BCS - 306

Q1 (i)

Ans1 (i) WWW Stands for World wide web. A technical definition says all the resources and users on the Internet that are using HTTP.

A broader definition comes from the organization that web Inventor Tim Berners Lee helped found, the world wide web consortium (W3C)

The world wide web is the universe of network-accessible information, an embodient of human knowledge.

Ex — World wide web is the Internet also known as web. Collection of web pages on internet, Hyperlink to each other and other documents & media.

HTTP - It stands for "Hypertext transfer protocol", used to transfer data over web. Part of internet protocol suite and defines commands and services used for transmitting webpage data.

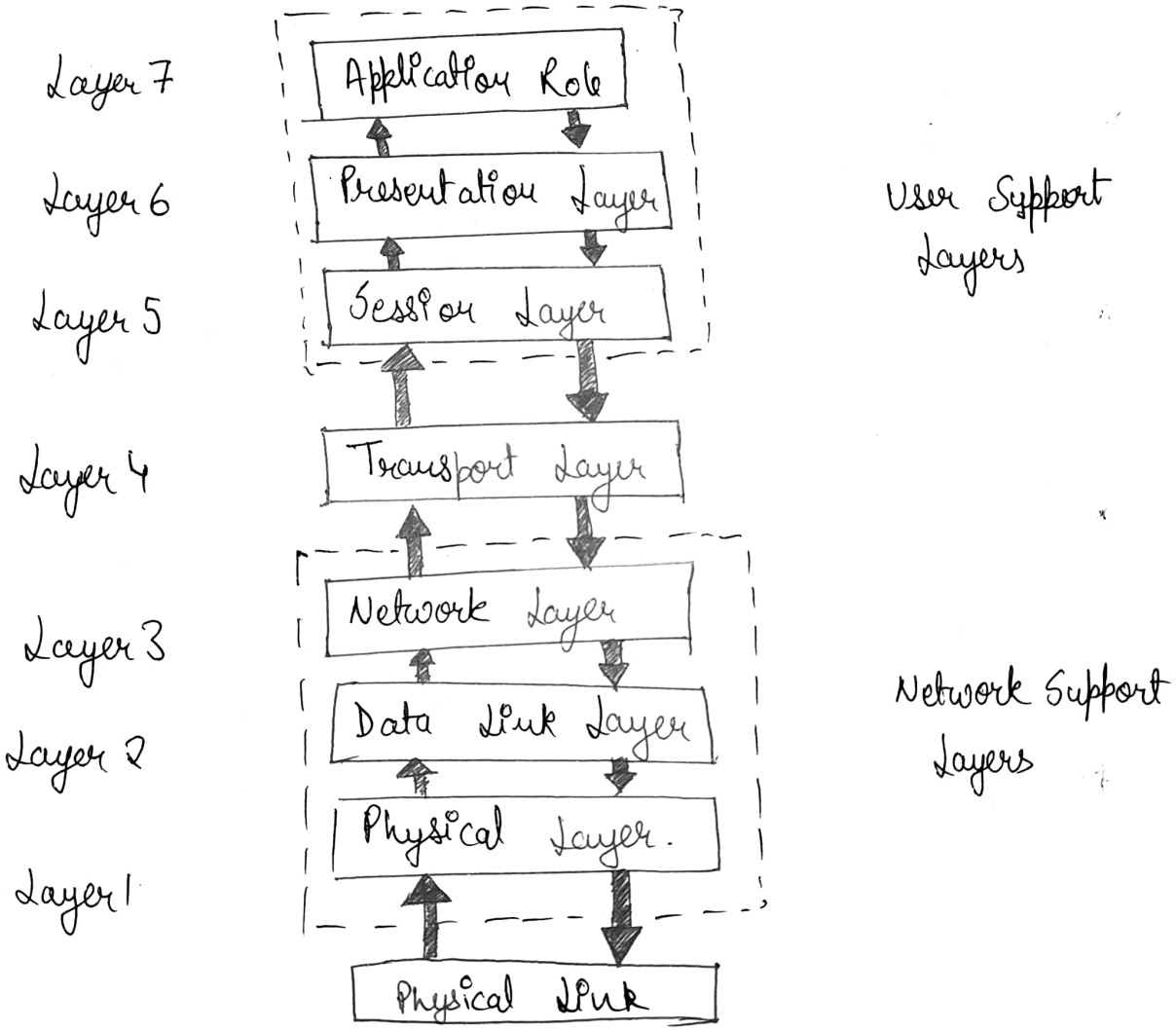
HTTP uses server client model. Client can be Hand, computer, mobile etc. The HTTP server is typically web host running web server software, such as Apache. Browser requests to server and it responds with HTTP status code.

Ex.

Typing a URL in to the browser on the computer and recieving a specific website.

Q-1 (ii)

Ans 1 (ii) OSI or Open System Interconnection model was developed by International Standards Organization (ISO). It gives a layered networking framework that conceptualizes how communications should be done between heterogeneous systems. It has been seven interconnected layers The seven layers are shown :-



Layer 1, 2, 3 are network support layer.
Layer 5, 6, 7 are user support layer.
Transport Layer links two groups.

Main function of each layer. —

* Physical Layer: Transmit individual bits from one node to another over a physical medium.
* Data Link Layer: Responsible for reliable transfer of data frames one node to other connected by physical layer.
* Network Layer: Manages delivery of individual data packets from source to destination.
* Transport Layer: Responsible for delivery of the entire message from source host to destination host.
* Session Layer: establish session between users and offers services like dialog control and synchronization.
* Presentation Layer: Monitors syntax and semantics of transmitted information through translation, compression and encryption.
* Application Layer: It provides High level APIs to user.

Q-2(i)

Ans 2(i)

- Unordered list :- Unordered list created using the <ul> elements, and each list items start with the <li> element. The list items is unordered lists are marked with bullets.

Eg.

```
<ul>
    <li> chocolate cake </li>
    <li> Black forest cake </li>
    <li> Pineapple cake </li>
</ul>
```

Output :-

- chocolate cake
- Black forest cake
- Pineapple cake.

A bullet type can be changed in unordered list using the CSS list-single-type property.

- Ordered list :- Ordered list created using the <ol> element, and each list item starts with the <li> elements. Ordered list are used when the order of the lists item is important. The list items in an ordered list are marked with nos.

```
<ol>
    <li> Fasten your seat belt </li>
    <li> start the car engine </li>
    <li> look around and go </li>
</ol>
```

Output

1) Fasten your seatbelt
2) start's the car's engine
3) look around and go

Numbering can be changed using start attribute and CSS list-style-type property to change the numbering type.

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a-z(i),

Table creation in HTML:

The basic structure of an HTML table consists

Table tags : <TABLE> </TABLE>
Row tags : <TR> </TR>
Cell tags : <TD> </TD>

To construct a table in HTML, we describe it by the first beginning table tag, <TABLE> and the ending tag </TABLE>
Between tags rows and colums are created.

Rows → <TR>
↳ each cell <TD> </TD> → [table data]
</TR>
repeat for each Row.

Ex. code →
```
<TABLE>
<TR>
<TD> cell 1 </TD>
<TD> cell 2 </TD>
</TR>
<TR>
<TD> cell 3 </TD>
<TD> cell 4 </TD>
</TABLE>
```

↳ This is Basic table with no borders, title or headings,
To add we have special attributes like [BORDER, WIDTH, ALIGN, CELLSPACING] etc to add heading and title we add <TH> in <TR> tag, COLSPAN for size, <H1> for Heading.

Q-2)

Ans 3)) Internal CSS also known as embedded CSS requires to add <STYLE> in <HEAD> tag section.

- Open HTML page and locate <HEAD> opening tag
- Put the code after the <Head> tag.
- Add CSS rules on a new line.
- Type the closing tag.

⇒

```
<! DOCTYPE html>
<Html>
<Head>
<style>
Body {
        Back ground color : blue;
}
h1 {
        color : red ;
}
</style>
</head>
<body
<H1> HostInger tutorial </H1>
<P> This is our paragraph </P>
</Body>
</Html>
```

External CSS → Links web pages to external .css file, which can be created by any text editor.

- create a new .css file with the text editor, and add the style rule.
- on the <Head> section of your HTML sheet, add a reference to your external .css file right after <title> tag.
- Don't forget to change style.css with the name of your

.css file.

```
<link rel = "style sheet"
    type = "text/css" href = "style.css"
    />
```

Inline CSS :- Style a specific HTML element, for this CSS file you'll only need to add the style attribute to other HTML tag, without using selectors.

```
<! DOCTYPE Html>
<Html>
<Body style = "background-
        color : Black:" >
    <H1
    Style = "Color ; white !
            Padding : 30 px ; > HOS Tutorial </H1>
    <P style = "color : white :" > Something useful.
    here </P>
</Body>
</Html>
```

Q 3(ii)
Ans 3(ii)

- Element Selector :- The element selector selects HTML element based on the element name (or tag)

for ex. P, h1, div, span, etc

```
Eg - h1 {
        color : red ;
        font-size : 3rem ;
    }
    P {
        colour : white ;
```

```
    background color : gray;
}
```

• Id selector : The Id selector use the id attribute of and HTML element to select a specific element.

```
eg.  # div_ container {
        color : blue;
        background - color : gray ;
     }
```

• Class selector : The class selector selects HTML elements with a specific class attribute

```
eg.  paragraph - class {
        color : white ;
        font - family : monospace ;
        background - color - purple;
     }
```

• Universal selector : The * selector in CSS is used to select all the elements in a HTML document. It also selects all elements which are inside another element.

```
eg-  * {
        color : white ;
        background - color : black ;
     }
```

• Group selector :- The selector is used to style all comma seperated elements with the same style

```
eg.  # div-container , .paragraph -class , h1 {
        color : white ;
        background_colour : purple.
        font_family : monospace. }
```

Q-4(i)

Ans 4(i) If image cannot be loaded, an alternate text is to be displayed. The required alt attributes specifies an alternate text for an image, if the image cannot be displayed.

The alt attributes provides alternative information for an image if a user for some reason cannot view it (because of slow connection, or error in the src attribute, etc)

Syntax : <img alt = "text">

Eg :- <img src = "my_img.jpg" alt = "My Image">

Here, the web page loads my_img.jpg. If it doesn't load, the alternative text "My Image" is displayed.

Q4(ii)

Ans 4(ii)

```
<HTML>
<HEAD>
<TITLE> Registration page </title>
</Head>
<Body>
<form>
<label>First name </label>
<input type = "text" name = "first name" size = "15"/><Br>
<label> Middle Name </label ><Br>
<Input type = "text" name = "Middle name" size = "15" /><br>
<label> last Name </label>
<input type = "text" name = "Last name" size = "15"/><br>
< label > Course : </label ><br>
```

```
<select>
<option value = "Course"> Course </option> <br>
<option value = "B.tech"> B.tech </option> <Br>
<option value = "Btech+MBA"> B.tech +MBA </option> <Br>
<option value = "MBA"> MBA </option> <Br>
</select>
<label> Gender :</label> <br>
<input type = "radio" name = "Male" /> Male <br>
<input type = "radio" name = "Female" /> Female <br>
<label> Phone : </label> <br>
<input type = "text" name = "phone" size = "10" /> <br>
<label> Address : </label> <br>
<text area cols = "80" rows = 45" value = "address" />
</text area> <br>
<label> Email </label> <br>
<input type = "Email" id = "email" name = "email" /> <br>
<input type = "button" value = "Submit" /> <br>
</form>
</body>
</html>
```

Q5 (i)

Ans 5(i) Advantages of Javascript.

1) Speed → client side java script is very fast because it can be run immediately within the client side browser.
2) Simplicity → It is very simple to learn and implementation
3) Popularity → It is used every where on web
4) Interoperability → It plays nicely with other languages and can be used in a huge variety of applications
5) Server Load → Using client side reduces the demand on website server.
6) Gives ability to rich interface.

Q5 (ii)

Ans 5 (ii)

- In this program we are going to learn about how to find the sum of n even number using Javascript.
- The integer entered by the user is stored in variable n
- Declare variable sum to store the sum of numbers and initialize it with 0
- By using for loop we can add the sum of n distinct numbers.

```
<script>
// Java script implementation to find sum of first n even numbers.

// function even sum (n)
  {
     let curr = 2, sum = 0;
      For (let i= 1; i <= n; i++){
                sum += curr;
                curr += 2;
        }
      return sum;
  }
  let n = 20
  document . write ("Sum of first " + n + " even number
          is :" + even sum (n));
  </script>
```

Out put → Sum of first 20 even number is 420.