

Time: 2 hour 30 minutes

Max. Marks: 80

| Q1. | Choose the correct option for following questions. All the Questions are compulsory and carry equal marks |
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| 1. | Which element is used to get highlighted text in HTML5? Option A: <u> Option B: Option C: <mark> Option D: <highlight> |
| 2. | <p style="background: red; border: black;"> is the example of----- Option A: External style sheet Option B: Internal style Option C: Class style Option D: Inline style |
| 3. | <script language="javascript"> function x() { document.write(2+5+"8"); } </script> Option A: 258 Option B: Error Option C: 7 Option D: 78 |
| 4. | Which one is not a data type in PHP? Option A: Resources Option B: Objects Option C: Null Option D: Void |
| 5. | Which of the following is true about servlets? Option A: Servlets execute within the address space of web server Option B: Servlets are platform-independent because they are written in java Option C: Servlets can use the full functionality of the Java class libraries Option D: Servlets execute within the address space of web server, platform independent and uses the functionality of java class libraries |
| 6. | Which object stores references to the request and response objects? Option A: SessionContext Option B: pageContext Option C: HttpSession Option D: sessionAttribute |
| 7. | Ajax is about updating _____, without reloading the full-page. Option A: parts of a web page Option B: parts of a database records Option C: parts of a HTML tags dynamically Option D: parts of a CSS classes dynamically |

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| 8. | For What npm stands? |
| Option A: | Node Project Manager |
| Option B: | Node Package Manager |
| Option C: | New Project Manager |
| Option D: | New Package Manager |
| 9. | ReactJS uses _____ to increase performance |
| Option A: | Virtual DOM |
| Option B: | Original DOM |
| Option C: | Both of above |
| Option D: | None of above |
| 10. | Which CSS property can provide to add an effect when changing from one style to another, without using Flash animations or java script? |
| Option A: | Associations |
| Option B: | Transitions |
| Option C: | Transistor |
| Option D: | None of the above |

| Q2. | Solve any Four out of Six | 5 marks each |
|-----|--|--------------|
| A | What is the difference between class selector and ID selector? | |
| B | Explain built-in objects in JavaScript | |
| C | What is session in servlet and list different ways to handle it. | |
| D | Give characteristics of RIA. | |
| E | How to define variable in PHP and explain scope of variables. | |
| F | What is the use of XMLHttpRequest object? Explain methods that are used to send request to server using AJAX | |

| Q3. | Solve any Two Questions out of Three | 10 marks each |
|-----|--|---------------|
| A | Write an external style sheet and link it with HTML code. The stylesheet should include the following i. The web page will have the background image "img1.jpg". ii. The table headings will have red background color. iii. Background color of alternate paragraphs are different. iv. The hyperlinks on the web page will not have underline. | |
| B | Write code to process online Alumni information for your college. Create forms to get name, address, date of birth, and email id. Write JavaScript code to validate the following: i. User has filled all the fields prior to form submission ii. Valid email-id (with '@' and '.') iii. Age validation using DOB (≥ 22 years) | |
| C | What is Servlet and explain the life cycle in detail. | |

| Q4. | | |
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| A | Solve any Two | 5 marks each |
| i. | What are benefits of using JSON over XML data? | |
| ii. | Write a program in JSP to display system date and time. | |
| iii. | List and explain different features of React. | |
| B | Solve any One | 10 marks each |
| i. | Explain <audio> and <video> elements with example in HTML5. | |
| ii. | Create a well formed XML document to maintain Library catalogue. It should contain the name of the book, author, publisher and year of publishing, format it in tabular manner using XSLT. | |