1). Write a JavaScript program to convert temperatures to and from Celsius, Fahrenheit.

[Formula : c/5 = (f-32)/9 [where c = temperature in Celsius and f = temperature in Fahrenheit]
Expected Output :
60°C is 140 °F
45°F is 7.222222222222222°C

2). Write a JavaScript program to get the difference between user given number and 16, if the number is greater than 16 return double the absolute difference

3). Write a JavaScript program to construct the following pattern, using a nested for loop.

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

```
<body>
<script>
function cToF(celsius)
{
  const cTemp = celsius;
  const cToFahr = cTemp * 9 / 5 + 32;
  const message = cTemp + "C in Fahrenheit = " + cToFahr;
  document.write(message);
}

function fToC(fahrenheit)
{
  const fTemp = fahrenheit;
  const fToCel = (fTemp - 32) * 5 / 9;
  const message = fTemp + "F in celsius = " + fToCel +"<br>";
  document.write(message);
}
cToF(60);
fToC(45);
```

```
 2).

function difference(n)
 {
    if (n <= 13)
        return 13 - n;
    else
        return (n - 13) * 2;
 }
  var gnum = prompt('Enter a number less then 56');
document.write(difference(gnum));
```

```
 3). var x,y,chr;
for(x=1; x <=6; x++)
{
   for (y=1; y < x; y++)
     {
    chr=chr+("*");
      }
 document.write(chr);
 chr="<br>";
}

</script>
</body>
</html>
```

4).

Identify the attack .

An explicit attempt by attackers to prevent legitimate users of a service from using that service

Cross Site Scripting (CSS for short, but sometimes abbreviated as XSS) is one of the most common application-level attacks that hackers use to sneak into web applications today

Attacker execute malicious SQL statements

An explicit attempt by attackers to modify a legitimate domain name service.

5). Discuss Asymmetric cryptography and symmetric key cryptography

6). What is the difference between cookie and session

1. Cookies are client-side files that contain user information, whereas Sessions are server-side files that contain user information.
2. Cookie is not dependent on session, but Session is dependent on Cookie.
3. Cookie expires depending on the lifetime you set for it, while a Session ends when a user closes his/her browser.
4. The maximum cookie size is 4KB whereas in session, you can store as much data as you like.
5. Cookie does not have a function named unsetcookie() while in Session you can use Session_destroy(); which is used to destroy all registered data or to unset some

7). Briefly Explain the following three terms with respect to Information Security.

1. Confidentiality –

   Integrity -

   Availability -

7). Briefly Explain the following three terms with respect to Information Security.

1. Confidentiality –

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8). 03). Peple's care bank wants to create a online loan calculator (refer to Figure 03). Your are suppose to create admin interface , capture admin inputs , check the eligibility of a loan and update the table in MYSQL database.

· Figure 01 shows the table structure of the table loanDetails in the database.

· Figure 02 shows all loan records in loanDetails table in the database.

· Figure 03 shows the sample user interface for bank admin.

· You must write a single PHP code to generate the required report.

· Write your source code in the given space (You can change the given code structure).

· Following account given you to access the database server and the required table.

§ Database server: localhost

§ Database name: bank_db

§ Username: bank_user

§ Password: @user#321

#	Name	Type	Collation	Attributes
1	cid	int(11)		
2	cName	varchar(150)	utf8mb4_general_ci	
3	income	int(11)		
4	duration	int(11)		
5	loanAmount	int(11)		
6	status	varchar(20)	utf8mb4_general_ci	

Figure 01 - table structure

cid	cName	income	duration	loanAmount	status
1	P.K.L Nilaweera	65000	4	1200000	No
2	S.O Samaranayaka	125000	5	1500000	Yes
3	N.T De Silva	90000	5	2500000	No
4	H.K Uduwana	75000	3	1000000	yes

Figure 02 - Table data

+ Options

	id	cid	name	address
Edit Copy Delete	1	1	P.K.L Nilaweera	templers road , Maharagama
Edit Copy Delete	2	2	S.O Samaranayaka	Main street , Bambalapitiya
Edit Copy Delete	3	3	N.T De Silva	No : 11 , Haig road
Edit Copy Delete	4	4	H.K Uduwana	no : 08 , New Kandy road , Malabe

Figure 03 – Clients Details

Customer ID	Customer Name	Monthly Income/rs	Loan Duration/years	Amount	Loan States
1	P.K.L Nilaweera	65,000	4	1,200,000	No
2	S.O Samaranayaka	125,000	5	1,500,000	Yes
3	N.T De Silva	90,000	5	2,500,000	No
4	H.K Uduwana	75,000	3	1,000,000	Yes

Customer Name:

Monthly income:

Loan Duration:

Loan Amount:

Save Info

Figure 03- admin interface

a) Write a "config.php" , to create a mysqli database connection object.

(6 marks)

<?php	
// Create database connection using config file	
$servername = "localhost";	
$username = "root";	
$password = "";	
$dbname = "employee";	02 marks
// Create connection	
$conn = new mysqli($servername, $username, $password, $dbname);	02 marks
// Check connection	
if ($conn->connect_error) {	01 mark
die("Connection failed: " . $conn->connect_error);	01 mark
}	

b) Construct html page ("loanCalculater.php") to display the belw form.(refer figure 01)

1. Import "config.php" file
2. Read all the data using "select "from loanDetails table and display them in a table shows as below .
3. Write a form below the table to capture user inputs.
4. Your form method should be post and action page name should be insertLoanDetails.php.

(22 marks)

Figure 01 : LoanCalculater.php

require ("config.php")	2 marks
<table width='80%' border=1>	1 mark
<tr>	
<th>Customer ID</th> <th>Customer Name</th>> <th>Address</th> <th>Monthly Income/rs</th> <th>Loan Duration/years</th><th>Amount</th><th>Loan Status</th> <tr>	2 marks
$sql = "SELECT * FROM loanDetails ORDER BY cid 'DESC"; //without order by cid DESC give full marks	2 marks
$result = mysqli_query($conn, $sql);	2 marks
while($row = $result->fetch_assoc()) {	2 marks
$sql = "SELECT address FROM clientDetails where icid=$row["cid"]"; $result = mysqli_query($conn, $sql); $ address = $result->fetch_object();	

```
            echo "<tr>";
            echo "<td>".$row['cid']."</td>";
            echo "<td>".$row['cName']."</td>";
            echo "<td>".$address."</td>";
            echo "<td>".$row['income']."</td>";
            echo "<td>".$row['duration']."</td>";
            echo "<td>".$row['loanAmount']."</td>";
            echo "<td>".$row['status']."</td>";

             echo "</tr>";
        }
       }
    }
?>
```

5 marks

1 mark

<form method ="post" action=" insertLoanDetails.php" >	1 mark
Customer Name: <input type="text" name="txtEno" size="50"> 	1 mark
Monthly income: <input type="text" name = "txtEname" size="50"> 	1 mark
Loan Duration: <input type="text" name = "txtDuration" size="50"> 	1 mark
Loan Amount: <input type="text" name = "txtAmount" size="50"> 	1 mark
<input type="submit" name = "btnInsert" value="Save Info">	1 mark
</form>	

c). Complete insertLoanDetails.php by adding php codes for following requirements.

1. Import "config.php" file.
2. Capture all the user inputs you received from "loanCalculater.php"
3. Define the loan status using below equation.

   Interest Rate = 9.5%

   Monthly loan payment (MP) = ((109.5/100)* loanamount)/duration in months

   If (MP < ((60/100) * monthly income)
   Status="yes"
   Else
   Loan Status = **no**

Ex: First customer status calculation
MP =((109.5/100)*1200000) /4*12 = 27,250
MP < 65,000
Loan Status = yes

4. Insert data in to "loandetails" table using insert query.

(25 Marks)

require ("config.php");	2 marks
$cName= $_POST['txtEname'];	
$income= $_POST['txtIncome'];	4 marks
$duration =$_POST['txtDuration];	
$amount =$_POST['txtAmount];	
$mp = ((109.5/100)*$amount)/$duration*12	5 marks
(If ($mp < ((60/100) * $income))	
$status = "yes";	5 marks
else	
$status ="no";	
$sql= INSERT INTO loanDetails Values ($cName,$income,$duration,$amount);	3 marks

if ($conn->query($sql) === TRUE) {
echo "New record created successfully";
} else {
echo "Error: " . $sql . "
" . $conn->error;
}
 	
$conn->close();
	6 marks