

INTERNET AND WEB TECHNOLOGY LAB

Subject Code 1618507	Practical			No of Period in one session : 60			Credits 02
	No. of Periods Per Week			Full Marks	:	50	
	L	T	P/S	ESE	:	50	
	—	—	06	Internal	:	15	
				External	:	35	

Rationale & Objective:

Internet is a great source of information and communication in present world. This course will allow student to explore basics of Internet. The students are expected to create web pages and to connect them, using features available in HTML and DHTML. This course allows students to study more about the web browsers present in present market and to compose them with this course the diploma student is expected to learn more about Internet and web technologies.

List of Experiments:

Contents : Practical		Hrs/week	Marks
Unit -1	Introduction of basic commands of HTML.	(06)	
Unit -2	To create a web page using basic feature of HTML.	(06)	
Unit -3	To create two web pages and connect them using functions available in HTML.	(06)	
Unit -4	To add pictures in a web page, changing in a web page, changing size and alignment of picture using HTML.	(04)	
Unit -5	Using the internet- Studying the basic features of web pages.	(06)	
Unit -6	To understand the differences and features available in different web browsers.	(04)	
Unit -7	Using the telnet to access the resources from the server.	(08)	
Unit -8	Creating web pages using Dynamic HTML and inter luching them.	(08)	
Unit -9	Using Basics of Internet-Google search, E-mail etc., downloading files from Internet.	(06)	
Unit -10	Estimating Connection using dial up and troubleshooting the errors if any.	(06)	
	Total:-	(60)	

Books Recommended:

- | | |
|--|-------------------------------|
| 1. Network Theory | - A. Tanaunbom |
| 2. HTML-4 for world wide web, Wesley (Singapore) Pvt., New Delhi. | - Castro Addison |
| 3. Using the world wide web, Prentice Hall of India Pvt., New Delhi | - Wall |
| 4. Internet for everyone, Vikas Publishing House Pvt. Ltd., New Delhi. | - Alexis Leon and Mathew Leon |
| 5. HTML 4.0 Unlashed, Tech Media Publication | - Rick Dranell |
| 6. Teach yourself HTML 4.0 with XML, DHTML and Java Script, IDG Books India Pvt. Ltd., New Delhi | - Stephanie, Cottrell, Bryant |

Certificate

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Class: Diploma

Roll No: 511771816012

Exam No: 5th Sem 'CSE'

Institution Patna Sahib technical campus, Bhagwanpur
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This is certified to be the bonafide work of the student in the
INTERNET AND WEB TECHNOLOGY Laboratory during the academic
year 2016/2019.

No. of practicals certified 07 out of 10 in the
subject of INTERNET AND WEB TECHNOLOGY LAB.

.....
Teacher In-charge

.....
Examiner's Signature

.....
Principal

Date:

Institution Rubber Stamp

(N.B: The candidate is expected to retain his/her journal till he/she passes in the subject.)

I n d e x

S. No.	Name of the Experiment	Page No.	Date of Experiment	Date of Submission	Remarks
01.	Introduction of basic Commands of HTML.	01-03			
02.	To create a web page using basic feature of HTML.	04	-		
		08			
03.	To create two web pages and Connect them using functions available in HTML.	09	-		
		12			
04.	To add pictures in a Web page, changing in a web page, changing size and alignment of picture using HTML.	13	-		
		15			
05.	To understand the differences and features available in different web browsers.	16	-		
		19			

I n d e x

Experiment - 01

AIM :- Introduction of basic commands of HTML.

Software Required :- Notepad, Any web browser
say. Google chrome browser.

Theory :-

HTML, stands for Hyper Text markup language, is a markup language used to create webpage. There are some Basic commands in HTML, that is used almost in every webpage. Some of them are :-

HEADERS

There are up to six levels of headers that can be used in our document, h1 through h6.

Header 1 is the largest header and get progressively smaller through header 6.

Code :-

```
<h1>This is header 1 tag</h1>
```

Result :-

This is header 1 tag.

PARAGRAPHS

In HTML, a paragraph tag `<p>` should be put at the end of every paragraph of "normal" text.

Code :-

```
<p>Hello, world !</p>
```

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BOLDFACE, UNDERLINE AND ITALICS

We can add emphasis to text by using the boldface and italic tag or the emphasis and strong tag.
We can use underline tag to underline text(s).
We cannot have text that is both boldface and italics.

Physical tags

Code:

This is **bold**, *<i>italics</i>* and
<u>underlined</u> text.

Result:

This is **bold**, *italics* and underlined text.

Logical tags

Code:

This is **strong** and
emphasized tag.

Result:

This is **strong** and *emphasized* tag.

BLOCKQUOTE

The Blockquote tag indents the text inside the tags.

<blockquote>...</blockquote>

HORIZONTAL RULE

We insert a horizontal rule tag **<hr>** to separate sections in a document.

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PROCEDURE :-

[Creating webpage using Basic commands of HTML]

Step 1 : Open any text editor, say Notepad.

On windows computer, click on :

Start menu → All programs → Accessories → Notepad.

Step 2 : Enter the following HTML codes :-

```
<html>
  <body>
    <h1>My First Heading </h1>
    <p>This is <b>bold</b> text.
    <br>This is <i>italic</i> text.
    <br>This is <u>underlined</u> text.</p>
    <hr>
    <blockquote>Created using Notepad </blockquote>
  </body>
</html>
```

Step 3 : We then Save the source code in
HTML format.

On Notepad, click on File → Save as.

A 'Save As' dialog box will appear. Change
Save as type from '.txt' to All. Enter
Webpage name with .html at end, click save.

Step 4 : We then navigate to the folder, where
we saved the webpage and Open the web-
page by double clicking on it.

RESULT :-

A webpage is created using Basic Commands
of HTML.

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Experiment - 02

AIM :- To create a web page using basic feature of HTML.

Software Required :-

- i) Any text editor, say. Notepad.
- ii) Any web browser, say. Google Chrome.

Theory :-

Usually, A webpage consists of HTML tags and texts. Every HTML source code must starts and ends with `<html>` and `</html>` tag simultaneously. HTML Page consists of two parts : Head and Body.

Head part consists of title and meta tags.
Body part defines the structure and information of the page.

A basic structure of webpage is :

```
- <html>
  - <head>
    ...
  - </head>
  - <body>
    ....
  - </body>
- </html>
```

Some basic features of HTML are:

Paragraph , Header , list , Table , Horizontal Rule ,
Pre text , center , Link , Image , etc...

PROCEDURE :-

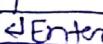
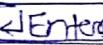
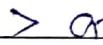
Step 1 : Open a text editor

On a windows computer, we use Notepad.

To open Notepad, we open start , Click on 'All Programs', click on 'Accessories' and then click at Notepad.

Step 2 : Entering HTML codes in the text editor.

i.) Set up document type

We type in `<!DOCTYPE html>` and press , then type in `<html>` and press  again, Finally we type in `<head>` and press .

The top of our document looks like as follows:

`<!DOCTYPE html>`

`<html>`

`<head>`

ii.) Add a tab title for our web page.

This is the title which appears on the browser tab when we open the page.

Type in `<title>`, we enter our web page's tab title and type in `</title>`. We then add the closing "Head" tag, which is `</head>`. The title section looked like:

`<title>My Web Page</title>`

`</head>`

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iii.) Indicate beginning of page's body text.
We typed in `<body>` below the closed "Head" tag. This ensures that the rest of our document's text will be considered website text until we close the "Body" tag. We had the following:
`<body>`

iv.) Create a page heading.

Page heading is the title which appears at the top of web page. To create one, we type in `<h1>`, add our heading, and then close the tag with `</h1>`.

For example:

`<h1>Welcome to My Page !</h1>`

v.) Create a paragraph.

Paragraph tags are used to create distinct block of texts. To place text in a paragraph, we type in `<p>` and type in our text, and then type in `</p>` to close the tag.

`<p>This is my paragraph.</p>`

- We can add multiple paragraph lines in a row in order to create a series of paragraphs under one heading.

* SOURCE CODE :-

```
1. <!DOCTYPE html>
2. <html>
3. <head>
4. <title> My Web Page </title>
5. </head>
6. <body>
7. <h1> Welcome to My Page! </h1>
8. <p> This is my paragraph. </p>
9. <p>
10. <b> bold text </b><br>
11. <i> italic text </i><br>
12. <u> underlined text </u><br>
13. <sub> subscript text </sub><br>
14. <sup> superscript text </sup><br>
15. </p>
16. </body>
17. </html>
```

vi.) Format text with bold, italic, or underlining.

Bold text, italic text, and underlined text

can be created with `` tags, the `<i></i>` tags, and the `<u></u>` tags respectively. We can also create subscript text and superscript text.

```
<p><b>bold text</b> <br>
<i>italic text</i> <br>
<u>underlined text</u> <br>
<sub>Subscript text</sub> <br>
<sup>Superscript text</sup> </p>
```

vii.) Close the web page's tags.

As with any tag in HTML, we'll have to close the `<body>` and `<html>` tags that are at the top of our document by typing in the following at the bottom of the document:

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

Step 3 : Saving the Web Page.

- Open the "Save" menu.

We press `Ctrl + S` or,

click File and then click Save As in the resulting drop-down menu.

• Enter a name for HTML document.
We type that we want to name the document into the "File name" text box.

• Changing the document's file type.
We'll need to change the document from a text file to an HTML file:
Click the "Save as type" drop-down box,
Click All Files, and then type .html
at the end of the file's name.

• Click Save

Step 4: Closing the text editor

Click on File → Close to close text editor.

Step 5: Open the HTML document with browser.

We have two options to open HTML document, one to double-click the HTML document, or other to Right click the document, select 'Open with', and click the preferred browser.

OBSERVATION :-

HTML has different tags for different feature.

RESULT :-

A web page using Basic feature of HTML is created.

Experiment - 3

AIM :- To create two web pages and connect them using functions available in HTML.

Software Required :-

- i.) A text editor, say, Notepad for windows.
- ii.) A web browser, say, Chrome.

THEORY :-

HTML, or "Hyper-Text Markup Language", is the language of our web browser, which reads the various tags in an HTML document, displaying a formatted and navigable web page.

Linking web pages together is as simple as placing a hyperlink tag within one web page that points to another. Using hyperlinks, we can easily create an organized and navigable website, improving our web presence and providing an information hub for current and prospective customers.

HTML LINKS :

Links are found in nearly all web pages. Links allow users to click their way from page to page.

HTML links are hyperlinks. We can click on a link and jump to another document. When we move the mouse over a link, the mouse arrow turns into a little hand.

A link can be an image, text or any other HTML element.

Syntax :

In HTML, links are defined with the `<a>` tag:

`link text`

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PROCEDURE:

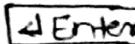
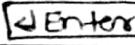
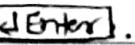
Step 1: Open a text editor.

On a Windows computer, we used Notepad.

To open Notepad, we open Start , Click on 'All Programs', then click on 'Accessories' and then click at Notepad.

Step 2: Entering HTML codes in the text editor.

i.) Setting up web page

We type in `<!DOCTYPE html>` and press  , then type in `<html>` and press  again. Finally we type in `<body>` and press .

The top of our document looks like as follows:

`<!DOCTYPE html>`

`<html>`

`<body>`

ii.) Inserting a link to other Page.

A link is specified using HTML tag `<a>`. This tag is called anchor tag and anything between the opening `<a>` tag and the closing `` tag becomes part of the link and a user can click that part to reach that part of the webpage or to the linked document.

* SOURCE CODE [Page1.html]

1. <!DOCTYPE html>
2. <html>
3. <head> </head>
4. <body>
5. Click here
6. </body>
7. </html>

* RESULT [Page1.html]

We type in `` and then type the text that a user clicks to jump to another document.

For example:

`click here`

iii.) Close the web page's tags.

As with any tag in HTML, we'll have to close the `<body>` and `<html>` tags that are at the top of our document by typing in the following at the bottom of the document:

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

Step 3 : Saving the Web Page

- Open the "Save" menu.

We press `ctrl + S` or, click File and then click Save As in the resulting drop-down menu.

- Enter a name for HTML document.

say. Page1 with .html extension at end.

- Change document file type from 'text' to 'All'
- Click on `Save` button.

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* SOURCE CODE [Page 2. html]

1. <!DOCTYPE html>
2. <html>
3. <body>
4. Click here
5. </body>
6. </html>

* RESULT [Page 2. html]

Step 4: Load new Empty Notepad file.

Click on File → New.

Step 5: Repeat Step 2 and Step 3 once again.

In step 2.(ii), specify Page1.html instead of Page2.html.

In step 3, specify Page1.html instead of Page2.html.

Step 6: Closing the Text editor.

Click on File → Close to close text editor.

Step 7: Open HTML document.

We have two options to open HTML document, one option is to double-click the icon of HTML document, and other option is to Right click the document, select 'Open with', and click the preferred browser.

OBSERVATION :-

Clicking on the link on one web page, direct us to other web page.

RESULT :-

Two web pages connecting each other using Link feature of HTML is created.

AIM :- To add pictures in a web page, changing in a web page, changing size and alignment of picture using HTML.

Software Required :-

- i) A text editor. say, Notepad for windows.
- ii) A web browser, say. Chrome.

THEORY :-

The `` tag defines an image in an HTML Page. The `` tag has two required attributes : `src` and `alt`.

Images are not technically inserted into an HTML Page, images are linked to HTML Pages. The `` tag creates a holding space for the referenced image.

Image tag has some attributes :

- `align` → to specify alignment of an image.
- `alt` → to specify an alternative text for image.
- `height` → to specify the height of an image.
- `src` → to specify the URL of an image.
- `width` → to specify the width of an image.

SYNTAX:

``.

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* SOURCE CODE

1. <!DOCTYPE html>
2. <html>
3. <body>
4.
5.

6.
7.

8.
9. </body>
10. </html>

PROCEDURE :-

Step 1 : Open a text editor. say, Notepad for windows.
Click Start → All Programs → Accessories → Notepad to open Notepad.

Step 2 : Entering HTML Codes in the text editor.

i.) Entering the Basic syntax:

We type the following code :

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

ii.) Inserting Picture in web page.

Next, we used `` tag with `src` attribute to insert Picture. we typed following code :

```

```

iii.) Changing size of Picture.

Img tag has `size` attribute as well as `height` and `width` to specify / change size of picture.

We typed following Code :

```

```

iv.) Changing alignment of picture.

Image tag has 'align' attribute with possible value 'top', 'bottom', 'middle', 'left' & 'right' value, to specify

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the alignment of an image according to surrounding element.

We typed the following code :

```

```

v) Closing the web page's tags.

Next, we typed the following codes to close the opened tag of container tag :

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

Step 3 : Saving the web page.

- Open Save menu by clicking File → save as.
- Enter a name with .html at end.
- Change document file type to All and click **save**.

Step 4 : Closing the text editor.

Click on File → close to close the text editor.

Step 5 : Open HTML document.

Right click the document, select 'open with', and click the preferred browser.

RESULT :-

A web page with an image of wildlife of height and width 100 pixels, aligned at top of the web page is created.

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AIM :- To understand the differences and features available in different web browsers.

Software Required :- Google chrome, Mozilla Firefox, Internet Explorer.

THEORY :-

A Web browser, or simply "browser", is an application used to access and view websites. Common web browsers include Microsoft Internet Explorer, Google chrome, Mozilla Firefox, and Apple safari.

The primary Function of a web browser is to render HTML, the code used to design or "mark up" webpages.

Some of the basic features of web browser are as follows :-

i.) NAVIGATION BUTTONS

Navigation buttons are used to go back and forward while browsing.

ii.) Refresh Button

Refresh Button is used to force web browser to reload the web page.

iii.) Stop Button

It cancels web browser's communication with a server and stops page loading.

iv.) Home button

It loads predefined Homepage.

v.) Web browser's address bar

Address bar is used to enter website and page name.

vi.) Integrated search

It allows selecting our favourite search engine, and doing a quick search by typing in a search term.

vii.) Tabbed browsing

Browser tabs allow opening many websites on a single web browser's window.

viii.) Bookmark buttons

Customs user defined buttons that redirect to chosen websites.

PROCEDURE :-

Step 1 : Open web browsers.

• Internet explorer :

i.) Click or tap the Start button.

ii.) Type "internet explorer" on Start menu.

iii.) Click "Internet explorer" in search result.

• Mozilla FireFox :

i.) Click Start  button.

ii.) Type "Internet Mozilla Firefox" on start menu.

iii.) Click 'Mozilla Firefox' in search result.

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- Google Chrome

- i.) Click or tap of the Start button.
- ii.) Type "chrome" on start menu.
- iii.) click "chrome" in search result.

Step 2: Visiting a web page,

In every web browser, we can visit a web page by typing URL of the webpage on address bar and then click Enter

Step 3: Understanding Features of web browser.

i.) Going Backward.

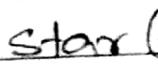
Every web browser have navigation button on the left of address bar. Click on  button to go backward.

ii.) Refreshing a Web page.

Any web page can be refreshed on any browser using  Refresh button or Ctrl + R.

iii.) Bookmarking the webpage.

• Internet explorer \Rightarrow Click Favourite \rightarrow Click create button on dialog box and then click OK.

• Chrome \Rightarrow To the right of address bar, click star ().

• Firefox \Rightarrow Click star ().

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Step 4: Closing the web browser.

Click on the Button to close the web browser.

OBSERVATIONS :-

We Found Fast startup and shutdown is present in both these all browsers. All these browsers load popular websites quickly.

But, Hardware acceleration is only supported on Internet explorer.

All these browsers provides protection from malicious cross-site scripting attacks. Domain name highlighting in the Address bar is present only in chrome and IE. Only IE provides most protection against socially engineered malware.

All these web browsers provide full privacy to its user. Only IE has compatibility mode to view website designed for older browsers.

All these Tool set (HTML, CSS, Javascript editing, profiling, network inspection) is present in all three web browsers. Only chrome and IE has developer tools built-in to the browser.

After looking at the tests everything seems the best for IE Obviously.

RESULT :-

We Opened IE, Chrome and Firefox and perform some operations to understand difference and feature.

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AIM :- Creating web pages using Dynamic HTML and then launching them.

Software Required :-

- i.) Any text editor. say, NOTEPAD
- ii.) Any web browser. say, Chrome.

THEORY :-

DHTML is the art of combining HTML, Javascript, DOM, and CSS.

DHTML is Not a Language. DHTML stands for Dynamic HTML. DHTML is NOT a language or a web standard. DHTML is a TERM used to describe the technologies used to make web pages dynamic and interactive.

To most people DHTML means the combination of HTML, Javascript, DOM, and CSS.

HTML 4

The W3C HTML 4 standard has rich support for dynamic content:

- HTML supports Javascript.
- HTML supports the Document Object Model (DOM)
- HTML supports HTML Events.
- HTML supports cascading style sheets (CSS).

JavaScript

JavaScript is the scripting standard for HTML. DHTML uses it to control, access and manipulate HTML elements.

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HTML DOM

The HTML DOM is the W3C standard Document Object Model for HTML. The HTML DOM defines a standard set of objects for HTML, and a standard way to access and manipulate them.

DHTML is about using the DOM to access and manipulate HTML elements.

CSS

CSS is the W3C standard style and layout model for HTML. CSS allow web developers to control the style and layout of web pages.

HTML 4 allows dynamic changes to CSS.

DHTML is about using Javascript and DOM to change the style and positioning of HTML elements.

PROCEDURE :-

Step 1 : Open text editor. say, Notepad for windows
Click Start → All programs → Accessories
→ Notepad to Open Notepad.

Step 2 : Entering source code in the text editor.

i.) Set up document type

We type following code to set up and start writing DHTML document :

```
<!DOCTYPE html>  
<html lang="en-us">
```

Teacher's Signature _____

* SOURCE CODE

```
1. <!DOCTYPE html>
2. <html lang = "en-us">
3. <head>
4. <title> Example </title>
5. <script type = "text/javascript">
6. function moreover()
7. {
8. document.getElementById('image').src = "abc.png";
9. }
10. function moveback()
11. {
12. document.getElementById('image').src = "laptop.png";
13. }
14. </script>
15. </head>
16.
17. <body>
18. <b> Mouse cursor over the image </b> <br />
19. <img id = "image" src = "laptop.png" onmouseover = "moreover()" 
20. onmouseout = "moveback()" width = "100" height = "100" />
21. </body>
22. </html>
```

ii.) Set up Javascript code

A JavaScript Code is inserted inside head Section. So, we type the following code first:

```
<head>
```

```
<title> Example </title>
```

Then we'll type script code:

```
<script type="text/javascript">
```

```
function moveover()
```

```
{
```

```
document.getElementById('image').src = "abc.png";
```

```
}
```

```
function moveback()
```

```
{
```

```
document.getElementById('image').src = "laptop.png";
```

```
}
```

```
</script>
```

Then we closed the head tag:

```
</head>
```

iii.) Specifying Body Content.

We type the following codes:

```
<body>
```

```
<b>Mouse cursor over the image </b> <br />
```

```

```

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iv) Closing webpage's Body tags.

Next, we typed the following codes to close the opened tag of body tag:

</body>

</html>

Step 3: Saving the DHTML webpage.

- Open 'Save as dialog box' by clicking File → Save as.
- Enter a name with .html at end.
- Change document file type to All, and click save.

Step 4: Closing the text editor.

Click on File → Close to close the editor.

Step 5: Opening DHTML document.

Right click the document, select 'Open with' and then click at the preferred browser.

RESULT:-

A web page using dynamic HTML and inner launching is created.

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Experiment - 07

AIM :- Using Basics of Internet-Google search, Email, downloading files from Internet.

Software Required :- Chrome Browser.

PROCEDURE :-

Step 1: Open Google chrome Browser.

- Click Start button
- Type "chrome" on start menu.
- Click "chrome" in search result.

Step 2: Searching something on Google.

- i.) Type "google.com" in the address bar.
- Press Enter

ii.) Type the word on the search box on Google.com's homepage.

Google will show search result for the word, on its search result page.

Step 3: Using E-mail Service.

- i.) We typed "gmail.com" on the address bar.
- ii.) On the gmail's homepage, click on [sign in].
- iii.) On the user account Page, Enter email address and Password and click [Sign in].

iv.) Gmail shows inbox message after successful login.

v.) Click on [Compose] button to send mail.

vi.) Specify 'From', 'To', 'cc', 'BCC', 'Subject', & 'Message' field and then click Send button.

Step 4: Downloading File from Internet.

i.) We googled "Dragme IDE" using step 2.

ii.) We clicked on first link on the Google search result which shows Softpedia's webpage address.

iii.) On the Softpedia webpage, click on [Download] button.

File will be downloaded in the download folder.

Step 5: Closing Browser.

Click on from control box to close browser.

RESULT:-

We practised searching from Google, Email service from Gmail and downloaded Dragme IDE software.

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