**1. HTML Program for Text Formatting Tags in Tabular Format**

<!DOCTYPE html>

<html>

<head>

<title>Text Formatting Tags</title>

</head>

<body>

<h2>Text Formatting Tags</h2>

<table border="1" cellpadding="10">

<tr>

<th>Tag</th>

<th>Description</th>

<th>Example</th>

</tr>

<tr>

<td>&lt;b&gt;</td>

<td>Bold text</td>

<td><b>Bold</b></td>

</tr>

<tr>

<td>&lt;i&gt;</td>

<td>Italic text</td>

<td><i>Italic</i></td>

</tr>

<tr>

<td>&lt;u&gt;</td>

<td>Underlined text</td>

<td><u>Underlined</u></td>

</tr>

<tr>

<td>&lt;mark&gt;</td>

<td>Highlighted text</td>

<td><mark>Marked</mark></td>

</tr>

<tr>

<td>&lt;sub&gt;</td>

<td>Subscript text</td>

<td>H<sub>2</sub>O</td>

</tr>

<tr>

<td>&lt;sup&gt;</td>

<td>Superscript text</td>

<td>X<sup>2</sup></td>

</tr>

<tr>

<td>&lt;strike&gt;</td>

<td>Strikethrough text</td>

<td><strike>Struck</strike></td>

</tr>

</table>

</body>

</html>

**2. HTML Program to Create Web Page Using List Tags**

<!DOCTYPE html>

<html>

<head>

<title>HTML Lists</title>

</head>

<body>

<h2>Types of Lists</h2>

<h3>Ordered List</h3>

<ol>

<li>HTML</li>

<li>CSS</li>

<li>JavaScript</li>

</ol>

<h3>Unordered List</h3>

<ul>

<li>Apple</li>

<li>Banana</li>

<li>Orange</li>

</ul>

<h3>Definition List</h3>

<dl>

<dt>HTML</dt>

<dd>HyperText Markup Language</dd>

<dt>CSS</dt>

<dd>Cascading Style Sheets</dd>

</dl>

</body>

</html>

**4. HTML Program to Create a Resume**

<!DOCTYPE html>

<html>

<head>

<title>My Resume</title>

</head>

<body>

<h1 style="text-align:center";>Resume</h1>

<h1>Shithik Asath</h1>

<p><strong>Email:</strong> shithik@example.com</p>

<p><strong>Phone:</strong> 9876543210</p>

<h2>Career Objective</h2>

<p>To work as a full stack developer in a reputed IT firm.</p>

<h2>Education</h2>

<ul>

<li>B.E. CSE - EGS Pillay Engineering College</li>

<li>HSC - XYZ School</li>

</ul>

<h2>Skills</h2>

<ul>

<li>Java, HTML, CSS, JavaScript</li>

<li>React.js, MongoDB, MySQL</li>

</ul>

<h2>Projects</h2>

<ul>

<li>Blockchain Voting System</li>

</ul>

<h2>Declaration</h2>

<p>I hereby declare the above information is true to the best of my knowledge.</p>

</body>

</html>

**5. HTML Program to Design a Simple Calculator with Internal CSS**

<!DOCTYPE html>

<html>

<head>

<title>SIMPLE CALCULATOR</title>

<style>

input

{

background-color:green; width:100%; border:0; color:white;

}

</style>

</head>

<body>

<div align="center">

<h2>Calculator</h2>

<form name="calculate">

<table>

<tr>

<td colspan="4">

<input type="text" name="get" readonly>

</td>

</tr>

<tr>

<td><input type="button" value="1" onclick="calculate.get.value += '1'"></td>

<td><input type="button" value="2" onclick="calculate.get.value += '2'"></td>

<td><input type="button" value="3" onclick="calculate.get.value += '3'"></td>

<td><input type="button" value="+" onclick="calculate.get.value += '+'"></td>

</tr>

<tr>

<td><input type="button" value="4" onclick="calculate.get.value += '4'"></td>

<td><input type="button" value="5" onclick="calculate.get.value += '5'"></td>

<td><input type="button" value="6" onclick="calculate.get.value += '6'"></td>

<td><input type="button" value="-" onclick="calculate.get.value += '-'"></td>

</tr>

<tr>

<td><input type="button" value="7" onclick="calculate.get.value += '7'"></td>

<td><input type="button" value="8" onclick="calculate.get.value += '8'"></td>

<td><input type="button" value="9" onclick="calculate.get.value += '9'"></td>

<td><input type="button" value="\*" onclick="calculate.get.value += '\*'"></td>

</tr>

<tr>

<td><input type="reset" value="C"></td>

<td><input type="button" value="0" onclick="calculate.get.value += '0'"></td>

<td><input type="button" value="=" onclick="calculate.get.value = eval(calculate.get.value)"></td>

<td><input type="button" value="/" onclick="calculate.get.value += '/'"></td>

</tr>

</table>

</form>

</div>

</body>

</html>

**6. HTML Program to Design a Student Registration Form with External CSS**

* q6\_student\_form.html
* style.css

**q6\_student\_form.html**

<!DOCTYPE html>

<html>

<head>

<title>Student Registration</title>

<link rel="stylesheet" href="style.css">

</head>

<body>

<h2>Student Registration Form</h2>

<form>

Name: <input type="text" name="name"><br><br>

Email: <input type="email" name="email"><br><br>

Gender:

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

<input type="radio" name="gender" value="female">Female<br><br>

Course:

<select name="course">

<option value="cs">Computer Science</option>

<option value="it">Information Tech</option>

</select><br><br>

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

</form>

</body>

</html>

**style.css**

body {

font-family: Arial;

background: #f0f8ff;

padding: 20px;

}

form {

border: 1px solid #ccc;

padding: 20px;

background: white;

width: 300px;

}

**7. XML Program to Display Tutorial Sections Styled with CSS**

**tutorial.xml**

<?xml version="1.0" encoding=”UTF-8”>

<?xml-stylesheet type="text/css" href="tutorial.css"?>

<tutorial>

<section>

<title>HTML</title>

<topic>Tags</topic>

<topic>Forms</topic>

</section>

<section>

<title>CSS</title>

<topic>Selectors</topic>

<topic>Box Model</topic>

</section>

</tutorial>

**tutorial.css**

tutorial {

display: block;

font-family: Verdana;

background-color: #e0f7fa;

}

section {

display: block;

margin-bottom: 15px;

}

title {

color: darkblue;

font-weight: bold;

font-size: 18px;

}

topic {

display: block;

margin-left: 20px;

color: darkgreen;

}

**8. XML Program to Display Book Info Validated with DTD**

**book\_info.xml**

<?xml version="1.0"encoding=”UTF-8”>

<!DOCTYPE books [

<!ELEMENT books (book+)>

<!ELEMENT book (title, author, price)>

<!ELEMENT title (#PCDATA)>

<!ELEMENT author (#PCDATA)>

<!ELEMENT price (#PCDATA)>

]>

<books>

<book>

<title>XML Fundamentals</title>

<author>John Smith</author>

<price>499</price>

</book>

<book>

<title>Advanced HTML</title>

<author>Jane Doe</author>

<price>399</price>

</book>

</books>

**9. XML Program to Display Student Info Using XSLT**

**student.xml**

<?xml version="1.0"?>

<?xml-stylesheet type="text/xsl" href="student.xsl"?>

<students>

<student>

<name>Ravi</name>

<dept>CSE</dept>

</student>

<student>

<name>Sita</name>

<dept>ECE</dept>

</student>

</students>

**student.xsl**

<?xml version="1.0"?>

<xsl:stylesheet version="1.0"

xmlns:xsl="http://www.w3.org/1999/XSL/Transform">

<xsl:template match="/">

<html>

<body>

<h2>Student Info</h2>

<table border="1">

<tr bgcolor="#cccccc">

<th>Name</th>

<th>Department</th>

</tr>

<xsl:for-each select="students/student">

<tr>

<td><xsl:value-of select="name"/></td>

<td><xsl:value-of select="dept"/></td>

</tr>

</xsl:for-each>

</table>

</body>

</html>

</xsl:template>

</xsl:stylesheet>

**10. Perl Program to Display User Info Using CGI**

**user\_info.cgi**

#!/usr/bin/perl

print "Content-type: text/html\n\n";

print "<html><head><title>User Info</title></head><body>";

print "<h2>User Information</h2>";

print "Name: Shithik<br>";

print "Email: shithik\@example.com<br>";

print "</body></html>";

**11. PHP Program to Calculate Electricity Bill**

**q11\_electricity\_bill.php**

<?php

$units = 250;

$bill = 0;

if($units <= 100) {

$bill = $units \* 3;

} elseif($units <= 200) {

$bill = (100 \* 3) + (($units - 100) \* 4);

} else {

$bill = (100 \* 3) + (100 \* 4) + (($units - 200) \* 5);

}

echo "Total units: $units<br>";

echo "Electricity Bill: ₹" . $bill;

?>

**12. PHP Program with Cookies for Employee and LIC Info**

**Files**:

* q12\_employee\_form.php (Input form + cookie set)
* display.php (Shows saved cookie info)

**q12\_employee\_form.php**

<?php

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

setcookie("empname", $\_POST["empname"], time()+3600);

setcookie("empid", $\_POST["empid"], time()+3600);

setcookie("lic", $\_POST["lic"], time()+3600);

echo "Cookies set! <a href='display.php'>View Details</a>";

} else {

?>

<form method="post">

Employee Name: <input type="text" name="empname"><br>

Employee ID: <input type="text" name="empid"><br>

LIC Policy No: <input type="text" name="lic"><br>

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

</form>

<?php } ?>

**display.php**

<?php

echo "<h2>Employee LIC Details</h2>";

echo "Name: " . $\_COOKIE["empname"] . "<br>";

echo "ID: " . $\_COOKIE["empid"] . "<br>";

echo "LIC Policy: " . $\_COOKIE["lic"] . "<br>";

?>

**13. PHP Form Submission with Database Connection**

**File: q13\_submit\_db.php**

<?php

$conn = new mysqli("localhost", "root", "", "company");

if ($conn->connect\_error) die("Connection failed");

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

$name = $\_POST["name"];

$email = $\_POST["email"];

$sql = "INSERT INTO employees (name, email) VALUES ('$name', '$email')";

if ($conn->query($sql) === TRUE)

echo "Inserted successfully!";

else

echo "Error: " . $conn->error;

}

?>

<form method="post">

Name: <input type="text" name="name"><br>

Email: <input type="email" name="email"><br>

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

</form>

✅ Make sure a MySQL database company and table employees(id, name, email) exist.

**14. PHP Program to Display User Details with DB**

**File**: **q14\_display\_users.php**

<?php

$conn = new mysqli("localhost", "root", "", "company");

if ($conn->connect\_error) die("Connection failed");

$result = $conn->query("SELECT \* FROM employees");

echo "<h2>User Details</h2>";

echo "<table border='1'><tr><th>ID</th><th>Name</th><th>Email</th></tr>";

while($row = $result->fetch\_assoc()) {

echo "<tr><td>{$row['id']}</td><td>{$row['name']}</td><td>{$row['email']}</td></tr>";

}

echo "</table>";

?>

**15. AJAX Program to Create a Live Search Page**

**livesearch.html**

html

CopyEdit

<!DOCTYPE html>

<html>

<head>

<title>Live Search</title>

<script>

function showHint(str) {

if (str.length == 0) {

document.getElementById("result").innerHTML = "";

return;

}

const xmlhttp = new XMLHttpRequest();

xmlhttp.onreadystatechange = function() {

if (this.readyState == 4 && this.status == 200) {

document.getElementById("result").innerHTML = this.responseText;

}

};

xmlhttp.open("GET", "livesearch.php?q=" + str, true);

xmlhttp.send();

}

</script>

</head>

<body>

<h2>Live Search</h2>

<input type="text" onkeyup="showHint(this.value)">

<p>Suggestions: <span id="result"></span></p>

</body>

</html>

**livesearch.php**

php

CopyEdit

<?php

$suggestions = ["Apple", "Banana", "Grapes", "Mango", "Orange", "Pineapple"];

$q = $\_GET["q"];

$hint = "";

if ($q !== "") {

$q = strtolower($q);

$len = strlen($q);

foreach($suggestions as $item) {

if (stristr($q, substr($item, 0, $len))) {

$hint .= $item . ", ";

}

}

}

echo $hint === "" ? "No suggestion" : rtrim($hint, ", ");

?>

**16. Program to Display Book Information Using Rails**

**books\_controller.rb (Pseudo code for controller & view)**

# Controller: app/controllers/books\_controller.rb

class BooksController < ApplicationController

def index

@books = Book.all

end

end

# View: app/views/books/index.html.erb

<h1>Book Information</h1>

<table>

<tr><th>Title</th><th>Author</th></tr>

<% @books.each do |book| %>

<tr><td><%= book.title %></td><td><%= book.author %></td></tr>

<% end %>

</table>

🚨 Requires a working Rails project with a books table and model.

**17. Online Shopping Website Using HTML**

**q17\_shopping.html**

<!DOCTYPE html>

<html>

<head>

<title>Online Shopping</title>

</head>

<body>

<h1>Welcome to My Shop</h1>

<ul>

<li>Product 1 - ₹499 <button>Add to Cart</button></li>

<li>Product 2 - ₹999 <button>Add to Cart</button></li>

</ul>

</body>

</html>

**18. Online Shopping Website Using HTML and CSS**

**q18\_shopping\_css.html**

<!DOCTYPE html>

<html>

<head>

<title>Shopping Site</title>

<style>

body {

font-family: Arial;

background: #f5f5f5;

}

.product {

background: white;

margin: 10px;

padding: 10px;

border: 1px solid #ccc;

width: 200px;

}

</style>

</head>

<body>

<h2>Products</h2>

<div class="product">Item A - ₹300 <button>Add</button></div>

<div class="product">Item B - ₹600 <button>Add</button></div>

</body>

</html>

**19. Online Shopping Website Using Perl with CGI**

#!/usr/bin/perl

print "Content-type: text/html\n\n";

print "<html><body>";

print "<h2>Online Shop</h2>";

print "Product: Book - ₹250 <button>Add to Cart</button>";

print "</body></html>";

✅ Save this file in cgi-bin/ and run with executable permission (chmod +x shopping.cgi).

**20. Online Shopping Website Using PHP with MySQL**

**shopping.php**

<?php

$conn = new mysqli("localhost", "root", "", "shop");

if ($conn->connect\_error) die("Connection failed");

$result = $conn->query("SELECT \* FROM products");

echo "<h2>Available Products</h2>";

echo "<table border='1'><tr><th>Name</th><th>Price</th></tr>";

while($row = $result->fetch\_assoc()) {

echo "<tr><td>{$row['name']}</td><td>₹{$row['price']}</td></tr>";

}

echo "</table>";

?>

**Q21. Patient Registration Form (HTML + CSS)**

html

CopyEdit

<!DOCTYPE html>

<html>

<head>

<title>Patient Registration</title>

<style>

body { font-family: Arial; background: #eef; }

form { padding: 20px; background: #fff; border: 1px solid #ccc; width: 300px; }

</style>

</head>

<body>

<h2>Patient Registration</h2>

<form>

Name: <input type="text"><br><br>

Age: <input type="number"><br><br>

Gender: <input type="radio" name="g">Male <input type="radio" name="g">Female<br><br>

Disease: <input type="text"><br><br>

<input type="submit">

</form>

</body>

</html>

**✅ Q22. Railway Ticket Booking Form**

html

CopyEdit

<!DOCTYPE html>

<html>

<head>

<title>Railway Ticket Booking</title>

<style>

body { font-family: Verdana; background: #f9f9f9; }

form { width: 300px; background: #fff; padding: 15px; border: 1px solid #000; }

</style>

</head>

<body>

<h2>Railway Ticket Booking</h2>

<form>

Passenger Name: <input type="text"><br><br>

From: <input type="text"><br><br>

To: <input type="text"><br><br>

Date: <input type="date"><br><br>

<input type="submit" value="Book Ticket">

</form>

</body>

</html>

**✅ Q23. Airline Reservation Form**

html

CopyEdit

<!DOCTYPE html>

<html>

<head>

<title>Airline Reservation</title>

<style>

form { background: #e0f7fa; padding: 20px; width: 300px; }

</style>

</head>

<body>

<h2>Airline Reservation Form</h2>

<form>

Name: <input type="text"><br><br>

Departure: <input type="text"><br><br>

Arrival: <input type="text"><br><br>

Date: <input type="date"><br><br>

<input type="submit">

</form>

</body>

</html>

**✅ Q24. Scientific Calculator with CSS**

html

CopyEdit

<!DOCTYPE html>

<html>

<head>

<title>Scientific Calculator</title>

<style>

input { margin: 5px; width: 60px; height: 40px; font-size: 18px; }

#calc { width: 280px; background: #f0f0f0; padding: 10px; }

</style>

</head>

<body>

<h2>Calculator</h2>

<div id="calc">

<input type="text" id="display" readonly><br>

<input type="button" value="1" onclick="add('1')">

<input type="button" value="2" onclick="add('2')">

<input type="button" value="+" onclick="add('+')"><br>

<input type="button" value="3" onclick="add('3')">

<input type="button" value="4" onclick="add('4')">

<input type="button" value="-" onclick="add('-')"><br>

<input type="button" value="=" onclick="calc()">

<input type="button" value="C" onclick="clr()">

</div>

<script>

function add(v) { document.getElementById("display").value += v; }

function calc() {

document.getElementById("display").value =

eval(document.getElementById("display").value);

}

function clr() { document.getElementById("display").value = ""; }

</script>

</body>

</html>

**✅ Q31. XML for Population Details with XSLT**

**population.xml**

xml

CopyEdit

<?xml version="1.0"?>

<?xml-stylesheet type="text/xsl" href="population.xsl"?>

<india>

<state><name>Tamil Nadu</name><population>72000000</population></state>

<state><name>Maharashtra</name><population>112000000</population></state>

</india>

**population.xsl**

xml

CopyEdit

<?xml version="1.0"?>

<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="1.0">

<xsl:template match="/">

<html><body>

<h2>Population of Indian States</h2>

<table border="1">

<tr><th>State</th><th>Population</th></tr>

<xsl:for-each select="india/state">

<tr>

<td><xsl:value-of select="name"/></td>

<td><xsl:value-of select="population"/></td>

</tr>

</xsl:for-each>

</table>

</body></html>

</xsl:template>

</xsl:stylesheet>

**✅ Q32. GPA Calculator in PHP**

php

CopyEdit

<!DOCTYPE html>

<html>

<head><title>GPA Calculator</title></head>

<body>

<h2>Student GPA Calculator</h2>

<form method="post">

Subject 1 Marks: <input type="number" name="s1"><br><br>

Subject 2 Marks: <input type="number" name="s2"><br><br>

Subject 3 Marks: <input type="number" name="s3"><br><br>

<input type="submit" value="Calculate GPA">

</form>

<?php

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

$avg = ($\_POST['s1'] + $\_POST['s2'] + $\_POST['s3']) / 3;

echo "GPA: " . round($avg / 10, 2);

}

?>

</body>

</html>

**✅ Q33. Book Information Using PHP**

php

CopyEdit

<?php

$books = [

["title" => "Intro to PHP", "author" => "John"],

["title" => "HTML Guide", "author" => "Mary"]

];

echo "<h2>Book List</h2><table border='1'><tr><th>Title</th><th>Author</th></tr>";

foreach ($books as $book) {

echo "<tr><td>{$book['title']}</td><td>{$book['author']}</td></tr>";

}

echo "</table>";

?>

**1. List the types of CSS.**

* Inline CSS
* Internal CSS
* External CSS

**2. List out the types of selector.**

* Universal Selector (\*)
* Type Selector (element)
* Class Selector (.class)
* ID Selector (#id)
* Attribute Selector ([attr])
* Group Selector (selector1, selector2)
* Descendant Selector (ancestor descendant)
* Child Selector (parent > child)
* Adjacent Sibling Selector (element1 + element2)
* General Sibling Selector (element1 ~ element2)

**3. Write the output statements in Perl.**

perl

CopyEdit

print "Hello, World!\n";

say "Welcome to Perl Programming"; # Requires 'feature' in older versions

**4. Write the comparison operators in PHP.**

* == : Equal
* === : Identical (equal and same type)
* != or <> : Not equal
* !== : Not identical
* > : Greater than
* < : Less than
* >= : Greater than or equal to
* <= : Less than or equal to
* <=> : Spaceship operator (for combined comparison)

**5. Define XSLT.**

**XSLT (Extensible Stylesheet Language Transformations)** is a language used for transforming XML documents into other formats like HTML, plain text, or another XML document. It applies templates and rules to XML data to format or display it as needed.

**Time Table**

<!DOCTYPE html>

<html>

<head>

<title>Class Timetable</title>

</head>

<body>

<h2>Class Timetable</h2>

<table border="1" cellpadding="10">

<tr>

<th>Day/Time</th>

<th>9-10</th>

<th>10-11</th>

<th>11-12</th>

<th>1-2</th>

<th>2-3</th>

</tr>

<tr>

<td>Monday</td>

<td>Math</td>

<td>English</td>

<td>Physics</td>

<td>Chemistry</td>

<td>Lab</td>

</tr>

<tr>

<td>Tuesday</td>

<td>Biology</td>

<td>Math</td>

<td>CS</td>

<td>English</td>

<td>Lab</td>

</tr>

<!-- Add more rows if needed -->

</table>

</body>

</html>