1.a) Building a webpage with multiple pages, using links to navigate between them.

(Home page, about you, contacts us).

Ans:

<!DOCTYPE html>

<html>

<head>

<title>Home Page</title>

</head>

<body>

<header>

<nav>

<a href="about.html">About</a>

<a href="contact.html">Contact Us</a>

</nav>

</header>

<main>

<h1>Welcome to the Home Page</h1>

<p>This is the home page of our website.</p>

</main>

<footer>

<p>Copyright 2023</p>

</footer>

</body>

</html>

1. b) Create a simple webpage and use CSS to change the background color, text color, and Font size of the body.

Ans:

<!DOCTYPE html>

<html>

<head>

<title>CSS Example</title>

<style>

body {

background-color: lightblue;

color: white;

font-size: 20px;

}

</style>

</head>

<body>

<h1>Welcome to our website</h1>

<p>This is a simple example of using CSS to style a webpage.</p>

</body>

</html>

1 c) How to make incremental and decrement counter using html, css and JavaScript

Ans:

<!DOCTYPE html>

<html>

<head>

<title>Counter Example</title>

</head>

<body>

<h1 id="counter">0</h1>

<button id="increment">Increment</button>

<button id="decrement">Decrement</button>

<script>

const counter = document.getElementById("counter");

const increment = document.getElementById("increment");

const decrement = document.getElementById("decrement");

increment.addEventListener("click", function() {

counter.innerHTML = parseInt(counter.innerHTML) + 1;

});

decrement.addEventListener("click", function() {

counter.innerHTML = parseInt(counter.innerHTML) - 1;

});

</script>

</body>

</html>

2 a) Creating a simple webpage with headings, paragraphs, images, and links.

Ans:

<!DOCTYPE html>

<html>

<head>

<title>Simple Webpage Example</title>

</head>

<body>

<header>

<h1>Welcome to Our Website</h1>

</header>

<main>

<h2>About Us</h2>

<p>We are a company dedicated to providing high-quality products and services to our customers.</p>

<img src="image.jpg" alt="Company Logo">

<p>Learn more about us by visiting our <a href="about.html">About Page</a>.</p>

</main>

<footer>

<p>Copyright 2023</p>

</footer>

</body>

</html>

2 b) Create and test an HTML document that has at least a half page of text and that has a small

Box of text embedded on the left margin, with the main text flowing around the small box.

The embedded text must appear in a smaller font and also must be set in italic.

Ans:

<!DOCTYPE html>

<html>

<head>

<style>

aside {

float: left;

width: 200px;

font-size: 12px;

font-style: italic;

}

</style>

</head>

<body>

<main>

<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed euismod ante vel dolor bibendum, id pellentesque tellus faucibus. Proin hendrerit, elit at varius tincidunt, dolor lorem iaculis velit, vel commodo risus ipsum vel nulla. Nam lacus dolor, posuere at massa non, sagittis elementum nulla. Vivamus ullamcorper varius sem, eu euismod orci suscipit id. Maecenas placerat, sapien eu dictum pharetra, est erat egestas nibh, a faucibus turpis nulla id ipsum. Donec viverra purus eget viverra eleifend. Maecenas varius interdum mauris, a congue ligula pulvinar ac. Curabitur egestas lectus sed metus scelerisque, id hendrerit ante fringilla.</p>

<aside>

<p>This is the embedded text box.</p>

</aside>

</main>

</body>

</html>

2 c) How to make incremental and decrement counter using html, css and JavaScript

ans:

**<!DOCTYPE html>**

**<html>**

**<head>**

**<title>Counter Example</title>**

**</head>**

**<body>**

**<h1 id="counter">0</h1>**

**<button id="increment">Increment</button>**

**<button id="decrement">Decrement**

3. a) Create a nested list by adding a sub-list within a list item of an ordered or unordered list.

For example, create an ordered list of the planets in our solar system, and within

each planet, create an unordered list of its known moons.

Ans:

<ol>

<li>Planet 1

<ul>

<li>Moon 1</li>

<li>Moon 2</li>

<li>Moon 3</li>

</ul>

</li>

<li>Planet 2

<ul>

<li>Moon 1</li>

<li>Moon 2</li>

</ul>

</li>

<li>Planet 3

<ul>

<li>Moon 1</li>

</ul>

</li>

</ol>

3 b) Create a web page which display about yourself .which has text in bold, size 20px,

Style italic and family is Calibri.

Ans:

<!DOCTYPE html>

<html>

<head>

<style>

p {

font-family: Calibri;

font-size: 20px;

font-style: italic;

font-weight: bold;

}

</style>

</head>

<body>

<p>This is a paragraph about myself.</p>

</body>

</html>

3. c) How to access the value entered by the user using html and JavaScript

Ans:

<!DOCTYPE html>

<html>

<head>

<script>

function getValue() {

var inputValue = document.getElementById("input").value;

console.log(inputValue);

}

</script>

</head>

<body>

<form>

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

<button onclick="getValue()">Submit</button>

</form>

</body>

</html>

4. a) Create, test, and validate an HTML document that describes an unordered list of at least four

states. Each element of the list must have a nested list of at least three cities in the state.

Ans:

<ul>

<li>State 1

<ul>

<li>City 1</li>

<li>City 2</li>

<li>City 3</li>

</ul>

</li>

<li>State 2

<ul>

<li>City 1</li>

<li>City 2</li>

<li>City 3</li>

</ul>

</li>

<li>...</li>

</ul>

4. b) Create and test an HTML document that has six short paragraphs of text that describe various aspects of the state in which you live. You must define three different paragraph styles, p1, p2, and p3. The p1 style must use left and right margins of 20 pixels, a background color of pink, and a foreground color of blue. The p2 style must use left and right margins of 30 pixels, a background color of black, and a foreground color of yellow. The p3 style must use a text indent of 1 centimeter, a background color of green, and a foreground color of white. The first and fourth paragraph must use p1, the second and fifth must use p2 and the third and sixth must use p3.

Ans:

<style>

.p1 {

margin: 20px;

background-color: pink;

color: blue;

}

.p2 {

margin: 30px;

background-color: black;

color: yellow;

}

.p3 {

text-indent: 1cm;

background-color: green;

color: white;

}

</style>

<p class="p1">Paragraph 1 with p1 style</p>

<p class="p2">Paragraph 2 with p2 style</p>

<p class="p3">Paragraph 3 with p3 style</p>

...

4. c) Number Guessing Game using Html and JavaScript

Ans:

<p id="result"></p>

<input type="text" id="guess">

<button onclick="guessNumber()">Guess</button>

<script>

const target = Math.floor(Math.random() \* 100) + 1;

let attempts = 0;

function guessNumber() {

const guess = Number(document.getElementById("guess").value);

attempts++;

if (guess === target) {

document.getElementById("result").innerHTML = `You won in ${attempts} attempts!`;

} else if (guess < target) {

document.getElementById("result").innerHTML = "Too low, try again.";

} else {

document.getElementById("result").innerHTML = "Too high, try again.";

}

}

</script>

5. a) Create a simple registration form with inputs for name, email,password, Gender And

Languages (checkbox), qualification (dropdown), photo (choose file), submit and reset buttons.

ans:

<form> <label for="name">Name:</label> <input type="text" id="name" name="name">

<label for="email">Email:</label> <input type="email" id="email" name="email">

<label for="password">Password:</label> <input type="password" id="password" name="password">

<label for="gender">Gender:</label> <input type="radio" id="male" name="gender" value="male"> <label for="male">Male</label> <input type="radio" id="female" name="gender" value="female"> <label for="female">Female</label>

<label for="languages">Languages:</label> <input type="checkbox" id="english" name="english" value="english"> <label for="english">English</label> <input type="checkbox" id="french" name="french" value="french"> <label for="french">French</label>

<label for="qualification">Qualification:</label> <select id="qualification" name="qualification"> <option value="bachelor">Bachelor</option> <option value="master">Master</option> <option value="phd">PhD</option> </select>

<label for="photo">Photo:</label> <input type="file" id="photo" name="photo">

<input type="submit" value="Submit"> <input type="reset" value="Reset"> </form>

5. b) Create a webpage which displays "Welcome Box Model" which has a width of 200px, a height

of 100px, 10px of padding, a 1px solid black border, and a 20px margin.

Ans:

<div style="width:200px; height:100px; padding:10px; border:1px solid black; margin:20px;">Welcome Box Model</div>

5. c) Create a simple calculator using HTML and JavaScript by creating a form with input fields for

The user to enter numbers and buttons for the different arithmetic operators (+, -, \*, /).

When the user clicks the buttons, you can use JavaScript to perform the calculations and

Display the result on the page.

Ans:

<form> <input type="text" id="result"> <br><br> <input type="button" value="1" onclick="document.getElementById('result').value+='1'"> <input type="button" value="2" onclick="document.getElementById('result').value+='2'"> <input type="button" value="3" onclick="document.getElementById('result').value+='3'"> <input type="button" value="+" onclick="document.getElementById('result').value+='+'"> <br> <input type="button" value="4" onclick="document.getElementById('result').value+='4'"> <input type="button" value="5" onclick="document.getElementById('result').value+='5'"> <input type="button" value="6" onclick="document.getElementById('result').value+='6'"> <input type="button" value="-" onclick="document.getElementById('result').value+='-'"> <br> <input type="button" value="7" onclick="document.getElementById('result').value+='7'"> <input type="button" value="8" onclick="document.getElementById('result').value+='8'"> <input type="button" value="9" onclick="document.getElementById('result').value+='9'"> <input type="button" value="\*" onclick="document.getElementById('result').value+='\*'"> <br> <input type="button" value="C" onclick="document.getElementById('result').value=''"> <input type="button" value="0" onclick="document.getElementById('result').value+='0'"> <input type="button" value="=" onclick="document.getElementById('result').value=eval(document.getElementById('result').value)"> <input type="button" value="/" onclick="document.getElementById('result').value+='/'"> </form>

6. a) Create a simple Signup form with inputs for firstname,lastname, Date of birth, gender, Country,

E-mail, phone, password, confirm password, I agree the terms of use, submit and cancel buttons.

Ans:

<form action="#">

<label for="fname">First Name:</label>

<input type="text" id="fname" name="firstname"><br><br>

<label for="lname">Last Name:</label>

<input type="text" id="lname" name="lastname"><br><br>

<label for="dob">Date of Birth:</label>

<input type="date" id="dob" name="dob"><br><br>

<label for="gender">Gender:</label>

<input type="radio" id="male" name="gender" value="male">

<label for="male">Male</label>

<input type="radio" id="female" name="gender" value="female">

<label for="female">Female</label><br><br>

<label for="country">Country:</label>

<select id="country" name="country">

<option value=""></option>

<option value="USA">USA</option>

<option value="Canada">Canada</option>

<option value="UK">UK</option>

</select><br><br>

<label for="email">Email:</label>

<input type="email" id="email" name="email"><br><br>

<label for="phone">Phone:</label>

<input type="tel" id="phone" name="phone"><br><br>

<label for="password">Password:</label>

<input type="password" id="password" name="password"><br><br>

<label for="cpassword">Confirm Password:</label>

<input type="password" id="cpassword" name="cpassword"><br><br>

<input type="checkbox" id="terms" name="terms">

<label for="terms">I agree to the terms of use</label><br><br>

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

<input type="reset" value="Cancel">

</form>

6.b) Create a webpage which displays "Welcome to CSS” which has background color blue, Use the background-image property to add a background image to the main content section. Make sure the image repeats horizontally. and position the background image in the center.

Ans:

<html>

<head>

<style>

.main-content {

background-color: blue;

background-image: url(background-image.jpg);

background-repeat: repeat-x;

background-position: center;

}

</style>

</head>

<body>

<div class="main-content">

<h1>Welcome to CSS</h1>

</div>

</body>

</html>

6. c) Create an application that converts temperatures from Fahrenheit to Celsius or vice versa.

You can use the \* operator to multiply the temperature by a conversion factor and the +

Operator to add or subtract an offset value, depending on the conversion direction.

Ans:

def temp\_converter(temp, unit):

if unit == "F":

return (temp - 32) \* 5 / 9

elif unit == "C":

return (temp \* 9 / 5) + 32

temp = float(input("Enter temperature: "))

unit = input("Enter unit (F for Fahrenheit, C for Celsius): ")

result = temp\_

7. a) creating a simple webpage with headings, paragraphs, images, and links.

Ans:

<html>

<head>

<title>My Simple Webpage</title>

</head>

<body>

<h1>Heading 1</h1>

<p>This is a paragraph with some text.</p>

<img src="image.jpg" alt="An image">

<p>This is another paragraph with a <a href="https://www.google.com">link</a>.</p>

</body>

</html>

7. b) Create and test an HTML document that contains at least five lines of text from a newspaper

Story. Every verb in the text must be green, every noun must be blue, and every preposition must

Be yellow.

Ans:

<html>

<head>

<style>

.verb {

color: green;

}

.noun {

color: blue;

}

.preposition {

color: yellow;

}

</style>

</head>

<body>

<p>

The <span class="verb">rain</span> <span class="verb">fell</span> heavily on the <span class="noun">city</span>.

People <span class="verb">sought</span> shelter under <span class="preposition">in</span> the <span class="noun">buildings</span>.

</p>

<p>

The <span class="noun">flood</span> <span class="verb">swept</span> away <span class="preposition">through</span> the <span class="noun">streets</span>.

The <span class="noun">rescue</span> <span class="verb">teams</span> <span class="verb">worked</span> tirelessly to <span class="verb">save</span> people.

</p>

</body>

</html>

7.c) Create an application that calculates a person's age based on their birth year and month and

Date. You can use the - operator to subtract the person's birth year, month and date from the

Current year, month and date to determine their age.

Ans:

from datetime import datetime

def calculate\_age(year, month, day):

today = datetime.today()

age = today.year - year

if today.month < month or (today.month == month and today.day < day):

age -= 1

return age

year = int(input("Enter birth year: "))

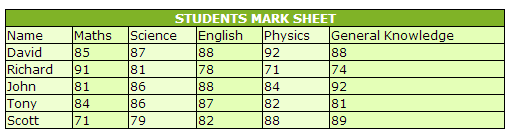
month = int(input("Enter birth month: "))

day = int(input("Enter birth day: "))

age = calculate\_age(year, month, day)

print("Your age is:", age)

8. a) Write a program to create HTML table using having following output:



Ans:

<html>

<head>

<style>

table, th, td {

border: 1px solid black;

border-collapse: collapse;

}

th, td {

padding: 5px;

text-align: left;

}

th {

background-color: #f2f2f2;

}

</style>

</head>

<body>

<table style="width:100%">

<tr>

<th>First Name</th>

<th>Last Name</th>

<th>Points</th>

</tr>

<tr>

<td>Jill</td>

<td>Smith</td>

<td>50</td>

</tr>

<tr>

<td>Eve</td>

<td>Jackson</td>

<td>94</td>

</tr>

<tr>

<td>John</td>

<td>Doe</td>

<td>80</td>

</tr>

</table>

</body>

</html>

8. b) Create and test an HTML document that includes at least two images and enough text to precede the images, flow around them (one on the left and one on the right), and continue after the last image.

Ans:

<html>

<head>

<style>

.img-container {

display: flex;

}

.img-left {

float: left;

margin: 0 10px 10px 0;

}

.img-right {

float: right;

margin: 0 0 10px 10px;

}

</style>

</head>

<body>

<h2>An Example of Text Flowing Around Images</h2>

<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc finibus odio in ligula feugiat, id euismod enim auctor. Curabitur viverra tortor vel congue tincidunt. Fusce vitae nisl auctor, tincidunt ipsum vitae, commodo velit. Aliquam auctor congue dolor vel facilisis. Sed blandit velit vel risus vestibulum molestie. Nam a ipsum at eros congue rhoncus. Sed tempor id odio eget placerat. Aliquam erat

<div class="img-container">

<img class="img-left" src="image1.jpg" width="250" height="200" alt="Image 1">

<img class="img-right" src="image2.jpg" width="250" height="200" alt="Image 2">

</div>

volutpat auctor id. Sed eget nunc metus. Quisque quis malesuada mauris. Integer pharetra sapien id dui fringilla, non commodo nulla vestibulum. Sed malesuada fringilla risus id tempor. Nam mollis, enim vel rhoncus congue, ipsum velit pulvinar risus, at consectetur nibh est euismod enim. Donec pharetra ante at lectus faucibus, vel posuere est consectetur. Sed eget auctor nisl, in tempor nulla. Suspendisse auctor, lacus a congue aliquet, libero justo pellentesque nulla, id commodo magna nulla vitae quam. Curabitur a nunc quam. In sit amet nulla et libero blandit pharetra.</p>

</body>

</html>

<html>

<head>

<script>

function generateOTP() {

var length = 6;

var characters = "0123456789";

var otp = "";

for (var i = 0; i < length; i++) {

otp += characters.charAt(Math.floor(Math.random() \* characters.length));

}

document.getElementById("otp").innerHTML = "Your One-Time Password is: " + otp;

}

</script>

</head>

<body>

<h2>Generate One-Time Password (OTP)</h2>

8.c) Write Program to generate one-time password (OTP) using JS.

Ans:

function generateOTP() {

// Define the OTP length

var length = 6;

// Generate a random number as the OTP

var otp = '';

for (var i = 0; i < length; i++) {

otp += Math.floor(Math.random() \* 10);

}

// Return the generated OTP

return otp;

}

// Call the function to generate an OTP

var password = generateOTP();

// Print the generated OTP

console.log("Generated OTP: " + password);

9. a) Create a webpage which displays the class time table.

Ans;

<html>

<head>

<title>Class Timetable</title>

<style>

table {

width: 100%;

border-collapse: collapse;

}

th, td {

border: 1px solid black;

padding: 8px;

text-align: center;

}

th {

background-color: lightgray;

}

</style>

</head>

<body>

<table>

<tr>

<th>Time</th>

<th>Monday</th>

<th>Tuesday</th>

<th>Wednesday</th>

<th>Thursday</th>

<th>Friday</th>

</tr>

<tr>

<td>9:00-10:00</td>

<td>Math</td>

<td>Science</td>

<td>English</td>

<td>History</td>

<td>Art</td>

</tr>

<tr>

<td>10:00-11:00</td>

<td>English</td>

<td>History</td>

<td>Art</td>

<td>Math</td>

<td>Science</td>

</tr>

<!-- Add more rows for the rest of the classes -->

</table>

</body>

</html>

9. b) Create a webpage which displays "Hello World" with font size 20 pixels, bold format, in

"Times New Roman" font and green in color using embedded CSS.

Ans:

<html>

<head>

<style>

.hello {

font-size: 20px;

font-weight: bold;

font-family: Times New Roman;

color: green;

}

</style>

</head>

<body>

<p class="hello">Hello World</p>

</body>

</html>

9.c) Number Guessing Game using Html and JavaScript

Ans:

<html>

<head>

<script>

function guessNumber() {

// Get the user's guess

var guess = parseInt(document.getElementById("guess").value);

// Generate a random number to be guessed

var number = Math.floor(Math.random() \* 100) + 1;

// Check if the user's guess is correct

if (guess === number) {

alert("You won! The number was " + number);

} else {

alert("Try again. The number was " + number);

}

}

</script>

</head>

<body>

<h1>Number Guessing Game</h1>

<p>Guess a number between 1 and 100:</p>

<input type="text" id="guess">

<button onclick="guessNumber()">Guess</button>

</body>

</html>

10. a) Create, test, and validate an HTML document that defines a table with columns for state, state bird, state flower, and state tree. There must be at least five rows for states in the table. You must include attribute specifications for cellpadding and cellspacing.

Ans;

<table cellpadding="5" cellspacing="5">

<tr>

<th>State</th>

<th>State Bird</th>

<th>State Flower</th>

<th>State Tree</th>

</tr>

<tr>

<td>California</td>

<td>California Quail</td>

<td>Golden Poppy</td>

<td>California Redwood</td>

</tr>

<tr>

<td>Texas</td>

<td>Mockingbird</td>

<td>Bluebonnet</td>

<td>Pecan</td>

</tr>

<tr>

<td>Florida</td>

<td>Mockingbird</td>

<td>Orange Blossom</td>

<td>Sabal Palm</td>

</tr>

<tr>

<td>New York</td>

<td>Bluebird</td>

<td>Rose</td>

<td>Sugar Maple</td>

</tr>

</table>

10.b) Create and test an HTML document that describes an unordered list of at least five popular books. The bullet for each book must be a small image of the book’s cover. Find the images on the Web.

Ans:

<ul>

<li>

<img src="book1cover.jpg" alt="book1cover" width="30" height="40">

<p>Book 1 Title</p>

</li>

<li>

<img src="book2cover.jpg" alt="book2cover" width="30" height="40">

<p>Book 2 Title</p>

</li>

<li>

<img src="book3cover.jpg" alt="book3cover" width="30" height="40">

<p>Book 3 Title</p>

</li>

<li>

<img src="book4cover.jpg" alt="book4cover" width="30" height="40">

<p>Book 4 Title</p>

</li>

<li>

<img src="book5cover.jpg" alt="book5cover" width="30" height="40">

<p>Book 5 Title</p>

</li>

</ul>

10. c). How to manipulate html and css using JavaScript?

Ans;

To manipulate HTML and CSS using JavaScript, you can use JavaScript's Document Object Model (DOM) to select HTML elements and change their properties such as content, attributes, styles, etc.

For example, to select an HTML element with a specific ID and change its text content:

<p id="example">Original text</p>

<script>

var example = document.getElementById("example");

example.innerHTML = "New text";

</script>

To change the style of an HTML element, you can use the **style** property:

<p id="example">Text with original style</p>

<script>

var example = document.getElementById("example");

example.style.color = "blue";

example.style.fontSize = "20px";

</script>

You can also add and remove CSS classes to elements to change their styles:

<style>

.blue {

color: blue;

}

.big {

font-size: 20px;

}

</style>

<p id="example" class="blue big">Text with original style</p>

<script>

var example = document.getElementById("example");

example.classList.remove("blue");

example.classList.add("red");

</script>

11. a) Create a web page which displays a hyperlink for each subject in your current semester.

When the user clicks a link, it should open the respective subject's page.

Ans:

<!DOCTYPE html>

<html>

<head>

<title>Subjects Page</title>

</head>

<body>

<h1>My Semester Subjects</h1>

<ul>

<li><a href="subject1.html">Subject 1</a></li>

<li><a href="subject2.html">Subject 2</a></li>

<li><a href="subject3.html">Subject 3</a></li>

<li><a href="subject4.html">Subject 4</a></li>

<li><a href="subject5.html">Subject 5</a></li>

</ul>

</body>

</html>

11.b) Create and test an HTML document that displays a table of football scores from

a collegiate football conference in which the team names have one of the primary colors of

their respective schools. The winning scores must appear larger and in a different font than

the losing scores. The team names must be in a script font.

Ans:

<!DOCTYPE html>

<html>

<head>

<style>

table {

border-collapse: collapse;

}

th, td {

border: 1px solid black;

padding: 8px;

}

th {

text-align: left;

}

.winning {

font-size: 20px;

font-weight: bold;

color: red;

}

.losing {

font-size: 16px;

color: blue;

}

.team-name {

font-family: cursive;

}

</style>

</head>

<body>

<h1>College Football Scores</h1>

<table>

<tr>

<th>Team</th>

<th>Score</th>

</tr>

<tr>

<td class="team-name">Team A</td>

<td class="winning">45</td>

</tr>

<tr>

<td class="team-name">Team B</td>

<td class="losing">30</td>

</tr>

<tr>

<td class="team-name">Team C</td>

<td class="winning">50</td>

</tr>

<tr>

<td class="team-name">Team D</td>

<td class="losing">35</td>

</tr>

<tr>

<td class="team-name">Team E</td>

<td class="winning">55</td>

</tr>

</table>

</body>

</html>

11.c) How to access the value entered by the user using html and JavaScript

Ans;

To access the value entered by the user in an HTML form using JavaScript, you can use the following steps:

1. Assign an id to the input element in the HTML form.
2. Use document.getElementById() method to select the input element and store its value in a JavaScript variable.
3. The value property of the input element can be used to access the value entered by the user.

Example:

HTML:

Python:

<input type="text" id="input\_field">

Javascript

var input = document.getElementById("input\_field").value;