QP Code: 943

Scheme of Valuation

(Scoring Indicators)

Revision: **2015**

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Course Title: **WEB PROGRAMMING**

Question No.	Scoring Indicator	Split up Score	Sub-total	Total
I (1)	Webhosting service is a type of Internet hosting service that allows individuals and organizations to make their web site accessible via the World Wide Web. Web hosts are companies that provide space on a server owned or leased for use by clients, as well as providing Internet connectivity, typically in a data center.			2
I (2)	The script code is interpreted at run time by the Javascript engine .Every browser has a Javascript engine. Javascript engine is a virtual machine for executing Javascript code. When the browser sees a javaScript code, it is passed to the script engine for processing. The script engine execute the code.			2
I (3)	Multipurpose Internet Mail Extensions (MIME) is an Internet standard that extends the format of email to support: • Text in character sets other than ASCII • Non-text attachments: audio, video, images, application programs etc. • Message bodies with multiple parts • Header information in non-ASCII character sets			2
I (4)	There is another kind of frame known as an *iframe (*sometimes referred to as an *inline frame* or *floating frame),* which can appear anywhere within a standard HTML page; it does not need to appear either in a < frameset > element or even in a document that uses the frameset document type declaration. An *iframe* acts like a window cut into an HTML page through which we can see another web page.			2

	We create an *iframe* with the < *iframe* > element, and specify the URL of the page to appear in the *iframe* using the *src* attribute (just as with an image).			
I (5)	PHP,JSP,ASP			2
II(1)	• Frames allows to divide the web page into several independent parts called frames. • Each frame works as an independent window. • It allows multiple views and also allows you to change one part of the page while keeping the other static. • A collection of frames in the browser window is known as a *frameset* . • A frameset divides the window into rows and columns (rather like a table). • The simplest of framesets might just divide the screen into two rows, whereas a complex frameset could use several rows and columns. • There is also a special kind of frame called an *iframe which is a single window that can sit* anywhere inside a page. Frames are used in web pages in the following conditions : • When a lot of content is to be displayed in one single page and the document cannot be split into separate pages, then a frame might be useful to create a navigation bar that links to the subsections of the long document. • When there is a lot of data in one part of the page that the user does not have to reload, while another part of the page changes. • to create a frameset doument ,first need the <frameset>element. • -it is used instead of the <body>element. • -the frameset defines the rows and columns the page is divided into. • -each frame is then represented by a <frame>element. • <noframes>element provides a message for users whose browsers do not support frames.			6

II (2)	To make a document more interactive, the script needs to be able to access the contents of the document and know when the user is interacting with it. • The script does this by interacting with the browser by using the *properties*, *methods* and *events* set out in the interface called the Document Object Model. • The Document Object Model, or DOM, represents the web page that is loaded into the browser using a series of objects. The main object is the *document object*. • The DOM explains what *properties* of a document a script can retrieve and which ones it can alter*; it also* defines some *methods* that can be called to perform an action on the document. • The document object represents the whole document, and each of the child objects represents a collection of similar tags within that document. • The *anchor* collection represents all the anchors in a document that you can link to (< a > elements with a name attribute). • The *applet* collection represents all the applets within a document. • The *area* collection represents all the image maps that use an < area > element in the document. • The *forms* collection contains all the < form > tags in the document. • The *image* collection represents all the images in a document. • The *link* collection represents all the hyperlinks within a page. The forms collection also has child objects to represent each of the different types of form controls that can appear on a form: Button , CheckBox , FileUpload , Hidden , Option , Password , Radio , Reset , Select , Submit , Text , and TextArea. Diagram for DOM MODEL			6

II (3)

- Events are represented by JavaScript objects
- *Registration* is the activity of connecting a script to a type of event
  - Assign an event attribute an event handler
  - Assign a DOM node an event handler
- All browsers are expected to support a set of events known as *intrinsic events* such as the *onload event,* which happens when a page has finished loading, *onclick* for when a user clicks on an element, and *onsubmit* for when a form is submitted. These events can be used to trigger a script.
- The value of the attribute is the script that should be executed when the event occurs on that element (*sometimes this will be a function in the < head > of the document*).
- There are two types of events that can be used to trigger scripts:

  Window events, which occur when something happens to a window.
  - For example, a page loads or unloads (is replaced by another page or closed) or focus is being moved to or away from a window or frame .
- User events, which occur when the user interacts with elements in the page using a mouse (or other pointing device) or a keyboard, such as placing the mouse over an element, clicking on an element, or moving the mouse off an element.

6

II(4)

- String, Integer, Floating point numbers, Boolean, Array, Object, NULL.
- PHP Strings

  A string is a sequence of characters, like "Hello"

  A string can be any text inside quotes. You can use single or double quotes

```
$x = "Hello world!";
echo $x
```

6

II(5)	• There are two ways to create indexed arrays: • Arrays with numeric index are called indexed arrays. 1. The index can be assigned *automatically* (index always starts at 0): • $cars=array("Volvo","BMW","Toyota"); 2. or the index can be assigned *manually*: • $cars[0]="Volvo"; $cars[1]="BMW"; $cars[2]="Toyota"; • Arrays with named keys are called associative arrays. • They are very similar to numeric arrays in terms of functionality. • But different interms of their index. • Associative arrays have index as string. • Associative arrays are arrays that *use named keys* that you assign to them. • There are two ways to create an associative array: • $age=array("Peter"=>"35","Ben"=>"37","Joe"=>"43"); or: • $age['Peter']="35"; $age['Ben']="37"; $age['Joe']="43";			6
II (6)	A Web server is a program that uses HTTP (Hypertext Transfer Protocol) to serve the files that form Web pages to users, in response to their requests, which are forwarded by their computers' HTTP clients. Dedicated computers and appliances may be referred to as Web servers as well. APACHE,IIS			6
II (7)	A server space provider is an individual, company, or organization that provides storage space on a server for Web pages, usually for a charge. Some independent access providers and online services provide a limited amount of free space for Web pages (for example, one megabytes of hard disk storage).This is server space hiring			6

III(a)	We can create three types of lists in HTML. • Unordered lists , which are like lists of bullet points. • Ordered lists , which use a sequence of numbers or letters instead of bullet points. • Definition lists , which allow to specify a term and its definition. LIST TAGS • Ordered list • Unordered list • Definition list < ul > element is used to create unordered lists. • If we want to make a list of bullet points, we write the list within the < ul > element • Each bullet point or line should then be contained between opening < li > tags and closing < /li > tags (li - list item). • An ordered list is contained inside the < ol > element. Each item in the list should then be nested inside the < ol > element and contained between opening < li > and closing < /li > tags. • The definition list is a special kind of list for providing terms followed by a short text definition or description for them. • Definition lists are contained inside the < dl > element. Eg:of each list			8
III (b)	Adding Images to a web page • Images are added to a site using the < img > element. • It has to carry at least two attributes: The *src* attribute, indicating the source of the image and An *alt* attribute, which provides a description of the image. The following line would add the image called logo.gif into the page < img src="logo.gif" alt="FIFA logo" / > • The *src* attribute tells the browser where to find the image. • The value is a URL. • The URL can be an absolute URL or a relative URL. The *alt* Attribute • The *alt* attribute must appear on every < img > element and its value should be a text description of the image. • The alt attribute is a mandatory attribute which specifies an alternate text for an image, if the image cannot be displayed To play an audio file in HTML, use the <audio> element: <audio controls> <source src="horse.ogg" type="audio/ogg"> <source src="horse.mp3" type="audio/mpeg"> Your browser does not support the audio element.			7

	</audio> The controls attribute adds audio controls, like play, pause, and volume. The <source> element allows you to specify alternative audio files which the browser may choose from. The browser will use the first recognized format. The text between the <audio> and </audio> tags will only be displayed in browsers that do not support the <audio> element			
IV (a)	1.Design the exam registration form 2.describe each with its syntax			8
IV (b)	• A table is used in a web page when the desired information to be displayed sits well in a grid of rows and columns. • The HTML tables allow web authors to arrange data like text, images, links, other tables, etc. into rows and columns of cells. • The HTML tables are created using the <table> tag in which the <tr> tag is used to create table rows and <td> tag is used to create data cells. • A table can be viewed as a grid of rectangles. Each rectangle is known as a *cell* . *A row* is made up of a set of cells on the same line from left to right, and a *column* is made up of a line of cells going from top to bottom. • <table>..</table> = Indicates start and end of the table. • <tr>..</tr> = Sets start and end of a row. • <th>..</th> = Tag indicates Header data. (Bold letters) • <td>..</td> = Tag indicates data in a cell (table data) • <table border="1"> • <tr> • <td> Row 1, Column 1 </td> • <td> Row 1, Column 2 </td> • </tr> • <tr> • <td> Row 2, Column 1 </td> • <td> Row 2, Column 2 </td> • </tr> • </table >			7

V(a)

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation semantics (the look and formatting) of a document written in a markup language.

Its most common application is to style web pages written in HTML and XHTML.

CSS or simply style sheets are text files that contain one or more rules in the form of property/value pairs to determine how elements in a web page should be displayed.

```
Selector {      property1 : property–value1;
                  property2 : property–value2;
                property3 : property –value3…
                  …… }
```

- Inline styles, inside the HTML document, style information on a single element, specified using the style attribute. This is useful when we want to apply styles to individual elements present on a web page.
- Embedded style (or Internal), blocks of CSS information inside the HTML itself
- External style sheets, i.e., a separate CSS file referenced from the document

8

V(b)

```
<html>
<head>
<title>javascript-sum</title>
<script type="text/javascript">
function sum()
{
var a,b,s;
a=Number(document.frmtest.text1.value);
b=Number(document.frmtest.text2.value);
s=a+b/2;
document.frmtest.text3.value=s;
}
</script>
</head>
```

- <body>
- <form name="frmtest">
-
- Enter the firstNumber:

7

	• <input type="text" name="text1"> • • Enter the seond number: • <input type="text" name="text2"> • • • <input type="text" name="text3"> • • • <input type="button" value="SUM" onclick="sum()"> • • </frame> • </body> • </html			

VI (a)	• A *"script"* is a collection of program or sequence of instructions that is interpreted or carried out by another program rather than by the computer processor.
	  ◦ *Client-side*
	  ◦ *Server-side*
	• In server-side scripting, (such as PHP, ASP) the script is processed by the server Like: Apache, ColdFusion and Microsoft's IIS on Windows.
	• Client-side scripting such as JavaScript runs on the web browser.
				8

VI (b)	Data validation is the process of ensuring that user input is clean, correct, and useful. Typical validation tasks are: • has the user filled in all required fields? • has the user entered a valid date? • has the user entered text in a numeric field? Most often, the purpose of data validation is to ensure correct user input. Validation can be defined by many different methods, and deployed in many different ways.			7

	Server side validation is performed by a web server, after input has been sent to the server. Client side validation is performed by a web browser, before input is sent to a web server. Mobile number validation and email			
VII(a)	• $_SERVER is a PHP super global variable which holds information about headers, paths, and script locations. • The example below shows how to use some of the elements in $_SERVER: • Example • <?php echo $_SERVER['PHP_SELF']; echo $_SERVER['SERVER_NAME']; • echo $_SERVER['SCRIPT_NAME']; ?> $_SERVER['PHP_SELF'] ---→RETURNS THE FILENAME OF HE CURRENTLY EXECTING SCRIPT. $_SERVER['SERVER_NAME']----→RETURNS THE NAME OF THE HOST SERVER. $_SERVER['SCRIPT_NAME']--→RETURNS THE FILE NAME OF THE CURRENTLY EXECUTING SCRIPT. • $_REQUEST superglobal is an array that contains the contents of the $_GET,$_POST,$_COOKIE superglobals. • PHP $_REQUEST is used to collect data after submitting an HTML form. • $_POST is widely used to collect form data after submitting an HTML form with method="post". $_POST is also widely used to pass variables. • $_GET can also be used to collect form data after submitting an HTML form with method="get"			8
VII (b)	Form processing using super global variables with an example			7
VIII(a)	A *cookie* is often used to identify a user. • A *cookie* is a small file that the server embeds on the user's computer. • Each time the same computer requests a page with a browser, it will send the cookie too.			8

- With PHP, you can both create and retrieve cookie values.

How to create cookie?

- The *setcookie*() function is used to set a cookie.
  - ❑ The *setcookie*() function must appear *BEFORE* the <html> tag.
- *Syntax*

Setcookie (name, value, expire, path, domain);

How to set cookie?cookie.php

```
<?php
setcookie("user", "ANU", time()+3600);
echo " SETS COOKIE!<br>";
?>
<html>
<br>
To Read cookie <a href="readcookie.php">click here</a>
</html><html> <body>
```

Readcookie.php

```
<?php
if (isset($_COOKIE["user"]))
{
 echo "Welcome " . $_COOKIE["user"] . "!<br>";
 echo "To delete cookie <a href='deletecookie.php'>click
here</a>";
}
else
 echo "COOKIE NOT PRESENT!<br>";
?>
</body> </html>
```

How to delete cookie?

- When deleting a cookie you should assure that the expiration date is in the past.
- deletecookie.php

```
<?php
        // set the expiration date to one hour ago
        setcookie("user", "", time()-3600);
        echo "COOKIE DELETED!<br>";
?>
```

VIII(b)	• A PHP session variable is used *to store information* about, or change settings for a user session.
	  • Session variables hold information about one single user, and are available to all pages in one application.
	• On the internet there is one problem: the web server *does not know* who you are and what you do because the HTTP address doesn't maintain state.
	• A PHP session solves this problem by allowing you to store user information on the server for later use (i.e. username, items ...).
	  • However, *session information is temporary* and will be deleted after the user has left the website.
	  • If you need a permanent storage you may want to store the data in a database.
	• Sessions work by creating a unique id (UID) for each visitor and store variables based on this UID.
	  • The UID is either stored in a cookie or is propagated in the URL
				7

IX(a)	1Definition of domain and registration procedure 2Web hosting			8

IX(b)	Open a Connection to the MySQL Server
	• Before we can access data in a database, we must open a connection to the MySQL server.
	• In PHP, this is done with the mysql_connect() function.
	Syntax
	• mysql_connect(host,username,password,dbname);
	  ➢ host - Either a host name or an IP address
	  ➢ username - The MySQL user name
	  ➢ password - The password to log in with
	  ➢ dbname - The default database to be used when performing queries
				7

Open a Connection to the MySQL Server

In the following example we store the connection in a variable *($con)* for later use in the script. The *"die"* part will be executed if the connection fails:

```
< ?php
$con = mysql_connect("localhost",“root",“value");
if (!$con)
{
die('Could not connect: ' . mysql_error());
}// some code
   ?>
```

Closing a Connection

- The connection will be closed automatically when the script ends.
  - ❑ To close the connection before, use the mysql_close() function:

```
< ?php
 $con = mysql_connect("localhost",“root",“value");
if (!$con)
{
die('Could not connect: ' . mysql_error());
}// some code
        mysql_close($con);
 ?>
```

- The following example creates a database called "my_db":

```
if (mysql_query("CREATE DATABASE my_db",$con))
{
echo "Database created";
}
else
{
echo "Error creating database: " . mysql_error();
}
mysql_close($con);
?>
```

- create table in php
- We must add the CREATE TABLE statement to the *mysql_query()* function to execute the command.
- Example
- The following example creates a table named "Persons", with two columns. The column names will be "FirstName“ and "Age":
- *// Create database*

```
if (mysql_query("CREATE DATABASE my_db",$con))
{
echo "Database created";
}
```

- *Create table*
- *mysql_select_db*("my_db", $con);
  $sql = "CREATE TABLE Persons
  (
  FirstName varchar(15),
  Age int
)";
- *// Execute query*
  mysql_query($sql,$con);

Insert data

- < html> < body>
  < form action="insert.php" method="post">
  Firstname: <input type="text" name="firstname" />
  Age: <input type="text" name="age" />
  < input type="submit" />
  < /form> < /body> < /html>

➢ */*The "insert.php" file connects to a database, and retrieves the values from the form with the PHP $_POST variables.*/*

- mysql_select_db("my_db", $con);
  $sql="INSERT INTO Persons (FirstName, Age)
  VALUES
  ('$_POST[firstname]','$_POST[age]')";

select data from database table
mysql_select_db("my_db", $con);
echo "<table border='1'>
<tr>
<th>Firstname</th>
<th>Age</th>
</tr>";
$result = mysql_query("*SELECT * FROM Persons*");
while($row = *mysql_fetch_array*($result))
{
echo "<tr>";
 echo "<td>" . $row['FirstName'] . "</td>";
 echo "<td>" . $row[‘Age'] . "</td>";
 echo "</tr>";
 }
 echo "</table>";
update
mysql_query("UPDATE Persons SET Age ='30’ WHERE

	FirstName = 'Ramu' *");* *AND LastName = 'name'");* Delete data in database mysql_query("*DELETE FROM* Persons *WHERE* FirstName='Griffin'");			
Xa	• WCMS allows non-technical users to make changes to an existing website with little or no training. • Primarily a Web-site maintenance tool for non-technical administrators. • Typically requires an experienced coder to set up and add features • A WCMS facilitates: • Content creation • Content control • Editing • Maintenance functions • Automated templates • Easily editable content • Scalable feature sets • Web standards upgrades • Workflow management • Delegation • Document management • Content virtualization			8
X(b)	JOOMLA,TIDDLYWIKKI			7