Hyper Text Markup Language (HTML) – Part A

HTML

HTML is the language for designing web pages. It is a language that describes the content, format and layout in which a web page should be displayed over the World Wide Web. HTML5 is the current and latest version of HTML

What is an HTML File?
a) HTML is a format that tells a computer how to display a web page.
b) An HTML file is a text file containing small markup tags.
c) The markup tags tell the Web browser how to display the page.
d) An HTML file must have an ".**htm**" or ".**html**" file extension.

What are HTML tags?
a) HTML tags are used to mark-up HTML elements.
b) HTML tags are surrounded by the two characters < and >.
c) HTML tags are normally used in pairs like and .
d) The first tag in a pair is the start tag, the second tag is the end tag as:
   <tagname>Content… … …</tagname>
e) HTML tags are not case sensitive, <b> means the same as <B>.
f) The terms HTML element and HTML tags are used interchangeable.
g) HTML tag or HTML elements can be of two types:
   a. Container: Elements that start tag and an end tag.
      Example: <h1> Heading of the web page <\h1>.
   b. Empty: Elements that has no content and no end tag.
      Example: <br> and <hr> has no content, so end tag not required.

Structure of and HTML Document

```
<!DOCTYPE html>
<html>
    <head>
        <title> Page Title </title>
    </head>
    <body>
        Element that defines the content of web page
    </body>
</html>
```

- <!DOCTYPE html>: This defines that this document is an HTML5 document.
- The visible part of the HTML document that is displayed on the browser window is enclosed between <body> and </body>.

Tag Description

HTML Tag	Type	Description / Use
<html>	Container	This tag marks the start and end of an html document
<head>	Container	This tag represents the document's header which can keep other HTML tags like <title>, <link>, etc.
<title>	Container	This tag is used inside the <head> tag to mention the document title (on Title bar in browser window).
<body>	Container	This tag represents the document's body which keeps all the contents of a web page such as text, images, etc.
<Hn>	Container	This tag represents the heading tags of different sizes, where n is the number start from 1 to 6 like <H1>, <H2>… … … <H6>.
<center>	Container	This tag is used to display a line or text in center.
<p>	Container	This tag represents a paragraph.
 	Empty	This tag is used to insert new line or insert enter in html.
<hr>	Empty	This tag is used to display a straight horizontal line or horizontal rule across the web page for separating content on the web page
Bold, Italics, Underline, Superscript & Subscript:		
<b>	Container	This tag is used to make a text bold in html.
<i>	Container	This tag is used to make a text italic in html.
<u>	Container	This tag is used to make a text underlined in html.
<sup>	Container	This tag is used to make a text superscript. Example: if x^2 is to be displayed, then the code is x².
<sub>	Container	This tag is used to make a text subscript. Example: if H_2O is to be displayed then the code is H₂O.

HTML Attributes

HTML attributes is a special word used inside an HTML tag and which specifies additional information about HTML elements such as color, alignment, height, width, src, etc. HTML elements may or may not have attributes. Attributes are always specified in the start tag.

Background Color and Text Color

<body bgcolor="specify color here"> tag is used to change the background color of an html page.
For example: <body bgcolor ="yellow"> makes background yellow.

<body text="specify color here"> changes text color.
For example: <body text="green"> makes text to appear in green.

Paragraph Alignment

<p align=left/right/center> is used to display paragraph alignment in html.

Image Element

<img> tag is used to insert images in webpage.
For example, <img src = "India.jpg">. Here 'src' is an attribute of <img> element. It indicates the path of image file to be displayed on the web page.

HTML Comments

HTML Comments can help in the understanding of the markup and do not display in the webpage.

For Example: <!-- This is a comment -->
The above code will not be displayed on a web browser when the web page is opened.

Nesting of HTML Elements

HTML elements can be placed within other HTML elements. This is called nesting of elements. When elements are nested, tags must be closed in the opposite order in which we opened them.
For example, <body> is nested within <html>, <title> is nested within <head>.

How to create webpages?

1. In Windows 10, click **Start (Windows Button)** 🪟 > **Windows Accessories** and then open '**Notepad**' and type the code given below:

```
<html>
<head>
<title> My First Webpage </title>
</head>
<body>
<center><h1> Webpage </h1></center>
This is my first homepage.
<br><br><b>This text is bold</b>
<br><br><i> This line is in italics text. </i>
<br><br><u> This line is in underline text. </u>
<br><br>This is the 1st line.
<br><br>This is the 2nd line.
</body>
</html>
```

2. Click 'File', then click 'Save As…'
3. Type a name of your webpage followed by dot and html. Example: mypage.html.
4. Go to the location on computer where the file is saved. Double click on the file to open.

Assignment Question

1. Write an html code to create the following Webpage with background color 'yellow' and text color 'red':

<div style="background:yellow; color:red; text-align:center">

My School

I am a Student of St. John's Senior Secondary School, Damoh.

</div>

```
<html>
<head>
<title> My Webpage
</title>
</head>
<body bgcolor ="yellow" text="red">
<center><h1> My School </h1></center>
<p align=center> I  am  a  student  of  St.  John's  Senior
Secondary School, Damoh. </p>
</body>
</html>
```

2. Write an html code to show the working of various Paragraph alignment tags:

```
<html>
<head>
<title> Paragraph in HTML </title>
</head>
<body>
This is an HTML document.
<p align=left> This is a left paragraph in HTML </p>
<p align=right> This is a right paragraph in HTML </p>
<p align=center> This is a center paragraph in HTML </p>
</body>
</html>
```

Inserting Images in Webpage

Inserting images on html pages makes it look visually appealing. For that, <img> tag is used to insert images in webpage.

1. Go to the folder containing picture which is to be inserted.
2. Copy the path of the picture, example: "D:\Images\India.jpg".
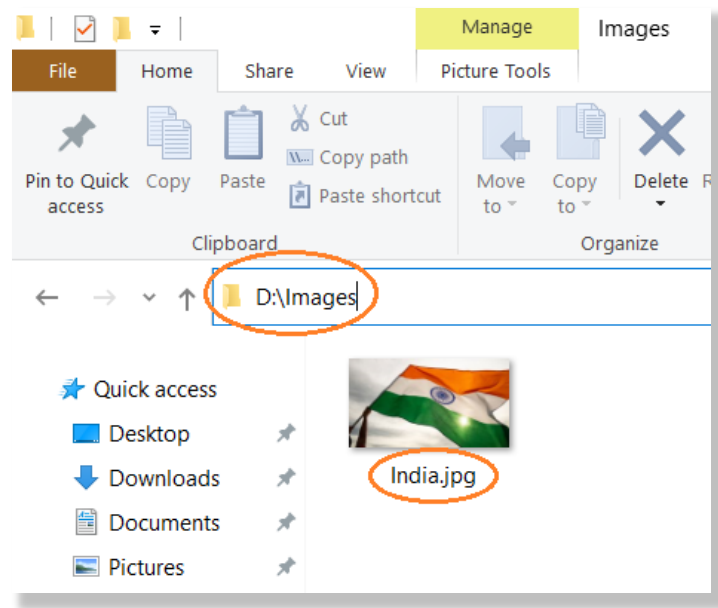
3. Open the text document and type the code given below.

```
<html>
<head>
<title>Webpage with Pictures</title>
</head>
<body bgcolor="yellow">
<img src=D:\Images\India.jpg>
</body>
</html>
```

4. Save the file having above code with your preferred file name, for example, "Webpagewithpicture.html" and close the file.
5. Open the above file with Internet Browser such as Google Chrome.

Also, there is another way of inserting image where '**the image file which is to be inserted**' and '**html web page file**' to be saved in '**single folder**'. In that case entire path of the location where image file is saved need not to be mentioned in code. Only, the file name to be mentioned example, "India.jpg" and not "D:\Images\India.jpg". Please refer to the code below:

```
<html>
<head>
<title>Webpage with Pictures</title>
</head>
<body bgcolor="yellow">
<img src= India.jpg>
</body>
</html>
```

To insert images with adjusted height and width

The width and height of the inserted image in our webpage can be changed by simply writing the 'width' and 'height' options inside the <img> tag. Example (using the above code):

<img src=India.jpg width=500 height=400>

Lists in HTML

There are three basic types of lists in HTML: Unnumbered, numbered (also known as ordered List and definition.

Unordered Lists – An unordered list has no specific numbering or ordering. It starts with the <ul> tag. Each list item starts with the <li> tag.

Attributes of Unordered List tag: The attribute of Unordered Lists is 'type' which is used to specify the bullet style – disc (•), circle (○) or square (▪) or none. In case of none, the list items will not be marked. Disc bullet is default, so if the attribute is not defined, it will be set as disc.

Example: <UL type=square> will set the bullet style as square.

Numbered List (or Ordered List) – An ordered list can be numerical or alphabetical in a specific order.

Attributes of Unordered List tag: The attributes of Ordered Lists tag are
- 'start' which is used to change the list beginning value.
- 'type' which is used to specify the numbering style – A, a, I, i or 1.
  - A, a are alphabetic number style in upper or lower case.
  - I or I are roman numeral numbering style in upper or lower case.
  - 1 is Arabic numeral numbering style which is also the default. So, in case, the attribute 'type' is not defined, default numbering style of Arabic numeral, i.e., 1., 2. 3., 4., … … are set.

Example: <OL start = 5 type=i> will start the list at 'v.'. Similarly, <OL start = 3> will start the list at '3.' as no attribute is provided for OL, so default numbering style, i.e., Arabic numerals will be used for numbering the list items in list.

Definition List – Definition lists are indented list without any bullet symbol or any number in front of each item. The definition list are defined with <DL> tag, definition terms are defined with <DT> tag and definition description are defined with <DD> tag.

Study the following two codes carefully to understand the programming for Unordered and Numbered (or ordered) list. Output of the same is shown following the code:

HTML code example for Unordered List:

```html
<html>
<body>
<h1>Example of Unordered List</h1><hr>
<h3>Example - Bullet type is disc</h3>
<ul type=disc>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
<h3>Example - Bullet type is circle</h3>
<ul type=circle>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
<h3>Examples - Bullet type is square</h3>
<ul type=square>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

</body>
</html>
```

Output of the code:
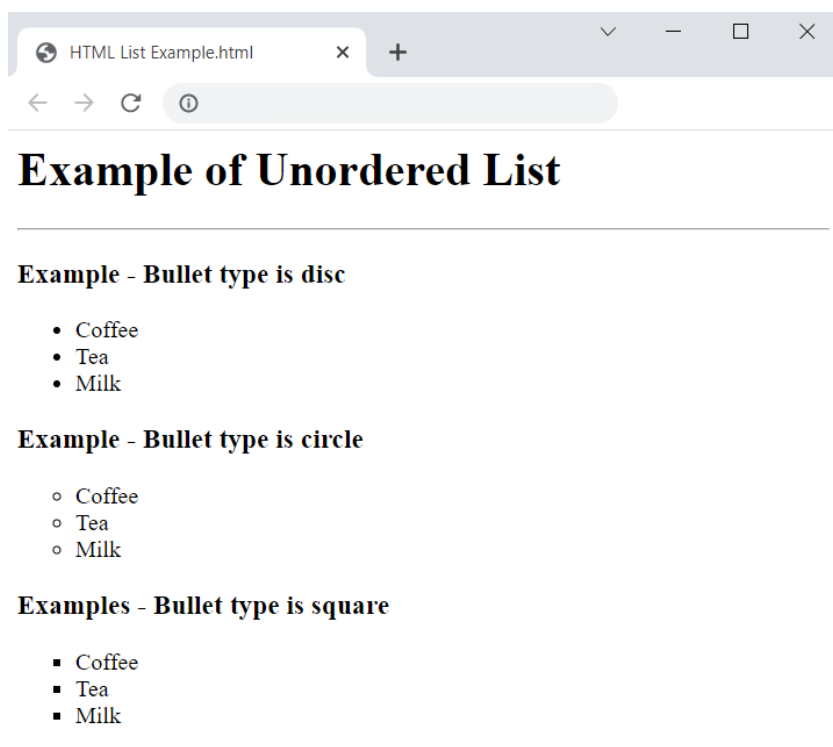
HTML code example for Ordered/Numbered List:

```html
<html>
<body>
<h1>Example of Numbered List</h1><hr>
<h3>Example - Alphabetic Number List in Upper Case</h3>
<ol type='A'>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
<h3>Example - Roman  Number  List  in  lower  Case  starting  with
iv.</h3>
<ol start = 4 type='i'>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
<h3>Example - Arabic Number List starting with 1.</h3>
<!-- Please note here that no attribute provided with tag ol, so
default numbering style is roman numerals and default starting of
list is 1.-->
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

</body>
</html>
```

Output of the code:
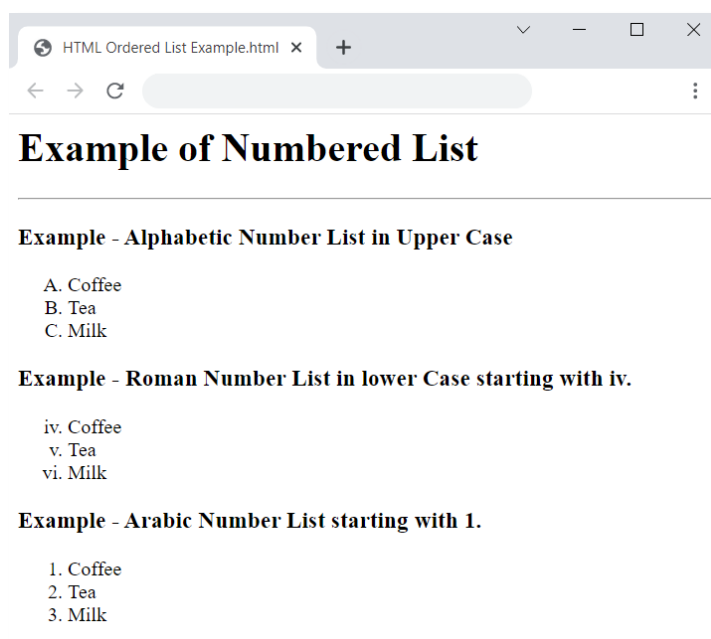
HTML code example for Definition List:

```html
<html>
<head>
<title> HTML Definition List Example </title>
</head>
<body>
     <DL>
          <DT>IAS</DT>
          <DD>
          The    Indian    Administrative    Service    (IAS)    is    the
administrative  arm  of  the  All-India  Services  of  Government  of
India.  Considered  the  premier  central  civil  service  of  India,  the
IAS  is  one  of  the  three  arms  of  the  All-India  Services  along  with
the  Indian  Police  Service  and  the  Indian  Forest        Service.
          </DD>
          <DT>IPS</DT>
          <DD>
          The  Indian  Police  Service  (abbr.  IPS)  is  a  central  civil
service  under  the  All-India  Services.  It  replaced  the  Indian
Imperial  Police  in  1948,  a  year  after  India  became  independent
from  the  British  Raj
          </DD>
     </DL>
</body>
</html>
```

Output of the code:
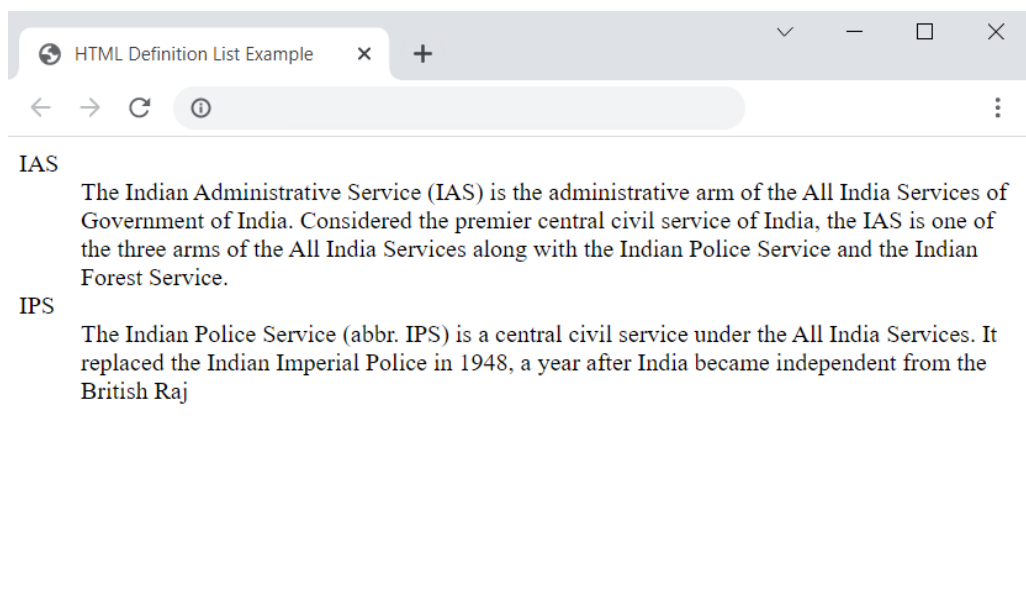
Notice the automatic indentation when the description starts.

Attributes of the BODY tag

Attribute	Value	Description
bgcolor	color	Specifies background color
text	color	Specifies text color
background	URL/path	Specifies background image
lefrmargin	pixel value	Specifies the left margin in a document
topmargin	pixel value	Specifies the top margin in a document
link	color	Specifies color for the unvisited link.
alink	color	Specifies color for the active link.
vlink	color	Specifies color for the visited link.

Examples of Using <body> attributes

Attribute	Example	Result
bgcolor	<body bgcolor="#FFFF00">	Background is changed to yellow color
text	<body text="#0000FF">	Text color is changed to blue
background	<body background= "C/Images/India.jpg">	Image (filename - 'India.jpg' stored in Image folder of C drive is set as background of web page.
lefrmargin	<body leftmargin="60">	This will make the body-text indent 60 pixels away from the left edge of the page.
topmargin	<body topmargin="70">	This will make the body-text indent 70 pixels away from the top edge of the page.
link	<body link="blue">	Links that have not been visited recently will be blue.
alink	<body alink="Purple"	Links blink briefly red when user clicks them.
vlink	<body vlink="#008000"	Recently visited link are made green.

Important points to note while using the <body> tag attributes:
- Wherever colour is to be specified, the same can be specified either by directly mentioning the colour name like red, blue, purple, etc. or their corresponding six-digit hexadecimal code. Some of the hexadecimal codes are listed below:

Color Name	Corresponding Hexadecimal Code
Aqua	#00FFFF
Black	#000000
Blue	#0000FF
Grey	#808080
Green	#008000
Red	#FF0000
White	#FFFFFF

- Notice that colour is spelled as 'color' in HTML programming language.
- By default, browser display text in black on a white background.
- Combination of multiple attributes can be used. For example:

<body bgcolor=red text=yellow leftmargin=40>
The above code will result in webpage with red background, yellow text and left margin indented 40 pixels from left edge of the browser window.

- If an image is used for actual background, the background colour should also be specified so that background colour will be shown until the image loads
- If the image is specified as background, the browser replicates it enough times to fill the browser window.

Text formatting with <font> tag

The <font> tag lets you change the size, style and color of text.

Attributes of <font> tag:

- size – to change the size of a text, it can be given an absolute value, e.g., size = 5 or size = 2, etc. it can also be given a relative value, e.g., size=+1 or size=-2 provided you are working with Netscape Navigator as relative sizes are recognised only by Navigator.
- color – to change the color of a text. The value can be the color name or their corresponding six-digit hexadecimal code.
- face – to change the font type of text. With face attribute, a list of font-names is to be provided, enclosed within quotes. The browser tries to find if the first font-name mentioned is supported by it. if it is supported, then the text is displayed in that font. If not, then it tries with second, third and so on. If no font is supported, it displays text in its default font.

HTML code example for Definition List:

```
<html>
<head>
<title> HTML Font tag example </title>
</head>
<body>
    <font size = 5 color = blue face="Grandview, Footlight MT
Light, Times New Roman">
    <center><b><u><h1>India</h1></u></b></center>
India, officially the Republic of India (Hindi: Bhārat Gaṇarājya),
is a country in South Asia. It is the seventh-largest country by
area, the second-most populous country, and the most populous
democracy in the world. India is bounded by the Indian Ocean on the
south, the Arabian Sea on the southwest, and the Bay of Bengal on
the southeast, it shares land borders with Pakistan to the west;
China, Nepal, and Bhutan to the north; and Bangladesh and Myanmar
to the east. It is in the vicinity of Sri Lanka and the Maldives;
its Andaman and Nicobar Islands share a maritime border with
Thailand, Myanmar and Indonesia.
    </font>
</body>
</html>
```

Output of the code:

Please notice in the above output and the source code that as font 'Grandview' is not supported by Google Chrome browser, so it displayed the output in next supported font, i.e., Footlight MT Light.

Additionally, notice that the heading India is formatted as bold, underlined text centre aligned and having level 1 heading within font tag itself.

Special Characters

Three ASCII characters, the left angle bracket (<), the right-angle bracket (>) and ampersand (&) have special meaning in HTML and therefore cannot be used 'as is' format.

To use one of these characters, in an HTML document, you must enter it escape sequence instead as illustrated below:

<	The escape sequence for <
>	The escape sequence for >
&amp	The escape sequence for &

HTML code example for Use of Special Characters ('<', '>' and '&'):

```html
<html>
<head>
<title> HTML Special Characters </title>
</head>
<body text=blue>
    <center><b><u><h1>Profit and Loss</h1></u></b></center>
    Profit or Loss is calculated as the difference of Cost Price
&amp; Selling Price
    <br><br>
    If Selling Price &gt; Cost Price then it is profit and profit
is claculated as:
    <br>
    <center>PROFIT = SELLING PRICE - COST PRICE</center>
    <br><br>
    If Selling Price &lt; Cost Price then it is loss and loss is
claculated as:
    <br>
    <center>LOSS = COST PRICE - SELLING PRICE</center>
</body>
</html>
```

Output of the code:
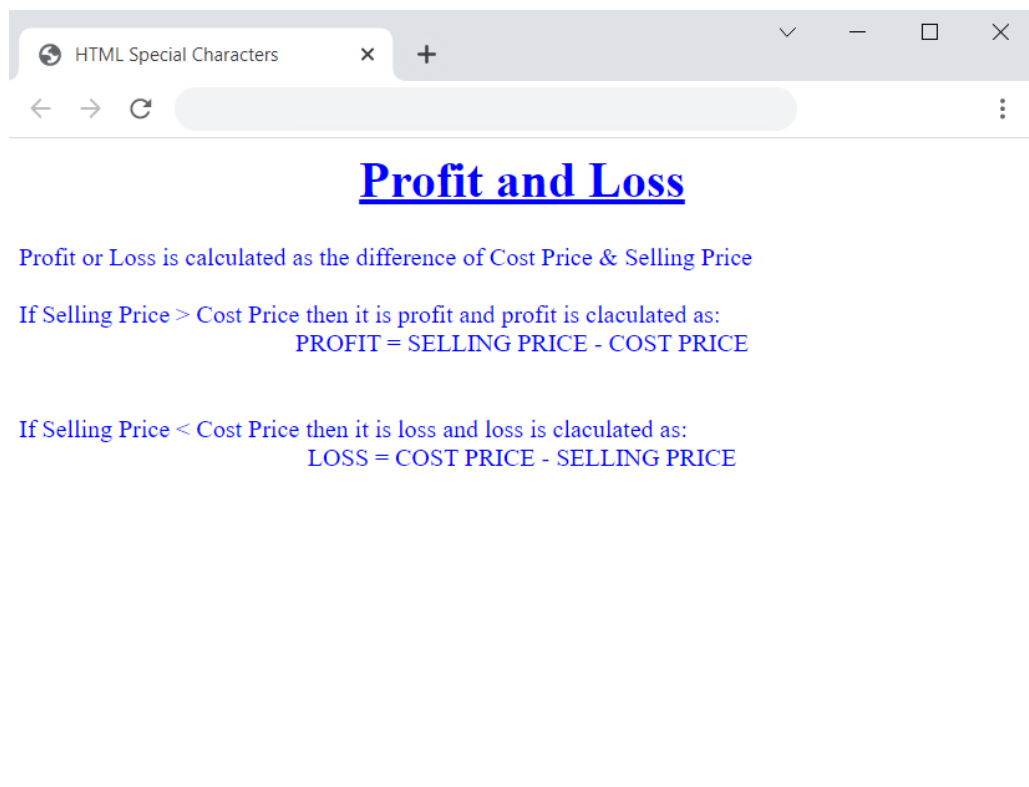
Notice the use of special characters in the code at three places.

|| EXERCISES ||

I. Fill in the blanks

1. _____is the building block of web pages.
2. HTML element that has a start tag and end tag is known as _____ element.
3. HTML document must have '.html' or _____ extension.
4. _____ tag is used to display line or text in center.
5. _____ tag is used to set paragraph.
6. To insert image _____ tag is used.
7. <hr> tag is used for _____.
8. _____ are explanatory statements inserted in the HTML code that help in understanding the code.
9. An element that only has a starting tag and no ending tag is _____ element.
10. <title> tag is used to define _____.
11. The two tags which breaks the line flow are _____ and _____.
12. Comments are enclosed in _____ and _____ tags.
13. The textual content that appears in the source HTML document but is not rendered by the browser is _____.
14. The default alignment of text is _____, default text color is _____ and the default background color is _____.
15. _____ attribute is used to define the thickness of horizontal rule.
16. The tag _____ is used to create subscripts and _____ is used to create superscript on a web page.
17. _____ text styles are handled in its own way by the browser.
18. To display an '&' on the web page, _____ is used in the source HTML code.
19. Background colour is set by _____ attribute and background graphics is set by _____ attribute of _____ tag.
20. Face attribute is used with _____ tag and used for _____.

II. Find True (T) or False (F)

1. HTML tags are case sensitive.   [   ]
2. <h1>, <h2>, … … …, <h6> tags represent heading tags of different size.   [   ]
3. <p> tag is used to insert new line or insert enter in HTML.   [   ]
4. <img> tag is used to insert images in webpage.   [   ]
5. <b> tag is used to make text italics.   [   ]
6.
 tag has its closed tag as </br>.   [   ]
7. <p> tag has no closing tag.   [   ]
8. <hr> tag is same as <br> tag.   [   ]
9. There must be only one <body> tag in each web page.   [   ]

III. Multiple Choice Questions

1. Which of the following tags identifies the documents as an HTML document?
   - a) <html>
   - b) <head>
   - c) <body>
   - d) <p>
2. Which sequence of HTML tags is correct?
   - a) <html><head><title></title>
     </head><body></body></html>
   - b) <html><head><title><body>
     </title></head></body></html>

    c) <html><head><title></head>
       <body></body>></title></<html>
    d) <html><head><title><body>
       </body>></title></head></html>

3. An advantage of using basic HTML to create a document is:
    a) all word processors can display the document.
    b) all browsers can display the document.
    c) it will print better than a word processing document.
    d) It is easier to write in HTML.

4. Every HTML document must include the tags:
    a) <html></html> and <body></body>
    b) <body></body> and at least one <p>
    c) <html></html> and <head></head>
    d) <head></head> and <body></body>

5. The <title> tag belongs where in your HTML?
    a) Head   b) Arm
    c) Body   d) Foot

6. Choose the correct HTML tag for the largest heading
    a) <heading>   b) <h6>
    c) <head>   d) <h1>

7. All normal web pages consist of what two parts?
    a) Head and Body   b) Top and Bottom
    c) Body and frameset   d) Header and Footer

8. HTML is a
    a) Programming Language   b) Web page layout language
    c) Markup language   d) Both (b) & (c)

9. A tag is
    a) HTML command   b) VB command
    c) C++ command   d) None of these

10. Container elements in HTML require
    a) Starting tag   b) Ending tag
    c) Starting and ending tag   d) None of these

11. Which HTML tag would you apply the *bgcolor* attribute to change the background colour of the web page?
    a) <html>   b) <head>
    c) <body>   d) <p>

12. In which section of an HTML document do you enter <p> element?
    a) The body section   b) The footer section
    c) The style sheet   d) The head section

13. Which of the following heading tags will cause a browser to render the text at the largest default size?
    a) <h3>   b) <h2>
    c) <h5>   d) <h4>

14. Which is the correct way to comment out something in HTML?
    a) Using # and ##   b) Using <!-- and -->
    c) Using </-- and -/->   d) Using <!—and -!>

15. Which of the following is a proper syntax to start an HTML comment?
    a) <!--   b) <!>
    c) <comment>   d) <rotate>

16. Which one of the following is the HTML tag used to insert a horizontal rule?

a) <h1>   b) <hr>
c) <rule>   d)

17. Which one is correct?
    a) Click Here   b) Click Here
    c) Click Here   d) Click Here

18. The page title is inside the ____ tag.
    a) Body   b) Head
    c) Division   d) Table

19. Which is the correct HTML code for adding a background colour?
    a) <body background="yellow">
    b) <background>yellow</background>
    c) <body style="background-coloris: white">
    d) <body bgcolor="white">

20. HTML is
    a) Package   b) Software
    c) Language   d) None of these

21. Choose the correct HTML tag for the largest heading?
    a) <h1>   b) <h6>
    c) <h10>   d) <head>

22. Which of the following does not hold true for the heading element?
    a) The heading elements make the text appear in larger and bolder font than the normal body text.
    b) The heading levels range from one to six.
    c) The heading element is an empty element.
    d) The heading elements insert a blank line before and after the heading text.

23. Which is the correct code for generating the given output?
$$X_2 + Y^3$$
    a) <sup>2</sup>+Y<sub>3</sub>
    b) <sub>X2</sub>+<sup>Y3</sup>
    c) X<sub>2</sub>+Y<sup>3</sup>
    d) X<sub>2<sub>+Y<sup>3<sup>

24. The value of #FFFFFF & #000000 are respectively:
    a) Red and Green   b) Green and Blue
    c) White & Red   d) White & Black

25. While creating a webpage, which is correct to change the text colour to red in HTML?
    a) <body bgcolor=red>   b) <body text=red>
    c) <body color=red>   d) None of the above

26. The document structure elements of HTML page is/are:
    a) HTML   b) BODY
    c) HEAD   d) All the above

27. Which attribute does not come in <hr> tag?
    a) Size   b) Colour
    c) Width   d) Length

28. A software used to open web pages on the internet is called:
    a) Surfer   b) Portal
    c) Browser   d) Provider

29. We can view the source code of a web page in
    a) MS PowerPoint   b) Internet Explorer (browser)
    c) MS Excel   d) Notepad

30. The unnumbered list can be created by _____ tag.
    a) <UL>
    b) <OL>
    c) <LI>
    d) Both a and c
31. The numbered list can be created by _____ tag.
    a) <UL>
    b) <OL>
    c) <LI>
    d) Both b and c
32. Consider the following HTML code and choose the correct output that would be shown upon execution of the above code, from the choices given below:
```
<ol type = 'i'>
   <li>First</li>
   <li>Second</li>
   <li>Third</li>
</ol>
```
    a) I. First
       II. Second
       III. Third
    b) i. First
       ii. Second
       iii. Third
    c) I First
       II Second
       III Third
    d) i First
       ii Second
       iii Third
33. Identify which of the following type of list will create a bulleted list.
    a) Unordered
    b) Ordered
    c) Definition
    d) Numbered
34. In <OL> and <UL>, the style of the bullet or number is defined by.
    a) type attribute
    b) style attribute
    c) both a and b
    d) None of the above
35. Which of the following will produce a solid circle bullet when given as value of **type** with <UL>.
    a) disc
    b) circle
    c) square
    d) None of the above
36. Tag(s) required to create Description lists in HTML.
    a) <DL>
    b) <DT>
    c) <DD>
    d) All of the above
37. Which attribute is NOT valid for <body> tag?
    a) background
    b) color
    c) vlink
    d) bgcolor
38. Which of these is NOT an attribute of the <font> tag?
    a) face
    b) color
    c) type
    d) size
39. How can you make a text appear bold?
    a) text
    b) text
    c) both a and b
    d) neither
40. If the background image is smaller than the screen, what will happen?
    a) it will be stretched
    b) it will leave a blank space at the bottom of your page
    c) it will be repeated
    d) it will not be displayed on the browser window
41. The attribute used to choose the type of font in HTML is
    a) Character
    b) Face
    c) Text–type
    d) Font–type

42. Why should you specify a background colour if you are using an image for the actual background of your page?
    a) The background colour will be shown until the image loads.
    b) In case the image doesn't fit right.
    c) So the text shows up better.
    d) None of the above
43. Background attribute of <body> is used to
    a) give background colour to web page
    b) load an image and use it as a background when displaying webpage
    c) insert an image within web page
    d) None of the above
44. With which HTML tag do you apply attributes that modify text size, font face and color?
    a) <font>   b) <mod>
    c) <f>   d) <text>
45. Gagandeep has written the following code to display an image in the background of HTML document:

    <body BgGround="Animal.jpg">

    but he is not getting the desired output. Help him in identifying correct code from the following:
    a) <body Bg="Animal.jpg">   b) <body back="Animal.jpg">
    c) <body bgimage="Animal.jpg">   d) <body background="Animal.jpg">
46. In HTML, list can be?
    a) Unnumbered   b) Numbered
    c) Definition   d) All of these
47. To start a list at the count of 3, use which?
    a) <ol start="3">   b) <ol begin="3">
    c) <ol list="5">   d) <ol initiate="3">
48. Which of the following is the correct way to create a list using the lowercase letters?
    a) <ol alpha=a">   b) <ol type="a">
    c) <ol letter="a">   d) None of the above
49. When making bulleted lists what options do you have?
    a) disc, circle, square   b) triangle, square, circle
    c) square, disc, polygon   d) None of these

IV.   Theoretical questions

1. What is HTML?

   HTML is the language for designing web pages. It is a language that describes the content, format, and layout in which a web page should be displayed over the World Wide Web. HTML5 is the current and latest version of HTML.

2. What do you understand by HTML Tag?

   An HTML tag is a coded HTML command that indicates how part of a web page should be displayed.
   - HTML tags are used to mark-up HTML elements.
   - HTML tags are surrounded by the two characters < and >, also known as angular bracket.
   - HTML tags are normally used in pairs like and .

- The first tag in a pair is the start tag, the second tag is the end tag as: <tagname>Content… … …</tagname>
- HTML tags are not case sensitive, <b> means the same as <B>.
- The terms HTML element and HTML tags are used interchangeable.
- HTML tag or HTML elements can be of two types:
    i) Container: Elements that start tag and an end tag.
       Example: <h1> Heading of the web page <\h1>.
    ii) Empty: Elements that has no content and no end tag.
       Example: <br> and <hr> has no content, so end tag not required.

3. Name any two attributes used with the BODY tag.
   <body bgcolor="specify color here"> tag is used to change the background color of an html page.
   For example: <body bgcolor ="yellow"> makes background yellow.

   <body text="specify color here"> changes text color.
   For example: <body text="green"> makes text to appear in green.

4. Write the HTML code to set the background color to yellow.
   <body bgcolor ="yellow">

5. How would you insert image in an HTML document?
                              OR
   Which HTML tag is used to insert an image in a page? Write an option used with this tag.
   <img> tag is used to insert images in webpage.

   The option (or attributes) used with this tag includes:
   - src – it indicates the path of image file to be displayed on the web page.
   - height & width – it specifies image dimension in pixels.

   For example, <img src = "India.jpg" height = 100 width = 70>.
   Here 'src' is an attribute of <img> element. It indicates the path of image file to be displayed on the web page. Also, the dimension of image is mentioned in terms pixels in height and width as 100 & 70 respectively.

6. What does the 'n' in the <Hn> tag indicate?
                              OR
   What is the purpose of using the tags <h1> to <h6>?
   <Hn> is the tag which represents the heading tags of different sizes, where n is the number start from 1 to 6 like <H1>, <H2>… … … <H6>. <H1> is largest and H6 is the smalled font size.

7. What is an attribute in HTML?
   HTML attributes provide additional information about HTML elements. HTML elements may or may not have attributes. Attributes are always specified in the start tag.
   For example, <img src = "India.jpg">. Here 'src' is an attribute of <img> element. It indicates the path of image file to be displayed on the web page.

8. What is the basic structure of an HTML document?
   The following is the basic structure of an HTML document:

```
<!DOCTYPE html>
<html>
      <head>
            <title> Page Title </title>
      </head>
      <body>
            Element that defines the content of web page
      </body>
</html>
```

   - <!DOCTYPE html>: This defines that this document is an HTML5 document.
   - The visible part of the HTML document that is displayed on the browser window is enclosed between <body> and </body>.

9. Define the tag <HTML>?
   <HTML> tag marks the start and end of an html document

10. Differentiate between container and empty elements.
    Container elements: Elements that start tag and an end tag.
    Example: <h1> Heading of the web page <\h1>.
    Empty elements: Elements that has no content and no end tag.
    Example: <br> and <hr> has no content, so end tag not required.

11. Differentiate between <head> tag and <title> tag.
    The <head> tag is used to define the document header. It is written inside <html>…</html> tags.
    The <title> tag contains the title of the document which is displayed in the title bar at the top of the browser window but not inside the window. It is written inside the <head>… </head> and as mentioned above <head>… </head> is written inside <html>… </html> tags.

12. What is wrong with the following coding?
    a) <head> <my web page>
       <title> Welcome to My Web Page
       </head>
       </title>
       Answer: HTML tags must be closed in the opposite order in which we opened them. Here <title> tag is open after <head> tag. <title> tag should close before <head> tag as per HTML nesting.
       Also, <my web page> is incorrectly placed. There is no such tag. If it is text, it should be placed in body as the title is already mentioned.

    b)
        </br>
       Answer: <br> tag is an empty tag. But here there is closing tag </br> which is incorrect.

    c) <html>
       <head>
       <title> New Page
       </head>

```
</title>
</html>
```
Answer: HTML tags must be closed in the opposite order in which we opened them. Here <title> tag is open after <head> tag. <title> tag should close before <head> tag as per HTML nesting.

13. What all tags are required in every HTML page?
All HTML pages must have <html>, <head> and <body> tags where <head> and </head> specify the header part and <body> and </body> specify the document body.

14. Write an HTML code for the following to appear one after the other:
   - A small heading with the words, "We are Proud to Present"
   - A horizontal rule across the page
   - A large heading with the one word, "Orbit"
   - A medium-sized heading with the words, "The Geometric Juggler"
   - Another horizontal rule

```
<html>
<head>
<title>The Geometric Juggler
</title>
</head>
<body>
<center><h5>We are Proud to Present</h5></center><hr>
<center><h1>Orbit</h1><center>
<center><h3>The Geometric Juggler</h3><center>
<!-- Centre alignment is optional. Also, title is optional
as it is not mentioned in question -->
<hr>
</body>
</html>
```

15. Write a complete HTML Web page with the title "Foo Bar" and a heading at the top which reads "Happy Hour at the Foo Bar", followed by the words "Come on down!" in regular type.

```
<html>
<head>
<title> Foo Bar
</title>
</head>
<body>
<h1>Happy Hour at the Foo Bar</h1>
Come on down!
</body>
</html>
```

16. List any two types of alignment that can be applied on a paragraph in HTML.
Left Alignment & Right Alignment

17. What does <body> tag in HTML contain? Write any two attributes of this tag.
The <body> tag in HTML contains all the contents of an HTML document, such as text, images, etc.

18. List three attributes of <hr> tag.
   a) Size: to control the thickness of horizontal rule. Value is given in terms of pixels.
   b) Color: to specify the color of horizontal rule.
   c) Width: to control the length of horizontal rule. Value can be given as absolute number of pixels or a certain percentage of browser's window's width.
   Example: <hr color = green size = 10 pixels width = 60%>
   The above code will result in green colour horizontal rule of 10-pixel thickness covering 60% of width of browser window.

19. Where can a comment be placed in an HTML document? How is it useful?
                                        OR
   Why are comments included in HTML document? With the help of an example, explain how they are included in HTML code?
                                        OR
   Why do we insert comments in an HTML document even though they are not displayed on a web page?
                                        OR
   What is the method of using comment line in HTML code?
   Comments are one type of textual content which appear in HTML code but not in final webpage layout. Comments are given between special <!-- and --> markup element.
   Comments are useful as they assist the programmers to explain their code, which can help them when they edit the source code later. This is especially useful there is a lot of code.
   HTML comments can be placed anywhere in an HTML document.
   Example: <!-- this is a HTML comment -->

20. What is the purpose of HTML?
   The purpose of HTML is to tell the browser how the to display the contents of hypertext document (a document containing text, images, other media elements and hyperlinks).

21. While writing HTML code, how do you find out how your web page would like?
   The HTML code file can be opened in a web browser to find out how the Web Page would look like.

22. Distinguish between HTML tags <p> and <br> tag using example.

Tag	Type	Description / Use
<p>	Container	This tag represents a paragraph.
 	Empty	This tag is used to insert new line or insert enter in html.

23. How can one insert horizontal lines in a webpage?
   <hr> tag is used to display a straight horizontal line or horizontal rule across the web page for separating content on the web page

24. What do you mean by the term 'source code' of the current page viewed on a web browser?

<div align="center">OR</div>

What is the method of viewing source code of the current page in Web Browser?
HTML Source code is the set of instructions and statements written by a programmer (known as coding or program) using a HTML.
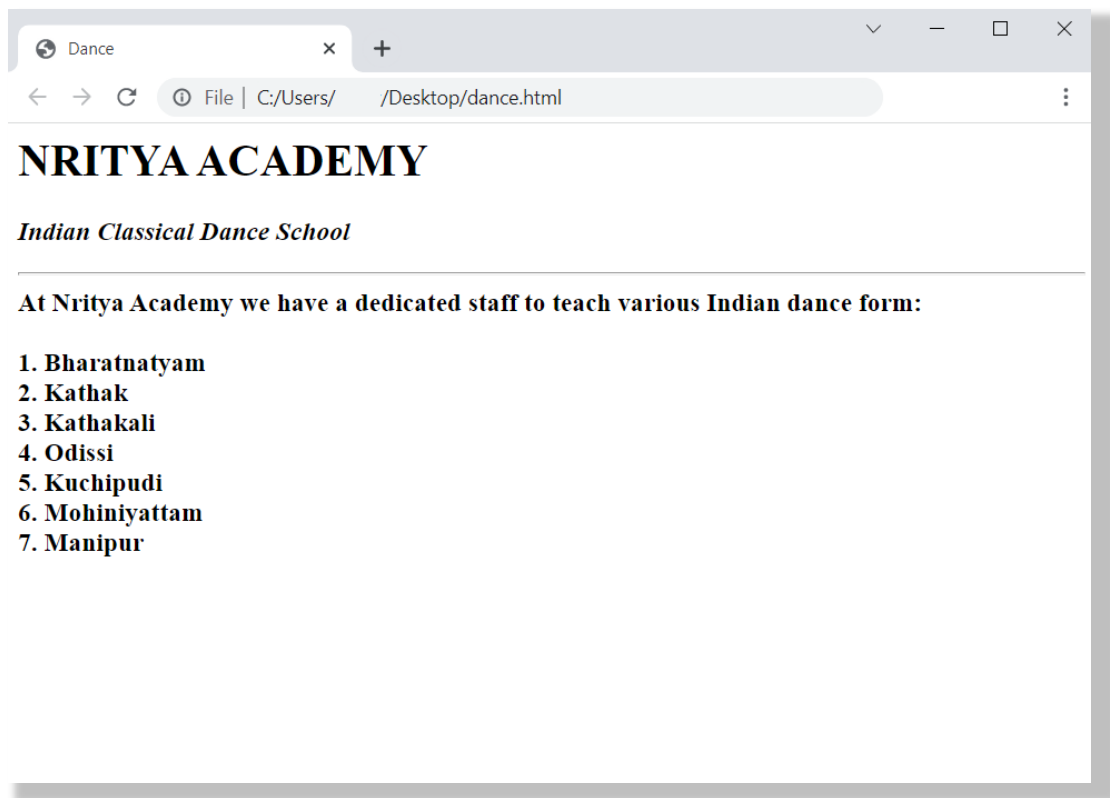Right click on the Web page and then select View Source from the context menu. The source can also be viewed by pressing CTRL + U when the web page is open in the browser (Google Chrome, Microsoft Edge)

|| IN THE LAB ||

1. Ankita has made the HTML document shown below, which displays headings in different Sizes. Write the HTML code for creating a similar document.
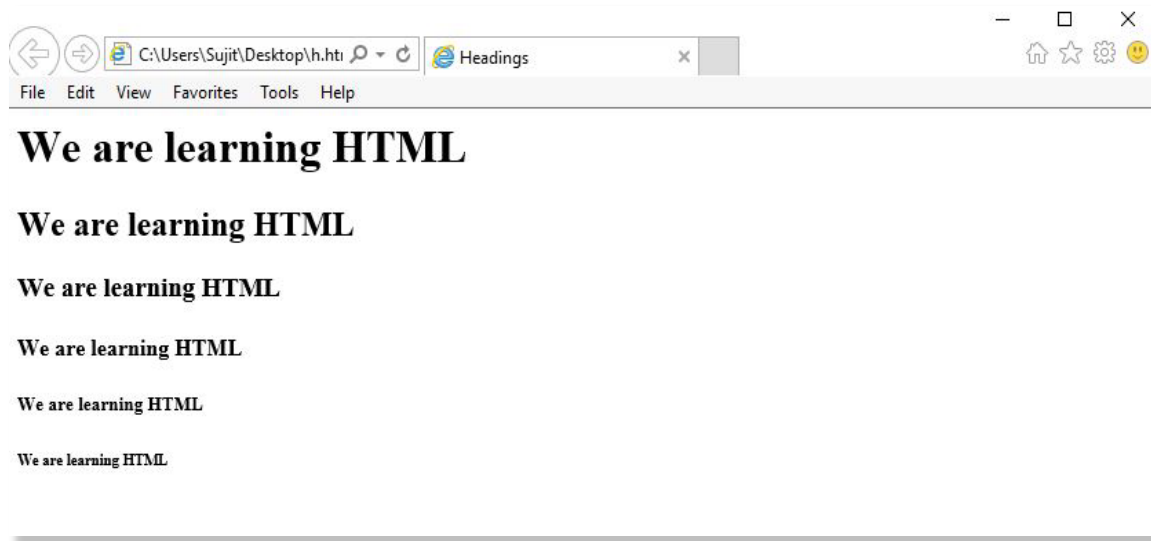
2. Anita wants to create simple Web page on Input devices. Help her by listing the steps required for creating the web page.
3. Design a web page according to the following specification:
    a. The title of the page should be 'Dance'.
    b. The heading NRITYA ACADEMY should be level 1 heading.
    c. The subheading 'Indian Classical Dance School' should appear italicised and as a level 3 heading.
    d. Horizontal rule to be used the separate the headings from the content.
    e. Rest of the text as shown below should appear in regular font and style.

NRITYA ACADEMY

Indian Classical Dance School

At Nritya Academy we have a dedicated staff to teach various Indian dance form:

1. Bharatnatyam
2. Kathak
3. Kathakali
4. Odissi
5. Kuchipudi
6. Mohiniyattam
7. Manipur

|| ANSWERS ||

Fill in the blanks

1)	HTML	2)	Container Element	3)	.htm	4)	<center>
5)	<p>	6)	<img>	7)	Horizontal line	8)	comment
9)	Empty Element	10)	Page Title	11)	 & <hr>	12)	<!-- & -->
13)	comment	14)	left, black, white	15)	Size	16)	<sub>, <sup>
17)	Logical	18)	&amp	19)	bgcolor, background, body		
20)	<font>, changing font						

True or False

1)	FALSE	2)	TRUE	3)	FALSE	4)	TRUE
5)	FALSE	6)	FALSE	7)	FALSE	8)	FALSE
9)	TRUE						

Multiple Choice Questions

1)	a	2)	a	3)	b	4)	a	5)	a	6)	d	7)	a	8)	d	9)	a	10)	c
11)	c	12)	a	13)	b	14)	b	15)	a	16)	b	17)	c	18)	b	19)	d	20)	c
21)	a	22)	c	23)	c	24)	d	25)	b	26)	d	27)	d	28)	c	29)	b	30)	a
31)	d	32)	b	33)	a	34)	a	35)	a	36)	d	37)	b	38)	c	39)	c	40)	c
41)	b	42)	a	43)	b	44)	a	45)	d	46)	d	47)	a	48)	b	49)	a		