H   Roll No. ....

TMC–304

M. C. A. (THIRD SEMESTER)
END SEMESTER
EXAMINATION, Dec., 2023
FULL STACK WEB DEVELOPMENT

Time : Three Hours
Maximum Marks : 100

Note : (i) All questions are compulsory.

(ii) Answer any *two* sub-questions among (a), (b) and (c) in each main question.

(iii) Total marks in each main question are **twenty**.

(iv) Each sub-question carries 10 marks.

1. (a) What do you understand by full stack development ? Explain the layers of web development process in detail. (CO1)

(b) Explain the components of full stack development in detail with proper example. What is the scope of full stack

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developer in the industry ? Explain in detail.　　　(CO1)

(c) Explain the http request response header with proper diagram. demonstrate the use of XMLHTTPRequest (XHR) object for request response from server.　　(CO1)

2. (a) What do you understand by drag and drop in HTML5 ? Write a program to drag four images of different places and correctly drop into four <div> element labelled with the places name.　　(CO2)

(b) Write a program to 3d Transform an element and rotate 3d 45 degrees, move horizontally and vertically 200px from the original position when mouse hover it, show the smooth transition on the element. consider the origin of the transformation is center- center.　　(CO2)

(c) What is canvas in HTML5 ? Write a program to create a rectangle and draw diagonal line inside rectangle, also write the text "Hello MCA" inside rectangle with blur effect.　　(CO2)

3. (a) What do you mean by two-way data-binding in AngularJs ? Apply two-way data-binding on these conditions.　(CO3)

(i) Change the background color of the web page according to the user entered value inside text field.

(ii) Change the font-size and font-color of the paragraph according to the user entered value inside text field.

(iii) Create a drop-down list and display the selected option value as a heading on the web page.

(b) What are the directives of AngularJs ? Explain the MVC architecture of AngularJs. Write a program to create an array of objects and display the values in tabular form.　　(CO3)

(c) What do you mean by AngularJs services ? View the following modal data on the web page :　　(CO3)

(i) URL of the webpage

(ii) Protocol used

(iii) Host

(iv) Port

(v) Set Timer on the webpage

4. (a) What is component in react ? Create two components and render the JSX elements of components on the web page. (CO4)

(b) What do you understand by Virtual DOM ? Differentiate between Real DOM and Virtual DOM with example. - (CO4)

(c) Write a ReactJs program to create three modules addition, subtraction and multiplication in a file, export all the modules and import in index.js file and display the values of the module on the web page. (CO4)

5. (a) Differentiate between cookies and session ? Write a PHP program which displays login form containing username and password. On submitting the form, displays user information if session has already started otherwise, it displays the message, "please login again". (CO5)

(b) Write a PHP program to upload an image and save the file on the server. (CO5)

(c) Write a PHP program to create a student registration form containing "name, roll no, course and semester" information, save the student entered information on the server and display on the web page in tabular form. Consider roll no as a primary key and make all the fields mandatory.

(CO5)

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