**Practical Questions**

1. **Write a simple program to construct a Calculator that can perform Basic operation Mathematical operation as well.**

<?php

$num1 = 10;

$num2 = 20;

$operation = '+';

switch ($operation) {

case '+':

$result = $num1 + $num2;

break;

case '-':

$result = $num1 - $num2;

break;

case '\*':

$result = $num1 \* $num2;

break;

case '/':

$result = ($num2 != 0) ? $num1 / $num2 : "Division by zero error!";

break;

default:

$result = "Invalid operation!";

}

echo "Result: " . $result;

?>

1. **Write a simple program to check an alphabet entered by user is a Vowel or not using if statement, if else if else statement and switch case statements. If Statement If else if Statement Switch Case**

Using if statement:

<html>

<head>

<title>Check Vowel using If Statement</title>

</head>

<body>

<form action="" method="POST">

<label for="alphabet">Enter an Alphabet:</label>

<input type="text" id="alphabet" name="alphabet" required maxlength="1" pattern="[A-Za-z]">

<input type="submit" value="Check">

</form>

<?php

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

$alphabet = strtolower($\_POST['alphabet']);

if ($alphabet == 'a' || $alphabet == 'e' || $alphabet == 'i' || $alphabet == 'o' || $alphabet == 'u') {

echo "<h3>Using If Statement: '$alphabet' is a Vowel.</h3>";

} else {

echo "<h3>Using If Statement: '$alphabet' is not a Vowel.</h3>";

}

}

?>

</body>

</html>

Using if-else if-else statement**:**

<html>

<head>

<title>Check Vowel using If-Else If-Else Statement</title>

</head>

<body>

<form action="" method="POST">

<label for="alphabet">Enter an Alphabet:</label>

<input type="text" id="alphabet" name="alphabet" required maxlength="1" pattern="[A-Za-z]">

<input type="submit" value="Check">

</form>

<?php

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

$alphabet = strtolower($\_POST['alphabet']);

// Using If-Else If-Else Statement

if ($alphabet == 'a') {

echo "<h3>Using If-Else If-Else Statement: '$alphabet' is a Vowel.</h3>";

} else if ($alphabet == 'e') {

echo "<h3>Using If-Else If-Else Statement: '$alphabet' is a Vowel.</h3>";

} else if ($alphabet == 'i') {

echo "<h3>Using If-Else If-Else Statement: '$alphabet' is a Vowel.</h3>";

} else if ($alphabet == 'o') {

echo "<h3>Using If-Else If-Else Statement: '$alphabet' is a Vowel.</h3>";

} else if ($alphabet == 'u') {

echo $alphabet, “is a Vowel.</h3>";

} else {

echo $alphabet, ” is not a Vowel.</h3>";

}

}

?>

</body>

</html>

Using switch statement:

<html>

<head>

<title>Check Vowel using Switch Case Statement</title>

</head>

<body>

<form action="" method="POST">

<label for="alphabet">Enter an Alphabet:</label>

<input type="text" id="alphabet" name="alphabet" required maxlength="1" pattern="[A-Za-z]">

<input type="submit" value="Check">

</form>

<?php

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

$alphabet = strtolower($\_POST['alphabet']);

switch ($alphabet) {

case 'a':

case 'e':

case 'i':

case 'o':

case 'u':

echo "<h3>Using Switch Case: '$alphabet' is a Vowel.</h3>";

break;

default:

echo "<h3>Using Switch Case: '$alphabet' is not a Vowel.</h3>";

}

}

?>

</body>

</html>

1. **Write a code to check an integer number entered by user is Even or Odd using Conditional operator statement.**

<html>

<head>

<title>Check Even or Odd</title>

</head>

<body>

<h2>Check if a Number is Even or Odd</h2>

<form action="" method="POST">

<label for="number">Enter an Integer:</label>

<input type="number" id="number" name="number" required>

<input type="submit" value="Check">

</form>

<?php

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

$number = intval($\_POST['number']); // Get the entered number

// Using Conditional (Ternary) Operator

$result = ($number % 2 == 0) ? "$number is Even." : "$number is Odd.";

echo "<h3>Result: $result</h3>";

}

?>

</body>

</html>

1. **Write a program to input subject marks Math, English and Physics then to prepare marks sheet of a student that will show the Obtain marks, percentage and grade.**

<?php

$math = 85;

$english = 90;

$physics = 80;

$total\_marks = 300; // Assuming each subject has max 100 marks

$obtained\_marks = $math + $english + $physics;

$percentage = ($obtained\_marks / $total\_marks) \* 100;

echo "Obtained Marks: $obtained\_marks\n";

echo "Percentage: $percentage%\n";

if ($percentage >= 70) {

echo "Grade: A";

} elseif ($percentage >= 60) {

echo "Grade: B";

} elseif ($percentage >= 50) {

echo "Grade: C";

} elseif ($percentage >=40) {

echo "Grade: D";

}

else {

echo "Grade: D";

}

?>

1. **Write a program that input a number, then report whether the number is in the range from 1 to 100. Otherwise the number above to 100.**

<html>

<head>

<title>Check Number Range</title>

</head>

<body>

<h2>Check if a Number is in the Range of 1 to 100</h2>

<form action="" method="POST">

<label for="number">Enter a Number:</label>

<input type="number" id="number" name="number" required>

<input type="submit" value="Check">

</form>

<?php

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

// Get the entered number

$number = intval($\_POST['number']);

// Check the range of the number

if ($number >= 1 && $number <= 100) {

echo "<h3>$number is in the range of 1 to 100.</h3>";

} elseif ($number > 100) {

echo "<h3>$number is above 100.</h3>";

} else {

echo "<h3>$number is below 1.</h3>";

}

}

?>

</body>

</html>**6. The following is supposed to cause an action or print message, whenever x is 5 and y is 9.**

**<?php**

**If ( $x >= $y )**

**echo “x is greater than y”**

**else**

**echo “y is greater than x “;**

1. **Write a switch statement that output messages indicating what day has been numerically input (for example 1-> Monday, 2-> Tuesday, 3-> Wednesday,...)**

<html>

<head>

<title>Day of the Week</title>

</head>

<body>

<form method="post" action="">

<label for="number">Number:</label>

<input type="text" name="number" id="number">

<button type="submit">Submit</button>

</form>

<?php

if (isset($\_POST['number'])) {

$dayNumber = intval($\_POST['number']);

switch ($dayNumber) {

case 1:

echo "Monday";

break;

case 2:

echo "Tuesday";

break;

case 3:

echo "Wednesday";

break;

case 4:

echo "Thursday";

break;

case 5:

echo "Friday";

break;

case 6:

echo "Saturday";

break;

case 7:

echo "Sunday";

break;

default:

echo "Invalid day number";

break;

}

}

?>

</body>

</html>