JSON object with some user information. (8) CO3

OR

- 3b) Design a simple RESTful API using Express.js and explain how it manages users with GET, POST, PUT, and DELETE operations. (8) CO3

- 3c) Set up a basic Express.js server that listens on port 3000 and responds with "Server is running!" when accessed via a browser. (8) CO3

OR

- 3d) Apply the concept of route parameters in Express.js to create a route /users/:id that displays a user's profile based on their ID. Explain how the id parameter is retrieved and utilized to access database records (8) CO3

Question No. 4

- 4a) Create a React functional component with a counter in state and use useEffect with the counter as a dependency to log a message whenever it changes. Explain why specifying the dependency is important. (8) CO4

OR

- 4b) Illustrate the concept of React Components and create a functional component that displays your name. (8) CO4

- 4c) Explain the concept of Routing and Navigation in a React application and demonstrate it with an example of two pages: Home and About, using React Router for navigation. (8) CO4

OR

- 4d) Illustrate React.js and its features by creating a simple Single Page Application (SPA) with at least two components, and explain how React updates the UI without reloading the page. (8) CO4

Question No. 5

- 5a) Draw a simple diagram of MongoDB's architecture and explain how documents and collections are organized. (8) CO5

OR

- 5b) Explain how to update a specific document in a collection. Provide an example query and describe what it does. (8) CO5

- 5c) Create a database named collegeDB and a collection named students. → Insert at least 5 student documents with fields: { name, course, marks, city }. (8) CO5

OR

- 5d) You are creating a Node.js application for a college database. → Write code to connect your Node.js app to a MongoDB database named collegeDB using Mongoose. (8) CO5

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