CB
60:40

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MASTER OF COMPUTER APPLICATIONS (MCA)

EXAMINATION : MAY/JUNE - 2026

SEMESTER – III

Sub : Full Stack Development (MCA24-305)

Date : 2/06/2026 **Total Marks : 60** **Time: 2.00 pm To 4.30 pm**

Instruction:

1. *All questions are compulsory unless and otherwise stated.*
2. *Bold figures to the right of every question are the maximum marks for that question.*
3. *Candidates are advised to attempt questions in order.*
4. *Answers written illegibly are likely to be marked zero.*
5. *Use of scientific calculators, Log tables, Mollier Charts is allowed.*
6. *Draw neat and labelled diagram wherever necessary.*

Q. 1. Answer the following in 2 - 3 lines. (Any 5) **(10)**

1. What is a media query?
2. What is the purpose of loops?
3. Define JSX.
4. What is Node.js?
5. What is MongoDB Atlas?
6. What is a document?
7. Define Mongoose.

Q. 2. Answer the following in short. (Any 4) **(20)**

1. Explain the difference between padding, margin, and border with examples.
2. Explain how to manipulate DOM elements using JavaScript.
3. Explain controlled components with an example.
4. Explain GET, POST, PUT, DELETE with examples.
5. Explain how authentication works using JWT.
6. Explain the structure of a Mongoose schema for a user.

Q. 3. Answer the following in detail. (Any 3) **(30)**

1. Explain Bootstrap components with code examples.
2. Design a form validation system with real-time feedback using DOM.
3. Explain how to fetch data using fetch or axios with a working example.
4. Explain different types of middleware with use cases.
5. Explain aggregation pipelines in MongoDB with examples.