This question paper contains 6 printed pages]

(Write your Roll No. on the top immediately on receipt of this question paper.)

This paper contains two sections—Section A and Section B.

Section A is compulsory. It carries **30** marks.

Attempt any *four* questions out of *six* from Section B.

Each question in Section B carries **15** marks.

Parts of a question must be answered together.

Section A

(Compulsory)

1.   (*a*)   Write an HTML tag to set a background image in the body of a webpage. Which attributes are used to control the size of the image on an HTML webpage ? Which attributes takes the text to be displayed in case the browser is unable to display an image specified in the '*src*' attribute of the image tag ?   3

(b) Write a JavaScript code to check whether a number is a multiple of 5.   3

(c) Write a PHP script to print the sum of odd digits of a four-digit number.   4

(d) Differentiate between internal and external linking in HTML with the help of an example.

5

(e) Write HTML code to design the given HTML form with the following validations in JavaScript :   5

(i) **'Student ID'** is a 10-digit alphanumeric value

(ii) **'Name'** should be an alphabetical value (String)

```
        STUDENT REGISTERATION FORM

     Name         [                    ]

     Student ID   [                    ]

     Email        [                    ]

            [      SUBMIT      ]
```

(f) Write the output of the following codes with justification :   5

(i)
```php
<?php  $a = "100";
 $b = "+100";
 if ($a == $b) echo "1";
 if ($a === $b) echo "2"; ?>
```

(ii)
```php
<?php
$a = 1; $b = 0;
echo ($a AND $b);
echo ($a or $b);
echo ($a XOR $b);
echo !$a    ?>
```

(g) Answer the following :   5

(i) Give an example of a paired and unpaired tag in HTML.

(ii) Define WWW.

(iii) Give an example of a right and a left-associative operator in PHP.

(iv) List any *two* datatypes in JavaScript.

(v) What do you mean by 'DOCTYPE' in HTML ?

Section B

2. (a) What will be the output of the following : "100"+200+300 in JavaScript ? Justify your answer.   2

(b) What is an event in JavaScript ? What is the purpose of *'onBlur'* and *'onFocus'* events in JavaScript ?   2

(c) Write a PHP code to find a minimum of three numbers.   3

(d) Differentiate between Pass-by-Value and Pass-by-Reference with the help of an example in PHP.   4

(e) What is the difference between GET and POST methods ? Explain with the help of an example.   4

3. (a) Write an HTML code to display the following list.   5

(1) Web Design and Development

- HTML
- CSS
- JavaScript
- PHP

(2) Programming Languages

(i) C++

(ii) Java

(iii) Python

P.T.O.

(b) Write an event-driven program in JavaScript to take a number as input (in an input text box in an HTML form) and display its multiplication table at the click of a button.

5

(c) Write a PHP program to print the following pattern :   5

```
    *
   * *
  * * *
 * * * *
```

4. (a) Give an example of a dialog box in JavaScript.   2

(b) Write code in HTML to create the following table and display it on a webpage : 4

Station	Temperature		Humidity
	Max	Min	
USA	24	19	60%
Germany	5	-1	70%

(c) Write a program in PHP to calculate the factorial of a number using 'foreach' construct.

4

(d) Write a JavaScript code that reads two numbers in an HTML form (as shown below), and when a 'Submit' button in the form is clicked, their sum is displayed in an alert box.

5

First Number [   ]

Second Number [   ]

SUBMIT

5. (a) Differentiate between the local and global scope of a variable with the help of an example in PHP. 5

(b) Write a JavaScript code to display whether a given number is a prime or not. 5

(c) How does a web browser communicate with a web server ? Explain with the help of a diagram. 5

6. (a) Write a program in PHP to print the sum of the first ten natural numbers. 5

(b) PHP connects to databases using connection objects. Write PHP commands for the following steps : 5

(i) Connect to the MySQL server with the server's name as **'localhost'**; the user's name as **'root'**; and the password as **'test@123'**.

(ii) Connect to a **'Company'** database.

(iii) Create an **'Employee'** table in the **'Company'** database, and insert the record for two employees with (**'Name'**, **'ID'**, **'Salary'**) into the table.

(iv) Display the details of all the employees.

(v) Close the connection.

(c) Write JavaScript code that validates a username and password against the user name **'John Walt'** and password **'abc@123'**. 5

7. (a) Write a PHP function to swap any *two* numbers. 3

(b) Define associative arrays in PHP with the help of an example. 4

P.T.O.

(*c*) Write an HTML code to design the following form : 8

```
┌─────────────────────────────────────────────┐
│            EMPLOYEE SALARY                    │
│                                               │
│      Name          ┌──────────────────┐      │
│                    └──────────────────┘      │
│      Employee ID   ┌──────────────────┐      │
│                    └──────────────────┘      │
│      Email         ┌──────────────────┐      │
│                    └──────────────────┘      │
│      Basic Salary  ┌──────────────────┐      │
│                    └──────────────────┘      │
│      H.R.A.        ┌──────────────────┐      │
│                    └──────────────────┘      │
│      T.A.          ┌──────────────────┐      │
│                    └──────────────────┘      │
│      Total Salary  ┌──────────────────┐      │
│                    └──────────────────┘      │
│            ┌──────────────────┐              │
│            │    CALCULATE     │              │
│            └──────────────────┘              │
└─────────────────────────────────────────────┘
```

Calculate Total Salary as **Basic Salary + H.R.A. + T.A.** on **"onclick()"** event handler using JavaScript for the **"CALCULATE"** button.