PARUL UNIVERSITY

FACULTY OF IT & COMPUTER SCIENCE

PICA

05010104DS04 - Open Source Technology Using PHP

OSTP LAB MANUAL

1. display hello world

```
Write a PHP Script that will display hello world
<php
echo "Hello World";
?>
//output
Hello World
```

2. Calculate sum

Write PHP script that will take three integer values for and calculate sum of it

```
<?php
$a = 10;
$b = 10;
$sum = $a + $b;
echo "$sum";
?>
//output
20
```

3. Calculate average of three values

4. Take two strings and concatenate it

```
Write a PHP Script that will take two strings and concatenate it
```

```
<?php
$a = "hello ";
$b = "world";
```

```
echo "$con = $a . $b";
   ?>
   //output
   Hello world
5. Swap two integer values
   <?php
   // Declare two integer values
   number1 = 5:
   number2 = 10;
   // Display the original values
   echo "Display the original values";
   echo "Before swap: \n";
   echo "Number1 = " . $number1 . "\n";
   echo "Number2 = " . $number2 . "\n";
   echo "<br>";
   // Swap the values using a temporary variable
   echo "Swap the values using a temporary variable";
   $temp = $number1;
   $number1 = $number2;
   $number2 = $temp;
   echo "<br>";
   // Display the swapped values
   echo "After swap: \n";
   echo "Number1 = " . $number1 . "\n";
   echo "Number2 = " . $number2 . "\n";
   ?>
   //output
   Display the original valuesBefore swap:
   Number1 = 5 Number2 = 10
   Swap the values using a temporary variable
   After swap: Number1 = 10 Number2 = 5
6. Swap two integer values without the third variable
   <?php
   // Declare two integer values
   n1 = 5;
   n2 = 10;
   // Display the original values
   echo "Before swap: \n";
   echo "n1 = " . $n1 . "\n";
   echo "n2 = " . $n2 . "\n";
   echo "<br>";
   // Swap the values without a third variable using arithmetic operations
   n1 = n1 + n2; // Add both numbers
   $n2 = $n1 - $n2; // Subtract the new number2 from the sum to get the original number1
   $n1 = $n1 - $n2; // Subtract the new number2 from the sum to get the original number2
   echo "<br>";
   // Display the swapped values
   echo "After swap: \n";
   echo "n1 = " . $n1 . "\n";
```

```
echo "n2 = " . $n2 . "\n";
   //output
   Before swap: n1 = 5 n2 = 10
   After swap: n1 = 10 n2 = 5
7. Perform arithmetic operations
   <?php
  // Assign two integer values
   num1 = 15;
   num2 = 5;
   // Perform arithmetic operations
   $addition = $num1 + $num2;
   $subtraction = $num1 - $num2;
   $multiplication = $num1 * $num2;
   $division = $num1 / $num2;
   // Display results in a tabular format
   echo "";
   echo "
      Operation
      Result
      ";
   echo "
      Addition ($num1 + $num2)
      $addition
      ";
   echo "
      Subtraction ($num1 - $num2)
      $subtraction
      ":
   echo "
      Multiplication ($num1 × $num2)
      $multiplication
      ":
   echo "
      Division ($num1 ÷ $num2)
      $division
      ":
   echo "";
   ?>
  //output
```

Operation	Result
Addition (15 + 5)	20
Subtraction (15 - 5)	10

Multiplication (15 □ 5)	75
Division (15 □ 5)	3

8. Write a PHP Script that will assign two numbers and check their equality

```
<?php
// Assign two numbers
$num1 = 10;
$num2 = 20;

// Check their equality
if ($num1 == $num2) {
   echo "The numbers $num1 and $num2 are equal.";
} else {
   echo "The numbers $num1 and $num2 are not equal.";
}
?>

//output
The numbers 10 and 20 are not equal.
```

9. Write a PHP Script that will assign two numbers and check they are identical or not

```
<?php
// Assign two numbers
$num1 = 10;
$num2 = 20;

// Check their equality
if ($num1 == $num2) {
   echo "The numbers $num1 and $num2 are identical.";
} else {
   echo "The numbers $num1 and $num2 are not identical.";
}
?>

//output
```

10. Write a PHP Script that will check number is positive or negative

The numbers 10 and 20 are not identical.

```
<?php
// Assign a number
$number = -5;

// Check if the number is positive, negative, or zero
if ($number > 0) {
    echo "The number $number is positive.";
} elseif ($number < 0) {
    echo "The number $number is negative.";
} else {
    echo "The number is zero.";
}
?>
```

```
//output
    The number -5 is negative.
11. Write a PHP Script that will check number is Even or Odd
    // Assign a number
    number = 9;
    // Check if the number is even or odd
    if ($number % 2 == 0) {
      echo "The number $number is even.";
      echo "The number $number is odd.";
    ?>
   //output
    The number 9 is odd.
12. Write a PHP Script that will check number is divisible by 13 and 7
    // Assign a number
    n = 91;
    // Check if the number is divisible by 13 and 7
    if ($n % 13 == 0 && $n % 7 == 0) {
      echo "The number $number is divisible by both 13 and 7.";
   } else {
      echo "The number $number is not divisible by both 13 and 7.";
    ?>
13. Print the following pattern
    12
   123
    1234
    <?php
    // Loop to generate rows
    for (\$i = 1; \$i \le 4; \$i++) \{
      // Loop to generate numbers in each row
      for (\$j = 1; \$j \le \$i; \$j++) {
         echo $j;
      // Move to the next line after each row
      echo "<br>";
   }
14. Print the following pattern
    22
```

333 4444

```
<?php
    // Loop to generate rows
    for (\$i = 1; \$i \le 4; \$i++) \{
      // Loop to generate numbers in each row
      for (\$i = 1; \$i \le \$i; \$i++) {
         echo $i; // Print the row number instead of column number
      // Move to the next line after each row
      echo "<br>";
15. Print the following pattern
    1234
    123
    12
    1
    <?php
    // Loop to generate rows
    for (\$i = 4; \$i >= 1; \$i--) {
      // Loop to generate numbers in each row
      for (\$j = 1; \$j \le \$i; \$j++) {
         echo $j; // Print the column number
      // Move to the next line after each row
      echo "<br>";
    ?>
16. Print the following pattern
    4444
    333
    22
    1
    <?php
    // Loop to generate rows
    for (\$i = 4; \$i >= 1; \$i--)
      // Loop to generate numbers in each row
      for (\$j = 1; \$j \le \$i; \$j++) {
         echo $i; // Print the row number instead of the column number
      // Move to the next line after each row
      echo "<br>";
    }
    ?>
17. Write a PHP script using nested for loop that creates a chess board as shown below
    <?php
    // Loop to generate chess board
    $size = 8; // Size of the chess board
    for ($row = 1; $row <= $size; $row++) {
      for ($col = 1; $col <= $size; $col++) {
         // Alternate between black and white squares
```

if ((\$row + \$col) % 2 == 0) {

```
echo "<span style='background-color: black; color: white; padding: 10px;'> </span>";
} else {
    echo "<span style='background-color: white; color: black; padding: 10px;'> </span>";
}

// Move to the next line after each row
echo "<br/>br>";
}
?>
```

18. Write a PHP function that will take three integer values and find out max number

```
<?php
// Function to find the maximum of three integers
function findMax($a, $b, $c) {
  if ($a >= $b \&\& $a >= $c) {
     return $a;
  } elseif ($b >= $a && $b >= $c) {
     return $b;
  } else {
     return $c;
  }
// Example usage
num1 = 15;
num2 = 28:
num3 = 9;
echo "The maximum number is: " . findMax($num1, $num2, $num3);
//output
```

The maximum number is: 28

19. Write a PHP function that will take an integer value and return sum of digits.

```
<?php
// Function to calculate the sum of digits of an integer
function sumOfDigits($num) {
    $sum = 0;
    while ($num > 0) {
        $sum += $num % 10; // Add the last digit to the sum
        $num = (int)($num / 10); // Remove the last digit
    }
    return $sum;
}

// Example usage
$number = 12345;
echo "The sum of digits of $number is: " . sumOfDigits($number);
?>
//output
The sum of digits of 12345 is: 15
```

20. Write a function to calculate the factorial of a number (non-negative integer). The function accept the number as a argument

```
<?php
    // Function to calculate the factorial of a non-negative integer
    function factorial($num) {
      if (\$num < 0) {
         return "Invalid input: factorial is not defined for negative numbers.";
      }
      $factorial = 1;
      for (\$i = 1; \$i \le \$num; \$i++) \{
         $factorial *= $i;
      return $factorial;
    }
    // Example usage
    $factNumber = 7;
    echo "The factorial of $factNumber is: " . factorial($factNumber);
    ?>
    //output
    The factorial of 7 is: 5040
21. Write a PHP function to check a number is prime or not.
    <?php
    // Function to check if a number is prime
    function isPrime($num) {
      if (\text{snum} <= 1) {
         return false; // 0 and 1 are not prime numbers
      for (\$i = 2; \$i \le sqrt(\$num); \$i++) {
         if ($num % $i == 0) {
            return false; // Number is divisible by another number
      }
      return true; // Number is prime
    }
    // Example usage
    $primeNumber = 29;
    echo "$primeNumber is " . (isPrime($primeNumber) ? "a prime number." : "not a prime
    number.");
    ?>
    //output
    29 is a prime number.
22. Write a PHP function to reverse a string
    <?php
    function reverse($input) {
      // Check if the input is a valid string
      if (!is_string($input)) {
         return "Invalid input. Please provide a string.";
```

```
}
      // Reverse the string using strrev()
      return strrev($input);
   }
   // Example usage
    $original = "Hello, World!";
    $reverse = reverse($original);
    echo "Original String: $original\n";
    echo "<br>";
    echo "Reversed String: $reverse\n";
    ?>
    //output
    Original String: Hello, World!
    Reversed String: !dlroW ,olleH
23. Write a PHP function that checks whether a passed string is palindrome or not?
    <?php
    function isPalindrome($str) {
      $rev = strrev($str); // Reverse the string
      return $str === $rev; // Check if the original and reversed strings are the same
   }
   // Example usage
    $str = "level";
    if (isPalindrome($str)) {
      echo "$str is a palindrome.";
      echo "$str is not a palindrome.";
    ?>
    //output
    level is a palindrome.
24. Write a simple PHP class which displays the following string: 'MyClass class has
    initialized!'
    <?php
    class MyClass {
      public function msg() {
         echo "MyClass class has initialized!";
   }
    // Create an instance of MyClass
    $obj = new MyClass();
    // Call the method to display the message
    $obj->msg();
    ?>
    //output
    MyClass class has initialized!
```

25. Write a simple PHP class which displays an introductory message like "Hello All, I am ALKA", where "ALKA" is an argument value of the method within the class.

```
<?php
class MyClass {
    // Method that accepts a name as an argument
    public function displayMessage($name) {
        echo "Hello All, I am " . $name;
    }
}
// Create an instance of MyClass
$obj = new MyClass();
// Call the method with the name argument
$obj->displayMessage("ALKA");
?>
//output
Hello All, I am ALKA
```

26. Write a PHP class that sorts an ordered integer array with the help of sort() function

```
<?php
class array_Sorting {
  // Method to sort the integer array
  public function sortArray($array) {
     // Sort the array using sort() function
     sort($array);
     // Display the sorted array
     echo "Sorted Array: ";
     print_r($array);
  }
}
// Create an instance of ArraySorter
$obj = new array_Sorting();
// Sample unordered integer array
$unorder = [3, 5, 8, 7, 1];
// Call the method to sort the array
$obj->sortArray($unorder);
?>
Sorted Array: Array ([0] => 1 [1] => 3 [2] => 5 [3] => 7 [4] => 8)
```

27. Write a PHP Calculator class which will accept two values as arguments, then add them, subtract them, multiply them together, or divide them on request.

```
<?php
class Calculator {
  private $num1;
  private $num2;</pre>
```

```
// Constructor to initialize the values
  public function __construct($num1, $num2) {
     this->num1 = num1;
     $this->num2 = $num2;
  }
  // Method for addition
  public function add() {
     return $this->num1 + $this->num2;
  }
  // Method for subtraction
  public function subtract() {
     return $this->num1 - $this->num2;
  // Method for multiplication
  public function multiply() {
     return $this->num1 * $this->num2;
  }
  // Method for division
  public function divide() {
     // Check if division by zero is attempted
     if ($this->num2 != 0) {
        return $this->num1 / $this->num2;
     } else {
       return "Division by zero is not allowed.";
  }
}
// Create an instance of Calculator
$calculator = new Calculator(8, 4);
// Perform operations
echo "Addition: " . $calculator->add() . "\n";
echo "<br>";
echo "Subtraction: " . $calculator->subtract() . "\n";
echo "<br>";
echo "Multiplication: " . $calculator->multiply() . "\n";
echo "<br>";
echo "Division: " . $calculator->divide() . "\n";
?>
//output
Addition: 12
Subtraction: 4
Multiplication: 32
Division: 2
```

28. Calculate the difference between two dates using PHP OOP approach. Sample Dates : 1981-11-03, 2013-09-04 Expected

Result: Difference: 31 years, 10 months, 1 days

```
<?php
    class DateDiffer {
      private $d1;
      private $d2;
      // Constructor to initialize dates
      public function construct($d1, $d2) {
         $this->d1 = new DateTime($d1);
         $this->d2 = new DateTime($d2);
      }
      // Method to calculate the date difference
      public function calculate() {
         $difference = $this->d1->diff($this->d2);
         return "Difference: " . $difference->y . " years, " .
             $difference->m . " months, " .
             $difference->d . " days";
      }
   }
    // Sample dates
    $d1 = "1981-11-03";
    $d2 = "2013-09-04";
    // Creating an object and calling the method
    $dateDiff = new DateDiffer($d1, $d2);
    echo $dateDiff->calculate();
    ?>
    //output
    Calculate the difference between two dates using PHP OOP approach. Sample Dates: 1981-
    11-03, 2013-09-04 Expected Result : Difference : 31 years, 10 months, 1 days
    Difference: 31 years, 10 months, 1 days
29. Write a PHP script to convert string to Date and DateTime. Sample Date: '12-08-2004'
    Expected Output: 2004-12-08 Note:
    PHP considers '/' to mean m/d/Y format and '-' to mean d-m-Y format.
    <?php
    // Sample date string (d-m-Y format)
    $sampleDate = '12-08-2004';
    // Convert string to DateTime object
    $dateObject = date create from format('d-m-Y', $sampleDate);
    // Convert and display formatted outputs
    if ($dateObject) {
      echo "Converted Date: " . date_format($dateObject, 'Y-m-d') . "\n";
      echo "Converted DateTime: " . date format($dateObject, 'Y-m-d H:i:s') . "\n";
    } else {
      echo "Invalid Date Format";
    ?>
```

Converted Date: 2004-08-12 Converted DateTime: 2004-08-12 07:12:07

30. Write a HTML Form & PHP Script that will take name and message from user and display it.

```
//create first connection file
<?php
       $conn = mysqli_connect("localhost","root","","php_practical");
       //mysqli select db("php practical");
?>
//create another file
<?php
include("30connection.php");
if(isset($ REQUEST['btn submit']))
       {
              $nm = $_REQUEST['txt_nm'];
              $msg = $_REQUEST['txt_msg'];
              $insert = "insert into pr30 values("", '$nm', '$msg')";
              mysqli_query($conn,$insert);
              header("location:30.php");
       }
?>
<html>
<head>
<title>Practicals</title>
</head>
<body>
Write a HTML Form & PHP Script that will take name and message from user and display
it.
<form
</form method="post">
Name : <input type="text" name="txt_nm" /><br />
Message: <textarea name="txt msg"></textarea><br /><br />
<input type="submit" name="btn submit" value="Submit" />
</form>
<center>
       <h1>Details</h1>
       No
                     ID
                     Name
                     Messagec
              <?php
              i = 1;
```

31. Write a PHP Script for guessing game, which will take one number from user and check that number is right or wrong

```
<?php
$answer = 42;
if (isset($_POST['number'])) {
  $number = $_POST['number'];
  if ($number == $answer) {
     echo "Congratulations, you are guessing the right number!";
  } elseif ($number > $answer) {
     echo "you are guessing too high number, try again";
  } else {
     echo "you are guessing too low number, try again.";
  }
}
?>
<html>
<body>
<31. Write a PHP Script for guessing game, which will take one number from user and</p>
check that number is right or wrong
<form method="post">
  <label for="number">Guess the number:</label>
  <input type="text" name="number" id="number">
  <input type="submit" value="Submit">
</form>
</body>
</html>
```

32. Write PHP Script counts the number of guessing attempts using hidden fields

33. Displays the marksheet of the student.

Write a php page and create a user form which asks for marks in five subjects out of 100 and then displays the marksheet of the student. The format is as follows:

Name of Student*:

```
Marks in Each Subject
Subject 1*:
Subject 2*:
Subject 3*:
Subject 4*:
```

Total Marks Obtained:

Total Marks:

Subject 5*:

Note: All the entries marked (*) are to be input by the user. And use a submit button to post the

entries in the form using the POST method.

```
<?php
$total_marks = 500;
$total obtained = 0;
$name = "";
$marks = [];
$msg = "";
if ($_SERVER["REQUEST_METHOD"] == "POST") {
  $name = $_POST['name'];
  $marks = [
    $ POST['sub1'],
    $ POST['sub2'],
    $_POST['sub3'],
    $ POST['sub4'],
    $_POST['sub5']
  ];
  // Validate marks and calculate total
  $total obtained = array sum($marks);
}
?>
<!DOCTYPE html>
<html>
<head>
  <title>Student Marksheet</title>
</head>
<body>
<h2>Student Marksheet</h2>
<form method="POST">
  <label>Name of Student*: </label>
  <input type="text" name="name" required><br><br>
  <label>Subject 1: </label>
```

```
<input type="number" name="sub1" min="0" max="100" required><br>
 <label>Subject 2: </label>
 <label>Subject 3: </label>
 <input type="number" name="sub3" min="0" max="100" required><br><br><br>
 <label>Subject 4: </label>
 <label>Subject 5: </label>
 <input type="number" name="sub5" min="0" max="100" required><br><br>
 <input type="submit" value="Show Marksheet">
</form>
<?php
if ($ SERVER["REQUEST METHOD"] == "POST") {
 echo "<h3>Marksheet of $name</h3>";
 echo "Total Marks Obtained: $total obtained";
 echo "Total Marks: $total_marks";
?>
</body>
</html>
```

- 34. Write a PHP Script that will be used for mail send.
- 35. Write a php script that will help to upload a file.
- 36. Write a PHP that will create an IMCA database

```
<?php
$dbname = "IMCA";
// Create connection
$conn = new mysqli("localhost", "root", "");
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
// Create database
$sql = "CREATE DATABASE IF NOT EXISTS $dbname";
if ($conn->query($sql) === TRUE) {
    echo "Database IMCA created successfully";
} else {
    echo "Error creating database: " . $conn->error;
}
```

```
$conn->close();
2>
```

37. Write a PHP Script that will create sem_5 table under IMCA Database

```
<?php
// Create connection
$conn = new mysqli("localhost", "root", "", "IMCA");
// Check connection
if ($conn->connect_error) {
  die("Connection failed: " . $conn->connect error);
}
// Create sem 5 table
$sql = "CREATE TABLE IF NOT EXISTS sem_5 (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  student_name VARCHAR(50) NOT NULL,
  subject VARCHAR(50) NOT NULL,
  marks INT(3) NOT NULL
)";
if ($conn->query($sql) === TRUE) {
  echo "Table sem_5 created successfully";
  echo "Error creating table: " . $conn->error;
$conn->close();
```

38. Write a PHP Script that will insert data into sem_5 table.

```
<?php
// Create connection
$conn = new mysqli("localhost", "root", "", "IMCA");
// Check connection
if ($conn->connect error) {
  die("Connection failed: " . $conn->connect_error);
}
// Create sem_5 table
$sql = "CREATE TABLE IF NOT EXISTS sem 5 (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  student name VARCHAR(50) NOT NULL,
  subject VARCHAR(50) NOT NULL,
  marks INT(3) NOT NULL
)";
if ($conn->query($sql) === TRUE) {
  echo "Table sem_5 created successfully";
} else {
  echo "Error creating table: " . $conn->error;
```

```
// Insert data into sem_5 table
   $student name = "Aneri";
   $subject = "PHP";
   marks = 85;
   $sql = "INSERT INTO sem_5 (student_name, subject, marks) VALUES ('$student_name',
   '$subject', $marks)";
   if ($conn->query($sql) === TRUE) {
      echo "New record created successfully";
   } else {
      echo "Error: " . $sql . "<br>" . $conn->error;
   $conn->close();
   ?>
39. Write a PHP Script that will display records of sem5 table in tabular format.
   <?php
   // Create connection
   $conn = new mysqli("localhost", "root", "", "IMCA");
   // Check connection
   if ($conn->connect_error) {
      die("Connection failed: " . $conn->connect_error);
   }
   // Create sem 5 table
   $sql = "CREATE TABLE IF NOT EXISTS sem_5 (
      id INT(6) UNSIGNED AUTO INCREMENT PRIMARY KEY,
      student_name VARCHAR(50) NOT NULL,
      subject VARCHAR(50) NOT NULL,
      marks INT(3) NOT NULL
   )";
   if ($conn->query($sql) === TRUE) {
      echo "Table sem 5 created successfully";
   } else {
      echo "Error creating table: " . $conn->error;
   // Insert data into sem 5 table
   $student name = "Aneri";
   $subject = "PHP";
   $marks = 85;
   $sql = "INSERT INTO sem 5 (student name, subject, marks) VALUES ('$student name',
   '$subject', $marks)";
```

if (\$conn->query(\$sql) === TRUE) {

// Display records from sem_5 table

echo "New record created successfully";

echo "Error: " . \$sql . "
" . \$conn->error;

\$sql = "SELECT id, student_name, subject, marks FROM sem_5";

```
$result = $conn->query($sql);
   if ($result->num_rows > 0) {
     echo "
                         ID
                         Student Name
                         Subject
                         Marks
                         ";
     while ($row = $result->fetch_assoc())
        echo "" . $row["id"] . "" . $row["student name"] . "" .
   $row["subject"] . "" . $row["marks"] . "";
     }
     echo "";
   } else {
     echo "No records found";
   $conn->close();
40. Write a PHP Script that will delete records from sem_5 table.
   <?php
   // Create connection
   $conn = new mysqli("localhost", "root", "", "IMCA");
   // Check connection
   if ($conn->connect_error) {
     die("Connection failed: " . $conn->connect_error);
   }
   // Delete records from sem_5 table
   $sql = "DELETE FROM sem 5";
   if ($conn->query($sql) === TRUE) {
     echo "All records deleted successfully";
   } else {
     echo "Error deleting records: " . $conn->error;
   }
   $conn->close();
41. Write a PHP Script that will drop table sem_5 from database
   <?php
   // Create connection
   $conn = new mysqli("localhost", "root", "", "IMCA");
   // Check connection
   if ($conn->connect error) {
     die("Connection failed: " . $conn->connect_error);
   // Drop sem_5 table
   $sql = "DROP TABLE IF EXISTS sem_5";
```

```
if ($conn->query($sql) === TRUE) {
    echo "Table sem_5 dropped successfully";
} else {
    echo "Error dropping table: " . $conn->error;
}
$conn->close();
?>
```

- 42. Write a PHP Script that will load content from text file using ajax.
- 43. Write a PHP Script that will suggest name list to user on key-enter event using ajax.
- 44. Write a PHP Script that will display employee information on selection of name using ajax.
- 45. Write a jquery code that hide / show text on button click event
- 46. Write a jquery code that will fade in, fade out,fade toggle images on click event
- 47. Write a jQuery code that will slide up, slide down, and slide the toggle panel on the click event.