Ability Enhancement Course: Web Designing using PHP and MySQL

PART A

Module-1

Introduction to PHP: PHP features, XAMPP & WAMP, Installation of XAMPP, Basic PHP Syntax, Output Statements- print, echo, Adding comments in PHP. **PHP Variables and Operators:** Declaring Variables, Operators in PHP. **Conditional and Looping Statements:** If...Statement, Switch, For, Foreach, While, Do while.

Assignments:

1. Write a program to check student grade based on the marks using if-else statement.

Conditions:

- If marks are 60% or more, grade will be First Division.
- If marks between 45% to 59%, grade will be Second Division.
- If marks between 35% to 45%, grade will be Third Division.
- If marks are less than 35%, student will be Fail.

Program:

```
<?php
$sub_1=95;
$sub_2=85;
$sub_3=74;
$sub_4=64;
$sub_5=53;

$total=NULL;
$average=NULL;
$percentage=NULL;
$grade=NULL;

$total=$sub_1+$sub_2+$sub_3+$sub_4+$sub_5;

$average=$total/5.0;

$percentage=($total/500.0)*100;
if ($average>=60)
  $grade='A';

else if ($average>=45 && $average<59)
  $grade='B';
else if($average>=35 && $average<45)
  $grade='C';

else
  $grade='Fail';

  echo "The Total marks =".$total."/500\n";
  echo "The Average marks=".$average."\n";
  echo "The Percentage =".$percentage."%\n";
  echo "The Grade =".$grade."\n";

  ?>
```

Output:

```
The Total marks =371/500 The Average marks=74.2 The Percentage =74.2% The Grade =A
```

Module-2

Functions: User defined functions, Function with Default Arguments, Passing Argument by Reference, Passing Argument by Value, Variable Scope, Built-in functions. **Strings:** Strings in PHP, String functions in PHP. **Arrays:** Types of arrays in PHP, Creation of arrays, Array functions.

Assignments:

2. Write a PHP program to display a digital clock which displays the current time of the server.

Program:

```
<!DOCTYPE html>
<html>
  <body>

    <?php
    echo "Today is :".date("Y/m/d")."<br>";
    date_default_timezone_set("Asia/kolkata");
    echo "Current time is : ".date("h:i:s a");
    ?>
  </body>
</html>
```

Output :

```
Today is :2024/01/03
Current time is : 10:42:06 am
```

3. **Write a simple calculator program in PHP using switch case**

Program:

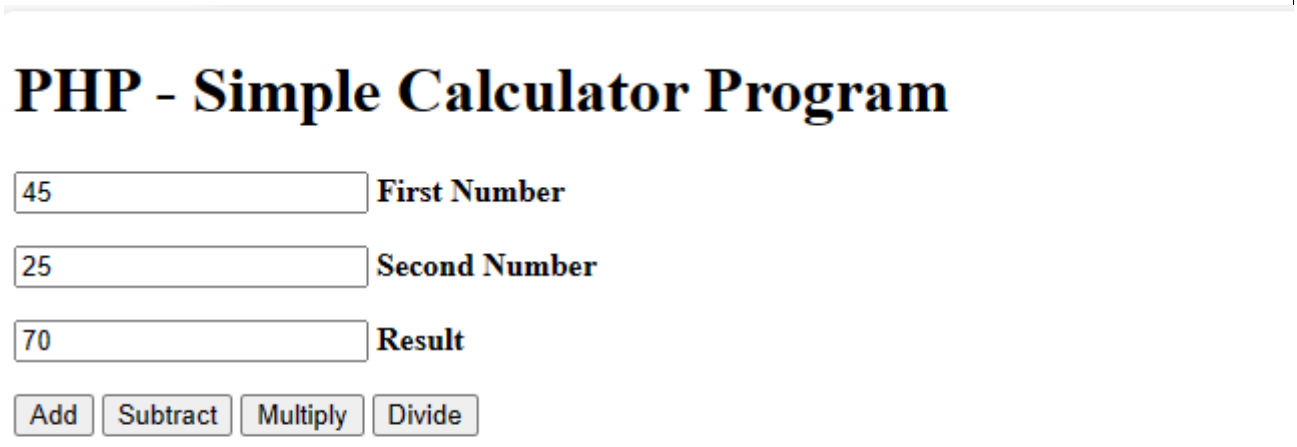
```
<!DOCTYPE html>
<head>
<?php
        $first_num = $_POST['first_num'];
        $second_num = $_POST['second_num'];
       $operator = $_POST['operator'];
       $result = '';
       if (is_numeric($first_num) && is_numeric($second_num))
       {
              switch ($operator)
             {
                    case "Add":
                          $result = $first_num + $second_num;
                          break;
                   case "Subtract":
                          $result = $first_num - $second_num;
                          break;
                  case "Multiply":
                          $result = $first_num * $second_num;
                          break;
                 case "Divide":
                          $result = $first_num / $second_num;
             }
       }

?>

<body>
   <div id="page-wrap">
         <h1>PHP - Simple Calculator Program</h1>
         <form action="" method="post" id="quiz-form">
```

```
        <p>
            <input type="number" name="first_num" id="first_num" required="required" value="<?php echo $first_num; ?>" /> <b>First Number</b>
        </p>
        <p>
          <input type="number" name="second_num" id="second_num" required="required" value="<?php echo $second_num; ?>" /> <b>Second Number</b>
        </p>
        <p>
            <input readonly="readonly" name="result" value="<?php echo $result; ?>"> <b>Result</b>
        </p>
        <input type="submit" name="operator" value="Add" />
        <input type="submit" name="operator" value="Subtract" />
        <input type="submit" name="operator" value="Multiply" />
        <input type="submit" name="operator" value="Divide" />
  </form>
    </div>
</body>
</html>
```

Output:



Description:
You need to write a simple calculator program in PHP using switch case.
Operations:1.Addition 2. Subtraction 3. Multiplication 4. Division

Module-3

File Handling: File opening modes, File Open/Read, File Create/Write, Delete a File. **Pattern Matching:** String pattern matching using regular expressions. **PHP Form Handling:** Input Form Creation, GET and POST Methods, include() and require().
Assignments:

4. Write a PHP program to keep track of the number of visitors visiting the web page and to display this count of visitors, with proper headings.

Program:

```
<?php
    echo "<h1> REFRESH PAGE </h1>";
    $file='count.txt';
    $c=file_get_contents($file);
    file_put_contents($file,$c+1);
    echo "The number of users visited:".$c;
?>
```

Output:

Module-4

Cookies and Sessions:Cookies, PHP support for cookies. Starting a PHP Session, Storing and Accessing Session Data, Destroying Session Data.
MySQL: Introduction, Database creation, CREATE, ALTER, DELETE, DROP tables, INSERT, UPDATE, DELETE table data, WHERE clause AND, OR, IN, LIKE, DISTINCT, ORDER BY, GROUP BY, UNION Sub-queries LEFT JOIN, RIGHT JOIN, INNER JOIN.
Assignments:

5. Write a PHP program named states.py that declares a variable states with value “Karnataka Ta-

milNadu Kerala AndraPradesh. write a PHP program that does the following:

a. Search for a word in variable states that ends in xas. Store this word in element of a list named states List.
b. Search for a word in states that begins with T and ends in u. Perform a case-insensitive comparison. [Note: Passing re.Ias a second parameter to method compile performs a case-insensitive comparison.] Store this word in element1of states List.
c. Search for a word in states that begins with K and ends in a. Store this word in element 2 of the list.
d. Search for a word in states that ends in a. Store this word in element 3 of the list.

Program:

```
<html>
  <body>
    <?php
        $states="Karnataka TamilNadu Kerala AndraPradesh";
        $b = explode(' ',$states);
        echo "<br>ORIGINAL ARRAY:<br>";

        foreach ($b as $i=>$value){
        echo "states[$i]=$value<br>";
        }
       $d=[];
        foreach ($b as $c)
          {
       $n=strlen($c);


       if($c[$n-1]=='s' && $c[$n-2]=='a' && $c[$n-3]=='x') $d[0]=$c;
       if($c[0]=='K' && $c[$n-1]=='s') $d[1]=$c;
       if($c[0]=='T' && $c[$n-2]=='s') $d[2]=$c;
       if($c[0]=='K' && $c[$n-3]=='s') $d[3]=$c;
       if($c[0]=='A' && $c[$n-4]=='s') $d[4]=$c;
       if($c[0]=='T' && $c[$n-3]=='a') $d[]=$c;
       }
      echo "<br>RESULTANT ARRAY :<br>";
      for($i=0;$i<count($d);$i++){
```

```
echo "statesList[$i]=$d[$i]<br>";
}
?>
?>

</body>
</html>
```

Output:

```
ORIGINAL ARRAY:
states[0]=Karnataka
states[1]=TamilNadu
states[2]=Kerala
states[3]=AndraPradesh

RESULTANT ARRAY :
statesList[0]=TamilNadu
?>
```

Module 5

Database Programming PHP & MySQL: PHP MySQL functions, Connecting database.

Assignments:

6. Write a PHP program to sort the student records which are stored in the database using selection sort.

Program:

```
<?php
    $servername = "localhost";
    $username = "root";
    $password = "";
    $dbname = "student";
    $conn = mysqli_connect($servername, $username, $password, $dbname);
    if (!$conn) {
      die("Connection failed: " . mysqli_connect_error());
      }
      $sql = "SELECT * FROM studentinfo";
```

```
    $result = $conn->query($sql);
    $usn = array() ;
    echo "<table border='2'><caption>Before Sorting </caption><br>";
    echo "<tr><th>USN</th><th>NAME</th><th>ADDRESS</th></tr>";
    if ($result->num_rows > 0)
          {
           while($row = $result->fetch_assoc())
           {
             echo "<tr><td>". $row["usn"]."</td>";
            echo "<td>". $row["name"]."</td>";
            echo "<td>". $row["address"]."</td></tr>";
            $usn[] = $row["usn"] ;
  }
}
           $n = sizeof($usn) ;
          for($i = 0 ; $i < $n-1 ; $i++ )
{
          $pos = $i ;
          for($j = $i + 1 ; $j < $n ; $j++ )
  {
           if( $usn[$pos] > $usn[$j])
     {
           $pos = $j ;
     }
  }
           if( $pos != $i)
  {
           $temp = $usn[$i] ;
           $usn[$i] = $usn[$pos] ;
           $usn[$pos] = $temp ;
  }
}
 $name = [] ;
$address = [] ;
$result = $conn->query($sql);
if ($result->num_rows> 0)
```

```
    {
        while($row = $result->fetch_assoc())
        {
            for($i=0;$i<$n;$i++)
            {
                if($row["usn"] == $usn[$i])
                {
                    $name[$i]=$row["name"];
                    $address[$i]=$row["address"];
                }
            }
        }
    }
    echo "<br><br>";
    echo "<br><table border='2'><caption>After Sorting</caption><br>";
    echo "<tr><th>USN</th><th>NAME</th><th>Address</th></tr>";
    for($i=0;$i<sizeof($usn);$i++)
    {
  echo "<tr><td>".$usn[$i]."</td>";
  echo "<td>".$name[$i]."</td>";
  echo "<td>".$address[$i]."</td>";
}
?>
```

Output:

Before Sorting

USN	NAME	ADDRESS
1NC21IS060	vinod	ABC
1NC21IS010	Sushant	XYZ
1NC21IS070	Avinash	GHF
1NC21IS071	Ajay	TYU
1NC21IS072	Ajit	ASD

After Sorting

USN	NAME	Address
1NC21IS010	Sushant	XYZ
1NC21IS060	vinod	ABC
1NC21IS070	Avinash	GHF
1NC21IS071	Ajay	TYU
1NC21IS072	Ajit	ASD

PART B

Using the knowledge from the above programs prepare a mini project and demonstrate.

AssessmentDetails (both CIE andSEE)

Component		Weightage(%)	
CIE's	CIE1 5th week	20	60
	CIE2 10th week	20	
	CIE315th week	20	
AAT's	AAT-1 10th week	10	
	AAT-2	10	
	AAT-3	20	
ContinuousInternalEvaluationTotalMarks:100.Reducedto50Marks			
SemesterEndExamination(SEE)TotalMarks:100.Reducedto50 Marks			

Text Books:

1. Programming the World Wide Web, Robert W. Sebesta, Pearson Education, 8th Edition, 2014.

Reference Book:

1. Internet & World Wide Web How to program, M. Deitel, P.J.Deitel, A. B. Goldberg, Pearson Education / PHI, 3rd Edition, 2004.
2. Web Programming Building Internet Applications, Chris Bates, Wiley India.

Course Outcomes:

At the end of the course the student will be able to:

CO1. Develop dynamic webpages using basic concepts of PHP.
CO2. Apply Cookies and Sessions to control user sessions
CO3. Demonstrate various MySQL database queries.
CO4. Develop small applications using PHP/MySQL.

POs	CO-PO Mapping														
COs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO 12**	**PSO1**	**PSO2**	**PSO3**
CO1	3	2											2		3
CO2	3	2													1
CO3	3	2	3	3	2					1	2		2		3
CO4	3	2	3	3	3		3	3	2	3	3		3		3