

**Duration: 3hrs**

**[Max Marks:80]**

- N.B. :** (1) Question No 1 is Compulsory.  
(2) Attempt any three questions out of the remaining five.  
(3) All questions carry equal marks.  
(4) Assume suitable data, if required and state it clearly.

**1 Attempt any FOUR**

**[20]**

- a** Explain how JavaScript can hide HTML Elements with suitable example.
- b** If you wanted to send sensitive information like password to the backend which among the GET and the POST method in PHP would you use, justify your answer and distinguish between these methods.
- c** Write a code in React js to display "Hello World".
- d** Write a code to Drag an image from outside the box and Drop it inside the box
- e** What are cookies? And how do cookies work in servlets?

**2 a Create an external Stylesheet and link it to an HTML form, the stylesheet should contain the following, [10]**

- i. An header in text with Red Text Colour and Yellow background colour
- ii. A Double lined (Border) table
- iii. The table should have 5 Rows and 3 Columns
- iv. In the First column Sr. No. of the product, Second Column Image with hyperlink and Name of the Product, and Third Column the description of the product

**b Create a form which has the following fields 'Name', 'Age', 'Email ID', 'Password'. Using Javascript validate each field as follows [10]**

- i. Name should be between A-Z
- ii. Age should be between 0-100
- iii. Email ID should contain '@'
- iv. Password should contain 1 Upper case, 1 Digit, 1 Special character and length should be minimum 8

**3 a Explain how form validation works in PHP, with a suitable example [10]**

**b Explain Basic Internet Protocols which are essential for transferring data and sending emails. [10]**

**4 a Write the AJAX code to read from the text file and displaying it after clicking of a button. [10]**

**b List and Explain the 3 ways to add style sheet (CSS) to an HTML web page with suitable examples. [10]**

- 5 a Draw and explain Servlet Architecture and its Lifecycle. [10]  
b An e-commerce website would like to accept the below mentioned data and [10]  
would like to transfer the data using XML,  
i. Product ID  
ii. Product Name  
iii. Product Cost  
iv. Purchase Date  
v. Purchased by  
vi. Seller Name  
Write the HTML, XML code and DTD for the given data.
- 6 a Write a JSP Program to perform four basic arithmetic operations, Addition, [10]  
Subtraction, Division and Multiplication.  
b Explain Exception handling in Javascript with suitable example. [10]

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