

**SVKM'S NMIMS**  
**MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING/**  
**SCHOOL OF TECHNOLOGY MANAGEMENT**

Academic Year: 2024-2025

Program/s: B.Tech IT/MBA.Tech (IT)/B.Tech Cyber Sec/B.Tech AI  
 &DS/B.Tech AI & ML /MBA.Tech AI/B.TECH\_AI/B.Tech Integ

Year: II/III/IV Year Semester:  
 III/V/VII sem

Stream/s :IT/AI &DS/ AI & ML/AI/Integrated

Subject: Web Programming

Time: 3 hrs (10:00 AM to 1:00 PM)

Date: 05 / 12 / 2024

No. of Pages: 34

Marks: 100

**Final Examination /Re-Examination ( 2023-2024)**  
 (2024-25)

**Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover of the Answer Book, which is provided for their use.**

1. Copy your code, number the questions appropriately, then paste the results after each code in a Doc file.
2. Also place each of your code file in a folder. The Folder name should Name\_RollNO\_SAPID.
3. The folder should contain all code files and Doc file
4. Answer to each new question to be started on a fresh page.
5. All Questions are compulsory.

Q1 CO: 1 &2 SO:2 BL:1&3	Create a <b>website for a reputed Educational Institute</b> that will serve as a hub for students, faculty, and the public. The purpose of the website is to provide information about the institute, courses, admissions, and events. Use <b>HTML, CSS, and JavaScript</b> to design and develop the website. <b>Home Page, Courses Page, Admissions Page and Contact Us Page.</b>	
A	<p>Home page – Contains the links to the internal pages.</p> <p>Design the <b>Home Page</b> of a website for a <b>reputed Educational Institute</b> using <b>HTML and CSS</b>. The page should follow the specified blueprint.</p> <ol style="list-style-type: none"> <li>1. <b>Body Background (3 Marks):</b> <ul style="list-style-type: none"> <li>• Set the <b>body background color</b> to <b>light grey</b>.</li> </ul> </li> <li>2. <b>Heading Alignment (3 Marks):</b> <ul style="list-style-type: none"> <li>• Create a <b>Heading 1</b> at the <b>center of the page</b> with the text <b>"Welcome to [selected] Institute"</b>.</li> <li>• Use <b>"Times New Roman"</b> font for the heading.</li> </ul> </li> <li>3. <b>Paragraph Font Style and Size (3 Marks):</b> <ul style="list-style-type: none"> <li>• Write a <b>paragraph</b> introducing the institute, explaining its <b>mission and vision</b>.</li> <li>• Use <b>Courier New</b> font with a <b>font size of 14px</b>.</li> <li>• Align the paragraph <b>to the left</b>, and set the <b>text color</b> to <b>navy blue</b>.</li> </ul> </li> <li>4. <b>SuperScript and SubScript Example (3 Marks):</b> <ul style="list-style-type: none"> <li>• Include the following formula to represent <b>student enrollment projections</b>:  <b>Enrollment = <math>E \times A^{(n+m)} + \log_x(n)</math></b></li> <li>• Use <b>superscript</b> and <b>subscript</b> tags to format the formula correctly.</li> </ul> </li> <li>5. <b>Font Styling (3 Marks):</b> <ul style="list-style-type: none"> <li>• Apply <b>bold and italic</b> formatting to the <b>first heading</b>.</li> <li>• Set the <b>paragraph text</b> to <b>italic</b> and ensure the <b>font color</b> is <b>dark green</b>.</li> </ul> </li> </ol>	15 M

B	<p><b>Courses Page Design:</b></p> <p><b>1. Create a Table to Display Course Details: (6M)</b></p> <ul style="list-style-type: none"> <li>Use <b>HTML table tags</b> to display the following course information: <ul style="list-style-type: none"> <li><b>Course Name</b></li> <li><b>Duration</b> (in months)</li> <li><b>Number of Seats Available</b></li> <li><b>Instructor Name</b></li> <li><b>Fee Structure</b></li> </ul> </li> <li><b>Add a Row with Column Span:</b> <ul style="list-style-type: none"> <li>The <b>last row</b> of the table should span across <b>all columns</b>, containing the message:  <b>"Admissions Open for the Upcoming Semester!"</b></li> </ul> </li> </ul> <p><b>2. Add the Institute Logo to the Page:(3M)</b></p> <ul style="list-style-type: none"> <li>Place the <b>institute's logo</b> image at the <b>left corner</b> of the page.</li> <li>Set the <b>height and width of the logo</b> to <b>100px by 100px</b>.</li> </ul> <p><b>3. Display the List of Programs Offered:(6M)</b></p> <ul style="list-style-type: none"> <li>Use an <b>unordered list</b> with <b>square bullet points</b> to display the following academic programs:</li> <li>Bachelor of Technology (B.Tech)</li> <li>Master of Business Administration (MBA)</li> <li>Bachelor of Science (B.Sc)</li> <li>Master of Computer Applications (MCA)</li> </ul>	15 M
C	<p><b>Admissions Page:</b></p> <p><b>Design a Box Model Layout for an Admissions Section (10M)</b></p> <p><b>HTML Structure:</b></p> <ol style="list-style-type: none"> <li>Create a <b>div</b> to display the following text:  "Welcome to [Institute Name]! Admissions for the 2024-2025 academic year are now open."</li> <li>Use <b>internal CSS</b> to apply the following <b>Box Model</b> properties to the <code>&lt;div&gt;</code>: <ul style="list-style-type: none"> <li><b>Width:</b> 350px</li> <li><b>Border:</b> 10px dashed blue</li> <li><b>Padding:</b> 30px</li> <li><b>Margin:</b> 25px</li> </ul> </li> </ol>	20M



	<p>3. <b>Apply External CSS</b> (via a separate <b>CSS file</b>) to display above <b>admission text</b>. <b>(10M)</b></p> <ul style="list-style-type: none"> <li>• <b>Font size:</b> 20px</li> <li>• <b>Font color:</b> Dark green (#006400)</li> <li>• <b>Font family:</b> Arial, sans-serif</li> <li>• Style the <b>body</b> with a <b>background color</b> (e.g., light gray)</li> </ul> <p>4. Create a <b>link</b> labeled "<b>Click on Page 3</b>. Use <b>CSS</b> to define the following <b>four link states</b>:</p> <ul style="list-style-type: none"> <li>➤ <b>Normal (unvisited) link:</b> Blue text (#0000FF)</li> <li>➤ <b>Visited link:</b> Purple text (#800080)</li> <li>➤ <b>Hover (mouse over) link:</b> Green text (#008000)</li> <li>➤ <b>Active (clicked) link:</b> Red text (#FF0000)</li> </ul>	
D	<p>1. <b>Question: Create a "Contact Us" Form with Input Validation Using JavaScript (15M)</b></p> <p>Design a <b>Contact Us</b> page for a <b>reputed Educational Institute</b>. The page should include a form where citizens can ask queries. Validate the inputs using <b>JavaScript</b> and display error messages for incorrect entries.</p> <p>Form Fields with Validations:</p> <ul style="list-style-type: none"> <li><b>a) Name:</b> Only characters, cannot be blank.</li> <li><b>b) Age:</b> Must be a 2-digit number only.</li> <li><b>c) Password:</b> Length between 8 to 12 characters, cannot be blank.</li> <li><b>d) Email:</b> Must follow a valid <b>email format</b> (e.g., example@domain.com).</li> <li><b>e) Submit Button:</b> On clicking, JavaScript should validate all fields and display appropriate error messages.</li> </ul> <p>2. <b>Search for the '@' Position in an Email ID on Submit Event (5M)</b></p> <ul style="list-style-type: none"> <li>a) Create an HTML form with a text field to accept an <b>email ID</b>.</li> <li>b) On clicking the <b>submit button</b>, use JavaScript to <b>search for the '@' position</b> in the email string.</li> <li>c) Display the position on the page using <b>DOM manipulation</b>.</li> </ul>	20M

<b>Q2</b> CO: 1 and 3 SO:2 BL:1,2 &3	NodeJs ,Mysql and AngularJs	
A	Display Content from a Text File using Node.js (10M)	10 M

	<ol style="list-style-type: none"> <li>1. Create a <b>text file</b> named <code>initiatives.txt</code> containing information about the <b>initiatives taken by a reputed educational institute</b> (e.g., new courses, events, or scholarships).</li> <li>2. Write a <b>Node.js</b> server that: <ul style="list-style-type: none"> <li>○ <b>Reads the content</b> from the text file using Node's <code>fs</code> module.</li> <li>○ <b>Displays the content</b> both on the <b>browser</b> (via an HTTP server) and in the <b>console</b>.</li> </ul> </li> </ol>	
B	<p><b>Create a MySQL Database and Insert Data Using Node.js (10M)</b></p> <ol style="list-style-type: none"> <li>1. <b>Create a MySQL database</b> named <code>mydb</code>.</li> <li>2. <b>Create a table</b> called <code>Students</code> with the following structure: <ul style="list-style-type: none"> <li>○ <b>id</b>: INT (Auto Increment, Primary Key)</li> <li>○ <b>name</b>: VARCHAR(255)</li> <li>○ <b>course</b>: CHAR(50) (to store the course enrolled)</li> </ul> </li> <li>3. <b>Insert one data entry</b> (student's name and course) into the <code>Students</code> table.</li> <li>4. <b>Display the inserted data</b> on the <b>console window</b> using Node.js.</li> </ol>	10 M
C	<p><b>Create an AngularJS Application to Accept Course Name and Student ID, and Display it on the Web Page (10M)</b></p> <ol style="list-style-type: none"> <li>1. Create a simple <b>AngularJS</b> application that allows the user to input: <ul style="list-style-type: none"> <li>○ <b>Course Name</b></li> <li>○ <b>Student ID</b></li> </ul> </li> <li>2. On entering these values, display the <b>Course Name</b> and <b>Student ID</b> dynamically on the web page.</li> </ol>	10 M