1.a) Write an html program to demonstrate the use of heading tags in HTML.

Program

```
<html>
<head>
<title> USE OF HEADING TAGS </title>
</head>
<body>
<h1> This is Heading 1 in html </h1>
<h2> This is Heading 2 in html </h2>
<h3> This is 3 heading tag in html </h3>
<h4> This is 4 heading tag in html </h4>
<h5> This is 5 heading tag in html </h5>
<h6> This is 6 heading tag in html </h6>
</body>
</html>
```

Output

This is Heading 1 in html

This is Heading 2 in html

This is 3 heading tag in html

This is 4 heading tag in html

this is 5 heading tag in html

this is 6 heading tag in html

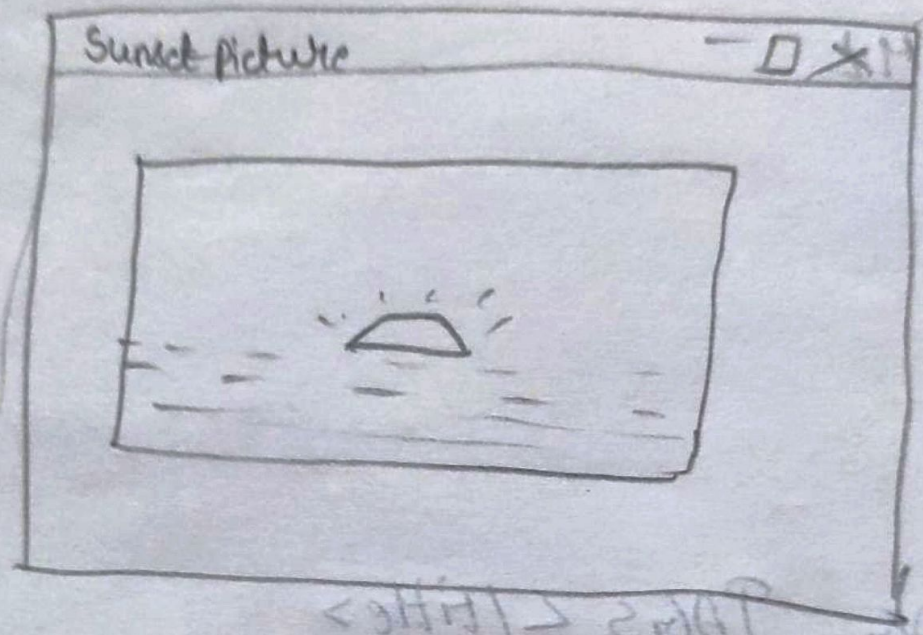
1(b) write a html program to embed an image into web document.

Program

```
<html>
<head>
<title> Embed an image </title>
</head>
<body>
<img src="sunset.jpg" width="200" height="200" alt="sunset picture" />

</body>
</html>
```

Output



1.c) write a html program to create hyperlinks to other documents.

Program

```
<html>
<head>
<title> Hyperlinks Creation </title>
</head>
<body>
<p> Hyperlink to other documents </p>
<a href = " https://www.w3schools.com/ "> Visit W3Schools.com!
</a>
</body>
</html>
```

Output

Google

W3Schools.Com!

2.

a) write an html Program to demonstrate the working of ordered & unordered lists in html.

```
<html>
<head>
<title> lists </title>
</head>
<body>
<ol type='A'>
<li> UG Courses </li>
  <ol type="a">
   <li> CSE </li>
   <li> CSE core </li>
     <ul>
        <li> DS </li>
        <li> IoT </li>
        <li> CS </li>
        <li> AIML </li>
     </ul>
   <li> EEE </li>
   <li> ECE </li>
   <li> Mech </li>
  </ol>
  <li> PG Courses </li> </ol>
  <ol type='1'>
    <li> CE </li>
     <ul>
       <li> SE </li>
       <li> GES </li>
     </ul>
      <li> ECE </li>
      <ul>
       <li> ES </li>
       <li> VLSI </li>
      </ul>
  </ol>
</body>
</html>
```

Output

- A. UG Courses
  - a. CSE
  - b. CSE Core
    - DS
    - IOT
    - CS
    - AIML
  - C. EEE
  - d. ECE
  - e. Mech
- B. PG Courses
  1. CE
     - SE
     - GES
  2. ECE
     - ES
     - VLSI

2. b) write an html program to create Time table using tables.

Program

```
<html>
<head>
<title> II Year CSE - D </title>
</head>
<body>
<table border = "15" width = "1000">
<thead>
<tbody>
<tr> <th> DAY/TIME</th>
    <th> 9:30 - 10:20</th> <th> 10:20 - 11:10</th>
    <th> 11:10 - 11:20 </th> <th> 11:20 - 12:10</th>
    <th> 12:10 - 1:00 </th> <th> 1:00 - 1:45</th>
    <th> 1:45 - 2:35 </th> <th> 2:35 - 3:25</th>
    <th> 3:25 - 4:15 </th>
</tr> </tbody> </thead>
<tbody>
<th> MONDAY </th>
<tr bgcolor = "TEAL">
  <td> ASOT </td>
  <td> OBMS - LAB </td>
  <td bgcolor = "aqua" rowspan = "6"> BREAK </td>
  <td colspan = "2"> <center> OBMS LAB </center> </td>
  <td bgcolor = "aqua" rowspan = "6"> LUNCH </td>
  <td> WT </td> <td> DAA </td> <th> EC </th>
</tr>
<tr bgcolor = "OLIVE">
<th> TUESDAY </th>
  <td colspan = "2"> DAA - LAB </td>
  <td> DAA LAB </td>
  <td> CC </td> <td> ES </td> <td> ASOT </td> <td> DAA </td>
</tr>
<tr bgcolor = "LIGHT SALMON">
```

```
<th> WEDNESDAY </th>
  <td> CC </td> <td> DAA </td> <td> WT </td> <td> ASOT </td>
  <td colspan="3"> <center> WT LAB </center> </td>
 </tr>
 <tr bgColor="Lime">
  <th> THURSDAY </th>
   <td> WT </td> <td> ASOT </td> <td> DAA </td> <td> DBMS </td>
   <td> CC </td> <td colspan="2"> <center> Vac </center> </td>
 </tr>
 <tr bgColor="CRIMSON">
  <th> FRIDAY </th>
   <td> DAA </td> <td> ASOT </td> <td> DBMS </td> <td> Counselling
                                                    </td>
   <td> DBMS </td> <td> ES </td> <td> CC </td>
 </tr>
 <tr bgColor="Purple">
  <th> SATURDAY </th>
   <td> WT </td> <td> CC </td> <td> Library </td> <td> WT </td>
   <td colspan="2"> ASOT </td> <td> SPORTS </td>
 </tr>
</tbody>
</table>
</body>
</html>
```

Output

TIME TABLE

DAY/TIME	9:30-10:20	10:20-11:10	11:10-11:20	11:20-12:10	12:10-1:00	1:00-1:45	1:45-2:35	2:35-3:25	3:25-4:15
MONDAY	ASOT	OBMSLAB		OBMSLAB			WT	OAA	CC
TUESDAY	OAA LAB			OAALAB	CC		ES	ASOT	OAA
WEDNESDAY	CC	OAA	BREAK	WT	ASOT	LUNCH	WT LAB		
THURSDAY	WT	ASOT		OAA	OBMS		CC	VAC	
FRIDAY	OAA	ASOT		OBMS	Councelling		OBMS	ES	CC
SATURDAY	WT	CC		Library	WT		ASOT		Sports

2.c) Write an html program to demonstrate the use of form tag & create login form with includes following attributes such as text, password, radiobutton, checkbox, data, file, month, week, URL.

Program

```
<html>
<head>
<title> Login Form </title>
</head>
<body>
<form align="center">
<h1> Login Details </h1>
<label> Enter username </label>
<input type="text" name="username" placeholder="username" required>
<br><br>
<label> Enter password: </label>
<input type="password" name="password" pattern="^(?=.*[0-9])
(?=.*[a-z])(?=.*[A-Z])(?=.*[!@#$%^&*()-+]){8,32}$"><br>
<br>

<label> Gender: </label>
<input type="radio" name="gender" value="male"> MALE
<input type="radio" name="gender" value="female"> FEMALE
<br><br>
<label for="email"> Enter your email: </label>
<input type="email" id="email" name="email" Pattern="^[a-zA-Z
0-9.!#$%&'*+/=?^_`{|}~-]@[a-zA-Z]+(.[a-zA-Z])*$"><br><br>
<label> Enter your phone number: </label>
<input type="tel" name="phone" pattern="[1-9]{1}[0-9]{9}"><br>
<br>
<label align="top"> Enter your Address: </label>
<textarea rows="5" cols="20"> Enter here </textarea> <br><br>
<label> Birthday: </label>
<input type="date" name="birthday"><br><br>
<label> Your Department </label>
<select name="depts">
```

```
<option value="EEE">EEE</option>
<option value="CSE">CSE</option>
<option value="IT">IT</option>
<option value="ECE">ECE</option>
<opt group level="Emerging CSE">
    <option value="DS">DS</option>
    <option value="AIML selected="selected">AIML</option></opt group>
<label>B.tech joined (month & year):</label>
<input type="month" id="monthyear" name="monthyear"><br><br>
<label>Enter your favourite programming language:</label>
<input type="Checkbox" name="CSE" value="C">C
<input type="Checkbox" name="CSE" value="C++">C++
<input type="Checkbox" name="CSE" value="Java">Java <br><br>
<label>Age limit for Job is 18&32</label><br>
<label>Enter data after 1990-01-01:</label>
<input type="date" name="datemin" min="1990-01-02"><br><br>
<label>Enter date before 2004-01-01:</label>
<input type="date" name="datemax" max="2004-01-01"><br>
<br>
<label>Attach your resume:</label>
<input type="file" name="resume"><br><br>
<label>Add your homepage</label>
<input type="url" name="homepage"><br><br>
<label>Quantity (1 to 100):</label>
<input type="number" name="quantity" min="0" max="100" step="10"
  value="20"><br><br>
<label>Volume (between 0&100):</label>
<input type="range" name="vol" min="0" max="100"><br><br>
<label>Select a time:</label>
<input type="time" name="time"><br><br>
<label>Current DateTime (date & time):</label>
<input type="datetime_local" name="currentdatetime"><br><br>
```

```
<label for="week">Select a week:</label>
<input type="week" id="week" name="week"><br><br>
<label>select your color:</label>
<input type="color" name="#ff00ff"><br><br>
<input type="button" value="Clickme" onclick="alert('Hello')">
<input type="submit" name="submit">
<input type="reset" name="reset"><br><br>
</form>
</body>
</html>
```

Output

LOGIN FORM

Enter username :

Enter Password :

Gender : ○ MALE ○ FEMALE

Enter your Email :

Enter your Phone number :

Enter your address

Birthday DD/MM/YY

Your Department :

Btech Joined (month & year) : November

Programming skills (between 1 & 5) :

Enter your favourite Programming language : ☐ C ☐ C++ ☐ Java

Age limit for the job is between 18 & 32

Enter a date after 1990-01-01 :

Enter a date after 2004-01-01 :

Attach your resume : Choose file No file chosen

Add your homepage :

Quality (1 to 100) :

Volume (between 0 & 100) :

Select a time :

Birthday (date & time) : mm/dd/yyyy --:--

Select a week : Week

Select a favourite Color :

Submit Reset

3. write a program to create an internal cascading style sheet using

a) Id Selector

Program

```
<html>
<head>
<Style> #para1 { textalign: Center;
                 Color : blue; } </Style>
</head>
<body>
<P id="para1"> Hello Java </P>
<P> This Paragraph will not be affected </P>
</body>
</html>
```

b) Class Selector

Program

```
<html>
<head>
<Style> .center { text-align: center; Color: blue; } </Style>
</head>
<body>
<h1 class="Center"> This heading is blue & Center aligned </h1>
<P class="Center"> This paragraph is blue & Center aligned </P>
</body>
</html>
```

Output

Hello Java

This paragraph will not be affected

Output

This heading is blue & center aligned

This paragraph is blue & Center aligned

c) Group Selector

Program

```
<html>
<head>
<style> h1,h2,P { Color:red ; text_align:center; } </style>
</head>
<body>
<h1> Hello</h1>
<h2> Welcome</h2>
<h3> HTML</h3>
<p> This is a paragraph </p>
</body>
</html>
```

d) Universal Selector

Program

```
<html>
<head>
<style>* {Color :green ; font_size :80px; } </style>
</head>
<body>
<h2> This is heading </h2>
<p > This style will be applied on every para </p>
<p id = " para1 "> Me too! </p>
<p> and me! </p>
</body>
</html>
```

Output

Hello

Welcome

HTML

This is a Paragraph

Output

This is heading

This style will be applied on every para

Me too!

and me!

4. Write a program to create an external cascading style sheet which includes background properties, border properties, font & margin properties.

Program

```
<html>
<head>
<link rel="stylesheet" href="styles.css">
</head>
<body>
<h1> This is a program on External CSS </h1>
<p> This includes bgColor, font. </p>
</body>
</html>
```

Styles.css

```
body {
    background: #ffooff url("vmc.jpg") norepeat
    fixed right top; border-style: solid; }
h1 {
    Color: blue; font-family: verdana; }
p {
    font-size: 300%; margin: 50px; }
```

Output

This is a progoam on External CSS

This Includes bgcolor, font.

5.
a) write a php program to find largest of 3 numbers using nested if statement.

Program

```
<?php
$a=4; $b=6; $c=9;
if($a>$b)
{
  if($a>$c)
  {
   echo("$a is largest");
  }
}else
{
  if($b>$c)
   echo "$b is largest";
  else
   echo "$c is largest";
}
?>
```

Output:

9 is largest

b) write a php program to find prime numbers between 1 & 50

Program:

```
<?php
for ($i=1 ; $i<=50 ; $i++)
{
 for($j=2; $j<=$i ;$j++)
 {
   if($j%$i==0)
    {
     break;
    }
 }
 echo "Prime number: ",$i"<br>";
}
?>
```

Output

Prime number: 2
Prime number: 3
Prime number: 5
Prime number: 7
Prime number: 11
Prime number: 13
Prime number: 17
Prime number: 19
Prime number: 23
Prime number: 29
Prime number: 31
Prime number: 37
Prime number: 41
Prime number: 43
Prime number: 50

6.a) Write a php program to traverse the array elements using for each loop

Program

```
<?php
$season = array("summer", "winter", "spring", "autumn");
foreach ($season as $arr) {
    echo "season is: $arr <br>";
}
?>
```

Output:

Season is: Summer
Season is: winter
Season is: spring
Season is: autumn

b) Write a php program to merge two arrays & sort them in descending order

Program

```
<?php
$a1 =array (1,3,15,7,5);
$a2 = array (4,3,20,1,6);
$num = array_merge ($a1, $a2);
array_multisort ($num, SORT_DESC, SORT_NUMERIC);
print_r ($num);
?>
```

Output

Array([0] => 20 [1] => 15 [2] => 7 [3] => 6 [4] => 5 [5] => 4 [6] => 3 [7] => 3 [8] => 1 [9] => 1)

7. a) Write a php program to factorial numbers using recursion

Program:

```
<?php
function factorial($n)
{
  if ($n<0)
    return -1;
 if($n==0)
    return 1;
return ($n* factorial ($n-1));
}
 echo factorial(5);
?>
```

Output

120

7. b) Write a php program for call by value and call by reference

Program:

```
<?php
function adder($str2)
{
   $str2.= 'Call by value';
 }
 $str= 'Hello';
 adder($str);
 echo ($str);
 ?>
```

Output

Hello

Program

```
<?php
function adder(&$str2)
{
  $str2 .= "Call by Reference";
}
  $str = "This is ";
  adder ($str);
  echo($str);
  ?>
```

Output

This is Call by Reference

8.
a) Write a php program to find length of a string and reverse of a string.

Program

```
<?php
$str = "Malla Reddy Engineering College";
echo "Your string is: " .$str;
echo "<br>";
echo "By using 'strlen()' function: ". strlen($str);
echo "Reverse string of $str is <br>". strrev($str);
?>
```

Output

Your string is: Malla Reddy Engineering College
By using 'strlen()' function : 31
reverse string of mallareddy Engineering college is
egelloc gnireenigne yddeR allam

b) Write a php program to count the words in a given string

Program

```
<?php
$str="Malla Reddy Engineering College";
$len = str_word_count($str);
echo $len;
?>
```

Output

4

c) Write a php program to search for a specific string in a given string.

Program

```
<?php
$input_string = "Hello Reddy Engineering College";
$sub = "Engineering";
if (strpos ($input_string, $sub) != false)
{
  echo "True";
}
else
{
  echo "false";
}
?>
```

Output

True

9.

a) Write a php program for form validation and it consists of textfields, button, textarea, radio buttons.

Program

```
<html>
<head>
<style> .error {Color: #ff0000;} </style>
</head>
<body>
<?php
 $nameErr = $emailErr = $genderErr = $websiteErr = $commentErr = "";
 $name = $email = $gender = $comment = $website = "";
  if($_SERVER["REQUEST_METHOD"] == "POST")
  {
    If (empty($_POST["name"]))
    { $nameErr = "Name is required";
    }
   Else
   {
    $name = test_input($_POST["name"]);
   }
   if (empty($_POST["email"]))
   {
     $emailErr = "Email is required";
   }
 Else
 {
   $email = test_input($_POST["email"]);
 }
if (empty($_POST["website"]))
{
  $website = "";
}
Else
{
  $website = test_input($_POST["website"]);
}
```

```
if(empty($_POST["Comment"]))
{
  $Comment = " ";
}
Else
{
  $Comment = test_input ($_POST["Comment"]);
}
if(empty($_POST["Gender"]))
{
  $genderErr = "Gender is required";
}
else
{
  $gender = test_input ($_POST["gender"]);
}
}
function test_input ($data)
{
  $data = trim($data);
  $data = stripslashes ($data);
  $data = htmlspecialchars ($data);
  return $data;
}
?>
<h2> Student registration </h2>
<p><span class="error"> * required field. </span> </p>
<form method="POST"
  action="<?php echo htmlspecialchars ($_SERVER["PHP_SELF"]);
  ?>">
<table>
<tr> <td> Name: </td>
<td> <input type="text" name="name">
<span class="error"> *<?php echo $nameErr; ?></span>
</td> </tr>
```

```
<tr><td> Email : </td>
<td><input type = "text" name = "email">
<span class = "error"> * <?php echo $emailErr; ?></span>
</td> </tr>
<tr> <td> website : </td>
<td> <input type = "text" name = "website">
<Span class = "error"> <?php echo $websiteErr ; ?> </span>
</td> </tr>
<tr> <td> Comments : </td>
<td> <textarea name = "Comment" rows = "5" cols = "4"></textarea>
</td></tr>
<tr> <td> Gender : </td> <td>
<input type = "radio" name = "gender" value = "female"> FEMALE
<input type = "radio" name = "gender" value = "Male"> MALE
<Span class = "error"> * <?php echo $genderErr ; ?></span>
</td> </tr>
<td <input type = "submit" name = "submit" value = "Submit" </td>
</table>
</form>
<?php
echo "<h2> Your given values are as: </h2>";
echo $name ; echo "<br>";
echo $email; echo "<br>";
echo $website; echo "<br>";
echo $comments; echo "<br>";
echo $gender;
?>
</body>
</html>
```

Output

Student Registration

* required field

Name: Ram *

Email: Ram@gmail.com *

Website: mrec.ac.in

Comment: MREC College

Gender: ○ FEMALE ● MALE *

Submit

Your given values are as

Ram

Ram@gmail.com

mrec.ac.in

MREC college

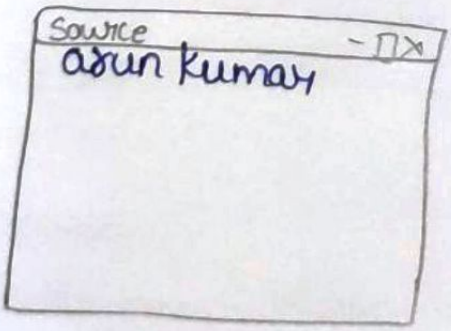
MALE

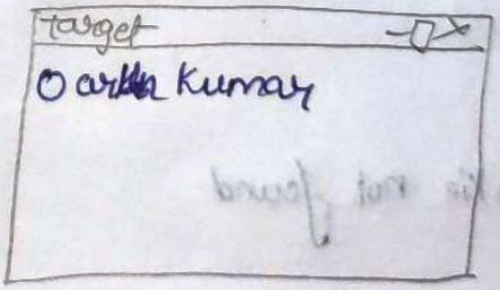
b) write a php program that reads data from one file & write into another file

Program

```
<?php
$source = 'Source.txt';
$target = 'target.txt';
$lines = file($source);
$data = array();
foreach($lines as $line) {
    $data[] = '0'. trim($line);
}
file_put_contents($target, implode(PHP_EOL, $data));
?>
```

Output





10.
a) write a php program to set the Cookies & delete the Cookies

Program

```
// Set Cookie
<?php
setcookie("user", "Rajesh");
?>
<html>
<body>
<?php
 if(!isset($_COOKIE["user"])) {
     echo " Sorry, Cookie is not found!";
  } else {
     echo "<br/> Cookie value: ".$_COOKIE["user"];
  }
?>
</body>
</html>
```

Output

Sorry, Cookie not found

After Page refresh

Cookie Value: Rajesh

Program

```
//delete Cookie
<?Php
SetCookie("CookieName","",time()-3600);
?>
<html>
<head>
<title> Deleting Cookies with PHP </title>
</head>
<body>
<?php echo "Deleted Cookies"?>
</body>
</html>
```

Output

Deleted Cookies

) write a php program to create the session to get & get the session information

Program

File: session1.php

```
<?php
 session_start();
 ?>
<html>
 <body>
 <?php
  $_SESSION["user"]="Ramu";
  echo "session information are set successfully.<br>";
 ?>
 <a href="session2.php"> visit next page </a>
 </body>
 </html>
```

File: Session2.php

```
<?php
 Session_start();
 ?>
 <html>
 <body>
 <?php
  echo "user is: ".$_SESSION["user"];
 ?>
 </body>
 </html>
```

Output

session 1

Session information are set successfully.

visit next page

session 2

User is: Ramu.

11 a) Write an XML Program to create internal DTD & external DTD for an XML document for employee details.

Program

```
// Employee details using Internal DTD
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<!DOCTYPE employee [
   <!ELEMENT employee(name,sal,id)>
   <!ELEMENT name (#PCDATA)>
   <!ELEMENT sal (#PCDATA)>
   <!ELEMENT id(#PCDATA)>
]>
<employee>
  <name> Ramu </name>
  <sal> 40,000 </sal>
   <id> 497 </id>
</employee>
```

Output

```
Ramu   40000   497
```

External dtd

Program

// Employee details using External DTD

① Employee.dtd

```
<!ELEMENT employee(name,sal,id)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT sal (#PCDATA)>
<!ELEMENT id (#PCDATA)>
```

⑥ employee2.dtd

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<!DOCTYPE employee SYSTEM "employee.dtd">
<employee>
   <name> Soumya Ramu</name>
    <sal> 40,000 </sal>
     <id> 497 </id>
</employee>
```

Output

Ramu 40,000 497

b) Write an XML program to create XSD for an XML document for student details.

Student.xsd

```
<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:element name="student">
<xs:complexType>
<xs:sequence>
<xs:element name="sname" type="xs.string"/>
<xs:element name="htno" type="xs.string"/>
<xs:element name="branch" type="xs.string"/>
<xs:element name="mobileno" type="xs.integer"/>
<xs:element name="email" type="xs.integer"/> maxOccurs="3"
                                              minOccurs="0"/>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>
```

file:
Student Schema. XML

```
<?xml Version = "1.0" encoding = "UTF-8" ?>
<Student xsi:noNameSpace SchemaLocation = "Student.xsd"
  xmlns:xsi = "http://www.w3.org/2001/XMLSchema-instance">
<Student>
 <sname> Ramya </sname>
<htno> 540 </htno>
<branch> CSE </branch>
<mobileno> 1234567898 </mobileno>
<email> Ramya@gmail.com </email>
<email> Ramya540@gmail.Com </email>
 </Student>
```

Output

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