

Reg. No.:

Name :



VIT®

Vellore Institute of Technology

Continuous Assessment Test (CAT - II) – October 2024

Programme	: MCA	Semester	: Fall Semester 2024-25
Course	: Full Stack Web Development	Code	: PMCA601L
Faculty	: Dr. Sandhya P	Class Nbr	: CH2024250103068
Time	: 1 ½ hours	Slot	: A1+TA1
		Max. Marks	: 50

**General Instructions:**

Write only your registration number on the question paper in the box provided and do not write other information.

**Answer all the Questions**

1. Develop a web application using HTML/Javascript/PHP to check the admission status of a student based on entrance exam mark. The web page (index.htm) must have two textboxes to fetch application number and entrance exam mark of the student and a submit button. The web page must also have an empty <div> tag below the submit button. When the details of a student are entered and submitted a PHP script has to respond the admission status as “admitted” or “rejected” assuming the cut-off as greater than or equal to 50 marks. The response must be updated as text in the <div> tag of index.htm page rather than reloading the entire page using AJAX. 10

2. MCA students of VIT are asked to register for placement during second semester. Your HOD has given the task of developing a placement portal for MCA students using node/express as server-side technology and mongodb as backend. Perform the following:

- Write down the steps to develop the project and respective installations to be done. (3 marks)
- Develop the server-side code (3 marks) and assume the database design as given below:
  - The database must have a collection of documents with the register no, name and rank as keys. Write code to create the collection (2 marks) (1)
  - Write middleware with appropriate routes and CRUD operations for displaying all student details, displaying student details based on sorting of ranks in ascending order, inserting the document for one student, deleting a student document based on Object id and updating the rank of a student after re-FAT based on Object-id. (5X2=10 marks) (5)

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NOTE: Assume the inputs are provided through POSTMAN wherever required. Specify the CRUD request and appropriate JSON like inputs for each route. (2 marks)

3. Develop a welcome page for an online restaurant booking system that uses HTML/node.js & express. Write code to fetch the customer id and password from a web form. On submission write the server-side code to verify the credentials and when matched display the text "Welcome <>customer\_id<>" and create an associated session object. The page must contain a simple table of tables free and booked and a hyperlink for logout. The logout hyperlink leads to welcome page when clicked and destroys the associated session object. When the credentials are incorrect redirect to welcome page with appropriate error message. Also specify the installations that needs to be done. 10
4. Develop a dynamic page using React to display a report card of a student. Write an appropriate JSX expression in a stateful class component that displays marks in <h3> tags for three subjects (Maths, Science and English) as "<>Maths<> score: <>99<>". Dynamically add the three subject names and marks as properties in the App component. Add an image of the student after the three marks in the App component. 10