H   Roll No. ....

TCS–693

B. TECH. (CSE) (SIXTH SEMESTER) END SEMESTER EXAMINATION, June, 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) Create a list as given in the diagram below using HTML : (CO1)

Computer System

(1) Input Devices

    (i) Keyboard

    (ii) Mouse

       (iii) Joystick .

       (iv) Scanner

           (a) Flat Bed Scanner

           (b) Hand held Scanner

  (2) Output Devices

       (i) Monitor

           (a) LCD

           (b) CRT

       (ii) Printer

           (a) Impact Printer

           (b) Non-Impact Printer

(b) (i) Create the following structure using HTML tables :

A			
B	C	D	
E		F	G
		H	I

(ii) What are semantic tags in HTML5 ? Explain any 5 semantic tags. (CO1)

(c) Write short notes on the following tags : iframe, textarea, meta and radio with suitable examples.   (CO1)

2. (a) Explain all the css background properties with the help of suitable examples. (CO2)

(b) Explain all five css positioning properties with suitable examples. (CO2)

(c) Explain CSS Box model in detail. Also explain the difference between margin and padding clearly with suitable examples diagrammatically. (CO2)

3. (a) (i) Create an HTML form accepting name, age and nationality (using a radio button) of a person. Using JavaScript, check the following conditions for casting the vote :

(a) the age should be equal to or greater than 18 years and

(b) the nationality should be Indian

(ii) Assume a paragraph containing some dummy text. On the click of a button, modify and then show the content of this paragraph using any *two* Javascript DOM methods. (CO3)

(b) Explain setInterval, clearInterval, setTimeout and clearTimeout methods in Javascript. (CO3)

(c) Write an HTML page that contains a selection box that contains name of 5 projects. Only three students are allowed to work on each project. On selecting a project, the list of students working on it should be displayed. Add CSS to style the list using following properties: text color, bold, font size. (CO3)

4. (a) What is PHP ? Mention 5 reasons why PHP is so popular ? Display in HTML form to the user containing Name, Age and Gender. Write a program in PHP which extracts these values from the form and perform the following server-side validations :

(i) All fields are mandatory.

(ii) Age must be non-negative.

(iii) Name must be between 10 and 20 characters.

If any error is found, display appropriate error message to the user.   (CO4)

) Write a program in PHP which accepts username and password of a user via a form, connects to a database and checks if username-password combination is correct. If correct, show a welcome message to the user, else show an error message to the user, along with a clickable link which will redirect them to the login page.   (CO4)

) Explain 3 differences between cookie and a session. Write a program which displays login form containing username and password. On submitting the form, invoke a PHP script which welcomes the user if cookie has already been set, otherwise it sets the cookie on client's computer for 3 days.   (CO4)

5. (a) Discuss the concepts of effective web design in detail. (CO5)

   (b) (i) Is JSON better than XML ? Explain your answer.

   (ii) Explain HTTP protocol with suitable diagram. (CO5)

   (c) Explain the following : (CO5)

   (i) Ajax with an example

   (ii) Content management systems and it's advantages.