Question 11: Event Handling - Background Color Change.

```
H.T.M.L code:
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible"
content="IE=edge">
<meta name="viewport" content="width=devicewidth, initial-scale=1.0">
<title>Document</title>
</head>
<body>
<div style="font-size: 50px" class="main-div">
Click here to change the color
</div>
</body>
<script>
  var clickableDiv=document.body;
clickableDiv.addEventListener('click',function () {
var randomColor=getRandomColor();
document.body.style.backgroundColor=randomColor;
})
function getRandomColor() {
var letters = "0123456789ABCDEF";
var color = "#";
for (var i = 0; i < 6; i++) {
color += letters[Math.floor(Math.random() * 16)];
}
return color;
</script>
</html>
```

Output:

Click here to change the color

Question 12:Write a program in JavaScript to create an html page with 2 combo box populated with month & year, to display the calendar for the selected month & year from the combo box using javascript.

```
H.T.M.L code:
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
td{
text-align: center;
#output {
margin-top: 2rem;
display: flex;
justify-content: center;
}
</style>
<title>Calendar</title>
</head>
<body bgcolor='red'>
<h1>Calendar</h1>
<h2>Select Year</h2>
<select name="year" id="year">
</select>
<h2>Select Month</h2>
<select name="month" id="month">
<option value="0">Jan</option>
<option value="1">Feb</option>
<option value="2">Mar</option>
<option value="3">Apr</option>
<option value="4">May</option>
<option value="5">Jun</option>
<option value="6">jul</option>
<option value="7">Aug</option>
<option value="8">Sep</option>
<option value="9">Oct</option>
<option value="10">Nov</option>
<option value="11">Dec</option>
</select>
<button id="ok">ok</button>
<div id="output">
```

```
</div>
<script>
const year = document.getElementById("year");
const month = document.getElementById("month");
const btn = document.getElementById("ok");
const monthName = [
"January",
"February",
"March",
"April",
"May",
"June",
"July",
"August",
"September",
"October",
"December",
];
const output = document.getElementById("output");
const days = [31, 28, 31, 30, 31, 30, 31, 30, 31, 30, 31];
for (var i = 1990; i < 2050; i++) {
year.innerHTML += `<option value = ${i}>${i}</option>`;
btn.addEventListener("click", (e) => {
var m = +month.value + 1;
var D = year.value % 100; //to ge the last two digits of the year value
var C = Math.floor(year.value / 100); //to get the first two digits of the year value
var last = days[month.value]; // the last no of the month entitiy
if (m > 2) m = 2;
else {
m += 10;
D = 1;
}
var f =
Math.floor((13 * m - 1) / 5) +
D +
Math.floor(D / 4) +
Math.floor(C / 4) -
2 * C;
if (f < 0) f = 7000 + f;
f = f \% 7;
outputHTML = ` ${
```

```
monthName[month.value]
} ${
year.value
}
SunTueWedThurFriSat
th><
/tr>`;
var count = 1;
var row = "";
for (var temp = 0; temp < f; temp++) row += "<td></td>";
for (var c = f; c < 7; c++) {
row += `${count}`;
count += 1;
row += "";
outputHTML += row;
while (count <= last) {
row = "";
var tot = 0;
for (; tot < 7 && count <= last; tot++, count++) row += `<td>${count}`;
row += "";
outputHTML += row;
}
outputHTML += "";
output.innerHTML = outputHTML;
});
</script>
</body>
</html>
```

Output:

Calendar	April 1993						
	Sun	Mon	Tue	Wed	Thur	Fri	Sat
Select Year					1	2	3
1993 🗸	4	5	6	7	8	9	10
Select Month	11	12	13	14	15	16	17
Apr ✔ ok	18	19	20	21	22	23	24
7.p	25	26	27	28	29	30	

Question 13 a: Write a JavaScript program to display the current day and time in the following format. Sample Output: Today is: Friday. Current time is: 4 PM: 50: 22.

```
H.T.M.L code:
<!DOCTYPE html>
<html>
<head>
 <title>Current Day and Time</title>
 <script>
  function displayDateTime() {
   // Get the current date and time
   var currentDate = new Date();
   // Array of weekday names
   var weekdays = ['Sunday', 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday',
'Saturday']:
   // Get the current day of the week
   var day = weekdays[currentDate.getDay()];
   // Get the current hour (in 12-hour format)
   var hour = currentDate.getHours() % 12 || 12;
   // Get the current minute and pad it with leading zero if necessary
   var minute = ("0" + currentDate.getMinutes()).slice(-2);
   // Get the current second and pad it with leading zero if necessary
   var second = ("0" + currentDate.getSeconds()).slice(-2);
   // Determine if it's AM or PM
   var meridiem = (currentDate.getHours() < 12) ? "AM" : "PM";</pre>
   // Display the current day and time
   var output = "Today is: " + day + ".<br>";
   output += "Current time is: " + hour + " " + meridiem + " : " + minute + " : " + second + ".";
   // Update the HTML content with the current day and time
   document.getElementById("datetime").innerHTML = output;
 </script>
</head>
<body onload="displayDateTime()">
 <h1>Current Day and Time</h1>
 <div id="datetime"></div>
</body>
```

</html>
Output:

Current Day and Time

Today is: Saturday. Current time is: 8 AM : 09 : 02.

Question 13 b: Write a JavaScript program to get the current date. Expected Output : mm-dd-yyyy, mm/dd/yyyy or dd-mm-yyyy, dd/mm/yyyy.

```
H.T.M.L code:
<!DOCTYPE html>
<html>
<head>
 <title>Current Date Formats</title>
 <script>
  function getCurrentDate() {
   // Get the current date
   var currentDate = new Date();
   // Get the month, day, and year
   var month = ("0" + (currentDate.getMonth() + 1)).slice(-2);
   var day = ("0" + currentDate.getDate()).slice(-2);
   var year = currentDate.getFullYear();
   // Format the date in different ways
   var format1 = month + "-" + day + "-" + year;
   var format2 = month + "/" + day + "/" + year;
   var format3 = day + "-" + month + "-" + year;
   var format4 = day + "/" + month + "/" + year;
   // Display the date in the different formats
   document.getElementById("format1").textContent = format1;
   document.getElementById("format2").textContent = format2;
   document.getElementById("format3").textContent = format3;
   document.getElementById("format4").textContent = format4;
 </script>
</head>
<body onload="getCurrentDate()">
 <h1>Current Date Formats</h1>
 mm-dd-yyyy: <span id="format1"></span>
 mm/dd/yyyy: <span id="format2"></span>
 dd-mm-yyyy: <span id="format3"></span>
 dd/mm/yyyy: <span id="format4"></span>
</body>
</html>
Output:
Current Date Formats
mm-dd-vvvv: 06-10-2023
mm/dd/vvvv: 06/10/2023
dd-mm-vvvv: 10-06-2023
```

dd/mm/yyyy: 10/06/2023

Question 13 c:Write a JavaScript function to get difference between two dates in days. Test Data: console.log(date_diff_indays('04/02/2014', '11/04/2014')); console.log(date_diff_indays('12/02/2014', '11/04/2014')); **Output: 216** -28 H.T.M.L code: <!DOCTYPE html> <html> <head> <title>Date Difference in Days</title> function date_diff_indays(date1, date2) { // Parse the input dates var dt1 = new Date(date1); var dt2 = new Date(date2); // Calculate the difference in milliseconds var difflnMs = Math.abs(dt2 - dt1); // Convert milliseconds to days var diffInDays = Math.floor(diffInMs / (1000 * 60 * 60 * 24)); return diffInDays; // Test the function and display the results function testDateDiff() { var result1 = date_diff_indays('04/02/2014', '11/04/2014'); var result2 = date_diff_indays('12/02/2014', '11/04/2014'); document.getElementById("output1").textContent = result1;

Date Difference in Days

document.getElementById("output2").textContent = result2;

Result 1: 216 Result 2: 28

</script> </head>

</body>
</html>
Output:

<body onload="testDateDiff()">
 <h1>Date Difference in Days</h1>
 Result 1:
 Result 2:

Question 13 d: Write a JavaScript function to count the number of days passed since the beginning of the year.

```
Test Data: console.log(days_passed(new Date(2015, 0, 15))); 15. console.log(days_passed(new Date(2015, 11, 14))); 348.
```

```
H.T.M.L code:
<!DOCTYPE html>
<html>
<head>
 <title>Days Passed Since Beginning of the Year</title>
  function days_passed(date) {
   // Get the current date
   var currentDate = new Date();
   // Get the beginning of the year
   var beginningOfYear = new Date(date.getFullYear(), 0, 1);
   // Calculate the difference in milliseconds
   var diffInMs = Math.abs(currentDate - beginningOfYear);
   // Convert milliseconds to days
   var difflnDays = Math.floor(difflnMs / (1000 * 60 * 60 * 24));
   return diffInDays;
  // Test the function and display the results
  function testDaysPassed() {
   var result =days_passed(new Date());
   document.getElementById("output1").textContent = result;
 </script>
</head>
<body onload="testDaysPassed()">
 <h1>Days Passed Since Beginning of the Year</h1>
 Result: <span id="output1"></span>
</body>
</html>
```

Output:

Days Passed Since Beginning of the Year

Result: 160

Program 13 e:Write a JavaScript program to find 1st January is being a Sunday between year1 and year2.

```
H.T.M.L code:
<!DOCTYPE html>
<html>
<head>
 <title>1st January on a Sunday</title>
  function findSunday(year1, year2) {
   var result = "";
   for (var year = year1; year <= year2; year++) {
    var date = new Date(year, 0, 1);
    var dayOfWeek = date.getDay();
    if (dayOfWeek === 0) { // 0 represents Sunday
      result += "1st January " + year + " falls on a Sunday.<br>";
    }
   }
   if (result === "") {
    result = "No occurrences of 1st January falling on a Sunday between " + year1 + " and " + year2 + ".";
   return result;
  // Test the function and display the result
  function testFindSunday() {
   var result = findSunday(2000, 2050);
   document.getElementById("output").innerHTML = result;
 </script>
</head>
<body onload="testFindSunday()">
 <h1>1st January on a Sunday</h1>
 <div id="output"></div>
</body>
</html>
Output:
```

1st January on a Sunday

```
1st January 2006 falls on a Sunday.
1st January 2012 falls on a Sunday.
1st January 2017 falls on a Sunday.
1st January 2023 falls on a Sunday.
1st January 2034 falls on a Sunday.
1st January 2040 falls on a Sunday.
1st January 2045 falls on a Sunday.
```

Question 13 f: Write a JavaScript program to calculate days left until next Christmas.

H.T.M.L code:

```
<!DOCTYPE html>
<html>
<head>
 <title>Days Until Christmas</title>
 <script>
  function calculateDaysUntilChristmas() {
   var today = new Date();
   var christmas = new Date(today.getFullYear(), 11, 25); // December is 11 because month indexes start from 0
   if (today.getMonth() == 11 && today.getDate() > 25) {
    christmas.setFullYear(christmas.getFullYear() + 1);
   var timeDiff = christmas.getTime() - today.getTime();
   var daysLeft = Math.ceil(timeDiff / (1000 * 60 * 60 * 24)); // convert milliseconds to days
   document.getElementById("daysLeft").innerHTML = daysLeft;
 </script>
</head>
<body>
 <h1>Days Until Christmas</h1>
 There are <span id="daysLeft"></span> days left until Christmas.
 <script>
  calculateDaysUntilChristmas();
 </script>
</body>
</html>
Output:
```

Days Until Christmas

There are 198 days left until Christmas.

Question 14: Window object method setInterval, clearInterval.

H.T.M.L code:

```
<!DOCTYPE html>
<html>
<head>
 <title>Stopwatch</title>
 <style>
  .container {
   text-align: center;
  }
  .number-display {
   font-size: 48px;
   font-weight: bold;
   margin-bottom: 20px;
  }
  .btn {
   margin: 5px;
   padding: 10px 20px;
   font-size: 16px;
   cursor: pointer;
  }
 </style>
</head>
<body>
 <div class="container">
  <div class="number-display" id="display">00:00:00</div>
  <button class="btn" onclick="start()">START</button>
```

```
<button class="btn" onclick="pause()">PAUSE</button>
 <button class="btn" onclick="reset()">RESET</button>
</div>
<script>
 var intervalld;
 var seconds = 0;
 var minutes = 0;
 var hours = 0;
 function start() {
  intervalId = setInterval(updateTime, 1000);
 function pause() {
  clearInterval(intervalId);
 function reset() {
  clearInterval(intervalId);
  seconds = 0;
  minutes = 0;
  hours = 0;
  document.getElementById("display").textContent = formatTime(hours, minutes, seconds);
 }
 function updateTime() {
  seconds++;
  if (seconds >= 60) {
```

```
seconds = 0;
    minutes++;
    if (minutes >= 60) {
      minutes = 0;
     hours++;
   }
   document.getElementById("display").textContent = formatTime(hours, minutes, seconds);
  }
  function formatTime(hours, minutes, seconds) {
   return (
    (hours < 10 ? "0" + hours : hours) +
    (minutes < 10 ? "0" + minutes : minutes) +
    (seconds < 10 ? "0" + seconds : seconds)
   );
  }
 </script>
</body>
</html>
Output:
```

00:00:02

START

PAUSE

RESET

.

Question 15 b: Write a program to print "Welcome to P.H.P".

H.T.M.L code (with integrated P.H.P code):

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Welcome To P.H.P</title>
</head>
<body>
<php
echo "Welcome To P.H.P";
?>
</body>
</html>
Output:
```

Welcome To P.H.P

Question 15 c:Create a php program to find odd or even numbers from a given number.

H.T.M.L code (with integrated P.H.P code):

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Odd or Even</title>
</head>
<body>
  <?php
    $num1=14;
    if($num1%2==0)echo("The number $num1 is even");
    else echo("The number $num1 is odd");
  ?>
</body>
</html>
Output:
```

The number 14 is even

Question 15 d: Write a P.H.P program to find the maximum of three numbers.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Maximum of three numbers</title>
</head>
<body>
  <?php
  $num1=12;
  $num2=10;
  $num3=90;
  if($num1>$num2)
    if($num1>$num3)
    {
      echo("The number $num1 is greater");
   }
    else
    echo("The number $num3 is greater");
 }
  else{
    if($num2>$num3)
      echo("The number $num2 is greater");
   }
    else echo("The number $num3 is greater");
```

```
}
?>
</body>
</html>
Output
```

The number 90 is greater

Question 16:Write a program to enter TWO numbers and print the Swap Numbers using P.H.P.

H.T.M.L code (with integrated P.H.P code):

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Swap</title>
</head>
<body>
 <?php
  $num1=10;
  $num2=20;
  echo("Numbers\ before\ swapping\ are: \$num1\ and\ \$num2");
  list($num1,$num2)=array($num2,$num1);
  echo("<br>");
  echo("Numbers after swapping are:$num1 and $num2");
</body>
</html>
```

Numbers before swapping are:10 and 20 Numbers after swapping are:20 and 10

Output:

Question 17 a: Write a P.H.P Program to demonstrate the variable function: gettype() and settype()

html
<html lang="en"></html>
<head></head>
<meta charset="utf-8"/>
<meta content="IE=edge" http-equiv="X-UA-Compatible"/>
<meta content="width=device-width, initial-scale=1.0" name="viewport"/>
<title>GetType()</title>
 body>
php</td
\$num1=12;
\$str1="hello";
\$num2=12.112;
\$check=true;
echo(gettype(\$num1));
echo(" ");
echo(gettype(\$str1));
echo(" ");
echo(gettype(\$num2));
echo(" ");
echo(gettype(\$check));
?>
Output:
integer string double boolean

Question 17 b:Write a P.H.P Program to demonstrate the variable function: isset()

H.T.M.L code (with integrated P.H.P code):

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <?php
  $num1=10;
  if(isset($num1))
    echo("Variable num1 is set");
  }
  else{
    echo("Variable num1 is not set");
  }
  ?>
</body>
</html>
```

Output:

Variable num1 is set

Question 17 c:Write a P.H.P Program to demonstrate the variable function: unset()

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <?php
  $num1=10;
  if(isset($num1))
    echo("Variable num1 is set.<br>");
  }
  else{
    echo("Variable num1 is not set");
  }
  unset($num1);
  if(isset($num1))
  {
    echo("Variable num1 is set");
  }
  else{
    echo("Variable num1 is not set");
  }
  ?>
```

</body>

</html>

Output:

Variable num1 is set. Variable num1 is not set

Question 18: Electricity Bill Using P.H.P (To Understand Form Handling in P.H.P)

```
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
  $previousReading = $_POST['previous_reading'];
  $presentReading = $_POST['present_reading'];
  // Calculate the units consumed
  $unitsConsumed = $presentReading - $previousReading;
  // Calculate the bill amount based on the tariff
  if ($unitsConsumed < 100) {
     $rate = 3;
  } elseif ($unitsConsumed >= 100 && $unitsConsumed <= 200) {
     $rate = 4;
  } elseif ($unitsConsumed > 200 && $unitsConsumed <= 300) {
    $rate = 5;
  } else {
    $rate = 6;
  }
  $billAmount = $unitsConsumed * $rate;
}
?>
<!DOCTYPE html>
<html>
<head>
  <title>Electricity Bill Calculation</title>
</head>
```

```
<body>
  <h2>Electricity Bill Calculation</h2>
  <form method="POST" action="">
    <label for="previous_reading">Previous Reading:</label>
    <input type="number" name="previous_reading" required>
    <br><br>
    <label for="present_reading">Present Reading:</label>
    <input type="number" name="present_reading" required>
    <br><br>
    <input type="submit" value="Calculate">
  </form>
  <?php if ($_SERVER['REQUEST_METHOD'] == 'POST'): ?>
    <h3>Bill Details:</h3>
    Units Consumed: <?php echo $unitsConsumed; ?>
    Rate: Rs. <?php echo $rate; ?>/Unit
    Bill Amount: Rs. <?php echo $billAmount; ?>
  <?php endif; ?>
</body>
</html>
Output:
Electricity Bill Calculation
```

Question 19: Session Handling Using P.H.P.

```
<?php
// Start the session
session_start();
// Check if the session counter variable is set
if (!isset($_SESSION['counter'])) {
  // If not set, initialize it to 0
  $_SESSION['counter'] = 0;
}
// Check if the cookie counter variable is set
if (!isset($_COOKIE['counter'])) {
  // If not set, initialize it to 0
  setcookie('counter', 0, time() + 86400); // Set the cookie for 24 hours
}
// Increment the session counter
$_SESSION['counter']++;
// Increment the cookie counter
setcookie('counter', $_COOKIE['counter'] + 1, time() + 86400);
?>
<!DOCTYPE html>
<html>
<head>
  <title>Session and Cookie Counter</title>
```

```
</head>
<body>
<h2>Session and Cookie Counter</h2>
<?php if (isset($_SESSION['counter'])): ?>
Session Counter: <?php echo $_SESSION['counter']; ?>
<?php endif; ?>
</ph>
<?php if (isset($_COOKIE['counter'])): ?>
Cookie Counter: <?php echo $_COOKIE['counter']; ?>
</ph>

</ph>
</ph>

</ph>
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</ph>
</ph>
</ph>

</ph>
</ph>

</ph>

<
```

Output:

Session and Cookie Counter

Session Counter: 5

Cookie Counter: 4

Question 20: File Uploading Using P.H.P (To Understand File Uploading in P.H.P)

```
<!DOCTYPE html>
<html>
<head>
  <title>File Uploading Example</title>
</head>
<body>
<?php
// Define allowed file types
$allowedTypes = array('jpg', 'jpeg', 'png', 'gif');
// Define maximum file size (in bytes)
$maxFileSize = 1048576; // 1MB
if (isset($_POST['submit'])) {
  // Check if a file was selected
  if ($_FILES['file']['name'] != ") {
     $fileName = $_FILES['file']['name'];
     $fileSize = $_FILES['file']['size'];
     $fileTmp = $_FILES['file']['tmp_name'];
     $fileType = $_FILES['file']['type'];
     // Get the file extension
     $fileExtension = strtolower(pathinfo($fileName, PATHINFO_EXTENSION));
     // Check if the file type is allowed
     if \ (in\_array(\$fileExtension, \$allowedTypes)) \ \{\\
       // Check if the file size is within the allowed limit
```

```
if ($fileSize <= $maxFileSize) {
         // Generate a unique name for the file to prevent overwriting
          $newFileName = uniqid().'.'.$fileExtension;
         // Move the file to the desired location
         $uploadDir = 'uploads/';
         $uploadPath = $uploadDir . $newFileName;
         if \ (move\_uploaded\_file(\$fileTmp, \$uploadPath)) \ \{\\
            echo "File uploaded successfully.";
         } else {
            echo "Failed to upload the file.";
         }
       } else {
         echo "File size exceeds the maximum limit.";
       }
    } else {
       echo "Invalid file type. Only JPG, JPEG, PNG, and GIF files are allowed.";
    }
  } else {
     echo "No file selected.";
<form action="<?php echo $_SERVER['PHP_SELF']; ?>" method="POST" enctype="multipart/form-data">
  <input type="file" name="file" required>
  <input type="submit" name="submit" value="Upload">
</form>
</body>
```

}

}

?>

</html>

Output:

Choose File No file chosen

Upload

.