

I

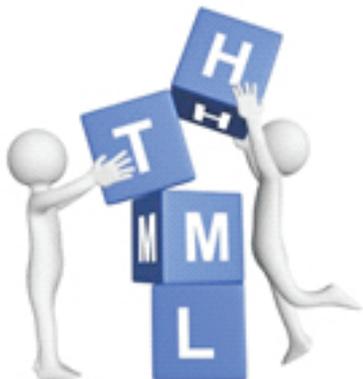
Name _____

Roll No. _____ Year 20 _____ 20 _____

Exam Seat No. _____

COMPUTER GROUP | SEMESTER - II | DIPLOMA IN ENGINEERING AND TECHNOLOGY

A LABORATORY MANUAL FOR WEB PAGE DESIGNING WITH HTML (22014)



ATTRACTIVE RESPONSIVE WEBSITES

An illustration of a person with dark hair, wearing a green shirt, sitting at a desk and working on a laptop. To the left of the person are several circular callouts containing HTML code snippets: `<html>`, `<h1>`, `<body>`, and `<title>`. To the right of the person, the text 'How to Code your First HTML Page' is written in a green, sans-serif font. In the bottom right corner, there is a small logo for 'TemplateEtc'.

MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION, MUMBAI
(Autonomous) (ISO 9001 : 2015) (ISO / IEC 27001 : 2013)

VISION

To ensure that the Diploma level Technical Education constantly matches the latest requirements of technology and industry and includes the all-round personal development of students including social concerns and to become globally competitive, technology led organization.

MISSION

To provide high quality technical and managerial manpower, information and consultancy services to the industry and community to enable the industry and community to face the changing technological and environmental challenges.

QUALITY POLICY

We, at MSBTE are committed to offer the best in class academic services to the students and institutes to enhance the delight of industry and society. This will be achieved through continual improvement in management practices adopted in the process of curriculum design, development, implementation, evaluation and monitoring system along with adequate faculty development programmes.

CORE VALUES

MSBTE believes in the followings:

- Education industry produces live products.
- Market requirements do not wait for curriculum changes.
- Question paper is the reflector of academic standards of educational organization.
- Well designed curriculum needs effective implementation too.
- Competency based curriculum is the backbone of need based program.
- Technical skills do need support of life skills.
- Best teachers are the national assets.
- Effective teaching learning process is impossible without learning resources.

A Laboratory Manual for

Web Page Designing with HTML

(22014)

Semester-II

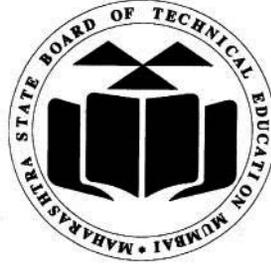
(CO/CM/CW/IF)



**Maharashtra State
Board of Technical Education, Mumbai**
(Autonomous) (ISO 9001:2015) (ISO/IEC 27001:2013)



Maharashtra State Board of Technical Education,
(Autonomous) (ISO 9001 : 2015) (ISO/IEC 27001 : 2013)
4th Floor, Government Polytechnic Building, 49, Kherwadi,
Bandra (East), Mumbai - 400051.
(Printed on December, 2017)



**MAHARASHTRA STATE
BOARD OF TECHNICAL EDUCATION**

Certificate

This is to certify that Mr. / Ms. Roll
No., of First Semester of Diploma in.....
..... of Institute,.....
..... (Code:) has completed the term work
satisfactorily in Subject **Web Page Designing with HTML (22014)** for
the academic year 20..... to 20..... as prescribed in the curriculum.

Place:

Enrollment No:.....

Date:

Exam. Seat No:

Subject Teacher

Head of the Department

Principal



Preface

The primary focus of any engineering laboratory/field work in the technical education system is to develop the much needed industry relevant competencies and skills. With this in view, MSBTE embarked on this innovative 'I' Scheme curricula for engineering diploma programmes with outcome-based education as the focus and accordingly, relatively large amount of time is allotted for the practical work. This displays the great importance of laboratory work making each teacher, instructor and student to realize that every minute of the laboratory time need to be effectively utilized to develop these outcomes, rather than doing other mundane activities. Therefore, for the successful implementation of this outcome-based curriculum, every practical has been designed to serve as a '**vehicle**' to develop this industry identified competency in every student. The practical skills are difficult to develop through 'chalk and duster' activity in the classroom situation. Accordingly, the 'I' scheme laboratory manual development team designed the practicals to *focus* on the *outcomes*, rather than the traditional age old practice of conducting practicals to 'verify the theory' (which may become a byproduct along the way).

This laboratory manual is designed to help all stakeholders, especially the students, teachers and instructors to develop in the student the pre-determined outcomes. It is expected from each student that at least a day in advance, they have to thoroughly read through the concerned practical procedure that they will do the next day and understand the minimum theoretical background associated with the practical. Every practical in this manual begins by identifying the competency, industry relevant skills, course outcomes and practical outcomes which serve as a key focal point for doing the practical. The students will then become aware about the skills they will achieve through procedure shown there and necessary precautions to be taken, which will help them to apply in solving real-world problems in their professional life.

This manual also provides guidelines to teachers and instructors to effectively facilitate student-centered lab activities through each practical exercise by arranging and managing necessary resources in order that the students follow the procedures and precautions systematically ensuring the achievement of outcomes in the students.

Website design is a broad term that encompasses a wide variety of tasks, all involved in the formation of web pages. There are essentially two types of web design approaches, which are dynamic and static design. Static web design is typically based on basic HTML code. It is essential for diploma student to learn HTML since the task of static website design is performed by using HTML coding. Even in dynamic websites, the task of presentation of content is handled through HTML coding. This course introduces web page design using HTML and also gives emphasis on learning Cascading Style Sheets (CSS) which is a stylesheet language used for describing the presentation of a document written in a markup language for formatting and styling of content. This learning enables students to design static web sites and host it on Internet/Intranet.

Although best possible care has been taken to check for errors (if any) in this laboratory manual, perfection may elude us as this is the first edition of this manual. Any errors and suggestions for improvement are solicited and highly welcome.

Programme Outcomes (POs) and Program Specific Outcomes (PSOs) to be achieved through Practicals of this Course

Following programme outcomes are expected to be achieved out of the ten programme outcomes and programme specific outcomes through the practical's of the course on Web Page Design.

Program Outcomes(POs)

- PO1. Basic knowledge:** Apply knowledge of basic mathematics, science and basic engineering to solve the problems related to application of computers and communication services in storing, manipulating and transmitting data, often in the context of a business or other enterprise.
- PO2. Discipline knowledge:** Apply Information Technology knowledge to solve broad based Information Technology related problems.
- PO3. Experiments and practice:** Plan to perform experiments, practices and to use the results to solve Information Technology related problems.
- PO4. Engineering tools:** Apply appropriate Information Technology related techniques/ tools with an understanding of the limitations.
- PO5. The engineer and society:** Assess social, health, safety and legal issues and the consequent responsibilities relevant to practice in the field of information technology.
- PO6. Environment and sustainability:** Apply Information Technology related engineering solutions for sustainable development practices in environmental contexts.
- PO7. Ethics:** Apply ethical principles for commitment to professional ethics, responsibilities and norms of practice in the field of Information Technology.
- PO8. Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- PO9. Communication:** Communicate effectively in oral and written form.
- PO 10. Life-long learning:** Engage in independent and life-long learning along with the technological changes in the IT and allied industry.

Program Specific Outcomes (PSOs)

- PSO1. Modern Information Technology:** Use latest technologies for operation and application of information.
- PSO2. Information Technology Process:** Maintain the information processes using modern information and communication technologies.

Practical- Course Outcome matrix

Course Outcomes (COs)							
<ul style="list-style-type: none"> a. Use block level formatting tags to present content on web page. b. Use text level formatting tags to present content on web page. c. Apply hyper linking on web page. d. Organize the content using table and frames. e. Apply presentation schemes on content using CSS. f. Publish websites on Internet or Intranet. 							
Sr. No.	Title of the Practical	CO a.	CO b.	CO c.	CO d.	CO e.	CO f.
1.	Create web page using structure tags to display sample message.	√	-	-	-	-	-
2.	Create a web page for displaying a paragraph using block level tags, HR tags (Part-I)	√	-	-	-	-	-
3.	Create a web page for displaying a paragraph using block level tags, HR tags (Part-II)	-	√	-	-	-	-
4.	Create a Web Page using Text level tags and Special Characters	-	√	-	-	-	-
5.	Create a web page for implementing different types of Lists.	-	√	-	-	-	-
6.	Create a web page to link- <ul style="list-style-type: none"> a. A different web page of same site. b. A different location on the same web page c. A specific location on different web page of same site. 	-	-	√	-	-	-
7.	i) Create a web page to link- <ul style="list-style-type: none"> a. An external page of different web site b. To an email ID ii) Write tags to change colors of links	-	-	√	-	-	-
8.	Insert images on web page using various attributes	-	-	√	-	-	-
9.	Implement image as a button and set image as background.	-	-	√	-	-	-
10.	Create a web page to implement Frame tags.	-	-	-	√	-	-
11.	Create a web page to implement Table tags.	-	-	-	√	-	-
12.	Create a web page for demonstration of CSS by applying Internal/External/ Inline style	-	-	-	-	√	-
13.	Install a web server and publish a website on Intranet.	-	-	-	-	-	√
14.	Publish a website on Internet by acquiring Space on free hosting site.	-	-	-	-	-	√

List of Industry Relevant Skills

The following industry relevant skills of the competency ‘Develop static interactive websites’ are expected to be developed in students by undertaking the practicals of this laboratory manual.

1. Use block level formatting tags to present content on web page.
2. Use text level formatting tags to present content on web page.
3. Apply hyper linking on web page.
4. Organize the content using table and frames.
5. Apply presentation schemes on content using CSS.
6. Publish websites on Internet or Intranet.

Guidelines to Teachers

1. For incidental writing on the day of each practical session every student should maintain a **dated log book** for the whole semester, apart from this laboratory manual which s/he has to **submit for assessment to the teacher** in the next practical session.
2. Teachers should give opportunity to students for hands-on after the demonstration.
3. Assess the skill achievement of the students and COs of each unit.
4. Explain prior concepts to the students before starting of each experiment.
5. List of few sample questions for reference. Teachers must design more such questions so as to ensure the achievement of identified CO.
6. Teacher should ensure that the practical skill and competencies are developed in the students after the completion of the practical exercise.
7. Teacher may provide additional knowledge and skills to the students even though it's not covered in the manual but are expected from the students by the industries.
8. Teacher may suggest the students to refer additional related literature of the Technical papers/ Reference books/ Seminar proceedings, etc.
9. Teacher shall assess the performance of students continuously as per norms prescribed by MSBTE.
10. During assessment teacher is expected to ask questions to the students to tap their Achievements grading related knowledge and skills so that student can prepare while submitting record of the practicals focus should be given on development of enlisted skills rather than theoretical knowledge.

Instructions for Students

1. Understand the purpose of practical and its implementation.
2. Student shall develop practical skills as expected by the Industries.
3. Listen carefully to the instructions given by the teacher about importance of relevant program outcomes, relevant course outcomes, practical significance, competency and practical skills, practical outcome and the theoretical background during the practical session.
4. Write the answers of the questions allotted by the teacher during practical session.
5. Student should develop the habit of group discussion related to the practical, so that exchange of knowledge/skills could take place.
6. Student shall attempt to develop related hands-on-skills to gain confidence.
7. Student shall refer technical magazines, websites related to the scope of the course.
8. Student should develop habit to submit the practical, exercise continuously and progressively on the scheduled dates and should get the assessment done.
9. Student should be well prepared while submitting the write up of the exercise.
10. Student should not hesitate to ask any difficulty faced during conduct of practical.

Content Page

List of Practicals and Progressive Assessment Sheet

Sr. No.	Title of the practical	Page No.	Date of performance	Date of submission	Assessment marks(25)	Dated sign. of teacher	Remarks (if any)
1.	Create web page using structure tags to display sample message.	1					
2.	Create a web page for displaying a paragraph using block level tags, HR tags (Part-I)	6					
3.	Create a web page for displaying a paragraph using block level tags, HR tags (Part-II)	10					
4.	Create a Web Page using Text level tags and Special Characters.	14					
5.	Create a web page for implementing different types of Lists.	19					
6.	Create a web page to link a) A different web page of same site. b) A different location on the same web page c) A specific location on different web page of same site.	23					
7.	i) Create a web page to link a) An external page of different web site b) To an email ID ii) Write tags to change colors of links	31					
8.	Insert images on web page using various attributes.	36					
9.	Implement image as a button and set image as background.	40					
10.	Create a web page to implement Frame tags.	45					
11.	Create a web page to implement Table tags.	52					
12.	Create a web page for demonstration of CSS by applying Internal/External/ Inline style.	57					
13.	Install a web server and publish a website on Intranet.	64					
14.	Publish a website on Internet by acquiring space on free hosting site.	69					
Total							

- To be transferred to proforma of CIAAN 2017.

Practical No.1: Create Sample Web Page

I Practical Significance

A web page is a HTML document accessible on the World Wide Web (WWW).HyperText Markup Language (HTML) is the most commonly used markup language for creating web pages. This practical is useful for creating web page using HTML which display a sample message.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Create Web page by using HTML tags.
2. Save HTML document with proper extension on specified location.
3. Display HTML document on web browser.

IV Relevant Course Outcomes

Use tags to present content on web page.

V Practical Outcome

Create a Web Page using structured tags.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Maintain tools and equipment.
3. Follow ethical practices.

VII Minimum Theoretical Background

All HTML documents must start with a document type declaration: `<!DOCTYPE html>`.The HTML document itself begins with `<html>` and ends with `</html>`.

HTML document is divided into two parts: The head and the body. The `<head>` element is used to specify information about the HTML Web Page as title of the Web Page. Actual content of the Web Page are specified inside the `<body>` element.

Web page structure:

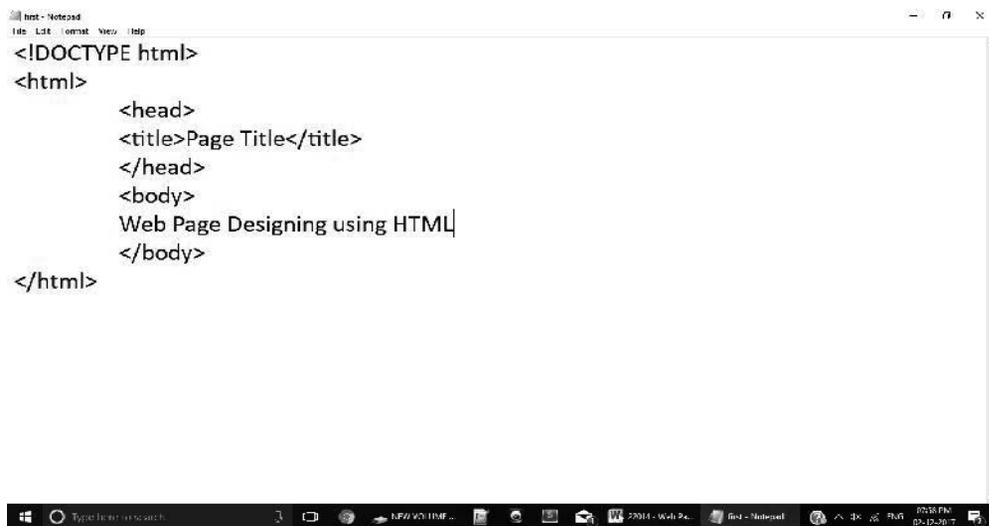
```
<!DOCTYPE html>
<html>
  <head>
    <title>PageTitle</title>
  </head>
  <body>
    </body>
</html>
```

Example of Web page structure:

Create a Web page to display sample message “Web Page Designing using HTML”

Steps:

1. Open Text Editor.
2. Write following HTML codes to display sample message.



3. Save above program with file name “first.html” under a folder name “HTML” in “D” drive.
4. Run this program using web browser with the path specified as follows:
D:/HTML/first.html

Output:**VIII Exercise**

1. Create a web page to display name of your college and save the page with your name.
2. Create a web page to display name of any IT company you know and save the page with your Rollno.

IX 'HTML' Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1.	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2.	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing files related operations in computer system.
Closely observe and remember the file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1.	Computer System with broad specifications	
2.	Software	
3.	Any other resource used	

Practical No.2: Create web page using Block Level tags (Part-I)

I Practical Significance

HTML (Hyper Text Markup Language) uses "block-level" elements tags. Paragraph tag, Heading tag, break tag are different Block level tags. This practical is useful for displaying content in blocks.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Prepare Web page using different Block level tags like paragraph tag, Heading tag and break tag.
2. Formatting HTML document using Block level tags as per the requirement.

IV Relevant Course Outcomes

Use block level formatting tags to present content on web page.

V Practical Outcome

Create a Web Page using Block Level tags.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Maintain tools and equipment.
3. Follow ethical practices.

VII Minimum Theoretical Background

Block Level Tags:

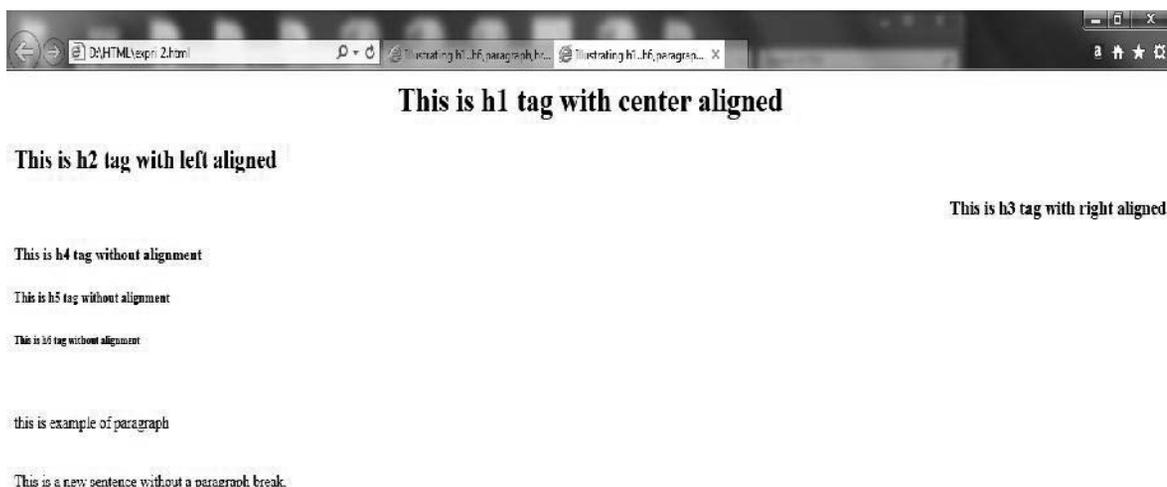
HTML uses "block-level" element tags. Paragraph tag <p> defines paragraph. HTML defines six levels of headings. The heading elements are H1, H2, H3, H4, H5, and H6 with H1 being the highest level and H6 the least level. The
 tag inserts for a single line break.

Following are different Block Level tags:

Tags	Description	Example
<p>	Defines a paragraph	<p> This is my First paragraph </p>
<h1>to <h6>	Defines Html headings	<h1> This is my First Heading </h1>
 	Inserts a single line break	To break lines in a text

VIII Exercise

Write HTML Code to show following output using block level tags.



IX ‘HTML’ Code

1. Write HTML code for above exercise on the blank pages attached at the end of practical.
2. Write HTML code to design a page using all above block level tags.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing files related operations in computer system. Closely observe and remember the file name and its folder.

Practical No.3: Create a web page using Block Level tags (Part-II)

I Practical Significance

HTML uses block-level tags are used for designing a web page. This practical is useful for applying various tags like Block Quote, Preformatted tag, Address tag and HR tag on web page.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Prepare Web page using different Block level tags like Block Quote `<blockquote>`, Preformatted tag `<pre>`, Address tag `<address>` and HR tag `<hr>`.
2. Formatting HTML document using Block level tags as per the requirement.

IV Relevant Course Outcomes

Use block level formatting tags to present content on web page.

V Practical Outcome

Create a web page using Block Level tags.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Maintain tools and equipment.
3. Follow ethical practices.

VII Minimum Theoretical Background

Block Level tags:

Following are different Block Level tags:

Tags	Description	Example
<code><blockquote></code>	The <code><blockquote></code> tag specifies a section that is quoted from another source. Browsers usually indent <code><blockquote></code> elements.	<pre><blockquote> <p>Here is a long quotation here is a long quotation. </p> </blockquote></pre>
<code><pre ></code>	The <code><pre></code> tag used for indicating preformatted text.	<pre><pre> The pre formatting tag usedfor indicating preformatted text. </pre></pre>

<address>	The <address> tag provides contact information for a document. The text in the <address> element usually renders in <i>italic</i> . This information includes name, email address, postal address, and phone number and so on.	<pre><address> order@sample.com
John babbage
Box 212,Disneyland
USA
 </address></pre>
<hr>	The <hr> tag represents a horizontal rule. The <hr> tag is used to separate content in an HTML page. It has align, no shade, size, width and color attributes.	<pre><body> <h1>HR tag</h1> The horizontal rule tag represents a horizontal rule. <hr> </body></pre>

VIII Exercise

Design a Web Page of your Department by using blockquote tag, preformatted tag, address tag and applying attributes of HR tags.

IX ‘HTML’ Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing files related operations in computer system. Closely observe and remember the file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1.	Computer System with broad specifications	
2.	Software	
3.	Any other resource used	

XIII Output (Take screen shot of the webpage created as output and attach it here)

.....

Practical No.4: Create a Web Page using Text level tags and Special Characters in HTML

I Practical Significance

HTML Text level tags are used to format the appearance of the text on web page. The basic idea behind text formatting is to make a web page more attractive by using tags like bold, italic or underline. This practical is useful for formatting a text of a web page using text level tags and inserting the special characters by using HTML entity name or the HTML entity number.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Format web pages using Text level tags.
2. Display Special Characters using HTML entity name or the HTML entity number.

IV Relevant Course Outcomes

Use Text level formatting tags to present content on web page.

V Practical Outcome

Create a Web Page using Text level tags and Special Characters.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Follow ethical practices.

VII Minimum Theoretical Background

Knowledge of HTML, HTML tags and Attributes, Concepts of Text level tags such as Bold, Italic, Teletype, Underline, Strikethrough, Superscript, Subscript, DIV tag.

Text Level Tags:

Tag	Description
<code>...</code>	Text that appears within <code>...</code> element, is displayed in bold.
<code><i> ...</i></code>	Text that appears within <code><i>...</i></code> element is displayed in italic.
<code><u>...</u></code>	Text appears within <code><u>...</u></code> element is displayed with underline.
<code><tt>...</tt></code>	The content of a <code><tt>...</tt></code> element is written in monospaced font.
<code><strike>...</strike></code>	Text that appears within <code><strike>...</strike></code> element is displayed with strikethrough.

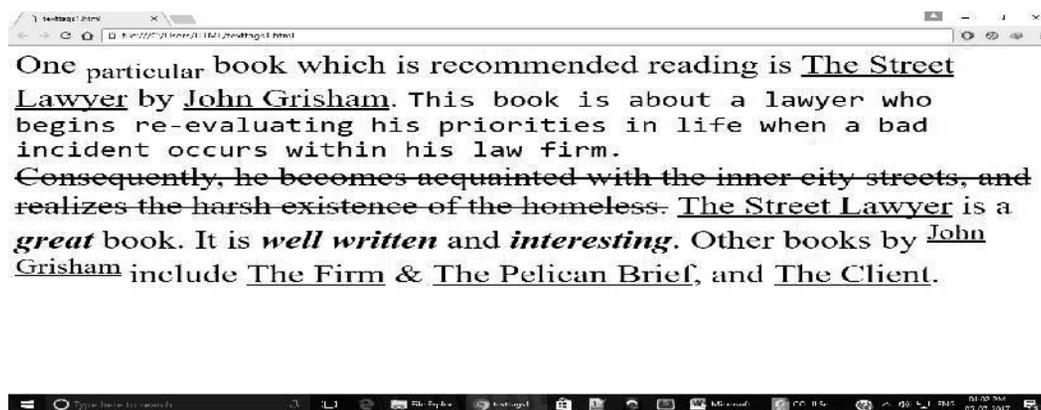
^{...}	The content of a ^{...} element is written in superscript.
_{...}	The content of a _{...} element is written in subscript.
<div>...</div>	The <div> elements allow to group together several elements to create sections or subsections of a page.

HTML Special Characters:

Character	Entity Number	Entity Name	Description
"	"	"	quotation mark
'	'	'	apostrophe
&	&	&	ampersand
<	<	<	less-than
>	>	>	greater-than
©	©	©	copyright
®	®	®	registered trademark

VIII Exercise

Write HTML code for following output using text level tags and special symbols.



IX HTML Code

1. Write HTML code for above exercise on the blank pages attached at the end of practical showing use of all above mentioned tags.
2. Write HTML code to design a page using all text level tags.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing html files related operations in computer system.
Closely observe and remember the html file name and its folder.

Practical No.5: Create a web page using Different types of Lists in HTML

I Practical Significance

Lists are used to create a well-structured and easy-to-maintain document. It is a group of related pieces of information and clearly associated with each other which are more accessible. This practical is useful for organizing contents of the page by implementing different types of Lists.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Implement different types of list in web pages.
2. Able to combine different types of list together for grouping the information.

IV Relevant Course Outcomes

Use Lists tags to present content on web page.

V Practical Outcome

Create a web page by implementing different types of Lists.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Maintain tools and equipment.
3. Follow ethical practices.

VII Minimum Theoretical Background

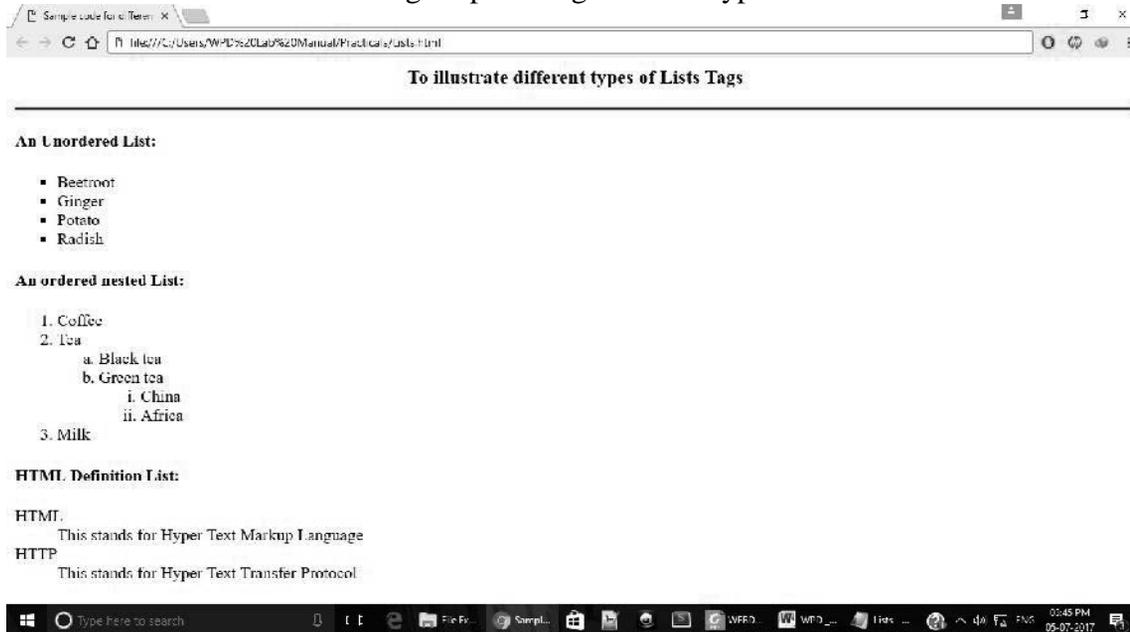
Knowledge of HTML language tags and attributes, Concept of Ordered Lists, Unordered Lists, Definition Lists and Nested Lists.

Different Lists types:

Tag	Description
...	An unordered list. This will list items using plain bullets.
...	An ordered list. This will use different schemes of numbers to list your items.
<dl>...</dl>	A definition list. This arranges your items in the same way as they are arranged in a dictionary.

VIII Exercise

Write HTML code for following output using different types of lists.



IX HTML Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing html files related operations in computer system. Closely observe and remember the html file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1	Computer System with broad specifications	
2	Software	
3	Any other resource used	

XIII Output (Take screen shot of the webpage created as output and attach it here)

.....

Practical No.6: Create a web page to Apply anchor tag for linking Web pages

I Practical Significance

Hyperlink is an element in HTML document that is used to link one web page to another web page or different web page. This practical is useful to link different web pages of same site, link different locations on the same web page as well as specific location on different web page of same site.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Understand the concept of URL and Hyperlink.
2. Able to apply link and use their attributes in a web pages.
3. Able to link one web page to another Web page.

IV Relevant Course Outcomes

Apply hyperlinking on web page.

V Practical Outcome

Create a web page to link-

1. A different web page of same site.
2. A different location on the same web page
3. A specific location on different web page of same site.

VI Relevant Affective domain related Outcome(s)

3. Follow safety practices.
4. Maintain tools and equipment.
5. Follow ethical practices.

VII Minimum Theoretical Background

URL: Every document on the Web has a unique address. This address is known as Uniform Resource Locator (URL). Example of URL is as follows:
<http://www.student.com/index.com>

Hyperlink:

The <a > Tag: The anchor element is used to create hyperlinks between a *source anchor* and a *destination anchor*. The source is the text, image, or button that links to another resource and the destination is the resource that the source anchor links to.

The Most Important Anchor Attributes: There are anchor attributes to create functional hyperlinks. These attributes are `href`, `target`. An `href` can do a lot more than just link to another website.

- It can be used to link directly to any element on a web page that has been assigned an id.
- It can be used to link to a resource using a protocol other than http.
- It can be used to run a script.

Example:

```
<a href="second_page.html">second page </a>
```

Adding a `target` attribute and `_blank` attribute to the link will tell the visitor's browser to open the link in a new (blank) browser tab or window to render that code in the browser, when a visitor clicks the link which will open in a new tab.

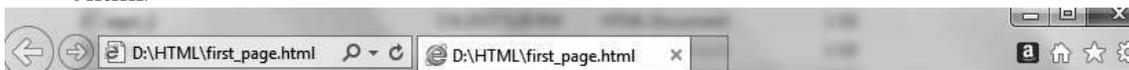
Example:

```
<p>Example of target attribute<a href=mailto:contact@html.com target="_blank">target</a> with us!</p>
```

1. Procedure for Applying anchor tag for linking Web pages

Step1: Create a web page with name “first_page” with following code

```
<!DOCTYPE html>
<html>
<body>
<h1>My First page</h1>
<p>Example of linking pages with HTML</p>
<a href="second_page.html">second page </a>
</body>
</html>
```



My First page

Example of linking pages with HTML

[second page](#)

Step 2. Create a web page with name “second page” with following code

```
<!DOCTYPE html>
<html>
<body>
<h1>My second page</h1>
<p>Welcome to world of Hyperlinking with HTML</p>
</body>
</html>
```



Step 3: In browser type URL of first page and see the output.

2. Procedure for Linking within the document (HTML Links - Create a Bookmark)

HTML bookmarks are used to allow readers to jump to specific part of a Web page. Bookmarks can be useful if webpage is very long.

Create a bookmark with the id attribute:

Ex: `<h2 id="Link">Link in HTML</h2>`

Then, add a link to the bookmark ("Link in HTML"), from within the same page:

Ex: ` Links in HTML`

Step 1: Create a Web page as follows:

```
<!DOCTYPE html>
<html>
<body>
  <p><a href="#link">Links in HTML</a></p>

  <h2>Introduction of HTML</h2>
  <p>This Point explains Introduction of HTML</p>

  <h2>concept of Website</h2>
  <p>This Point explains concept of Website</p>
  <h2>Concept of URL</h2>
  <p>This Point explains Concept of URL</p>

  <h2>Images in HTML </h2>
  <p>This Point explains Images in HTML</p>

  <h2 id="link">Links in HTML</h2>
  <p>This Point explains Links in HTML</p>

  <h2>Tables in HTML</h2>
  <p>This Point explains Tables in HTML</p>

  <h2>Hyperlink in HTML</h2>
  <p>This Point explains Hyperlink in HTML</p>

  <h2>HTML list</h2>
```

```
<p>This Point explains HTML list</p>  
  
<h2>HTML Headings</h2>  
<p>This Point explains HTML Headings</p>  
  
<h2>HTML paragraph</h2>  
<p>This Point explains HTML paragraph</p>  
  
<h2>HTML Frame</h2>  
<p>This Point explains HTML Frame</p>  
</body>  
</html>
```

Step2: Open this web page with browser then you will get following output including link named “Link in html”.



Step 3: When we click on the link “Link in html” then cursor goes to “Link to HTML” point on the same page.



3. Procedure for linking a specific location on different web page of same site.

Step 1: Create a web page with following code :

```
<!DOCTYPE html>
```

```

<html>
<body>
  <h1>Hyper Text Markup language</h1>
  <p><a href="link within page.html#link">Links in HTML</a></p>
</body>
</html>

```

Step2: Create another web page with book mark id. (destination page) as follows Which include id of bookmark.

Step3: Open First web page on browser and click on the link. Then it directly link to specific part of destination page.



VIII Exercise

Create web pages for different branches of your college Link them on the home page. Apply linking within a page and linking a specific location within different pages.

IX 'HTML' Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing files related operations in computer system.
Closely observe and remember the file name and its folder.

Practical No.7: Create a web page to link an external page of different web sites, email ID and change colors of links

I Practical Significance

When creating a website, there are several things one must have on each Web page. HTML links are one of those things. HTML links do a variety of things for website. Without HTML links one can't have a "website" and can't show visitors more information on the subjects that one want to talk about. There are 3 major types of HTML links; external links, internal links, and links within the same page. External HTML links are those HTML links that go to another website. Email and color tag for links are also used in this process. This practical demonstrate above tags.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Able to link created website with external websites
2. Able to apply mailto tag.
3. Able to change color of links

IV Relevant Course Outcomes

Apply hyperlinking on web page to create website.

V Practical Outcome

Create a web page to link-

1. An external page of different web site
2. To an email ID
3. Applytags to change colors of links

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Maintain tools and equipment.
3. Follow ethical practices.

VII Minimum Theoretical Background

1. Create a web page to link an external page of different web site

External pages can be linked with a full URL.

Following example shows a full URL to link to a web page:

```
<a href="https://www.abc.com/html/page1.html">HTML Concepts</a>
```

2. Create a web page to link to an email ID:

Link to email ID allows visitors to send email from your website. It is easy for your visitors to send questions or comments. While using <a> tag as an email tag, you will use mailto:email address along with href attribute.

An email link would require the following code:

```
<a href="mailto:your email address">Email Me</a>
```

Following code combine all the options and allow visitor to send email with the address, subject and text already entered.

```
<a href="mailto:abc@xyz.com?subject=Regarding Program & body=Please send me a copy of your new program!">Email Me</a>
```

3. Tags to change colors of links:

By default, a links will appear as follows (in all browsers):

- An unvisited link is underlined and blue
- A visited link is underlined and purple
- An active link is underlined and red

```
<!DOCTYPE html>
<html>
<head>
<style>
    a:link { color: green;}
    a:visited {color: pink;}
    a:hover {color: red;}
    a:active {color: yellow;}
</style>
</head>
<body>

<p>You can change the default colors of links</p>
<a href="http://www.yahoo.com" target="_blank">HTML Images</a>
</body>
</html>
```

VIII Exercise

Write a HTML code to link an external page of different web sites like yahoo.com or google.com using URL and also link web page to your mail address. Apply tags to change colors of links.

IX 'HTML' Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing files related operations in computer system.
 Closely observe and remember the file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1	Computer System with broad specifications	
2	Software	
3	Any other resource used	

XIII Output (Take screen shot of the webpage created as output and attach it here)

.....

XIV Conclusion

.....

XV Practical Related Questions

Note: Below given are few sample questions for reference. Teachers must design more such questions so as to ensure the achievement of identified CO.

1. Differentiate between active link and visited link.
2. List different types of URL?
3. Explain the use of Title attributes of anchor tag.

[Space for Answer]

.....

Practical No.8: Insert images on web page using various attributes

I Practical Significance

Images and graphics can be embedded into pages. It improves the appearance of the web pages. This practical is useful for inserting an image in web page and formatting the images with various attributes.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Insert Images in web page.
2. Format the Image with using various attributes.

IV Relevant Course Outcomes

Insert Image with its attributes on web page.

V Practical Outcome

Design a web page using image with various attributes.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Maintain tools and equipment.
3. Follow ethical practices.

VII Minimum Theoretical Background

Knowledge of HTML language tags and attributes, Concept of Images with its format such as JPEG images, PNG images & GIF images and IMG tag with its attributes.

1. Inserting Images in HTML Documents:

In HTML, images are defined with the tag. The syntax of tag can be given with:

```

```

Attributes	Description
src	The 'src' attribute contains a path pointing to the image which is inserted into the page.
alt	The 'alt' attribute is a mandatory attribute which specifies an alternate text for an image, if the image cannot be displayed.

2. Image formatting Attributes:

Attributes	Description
width	To set image width.
height	To set image height.
align	By default image will align at the left side of the page, 'align' tag used to align attribute to set it in the center or right.
border	Use to specify border thickness in terms of pixels using border attribute. A thickness of 0 means, no border around the picture.
hspace	To insert the horizontal margin around the image. 'hspace' used for setting space left and right of image.
vspace	To insert the vertical margin around the image. 'vspace' used for setting space above and below the image.

VIII Exercise

Design a web page using images and apply image formatting attributes on it.

IX HTML Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1.	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2.	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing html files related operations in computer system.
Closely observe and remember the html file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1.	Computer system with broad specifications	
2.	Software	
3.	Any other resource used	

XIII Output (Take screen shot of the webpage created as output and attach it here)

.....

XIV Conclusion

.....

Practical No.9: Implement image as a button or link and Set image as background

I Practical Significance

Image can be used as a hyperlink, simply by replacing the text hyperlink with image code. Image can be set as a background in a web page to make site more attractive. This practical demonstrate the use of image for linking web page with other web page and as background in web pages.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency ‘Develop static interactive web-sites’.

1. Embed Images as button or link in web page.
2. Use Images as background in the web page.

IV Relevant Course Outcomes

Use of Image as button or link and set image as a background in web page.

V Practical Outcome

Implement image as a button or link and set image as background.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Maintain tools and equipment.
3. Follow ethical practice.

VII Minimum Theoretical Background

1. Implement image as a button or link:

Image link are constructed by embedding an tag inside of an anchor element <a>.In HTML image links require opening and closing anchor tags with valid source path of image. The syntax is as follows:

```
<a href=" link path "></a>
```

For Example:

Two web pages are created by name as “practical9.html” and “page1.html”. First page is link with second page by implementing image as link. By clicking on the image-link created on first page, the second page will appears. The code for linking of both the page by image as link is given below:

a) First web page-practical9.html

```
<html>
<head>
<title> Image as button </title>
</head>
<body>Image as a link/hyperlink:
<a href="C:\Users\Desktop\Practicals\page1.html">

</a>
</body>
</html>
```

b) Second web page-page1.html

```
<html>
<head>
<title> Page1.html </title>
</head>
<body>
<h1 align="center"> Hello!!! This is a new chapter </h1>
</body>
</html>
```

The First web page-Output of above HTML code as follows:



Second page output



2. Set image as background:

The background attribute can also be used to set the background of web pages. To set an image in background of a web page, the valid source of image is required.

Following is the syntax to set image in background of page attribute with a body tag.
 <body background =“valid source path of image”>

For example:

<body background=“mypattern.gif”>

VIII Exercise

Design a web page which include image hyperlink and set any image as a background to the page.

IX HTML Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing html files related operations in computer system. Closely observe and remember the html file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1	Computer System with broad specifications	
2	Software	
3	Any other resource used	

XIII Output (Take screen shot of the webpage created as output and attach it here)

.....

XIV Conclusion

.....

XV Practical Related Questions

Note: Below given are few sample questions for reference. Teachers must design more such questions so as to ensure the achievement of identified CO.

1. Describe the use of images in web pages.
2. Write the use of background attribute.
3. Explain the attributes used for setting the center alignment to the image.

Practical No.10: Create a Web page to implement Frame tags

I Practical Significance

In HTML, a frame is used to display multiple web pages in the same web page, at a time. Each frame in a window may be separated from the others with border. This practical used to create a frame with its attributes.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Use frames and frameset to partition the contents of web site.
2. Adding different documents to different frames.
3. Follow safety practices.

IV Relevant Course Outcomes

Organize the content using frames.

V Practical Outcome

Create a web page to implement Frame tags.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Maintain tools and equipment.

VII Minimum Theoretical Background

Concept of different types of Frames with their attribute, Creating a frames using FRAMESET tag. The basic concept behind frames is to:

- Use the 'frameset' element in place of the 'body' element in an HTML document.
- Use the 'frame' element to create frames for the content of the web page.
- Use the 'src' attribute to identify the resource that should be loaded inside each frame.
- Create a different file with the contents for each frame.

For example:

Create four different HTML documents. Here's what the first will contain:

```
<!DOCTYPE>
<html>
<body>
<h1>Frame 1</h1>
<p>Contents of Frame 1</p>
</body>
</html>
```

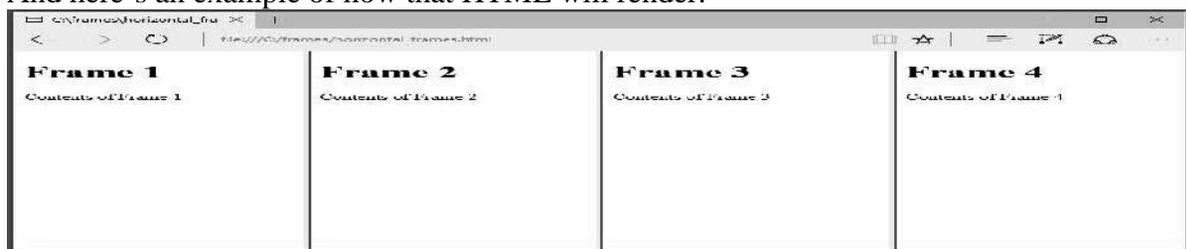
The first document will save as *frame_1.html*. The other three documents will have similar contents and follow the same naming sequence like *frame_2.html*, *frame_3.html* and *frame_4.html*.

1. Creating Vertical Columns

To create a set of four vertical columns, use the frameset element with the cols attribute. The cols attribute is used to define the number and size of columns the frameset will contain. The value of '*' will cause to automatically sized to fill the available space. Here's HTML markup looks like.

```
<!DOCTYPE>
<html>
<frameset cols="*,*,*,*">
<frame src="../file_path/frame_1.html">
<frame src="frame_2.html">
<frame src="frame_3.html">
<frame src="frame_4.html">
</frameset>
</html>
```

And here's an example of how that HTML will render.



2. Creating Horizontal Rows

Rows of frames can be created by using the rows attribute rather than the cols attribute as shown in the HTML below.

```
<!DOCTYPE >
<html>
<frameset rows="*,*,*,*">
<frame src="frame_1.html">
<frame src="frame_2.html">
<frame src="frame_3.html">
<frame src="frame_4.html">
</frameset>
</html>
```

By making that one change, the frames now load as four rows stacked up on top of each other.



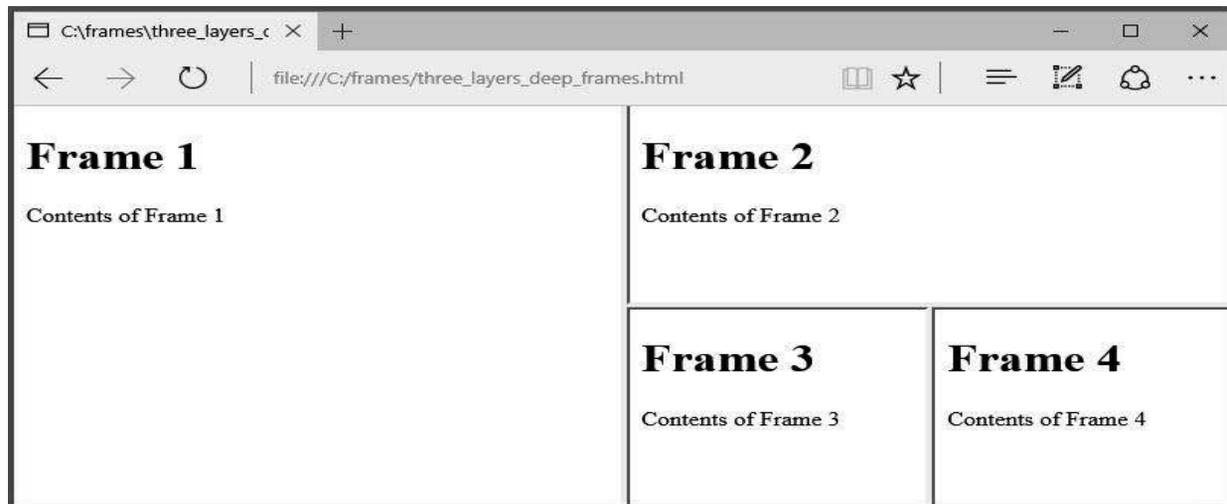
3. Mixing Columns and Rows

Columns and rows of frames can both appear on the same webpage by nesting one frameset inside of another. To do this, first create a frameset and then nest a child frameset within the parent element. Here's an example of how to nest two rows within a set of three columns.

```
<frameset cols="*,*">
<frame src="frame_1.html">
<frameset rows="*,*">
<frame src="frame_2.html">
<frameset cols="*,*">
<frame src="frame_3.html">
<frame src="frame_4.html">
</frameset>
</frameset>
```

```
</frameset>
</frameset>
```

That code creates a set of two equally sized columns. Then split the second column into two rows. Finally, Split the second row into two columns. Here’s what that actually looks like.



Element Name	Attributes	Notes
noframes		The <noframes> element was used within a parent <frameset> to provide fallback content for users whose browsers did not support <frame> content. Frames have been deprecated, so the <noframes> element should not be in use on modern websites.
frameset	frameborder cols bordercolor	The <frameset> element was used to create a group of frames which could be styled and controlled as a unit. Frames have been deprecated and should no longer be used.
frame	src name marginwidth scrolling noresize frameborder bordercolor	The <frame> element was used to break a single browser window into multiple independent browsing contexts. Frames have been deprecated and should not use by modern websites.

VIII Exercise

Write HTML code to divide web page into 2 rows and second into 3 columns using frameset and its attributes and showing text links in first column, ordered list in second column and image in third column.

IX HTML Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing html files related operations in computer system. Closely observe and remember the html file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1	Computer System with broad specifications	
2	Software	
3	Any other resource used	

XIII Output (Take screen shot of the webpage created as output and attach it here)

.....

XIV Conclusion

.....

XV Practical Related Questions

Note: Below given are few sample questions for reference. Teachers must design more such questions so as to ensure the achievement of identified CO.

1. Write steps to create frame.
2. Explain different attribute that can be used with frame elements?
3. Write procedure to make a frame with vertical scrollbar but without a horizontal scrollbar.

[Space for Answer]

.....

Practical No.11: Create a Web page to implement table tags

I Practical Significance

Tables are used to show tabular data i.e. information that is logically presented in rows and columns.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Apply table attributes to organize data on a web page.
2. Use the given table attribute to change default table setting.

IV Relevant Course Outcomes

Organize the content using table.

V Practical Outcome

Organize data in table format on web page.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Follow ethical practices.

VII Minimum Theoretical Background

In HTML, table is represented with the `<table>` tag. Each table row is defined with the `<tr>` tag. A table heading is defined with the `<th>` tag. By default, table headings are bold and centered. A table data/cell is defined with the `<td>` tag. Use rowspan and colspan tags.

Table 1:Table tags

<code><table>...</table></code>	Indicates a table. The tags surround the entire table.
<code><tr>..</tr></code>	Indicates a table row. The tags surround the entire row.
<code><td>...</td></code>	Indicates table data or a cell. The tags surround the entire cell.
<code><th>...</th></code>	Indicates table Heading

```
<table>
  <tr>
    <th>Name</th>
    <th>Class</th>
    <th>Marks</th>
  </tr>
```

```

<tr>
    <td>ABC</td>
    <td>FY</td>
    <td>50</td>
</tr>

</table>

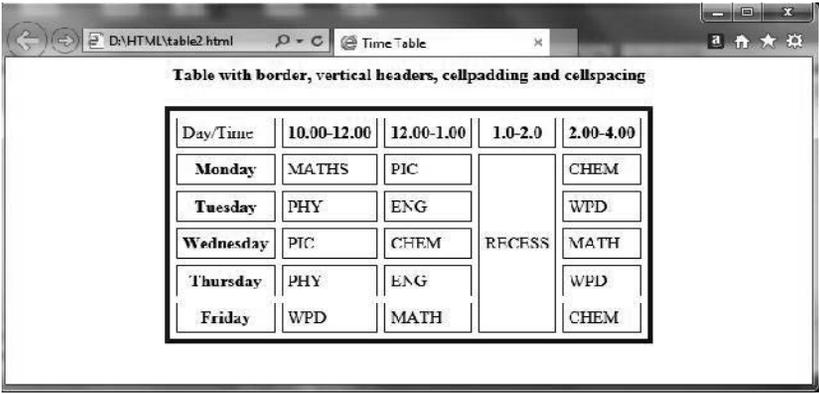
```

Table 2 Table Subcommands

BORDER="n"	Draws a border around the cells in the number of pixels
CELLSPACING="n"	Inserts a number of pixel spaces between cells.
CELLPADDING="n"	Adds a number of pixel space between the text and the cell walls
WIDTH="n"	Changes the width of the table or cell based on n (number of pixels or percent).
ALIGN="left" (or center or right)	Controls the alignment of the table on the page.

VIII Exercise

Write a program to create HTML table having border as below or similar table given by teacher implementing above table tags.



Day/Time	10.00-12.00	12.00-1.00	1.0-2.0	2.00-4.00
Monday	MATHS	PIC		CHEM
Tuesday	PHY	ENG		WPD
Wednesday	PIC	CHEM	RECESS	MATH
Thursday	PHY	ENG		WPD
Friday	WPD	MATH		CHEM

IX 'HTML' Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing files related operations in computer system.
Closely observe and remember the file name and its folder.

Practical No.12: Create a web page for demonstration of CSS by applying Internal/External/ Inline style

I Practical Significance

Cascading Style Sheet (CSS) is a simple mechanism of describing how documents are presented on screens. Cascading Style Sheets (CSS) provide easy and effective alternatives to specify various attributes for the HTML tags. This practical demonstrate the use of CSS and improves in content accessibility.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Describe the basic syntax and structure of CSS.
2. Use internal, external and inline CSS.
3. Apply styles to background, text, fonts and other HTML components.

IV Relevant Course Outcomes

Apply presentation schemes on content using CSS.

V Practical Outcome

Create a web page for demonstration of CSS by applying Internal/External/ Inline style.

VI Relevant Affective domain related Outcome(s)

1. Maintain tools and equipment.
2. Follow ethical practices.

VII Minimum Theoretical Background

CSS stands for Cascading Style Sheets and it is the language used to style the visual presentation of web pages. CSS is the language that tells web browsers how to render the different parts of a web page.

CSS Syntax-

CSS syntax includes selectors, properties, values, declarations, declaration blocks, rulesets, at-rules, and statements.

- A *selector* is a code snippet used to identify the web page element or elements that are to be affected by the styles.

- A *property* is the aspect of the element that is to be affected. For example, color, padding, margin, and background are some of the most commonly used CSS properties.
- A *value* is used to define a *property*. For example, the property color might be given the value of red for example: color: red;
- The combination of a *property* and a *value* is called a *declaration*.
- In many cases, multiple *declarations* are applied to a single *selector*. A *declaration block* is the term used to refer to all of the declarations applied to a single *selector*.
- A single *selector* and the *declaration block* that follows it in combination are referred to as a *ruleset*.
- *At-rules* are similar to *rulesets* but begin with the @ sign rather than with a *selector*. The most common at-rule is the @media rule which is often used to create a block of CSS rules that are applied based on the size of the device viewing the web page.

An Example of CSS Syntax-

Let's use a block of CSS to clarify what each of these items is.

```
h1 {  
color: red;  
    font-size: 3em;  
text-decoration: underline;  
}
```

In this example, h1 is the selector. The selector is followed by a declaration block that includes three declarations. Each declaration is separated from the next by a semicolon. The tabs and line breaks are optional but used by most developers to make the CSS code more human-readable. By using h1 as the selector, we are saying that every level 1 heading on the web page should follow the declarations contained in this ruleset. The ruleset contains three declarations:

- color:red;
- font-size: 3em;
- text-decoration: underline;

color, font-size, and text-decoration are all properties. There are literally hundreds of CSS properties that can use, but only a few dozen are commonly used. The color property can use a color keyword or a color formula in Hex, RGB, or HSL format. In this case, the color keyword red. There are a few dozen color keywords available in CSS3, but millions of colors can be accessed with the other color models.

The value of 3em to the property font-size. There are a wide range of size units we could have used including pixels, percentages, and more. Finally, the value underline to the property text-decoration. The overline or line-through can be used as values for text-decoration. In addition, CSS3 allows for the use of the line-styles solid, double, dotted, dashed, and wavy as well the specification of text-decoration colors.

Ways of Linking CSS Rules to an HTML Document

There are three ways of adding CSS rules to a web page:

- Inline styles
- Internal stylesheets
- External stylesheets

In the vast majority of cases, external stylesheets should be used. However, there are instances where inline styles or internal stylesheets may be used.

- **Inline Styles**

Inline styles are applied to specific HTML elements. The HTML attribute `style` is used to define rules that only apply to that specific element. Here's a look at the syntax for writing inline styles.

```
<h1 style="color:red; padding:10px; text-decoration:underline;">Example Heading</h1>
```

That code would cause just that heading to render with red underlined text and 10 pixels of padding on all sides. There are very few instances where inline styles should be used. In nearly all cases they should be avoided and the styles added to a stylesheet.

- **Internal Stylesheets**

The earlier examples in this tutorial make use of internal stylesheets. An internal stylesheet is a block of CSS added to an HTML document head element. The `style` element is used between the opening and closing `head` tags, and all CSS declarations are added between the `style` tags.

```
<head>
<style>
  h1 {
    color: red;
    padding: 10px;
    text-decoration: underline; }
</style>
</head>
<body>
<h1>Example Heading</h1>
</body>
```

That code would produce the same results as the inline styles. However, the benefit to using internal stylesheets rather than inline styles is that all `h1` elements on the page will be affected by the styles.

- **External Stylesheets**

External stylesheets are documents containing nothing other than CSS statements. The rules defined in the document are linked to one or more HTML documents by using the `link` tag within the `head` element of the HTML document.

To use an external stylesheet, first create the CSS document.

```
/******  
Save with a name ending in .css such as styles.css  
*****/  
h1 {  
  color: red;  
  padding: 10px;  
  text-decoration: underline;  
}
```

Now that we have an external stylesheet with some styles, we can link it to an HTML document using the `link` element.

```
<head>  
<link rel="stylesheet" type="text/css" href="styles.css">  
</head>  
<body>  
<h1>Example Heading</h1>  
</body>
```

When this HTML document is loaded the link tag will cause the styles in the file *styles.css* to be loaded into the web page. As a result, all level 1 heading elements will appear with red text, underlined, and with 10 pixels of padding applied to every side.

VIII Exercise

Develop a web page using CSS for following web site page.



IX HTML Code

Write HTML code for above exercise on the blank pages attached at the end of practical.

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing html files related operations in computer system. Closely observe and remember the html file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1	Computer System with broad specifications	
2	Software	
3	Any other resource used	

XIII Output (Take screen shot of the webpage created as output and attach it here)

.....

XIV Conclusion

.....

XV Practical Related Questions:

Note: Below given are few sample questions for reference. Teachers must design more such questions so as to ensure the achievement of identified CO.

1. Explain different ways of adding style sheets files to HTML document?
2. Differentiate between internal and inline style sheet?
3. Explain the font property with syntax.

[Space for Answer]

.....

Practical No.13: Install a web server and publish a website on Intranet

I Practical Significance

An Intranet is designed to be a private space. Intranet sites are accessible via the web browser in a similar way as websites in the internet. The primary function of a web server is to store, process and deliver web pages to clients. Internet Information Services (IIS) is a web server runs on systems to serve requested HTML pages or files. This practical is useful for developing skills for publishing a website on intranet using IIS as web server.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

1. Install and configure a Web Server.
2. Publish a Website on Intranet

IV Relevant Course Outcomes

Publish websites on Intranet.

V Practical Outcome

Install a web server and publish a website on Intranet.

VI Relevant Affective domain related Outcome(s)

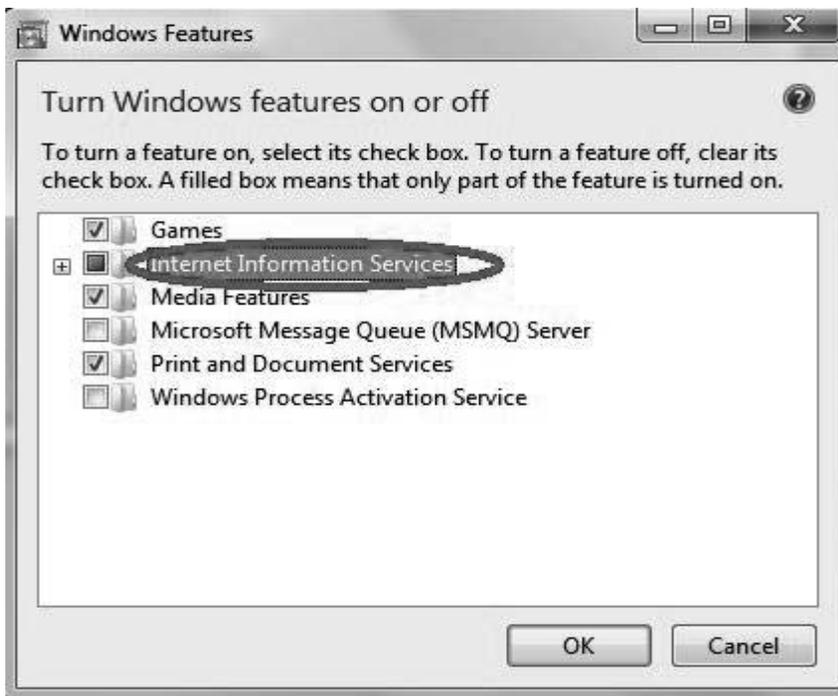
1. Follow safety practices.
2. Maintain tools and equipment.
3. Follow ethical practices.

VII Minimum Theoretical Background

Steps to Configure IIS to Host a Simple Intranet Website

Step 1: In Control Panel, select Programs. Open Programs and Features and select Turn Windows features on and off.

Step2: Check the **Internet Information Services** checkbox.



Step 3: After IIS is enabled, the system will need to reboot.

Step4: Place the files or folders you want to include on your site in:
 %systemdrive%\inetpub\wwwroot

Step 5: Search for “IIS” from the Start menu.

Step 6: Open Internet Information Services (IIS) Manager. From this program, you can configure your site and server, although the default settings are typically sufficient for publishing a basic intranet site with static HTML pages.

Step 7: The files in your \inetpub\wwwroot directory should appear under the “Default Web Site”.



Step 8: Verify you can access these files with a URL path from the same computer. For example:

http://computername/filename.htm

- or -

http://localhost/filename.htm

Step 9: Verify you can access your site from another computer on the network. If you receive a server error, try the following:

- a) In Control Panel, click System and Security, click Windows Firewall, and then click Allow a program through Windows Firewall.
- b) Click Change Settings.
- c) Under World Wide Web Services (HTTP), check the “Domain” checkbox.

VIII Exercise

Install a web server and publish a website that you have created on Intranet.

**IX HTML Code
Not Applicable**

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	
2	Software Package	Text editor, Web browser		

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing html files related operations in computer system. Closely observe and remember the html file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1	Computer System with broad specifications	
2	Software	
3	Any other resource used	

XIII Output (Take screen shot of the webpage created as output and attach it here)

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XIV Conclusion

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**XVI References / Suggestions for further Reading
Software/Learning Websites**

1. <https://social.technet.microsoft.com/wiki/contents/articles/2011.configure-iis-to-host-a-simple-intranet-website.aspx>
2. <http://www.rebeladmin.com/2014/07/how-to-setup-internet-information-services-iis/>

XVII Assessment Scheme

Performance indicators		Weightage
Process related: 7.5 Marks		30%
1.	Debugging ability	30%
Product related: 17.5 Marks		70%
1.	Quality of output achieved	30%
2.	Correctness of Program codes	20%
3.	Completion and submission of practical in time	10%
4.	Answer to sample questions	10%
Total (25 Marks)		100%

Marks obtained			Dated Teacher	Sign of
Process Related(7.5)	Product Related(17.5)	Total(25)		

Practical No.14: Publish a website on Internet by acquiring space on hosting site

I Practical Significance

Web hosting services are offered free of cost to all, for publishing website on internet. Advantage of such hosting service is their cost effectiveness. Policy may vary from one hosting service provider to another. The website owner gets the free space on the server, free sub-domain name for accessing website and global reach over the World Wide Web. This practical helps student to host website on internet.

II Relevant Program Outcomes

- **Discipline knowledge:** Apply Computer engineering discipline-specific knowledge to solve core computer engineering related problems.
- **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Computer engineering problems.
- **Engineering tools:** Apply relevant Computer technologies and tools with an understanding of the limitations.
- **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.
- **Communication:** Communicate effectively in oral and written form.

III Competency and Practical skills

This practical is expected to develop the following skills for the industry identified competency 'Develop static interactive web-sites'.

Publish a Website on Internet.

IV Relevant Course Outcomes

Publish website on Internet.

V Practical Outcome

Register sub-domain using free hosting service.

Publish a website on Internet.

VI Relevant Affective domain related Outcome(s)

1. Follow safety practices.
2. Maintain tools and equipment.
3. Follow ethical practices.

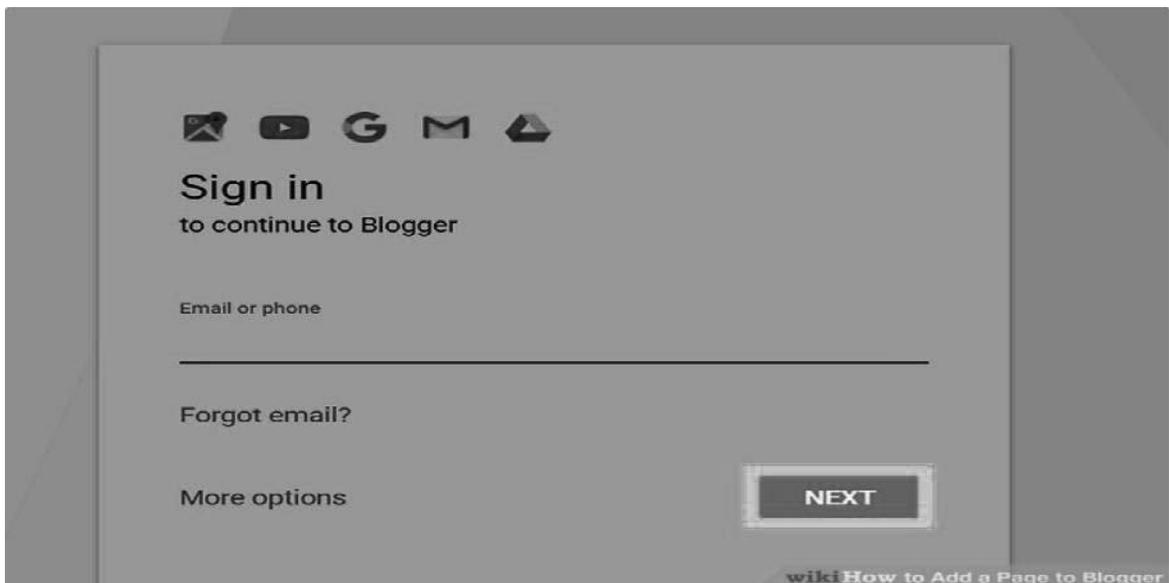
VII Minimum Theoretical Background

Website: - website is actually just a bunch of files, images, html files, and more, present on a computer accessible over network.

Domain: - Domain is the text-based address that user like to point to their website. For example, "www.userdomain.com". User can "register" domain from a selection of many domain registrars.

Steps to host website on internet:

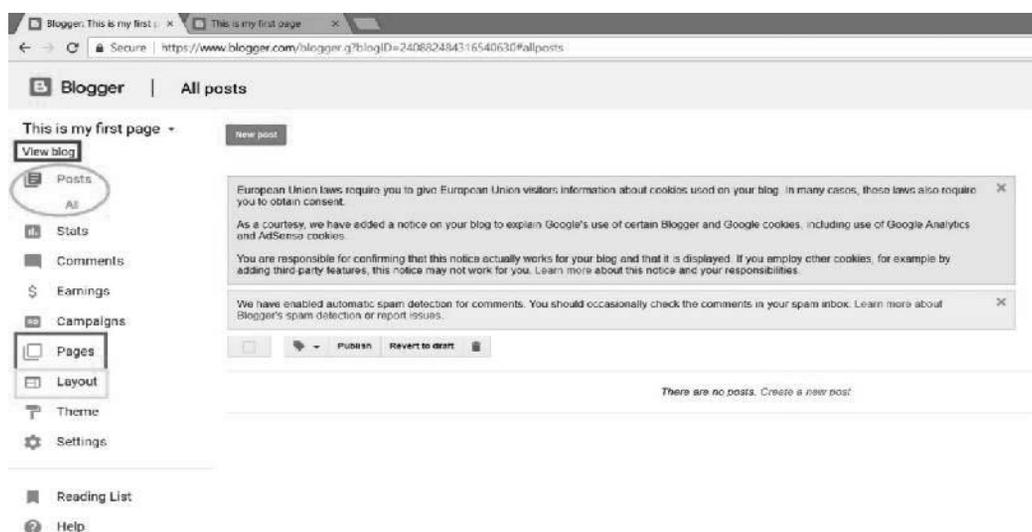
1. Create 'Gmail ID' for which you want to create a website.
2. Go to 'blogger.com'.
3. Sign in.



4. Either choose 'G+ account' or 'a blogger limited account' and click on 'continue to blog'.
5. Click on 'create new blog.'
6. Enter 'Title', 'Address', and choose 'Theme' (e.g. Contempo) for your website for that page and click on 'Create Blog'.



7. This is how interface looks.



8. Click on **Test**. It's next to the blog title that appears below the word "Blogger" in the upper-left corner of the window.



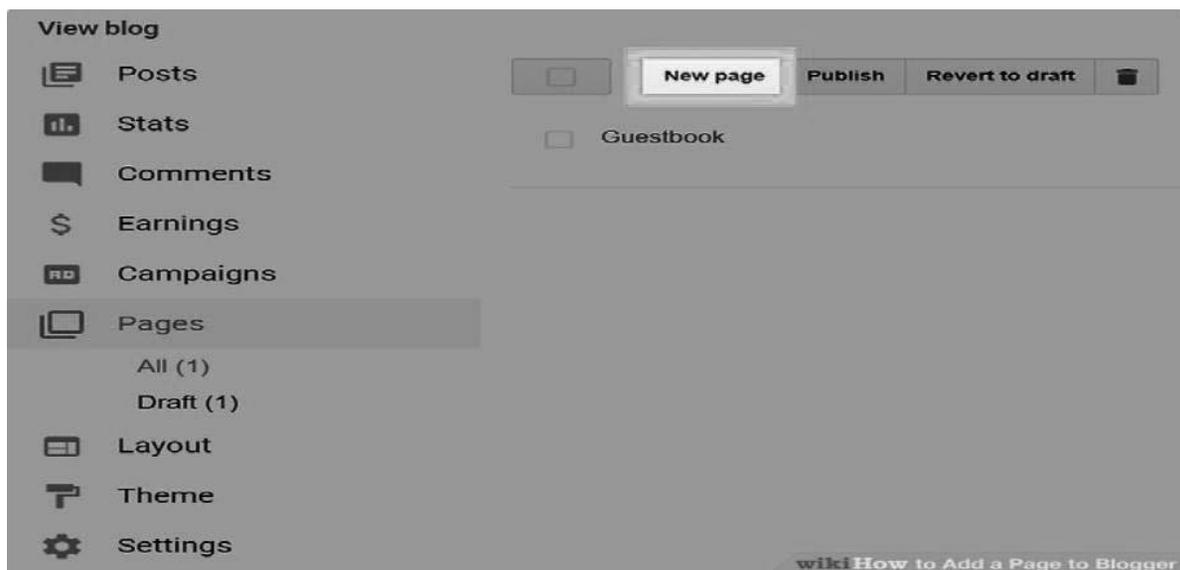
9. **Select a blog.** In the drop-down menu, click on the title of the blog to which you'd like to add a page. It will be in either the "Recent blogs" or "All blogs" section.



10. **Click on Pages.** It's on the left side of the window, in the first section of the menu.



11. Click on **New page**. It's a gray button near the top-center of the window.



12. **Title your page.** Do so in the "Page title" field at the top of the window.

- Examples of typical page titles include "About me" or "Contact," however you can use any title you wish.



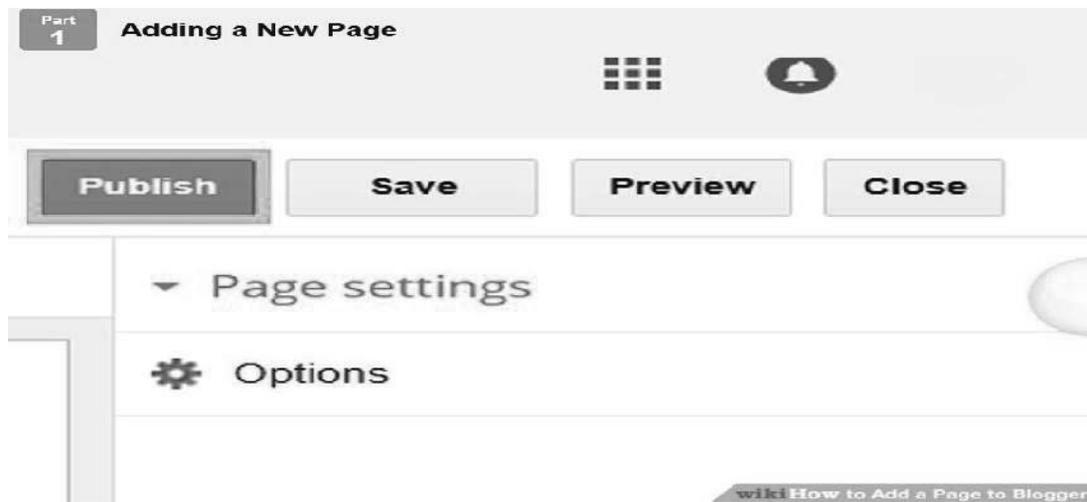
13. **Compose your page.** In the white text field below the tool bar, type the content you want to include on your new page.

- If you prefer to compose in or edit the page's **HTML** code, click on **HTML** in the upper-left of the window.
- To save your work as you go or a draft of your page, click on **Save** in the upper-right part of the window.



14. **Click on Publish.** It's in the upper-right part of the window. This takes your new page live on your blog.

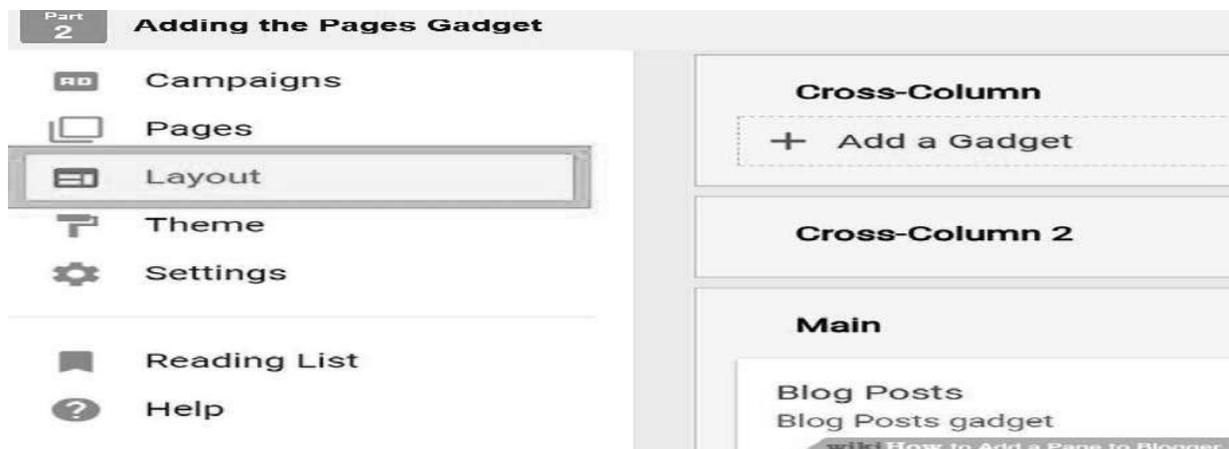
- To see what your page looks like before you save it, click on **Preview** in the upper-right part of the window.



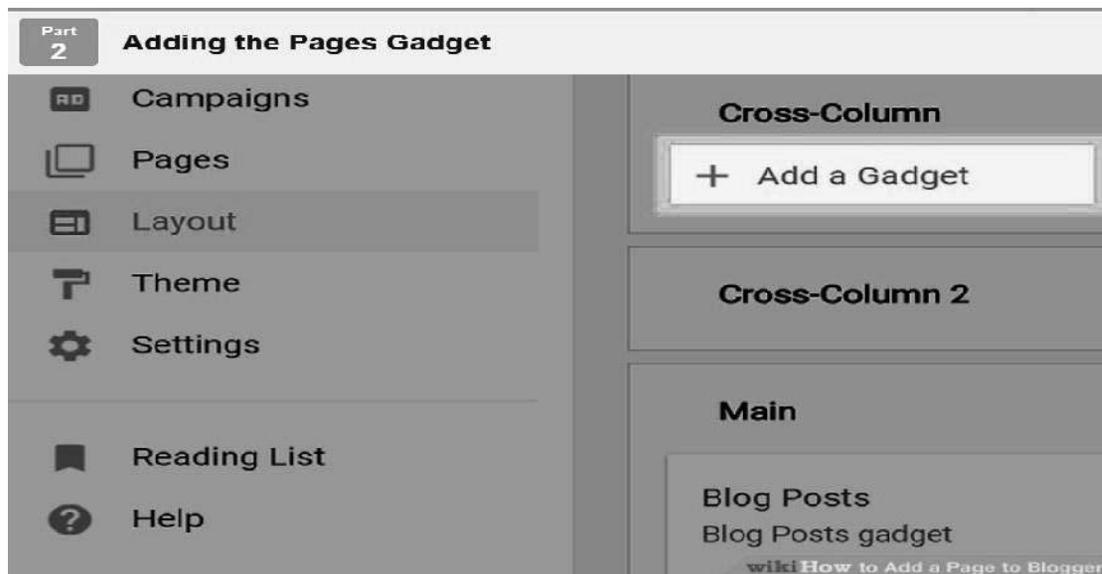
15. Click on **Layout**. It's on the left side of the window in the Blogger dashboard menu.

If you haven't added it already, you need to add the Pages gadget to create links from your main blog to any pages you create.

If the Pages gadget has already been added to your blog, you don't have to do anything else to add your new page.



16. Scroll down and click on **+ Add a Gadget**. Select a button in the part of the layout where you want your page links to appear, like the cross column or a sidebar.



17. Scroll down and click on . It's to the right of "Pages."



18. Click on **Save**. It's in the lower-left corner of the dialog box. This adds a menu of hyperlinks to your pages from your blog, allowing readers to navigate between them.

- The default title for this menu is "Pages," but you can change it at the top of the dialog box before you click on **Save**.



In the above example the given steps are sample procedure for reference. Teachers can suggest other procedures or follow other steps for hosting website on internet so as to ensure the achievement of identified CO.

VIII Exercise

Publish a website created by student on internet.

IX HTML Code

Not Applicable

X Resources Required

Sr. No.	Name of Resource	Major Specification	Qty.	Remarks
1	Computer System	Any desktop or laptop computer with basic configuration	One computer system for each student	

XI Precautions to be Followed

1. Handle computer system with care.
2. Be cautious while performing html files related operations in computer system. Closely observe and remember the html file name and its folder.

XII Resources Used

Sr. No.	Name of Resource	Specification
1	Computer System with broad specifications	
2	Software	
3	Any other resource used	

XIII Output (Take screen shot of the webpage created as output and attach it here)

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XIV Conclusion

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List Of Laboratory Manuals Developed by MSBTE

First Semester:

1	Fundamentals of ICT	22001
2	English	22101
3	English Work Book	22101W
4	Basic Science (Chemistry)	22102
5	Basic Science (Physics)	22102

Second Semester:

1	Bussiness Communication Using Computers	22009
2	Computer Peripherals & Hardware Mainteneace	22013
3	Web Page Design with HTML	22014
4	Applied Science (Chemistry)	22202
5	Applied Science (Physics)	22202
6	Applied Machines	22203
7	Basic Surveying	22205
8	Applied Science (Chemistry)	22211
9	Applied Science (Physics)	22211
10	Fundamental of Electrical Engineering	22212
11	Elements of Electronics	22213
12	Elements of Electrical Engineering	22215
13	Basic Electronics	22216
14	'C' programming Language	22218
15	Basic Electronics	22225
16	Programming in "C"	22226
17	Fundamentals of Chemical Engineering	22231

Third Semester:

1	Applied Multimedia Techniques	22024
2	Advanced Serveying	22301
3	Highway Engineering	22302
4	Mechanics of Structures	22303
5	Building Construction	22304
6	Concrete Technology	22305
7	Strength Of Materials	22306
8	Automobile Engines	22308
9	Automobile Transmission System	22309
10	Mechanical Operations	22313
11	Technology Of Inorganic Chemicals	22314
12	Object Oriented Programming Using C++	22316
13	Data Structure Using 'C'	22317
14	Computer Graphics	22318
15	Database Management System	22319
16	Digital Techniques	22320
17	Principles Of Database	22321
18	Digital Techniques & Microprocessor	22323
19	Electrical Circuits	22324
20	Electrical & Electronic Measurment	22325
21	Fundamental Of Power Electronics	22326
22	Electrical Materials & Wiring Practice	22328
23	Applied Electronics	22329
24	Electrical Circuits & Networks	22330
25	Electronic Measurments & Instrumentation	22333
26	Principles Of Electronics Communication	22334
27	Thermal Engineering	22337
28	Engineering Matrology	22342
29	Mechanical Engineering Materials	22343
30	Theory Of Machines	22344

Fourth Semester:

1	Hydraulics	22401
2	Geo Technical Engineering	22404
3	Chemical Process Instrumentation & Control	22407
4	Fluid Flow Operation	22409
5	Technology Of Organic Chemicals	22410
6	Java Programming	22412
7	GUI Application Development Using VB.net	22034
8	Microprocessor	22415
9	Database Managment	22416
10	Electric Motors And Transformers	22418
11	Industrial Measurements	22420
12	Digital Electronics And Microcontroller Applications	22421
13	Linear Integrated Circuits	22423
14	Microcontroller & Applications	22426
15	Basic Power Electronics	22427
16	Digital Communication Systems	22428
17	Mechanical Engineering Measurments	22443
18	Fluid Mechanics and Machinery	22445

19	Fundamentals Of Mechatronics	22048
20	Guidelines & Assessment Manual for Micro Projects & Industrial Training	22049

Fifth Semester:

1	Network Management & Administration	17061
2	Solid Modeling	17063
3	CNC Machines	17064
4	Behavioral Science(Hand Book)	17075
5	Behavioral Science (Assignment Book)	17075
6	Windows Programming using VC++	17076
7	Estimation and Costing	17501
8	Public Health Engineering	17503
9	Concrete Technology	17504
10	Design of Steel Structures	17505
11	Switchgear and Protection	17508
12	Microprocessor & Application	17509
13	A.C. Machines	17511
14	Operating System	17512
15	Java Programming	17515
16	System Programming	17517
17	Communication Technology	17519
18	Hydraulic & Pneumatics	17522
19	Advanced Automobile Engines	17523
20	Basic Electrical & Electronics	17524
21	Measurement and Control	17528
22	Power Engineering	17529
23	Metrology & Quality Control	17530
24	Computer Hardware & Networking	17533
25	Microcontroller	17534
26	Digital Communication	17535
27	Control System & PLC	17536
28	Audio Video Engineering	17537
29	Control System	17538
30	Industrial Electronics and applications	17541
31	Heat Transfer Operations	17560
32	Chemical Process Instrumentation & control	17561

Sixth Semester:

1	Solid Modeling	17063
2	Highway Engineering	17602
3	Contracts & Accounts	17603
4	Design of R.C.C. Structures	17604
5	Industrial Fluid Power	17608
6	Design of Machine Elements	17610
7	Automotive Electrical and Electronic Systems	17617
8	Vehicle Systems Maintenance	17618
9	Software Testing	17624
10	Advanced Java Programming	17625
11	Mobile Computing	17632
12	System Programming	17634
13	Testing & Maintenance of Electrical Equipments	17637
14	Power Electronics	17638
15	Illumination Engineering	17639
16	Power System Operation & Control	17643
17	Environmental Technology	17646
18	Mass Transfer Operation	17648
19	Advanced Communication System	17656
20	Mobile Communication	17657
21	Embedded System	17658
22	Process Control System	17663
23	Industrial Automation	17664
24	Industrial Drives	17667
25	Video Engineering	17668
26	Optical Fiber & Mobile Communication	17669
27	Therapeutic Equipment	17671
28	Intensive Care Equipment	17672
29	Medical Imaging Equipment	17673

Pharmacy Lab Manual

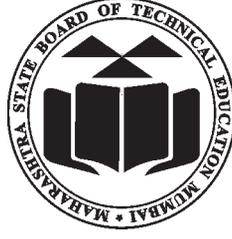
First Year:

1	Pharmaceutics - I	0805
2	Pharmaceutical Chemistry - I	0806
3	Pharmacognosy	0807
4	Biochemistry and Clinical Pathology	0808
5	Human Anatomy and Physiology	0809

Second Year:

1	Pharmaceutics - II	0811
2	Pharmaceutical Chemistry - II	0812
3	Pharmacology & Toxicology	0813
4	Hospital and Clinical Pharmacy	0816

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