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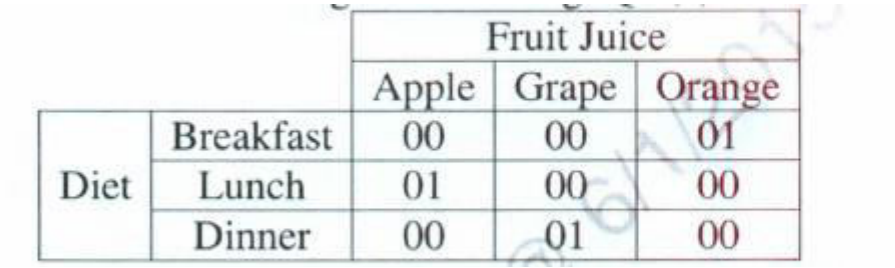
Improvement Test – November 2016

Sub:	**Programming The WEB**							Code:	10CS73
Date:	16/ 11/ 16	Duration:	90 Mins	Max Marks:	50	Sem:	VII A,B	Branch:	ISE

Note: **Answer to the point. Sketch figures wherever necessary.**

Answer any 5 full questions.

		Marks	CO	RBT
1	**a)** What is session tracking in web pages? With the help of an example demonstrate how session can be used to track number of web pages visited in a session in PHP.	**10M**	CO5	L2
2	**a)** Write a Java Script to generate first N Fibonacci numbers	**5M**	CO2	L3
	b) Describe briefly the three major uses of JavaScript on the Client side	**5M**	CO2	L2
3	a) Discuss sort, assort and ksort functions in PHP with examples	**5M**	CO5	L2
	b) Demonstrate the actions of implode and explode functions in PHP.	**5M**	CO5	L3
4	**a**)Discuss navigator object, with an example	**5M**	CO2	L2
	b) Write a JavaScript to compare two passwords and display proper messages	**5M**	CO2	L3
5	Explain the basic concept of event handling. List the events and their tag attributes with example	**10M**	CO2	L2
6	**a)**Describe in detail MIME type specification in request/response transaction	**4M**	CO1	L1
	b) Design an XHTML code for the following fig	**6M**	CO1	L3
7	What is a Cookie? Why are they used? Explain COOKIE in PHP with suitable example.	**10M**	CO5	L1



		Fruit Juice		
		Apple	Grape	Orange
Diet	Breakfast	00	00	01
	Lunch	01	00	00
	Dinner	00	01	00

Course Outcomes		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1:	Design Multimedia and web pages that include the CSS and standard textual components needed on web pages	2	2	2	1	3	1	1	0	1	2	1	1
CO2:	Create interactive websites using javascript and DHTML	2	1	2	1	3	1	0	0	0	2	1	1
CO3:	Write well-formed XML document for a given schema using DTD, XSLT	1	1	1	1	3	0	0	0	0	0	0	0
CO4:	Write simple CGI programs using PERL	2	2	1	1	2	0	1	0	0	1	0	0
CO5:	Implement a simple web application using PHP language	1	2	2	1	3	1	1	0	0	1	2	2
CO6:	Implement a simple web application using Ruby On Rails.	2	2	1	1	2	1	2	0	1	1	1	1

Cognitive level	KEYWORDS
L1	List, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, etc.
L2	summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend
L3	Apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover.
L4	Analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer.
L5	Assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize.

PO1 - *Engineering knowledge*; PO2 - *Problem analysis*; PO3 - *Design/development of solutions*; PO4 - *Conduct investigations of complex problems*; PO5 - *Modern tool usage*; PO6 - *The Engineer and society*; PO7- *Environment and sustainability*; PO8 – *Ethics*; PO9 - *Individual and team work*; PO10 - *Communication*; PO11 - *Project management and finance*; PO12 - *Life-long learning*

Scheme and Solution for Improvement Test Nov 2016

Q. 1 What is session tracking in web pages? With the help of an example demonstrate how session can be used to track number of web pages visited in a session in PHP

Explanation -5M Example-5M

Sessions are a simple way to store data for individual users against a unique **session** ID. This can be used to persist state information between page requests. **Session** IDs are normally sent to the browser via **session** cookies and the ID is used to retrieve existing **session** data.

```
<html>
  <head>
    <title>Session program
    </title>
  </head>
  <body bgcolor="pink" text="green">
    <h1><center> Session program </center></h1>
    <?php
      //Initiate the session
      session_start();
        //Check the whether the session is there or not
        if(!isset($_SESSION["visit"]))
          {
          // if the session is not initiated set the session count
          $_SESSION["visit"]=0;
          echo "Session is initiated";
          }
        else
        {
```

```
       // Increase the seeion count and display
       $_SESSION["visit"]++;
       echo "The number of visitors are visited this page is $_SESSION[visit]";
     }
   ?>
 </body>
</html>
```

Q.2 a) Write a Java Script to generate first N Fibonacci numbers

```
html>
<head>
<title>
</title>
</head>
<body>
    <script type="text/javascript">
    var fib1=0,fib2=1,fib=0;
    var num = prompt("Enter a number : \n", "");
        if(num!=null && num>0)
            { document.write("<h1>The First" + num + " \n Fibonocci numbers are <br></h1>");
                if(num==1) document.write("<h1> "+ fib1 + "</h1>");
                else document.write("<h1>" + fib1 + " <br>" + fib2 + "</h1>");
            for(i=3;i<=num; i++)
                {
                fib= fib1 + fib2; document.write("<h1> " + fib + "</h1>");
```

```
                                                            fib1=fib2; fib2=fib;

                                                    }

                                            }

                                    else alert("No Proper Input");

 </script>

</body>

</html>
```

Q. 2 b) Describe briefly the three major uses of JavaScript on the Client side

1. Validation of data on client side- Explanation 2M

2. Alternative to Java Applets-1M

3. Can access and modify CSS properties-2M

Q. 3 a) Discuss sort, assort and ksort functions in PHP with examples

sort arrays in ascending order. rsort() - **sort** arrays in descending order. asort() - **sort** associative arrays in ascending order, according to the value. ksort() - **sort** associative arrays in ascending order, according to the key.

Sort function example 1M

```
<?php
$cars=array("Volvo","BMW","Toyota");
sort($cars);

$clength=count($cars);
for($x=0;$x<$clength;$x++)
  {
  echo $cars[$x];
  echo "<br>";
  }
?>
```

output

```
BMW
Toyota
Volvo
```

asort function example-2M

```
<?php
$age=array("Peter"=>"35","Ben"=>"37","Joe"=>"43");
asort($age);

foreach($age as $x=>$x_value)
   {
   echo "Key=" . $x . ", Value=" . $x_value;
   echo "<br>";
   }
?>
```

Output

```
Key=Peter, Value=35
Key=Ben, Value=37
Key=Joe, Value=43
```

ksort function example

```
<?php
$age=array("Peter"=>"35","Ben"=>"37","Joe"=>"43");
ksort($age);

foreach($age as $x=>$x_value)
   {
   echo "Key=" . $x . ", Value=" . $x_value;
   echo "<br>";
   }
?>
```

Output

```
Key=Ben, Value=37
Key=Joe, Value=43
Key=Peter, Value=35
```

Q. 3 b) Demonstrate the actions of implode and explode functions in PHP.

Implode function 2.5M

It takes an array of strings and joins them together into one string using a delimiter (string to be used between the pieces) of your choice. The **implode function in PHP** is easily remembered as "array to string", which simply means that it takes an array and returns a string

```
<!DOCTYPE html>
<html>
<body>

<?php
$arr = array('Hello','World!','Beautiful','Day!');
echo implode(" ",$arr);
?>

</body>
</html>
```

Output

```
Hello World! Beautiful Day!
```

Explode function

The **explode Function**. The first argument that **explode** takes is the delimiter (our dynamite) which is used to blow up the second argument, the original string. **explode** returns an array of string pieces from the original and they are numbered in order, starting from 0

```
<!DOCTYPE html>
<html>
<body>

<?php
$str = "Hello world. It's a beautiful day.";
print_r (explode(" ",$str));
?>
```

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

Output

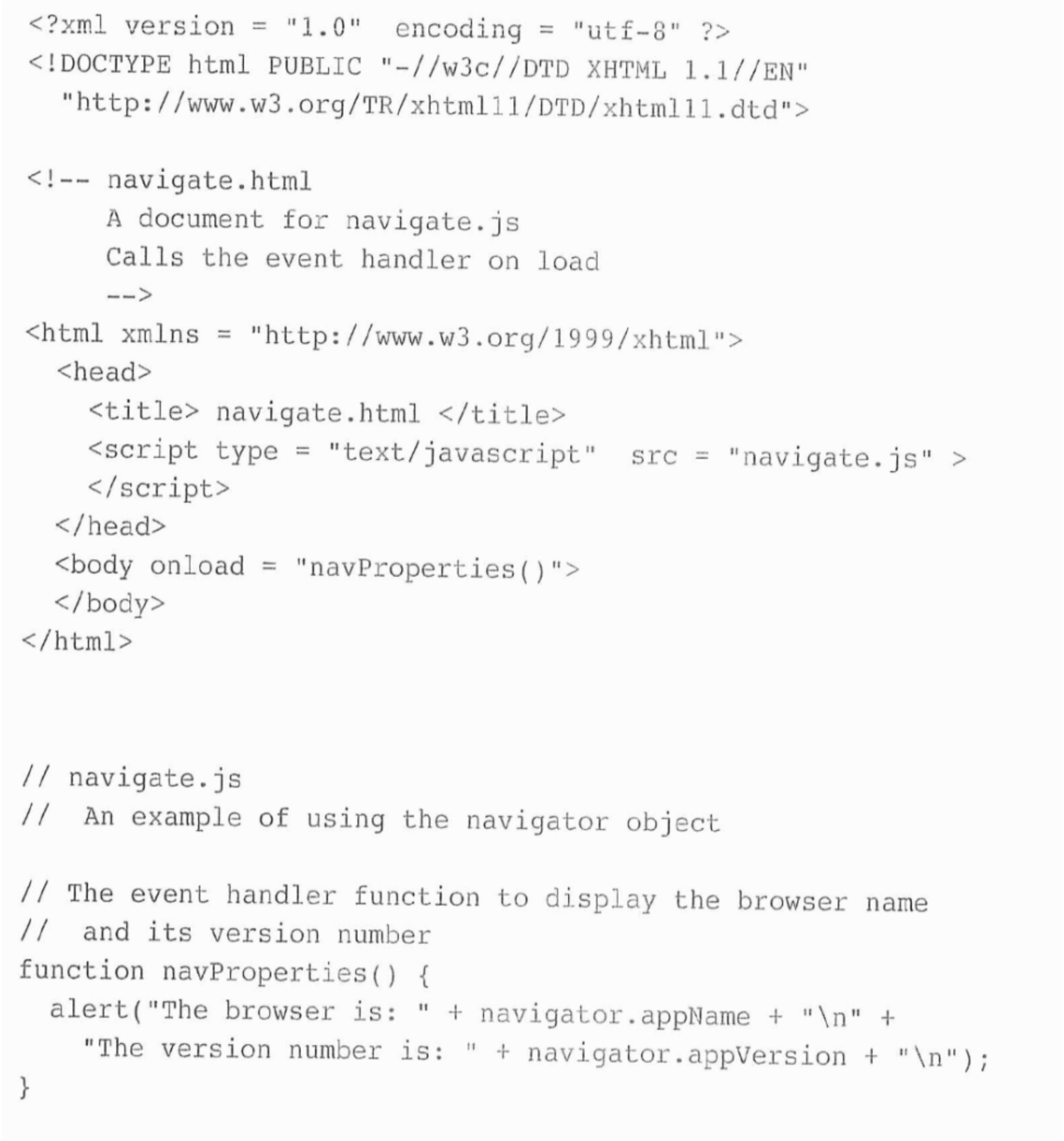
```
Array ( [0] => Hello [1] => world. [2] => It's [3] => a [4] => beautiful [5] => day. )
```

Q.4 a)Discuss navigator object, with an example

Explanation-2M Example-3M

The navigator object contains information about the browser.

There is no public standard that applies to the navigator object, but all major browsers support it.

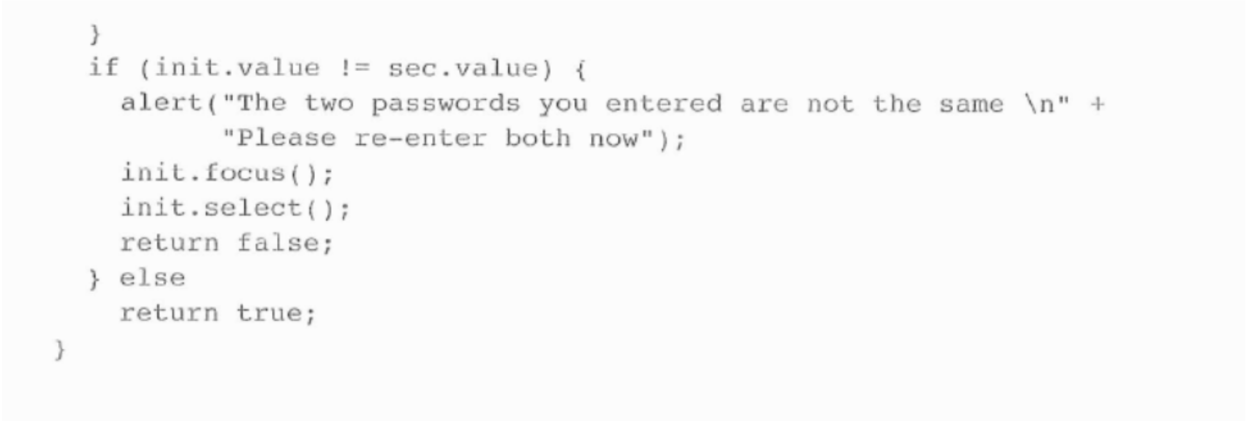


```
<?xml version = "1.0"  encoding = "utf-8" ?>
<!DOCTYPE html PUBLIC "-//w3c//DTD XHTML 1.1//EN"
  "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">

<!-- navigate.html
     A document for navigate.js
     Calls the event handler on load
     -->
<html xmlns = "http://www.w3.org/1999/xhtml">
  <head>
    <title> navigate.html </title>
    <script type = "text/javascript"  src = "navigate.js" >
    </script>
  </head>
  <body onload = "navProperties()">
  </body>
</html>



// navigate.js
//  An example of using the navigator object

// The event handler function to display the browser name
//  and its version number
function navProperties() {
  alert("The browser is: " + navigator.appName + "\n" +
    "The version number is: " + navigator.appVersion + "\n");
}
```

. 4b) Write a JavaScript to compare two passwords and display proper messages 5M

HTML 2.5M Javascript 2.5M

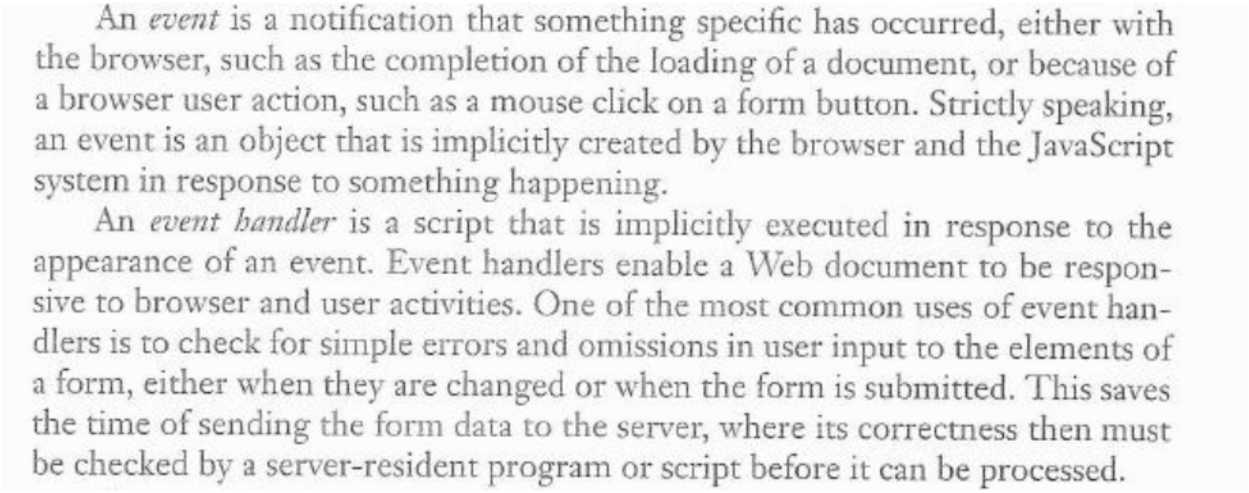
```
  <body>
    <h3> Password Input </h3>
    <form id = "myForm"  action = "" >
      <p>

      <label> Your password
        <input type = "password" id = "initial"
               size = "10" />
      </label>
      <br /><br />

      <label> Verify password
        <input type = "password"  id = "second"
               size = "10" />
      </label>
      <br /><br />

      <input type = "reset"  name = "reset" />
      <input type = "submit"  name = "submit" />
      </p>
    </form>

<!-- Script for registering the event handlers  -->
    <script type = "text/javascript"  src = "pswd_chkr.js">
    </script>

  </body>
</html>



// pswd_chk.js
//   An example of input password checking, using the submit
//   event

// The event handler function for password checking
function chkPasswords() {
  var init = document.getElementById("initial");
  var sec = document.getElementById("second");
  if (init.value == "") {
    alert("You did not enter a password \n" +
          "Please enter one now");
    init.focus();
    return false;
```



```
    }
    if (init.value != sec.value) {
      alert("The two passwords you entered are not the same \n" +
            "Please re-enter both now");
      init.focus();
      init.select();
      return false;
    } else
      return true;
  }
```

Q. 5 Explain the basic concept of event handling. List the events and their tag attributes with example-10M

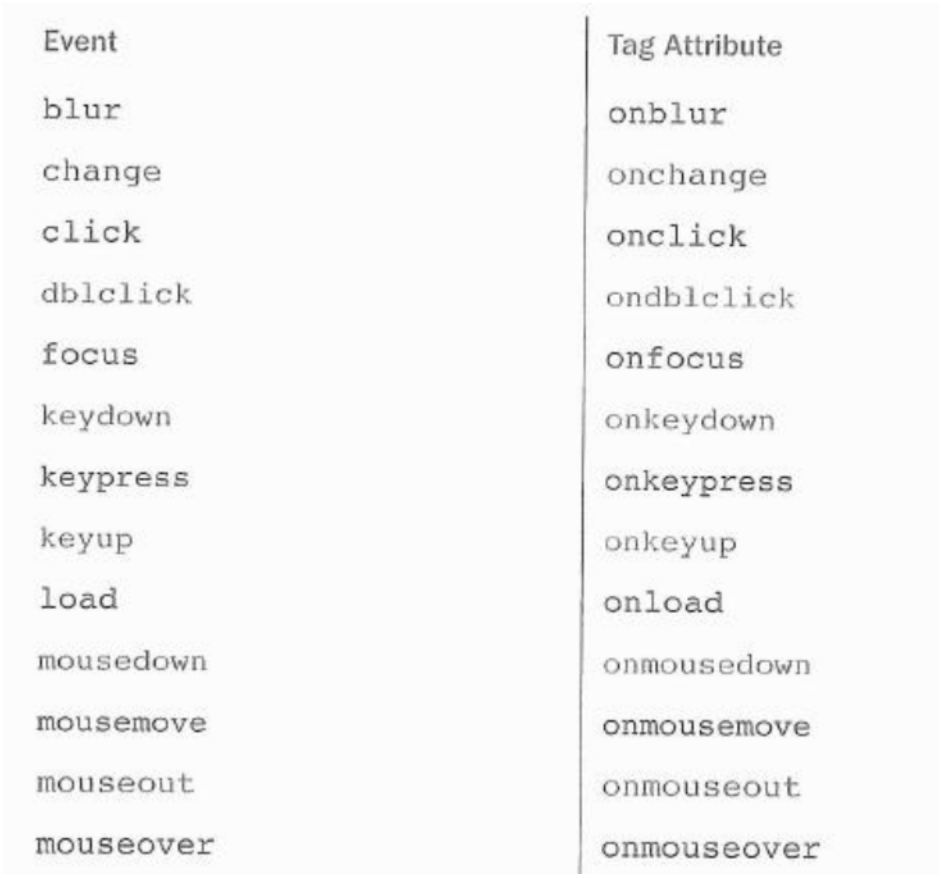
Event and event handling -3M



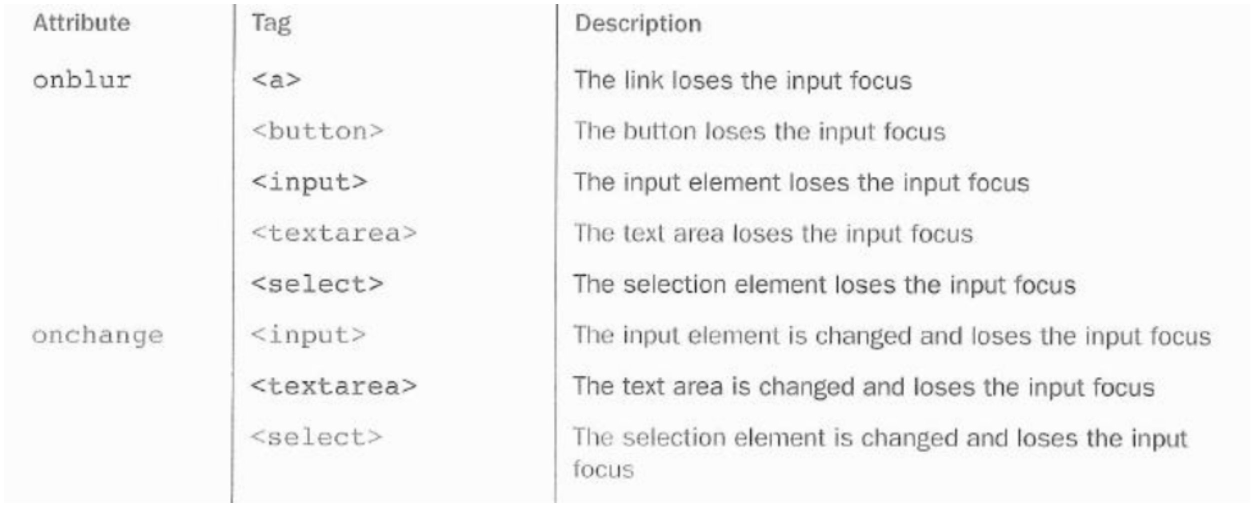
An *event* is a notification that something specific has occurred, either with the browser, such as the completion of the loading of a document, or because of a browser user action, such as a mouse click on a form button. Strictly speaking, an event is an object that is implicitly created by the browser and the JavaScript system in response to something happening.

An *event handler* is a script that is implicitly executed in response to the appearance of an event. Event handlers enable a Web document to be responsive to browser and user activities. One of the most common uses of event handlers is to check for simple errors and omissions in user input to the elements of a form, either when they are changed or when the form is submitted. This saves the time of sending the form data to the server, where its correctness then must be checked by a server-resident program or script before it can be processed.

Any 5 tags and attributes-5M

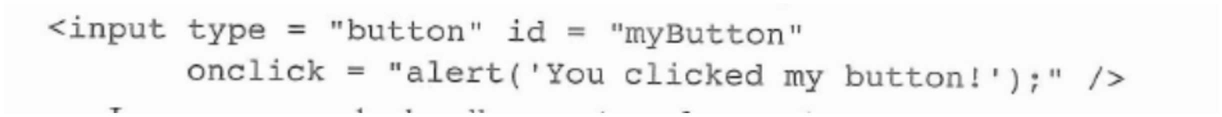


Event	Tag Attribute
blur	onblur
change	onchange
click	onclick
dblclick	ondblclick
focus	onfocus
keydown	onkeydown
keypress	onkeypress
keyup	onkeyup
load	onload
mousedown	onmousedown
mousemove	onmousemove
mouseout	onmouseout
mouseover	onmouseover

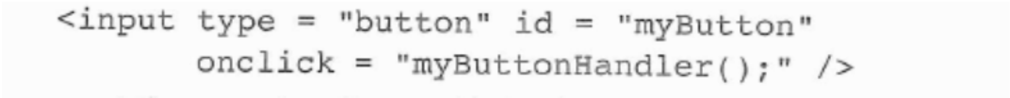


Attribute	Tag	Description
onblur	<a>	The link loses the input focus
	<button>	The button loses the input focus
	<input>	The input element loses the input focus
	<textarea>	The text area loses the input focus
	<select>	The selection element loses the input focus
onchange	<input>	The input element is changed and loses the input focus
	<textarea>	The text area is changed and loses the input focus
	<select>	The selection element is changed and loses the input focus

Any example 2M



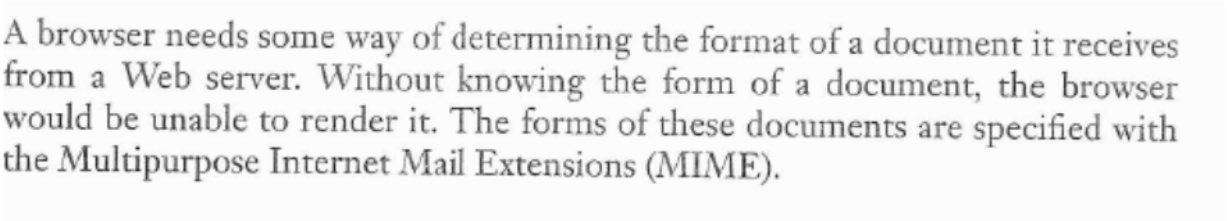
```
<input type = "button" id = "myButton"
       onclick = "alert('You clicked my button!');" />
```



```
<input type = "button" id = "myButton"
       onclick = "myButtonHandler();" />
```

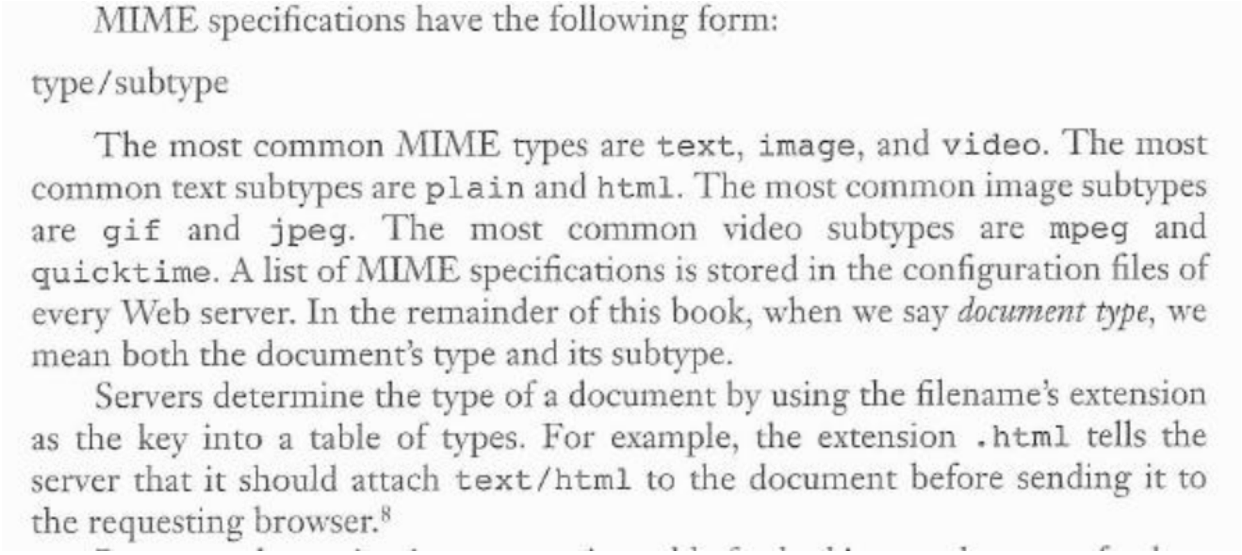
Q. 6 a) Describe in detail MIME type specification in request/response transaction-4M

MIME explanation 2M



A browser needs some way of determining the format of a document it receives from a Web server. Without knowing the form of a document, the browser would be unable to render it. The forms of these documents are specified with the Multipurpose Internet Mail Extensions (MIME).

MIME types and subtypes-2M



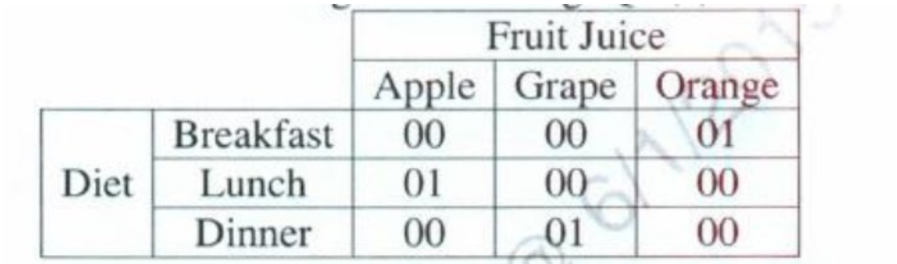
MIME specifications have the following form:

type/subtype

The most common MIME types are `text`, `image`, and `video`. The most common text subtypes are `plain` and `html`. The most common image subtypes are `gif` and `jpeg`. The most common video subtypes are `mpeg` and `quicktime`. A list of MIME specifications is stored in the configuration files of every Web server. In the remainder of this book, when we say *document type*, we mean both the document's type and its subtype.

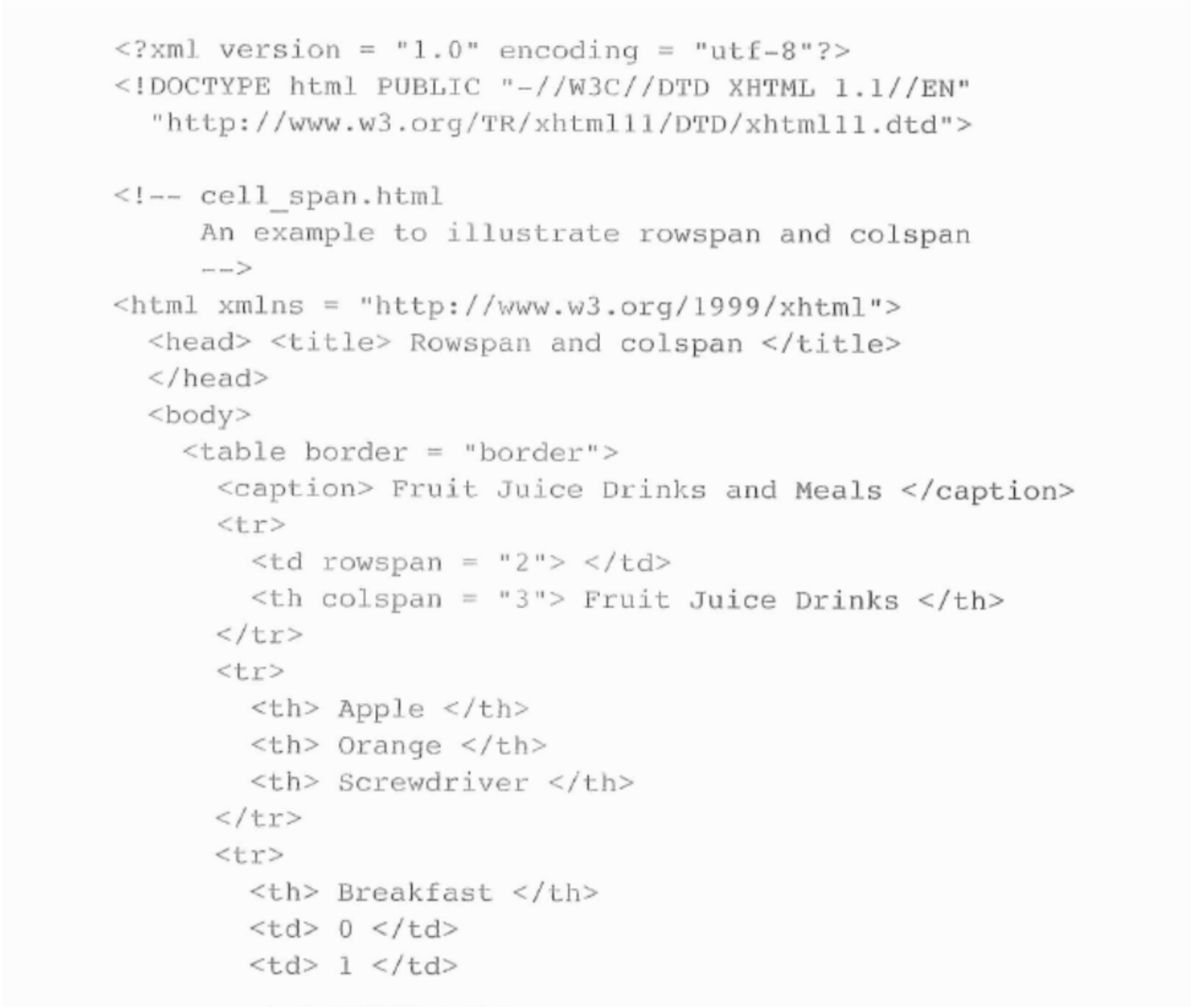
Servers determine the type of a document by using the filename's extension as the key into a table of types. For example, the extension `.html` tells the server that it should attach `text/html` to the document before sending it to the requesting browser.[8]

Q. 6b) Design an XHTML code for the following fig

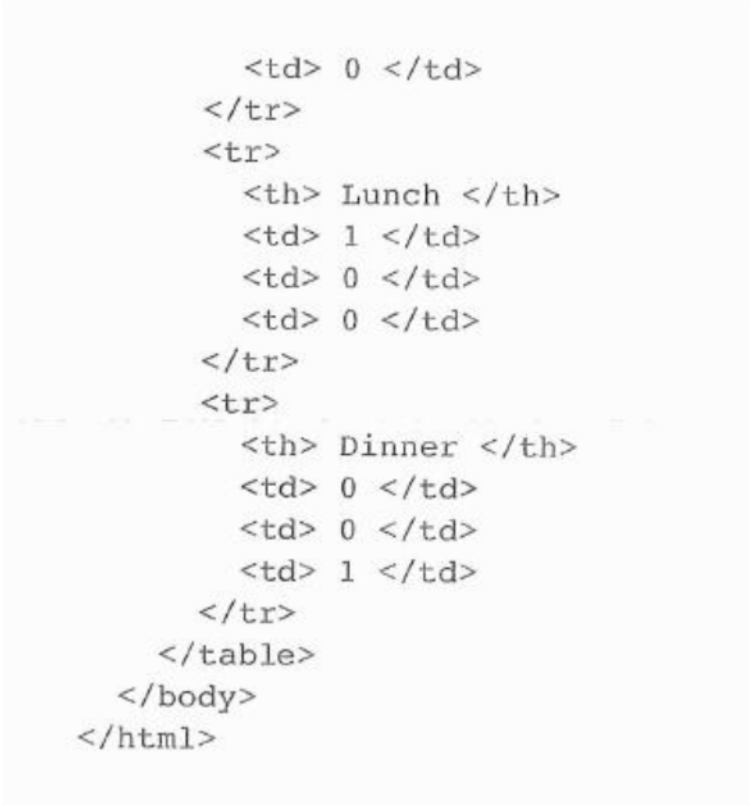


		Fruit Juice		
		Apple	Grape	Orange
Diet	Breakfast	00	00	01
	Lunch	01	00	00
	Dinner	00	01	00

Rowspan-1M
Colspan-1M



```
<?xml version = "1.0" encoding = "utf-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
  "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">

<!-- cell_span.html
     An example to illustrate rowspan and colspan
     -->
<html xmlns = "http://www.w3.org/1999/xhtml">
  <head> <title> Rowspan and colspan </title>
  </head>
  <body>
    <table border = "border">
      <caption> Fruit Juice Drinks and Meals </caption>
      <tr>
        <td rowspan = "2"> </td>
        <th colspan = "3"> Fruit Juice Drinks </th>
      </tr>
      <tr>
        <th> Apple </th>
        <th> Orange </th>
        <th> Screwdriver </th>
      </tr>
      <tr>
        <th> Breakfast </th>
        <td> 0 </td>
        <td> 1 </td>
```



```
        <td> 0 </td>
      </tr>
      <tr>
        <th> Lunch </th>
        <td> 1 </td>
        <td> 0 </td>
        <td> 0 </td>
      </tr>
      <tr>
        <th> Dinner </th>
        <td> 0 </td>
        <td> 0 </td>
        <td> 1 </td>
      </tr>
    </table>
  </body>
</html>
```

Q. 7 What is a Cookie? Why are they used? Explain COOKIE in PHP with suitable example.

Definition-2M

A *cookie* is information that a Web site puts on your hard disk so that it can remember something about you at a later time. (More technically, it is information for future use that is stored by the server on the client side of a client/server communication.)

Uses-3M

Cookies were designed to be a reliable mechanism for websites to remember stateful information (such as items added in the shopping cart in an online store) or to record the user's browsing activity (including clicking particular buttons, logging in, or recording which pages were visited in the past). They can also be used to remember arbitrary pieces of information that the user previously entered into form fields such as names, addresses, passwords, and credit card numbers.

When you enter a Web site using cookies, you may be asked to fill out a form providing personal information; like your name, e-mail address, and interests. This information is packaged into a cookie and sent to your Web browser, which then stores the information for later use. The next time you go to the same Web site, your browser will send the cookie to the Web server. The message is sent back to the server each time the browser requests a page from the server.

A Web server has no memory so the hosted Web site you are visiting transfers a cookie file of the browser on your computer's hard disk so that the Web site can remember who you are and your preferences. This message exchange allows the Web server to use this information to present you with customized Web pages. So, for example, instead of seeing just a generic welcome page you might see a welcome page with your name on it.

Example 5M

```
<html>

    <head>  <title>cookie program </title></head>

    <body bgcolor="pink" text="green">

        <h1><center>  Cookie program </center></h1>

        <?php

            /* set default time zone*/

            date_default_timezone_set("asia/kolkata");

            /* set valid time period */

            $t=60*24*60*60+time();

            /* create a cookie with valid time period */

            setcookie("lastvisit",date("H:i:s D,d/m/Y"),$t);

                /* check whether cookie is there or not*/

                if(isset($_COOKIE["lastvisit"]))

                    {

                    /* get the cookie and last visit of the page */

                    $visit=$_COOKIE["lastvisit"];

                    echo "Last visit of this page is $visit";

                    }
                else
                   // cookie is not initiated when first time opens the page
                    echo "The cookie is not initiated";
        ?>
    </body>
</html>
```