23124

3 Hours / 70 Marks   Seat No. ☐☐☐☐☐☐☐☐

Instructions :   (1)   All Questions are *compulsory.*

            (2)   Illustrate your answers with neat sketches wherever necessary.

            (3)   Figures to the right indicate full marks.

            (4)   Assume suitable data, if necessary.

            (5)   Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

                                                                                  Marks

1.   **Attempt any FIVE :**   **10**

   (a)   State meaning of each token of the following statement and describe it :

       (i)   ++a;

       (ii)   document. bgcolor;

   (b)   Write and explain syntax of prompt() method in JavaScript.

   (c)   List various assignment operators supported by JavaScript, explain any two with the help of suitable example.

   (d)   Differentiate between shift() and push() methods of an Array object.

   (e)   State the meaning of "Defining a function". Explain with the help of an example.

   (f)   Give syntax of and explain the use of small "with" clause.

   (g)   With the help of suitable example explain the Date object and any two methods of Date object.

2.   **Attempt any THREE :**   **12**

   (a)   Write a JavaScript that accepts a number and displays addition of digits of that number in a message box.

(b) Describe the "navigator" object of JavaScript. Describe the methods of navigator object which is used to display browser name and version.

(c) Give syntax of and explain for-in loop in JavaScript with the help of suitable example.

(d) Write an HTML script that accepts Amount, Rate of Interest and Period from user. When user submits the information a JavaScript function must calculate and display simple interest in a message box. (Use formula S.I. = PNR/100)

3. **Attempt any THREE :** 12

(a) Write an HTML Script that displays the following webpage output :

First Number : [   ]

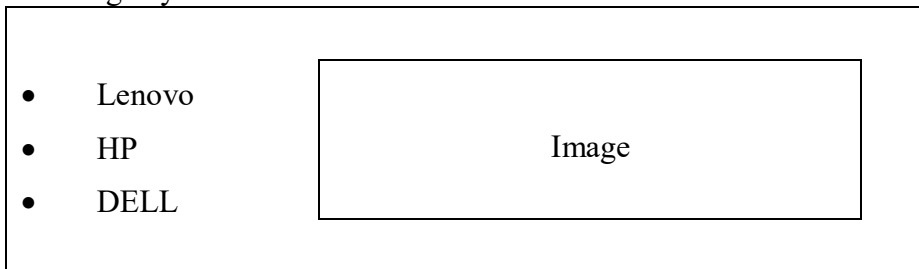Second Number : [   ]

[Add]   [Sub]   [Mul]

The user enters two numbers in respective text boxes. Write a JavaScript such that when user clicks "add", a message box displays sum of two entered numbers, if the user clicks on "sub", message box displays subtraction of two numbers and on clicking "mul" the message box displays multiplication of two numbers.

(b) Write a JavaScript that accepts user's first name and domain name of organization from user. The JavaScript then forms email address as <firstname@domain name> and displays the results in the browser window.

(c) Differentiate between substring() and substr() method of a string class. Give suitable example of each.

(d) State what is a cookie ? Explain its need. State characteristics of persistent cookies.

4. Attempt any THREE : 12

(a) Write a JavaScript that accepts a string and searches for the pattern "MSBTE" in the given string using <u>regular expressions</u>. If the pattern is found, JavaScript will display that "Pattern is found" else display "Pattern is not found".

(b) List and state various properties of a window object. Write a JavaScript that opens a new popup window with message "WELCOME To SCRIPTING" when the page loads and a new popup window displaying message "FUN WITH SCRIPTING" when the page unloads.

(c) Write an HTML script that displays names of different brands of Laptop and an image by default as :

```
+--------------------------------------------------+
|                                                  |
|   • Lenovo        +---------------------------+  |
|                   |                           |  |
|   • HP            |          Image            |  |
|                   |                           |  |
|   • DELL          +---------------------------+  |
|                                                  |
+--------------------------------------------------+
```

When the mouse moves over the specific brand name the script must display the image of respective Laptop in the adjacent box.

(d) Give syntax of and explain the use of SetTime Out( ) function with the help of suitable example.

(e) State the use of hiding the JavaScript. Explain the steps needed to accomplish it and describe the process.

5. Attempt any TWO : 12

(a) Write a JavaScript that demonstrates use of floating menu alongwith respective HTML script.

(b) Form regular expressions for following :

(i) Validation of email address.

(ii) Validation of adhaar card. Format is

dddd – dddd – dddd

(iii) Validation of phone number. Format is

(ddd) – (dddddddd)

(c) Write HTML and respective JavaScript such that

(i) Webpage displays three checkboxes as :

SELECT BEVERAGE : ☐ TEA

☐ COFFEE

☐ SOFT DRINK

(ii) When a beverage is selected a dropdown list with options as below appears on page :

(a) If "TEA" option is checked dropdown list contains

| Green tea |
| Milk tea |
| Black tea |

(b) If "COFFEE" option is selected dropdown list contains.

| Capaccino |
| Latte |
| Expression |

(c) If "SOFT DRINK" option is selected dropdown list contains

| MAAZA |
| SPRITE |
| COCA-COLA |

6. Attempt any TWO :   **12**

(a) List and explain any six form events.

(b) Write a JavaScript that sets a crawling status bar message to the webpage. Message is "Welcome to the Mystic World of JavaScript".

The message must start crawling when the webpage gets loaded.

(c) (i) Design frameset tag for representing following layout :

Frame 1		
Frame 2	Frame 4	Frame 3

(ii) List any three properties of regular expression objects and state their use.

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