SLIATE

SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION
(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

Higher National Diploma in Information Technology
Second Year, Second Semester Examination – 2014
IT4103- Web Programming

Instructions for Candidates:	No. of questions : 06
Answer all questions from part I and	No. of pages : 09
four(04) questions from part II	Time : Three (03) hours

Model Answer   Part-I

1. What is World Wide Web
    I. Is another name for internet
    II. Worldwide connection for computers
    III. A collection of linked information residing on computers connected by the internet
    IV. A collection of worldwide information

2. A URL specifies the following:
    a. Protocol used
    b. Domain name of server hosting web page
    c. Name of folder with required information
    d. Name of document formatted using HTML
    e. The name of ISP
    I. a, b, c, d
    II. b, c, d, e
    III. a, c, d
    IV. a, b, c, e
    V.

3. What is a DNS?
    I. A "denial of service" attack typically used by hackers to overload web systems.
    II. A system used by search engines to automatically index and archive web sites.
    III. A system used to convert addresses that humans can read into addresses that machines can read.
    IV. A protocol used to transmit information in a faster but less reliable way than TCP/IP.

4. Where is the correct place to insert a JavaScript?
    I. The <body> section
    II. The <head> section
    III. In any external file
    IV. All of the above
    V.

5. How do you write "Hello World" in an alert box??

    I. alertBox("Hello World")
    II. alert("Hello World")
    III. msgBox("Hello World")
    IV. alertBox="Hello World"

6. Which one of the following is a correct JavaScript comment?

    I. <!--This is a comment-->
    II. #//This is a comment
    III. 'This is a comment
    IV. /* This is a comment */

7. The different ways to associate styles with a HTML document is/are

    I. Embedded CSS with <style> element
    II. Inline CSS with style attribute.
    III. External CSS with <link> element.
    IV. All of the above

8. Which of the following is correct CSS syntex for using font property?

    I. <p style="font: italic, bold, 15px;"> .... </p>
    II. <p style="font-style: italic font-weight: bold font-size: 15px;"> ....
    </p>
    III. <p style="font: italic bold 15px;"> .... </p>
    IV. None of the above

9. Which of the following statement is not correct for PHP?
   I. It is a server side scripting language
   II. A PHP file may contain text, html tags or scripts
   III. <u>**It can run on windows and Linux systems only**</u>
   IV. It is compatible with most of the common servers used today

10. What will be the output of the following code?

    ```
    $a = 10;
    echo 'Value of a = $a';
    ```

   I. <u>**Value of a = 10**</u>
   II. Value of a = $a
   III. Undefined
   IV. Syntax Error

[Total 20 Marks]

Part II

2)

   i. List down three ways of inserting cascading style sheet in to a HTML document.
   - External style sheets, i.e. a separate CSS-file referenced from the document
   - Embedded style (internal), blocks of CSS information inside the HTML document itself
   - Inline style, attaches a style definition within the HTML element it is modifying

[03 Marks]

   ii. Write the output for the following code.

```
<!DOCTYPE html>

<html>

<head>

<style type="text/css">

p.uppercase {text-transform:uppercase;}

p.lowercase {text-transform:lowercase;}

p.capitalize {text-transform:capitalize;}
```

```
        </style>

        </head>

        <body>

        <p class="uppercase">This is some text.</p>

        <p class="lowercase">This is some text.</p>

        <p class="capitalize">This is some text.</p>

        </body> </html>
```

THIS IS SOME TEXT.

this is some text.

This Is Some Text.

<div align="right">[3*01 Marks]</div>

iii.   List down four different font properties which can be used to change in cascading style sheets.
        Font family, font variant, font size, Font style, font weight, inline height

<div align="right">[four of the above 4*01 Marks]</div>

iv.   Consider the following web page and create a cascading style sheet by inserting the given features.

The World Wide Web (WWW)

World Wide Web (WWW) is a service provided by the Internet that allows users to view information on remote computers. The computers that allow other computers (and hence users) to view the information that it holds is called a web server. There are a large number of web servers in todays Internet and those are collectively known as the World Wide Web. For most users the web is the Internet; most users connect to the Internet simply to view the information on the web

Go To W3SCHOOLS

For the heading in the web page with the following feature

- o   font type Algerian
- o   font color Red
- o   font size 32px
- o   center alignment

For the image in the web page with the following features

- o   image width 170px
- o   image height 150 px
- o   thick, solid, blue colour image border

For the link in the web page with the following features

- o   link colour green
- o   font type Arial
- o   font size 34px

```
I.   <html>
     <head >
     <style type="text/css">
     h1{
     font-family: Algerian;
     font-size:32px;
     text-align:center;
     color: Red;
     }
     img{
     width: 170px;
     height: 150px;
     border-width: thick;
     border-style: solid;
     border-color: Blue;
     }
     a:link {
     color:Green;
     font-size:34px;
     font-family: Arial;
     }
     </style>
```

[10 Marks]
[Total 20 Marks]

2.

    i.   Discuss the importance of JavaScript in a web application.
- Form verification
- Document animation and automation
- Basic document intelligence(Event handling)

[03 Marks]

    ii.   How do you embed/insert JavaScript code in to a web page?
```
<script language="javascript" type="text/javascript">
….
</script>
```

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Or Use an external script file

```
<script language="JavaScript" src="simple.js"
type="text/javascript"></script>
```
[03 Marks]

iii.   Which of the following statements are legal in JavaScript. Write "Valid" or
       "Invalid" in your answer script?
       a.   x = x + 1; valid
       b.   y = 5 + 6; valid
       c.   23 = 3 + x; Invalid
       d.   x + 4 = 45;   Invalid

[04 Marks]

iv.   Consider the JavaScript code given below. What is the output of this code segment?

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

function test()  {

var x = 1000;

 document.write("<p>x in function = " + x);

}

var x = 5;

document.write("<p>x before function call = " + x);

test();

document.write("<p>x after function call = " + x);

</script>
```

Output

x before function call = 5 [01 Mark]

x in function = 1000   [01 Mark]

x after function call = 5   [02 Marks]

v.   Write the code for a login page with User Name, Password as inputs and a Login
      Button with the following functionalities.

a. Create a JavaScript form validation function to check both input fields are not blank. If any field is blank the function should display "user name and password cannot be blank" and return false otherwise it should return true.

b. Assign the function to the "onSubmit" of the form tag.

```
<html>
<head>
<script>
function validateForm() {

   if (myForm.fname.value =="") {
      alert("Username must be filled ");   ←——[02 Marks]
      return false;
   }
if (myForm.psw1.value=="" |) {
      alert("password must be filled  ");
      return false;
                                        [02 Marks]
   }
return true;
}
</script>
</head>

<body>                                                    [01 Mark]

<form name="myForm" action=" " onsubmit="return validateForm()"
method="post">
username: <input type="text" name="fname"><br>
 password: <input type="password" name="psw1"><br>    [01 Mark]
<input type="submit" value="Submit">
</form>
</body>

</html>
```

[Total 20 Marks]

3.
   i. "The only requirement to run a PHP script is a browser" Do you agree? Explain your answer.

No.   There are three main part for running php script. They are web server, database and php parser. Explain how to run the php program using above three things.

[03 Marks]

ii.   Write a php function called "maxTwoNum" to return maximum among 2 numbers passed as parameters to that function.

```php
function maxTwoNum($val1,$val2)
{
if ($val1<$val2)
    return $val2;

else

    return $val1;
    }
```

[05 Marks]

iii.   Assume a web form having an input control named as 'books' with post method and user input a valid number on the books text field and click on submit button. Action of this form was set to a php file called discount.php.

discount.php contains the following code:

```php
<?php

        $books=$_POST['books'];

        $price=2000;

        $total=$price*$books;

        if ($books > 10 &&  $books <= 20)

                $total=$total-$total*0.1;

         else if (20 >$books && $books <=30)

                $total=$total-$total*0.15;

         else

                $total=$total-$total*0.2;

        echo "Total Cost is :"+ $total;

    ?>
```

What is the output, if user enters the following values?

a.   27   Total cost is :43200
b.   20   Total cost is :36000
c.   8   Total cost is :13600
d.   57   Total cost is :91200

[02X4=08 Marks]

iv.   Write the php code segment to create an array which should hold the student names and their mobile numbers given below

Kamara   07788811223

Ravi   07656677651

Silva   07788778778

Perera   0777772222

$student = **array("**Kamara**"=>**07788811223**, "** Ravi **"=>**07656677651**,**

" Silva **"=>**07788778778**,**"Perera"=> 0777772222**);**

[04 Marks]

[Total 20 Marks]

4.
i.   Briefly explain the super global variables in PHP with three examples.
     Several predefined variables in PHP are "superglobals", which means that they are always accessible, regardless of scope - and any function, class or file without having to do anything special.
     The PHP super global variables are:
     $_SERVER,$_REQUEST,$_POST,$_GET,$_FILES,$_COOKIE,
     $_SESSION

[04 Marks]

ii.   What do you mean by a cookie in web application?
      A **cookie** is often used to identify a user. Cookie is a small file that the server embeds on the user's computer.

[02 Marks]

iii. Briefly explain, How to set the cookie with an example.

Syntax: **setcookie(name, value, expire, path, domain);** The **setcookie()** function must appear BEFORE the \<html\> tag.

```php
<?php
setcookie("user", "Alex Porter", time()+3600);
?>
```

[04 Marks]

iv.   Why do you use a session variable in web application? Explain it.

[03 Marks]

v.   Create the following HTML form to collect assignment marks and examination marks.

Result Evaluation Form

Enter Assignment Marks   [   ]

Enter Examination Marks   [   ]

[Submit]

```html
<html>
<head><title>Result Evaluation</title></head>
<body>
<h1>Result evaluation Form</h1>
<form action="result.php" method="get">
Enter Assignment Marks: <input type="text" name="ass"><br>
Enter Examination Marks:: <input type="text" name="exa"><br>
<input type="submit" value="submit">
</form>
</body>
</html>
```

[03 Marks]

vi.   When you Click the submit button, display the final result of the one subject.

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Write a php programme to display the above result.

```
<html>
<body>
 <?php
$ass= $_GET["ass"];
$exa= $_GET["exa"];
$result=$ass*40/100+$exa*60/100;
echo 'Final result:'.$result;
 ?>
</body
 </html>
```

[Hint:Final resut=Assignment*40/100+End Exam*60/100]

[04 Marks]
[Total 20 Marks]

5.
i.   Briefly Describe PHP $_GET and $_POST functions.
       The built-in $_GET function is used to collect values from a form sent with
    method="get".Information sent from a form with the GET method is visible to
    everyone (it will be displayed in the browser's address bar) and has limits on the
    amount of information to send (max. 100 characters)   [02 Marks]
    The built-in $_POST function is used to collect values from a form sent with
    method="post".Information sent from a form with the POST method is invisible to
    others and has no limits on the amount of information to send.
                                                                   [02 Marks]
ii. PHP uses the **mysql_connect()** function to connect to the database. Write the
     Syntax to build the connection to the mysql database.

```
 $con = mysql_connect("Localhost", "root", " ");
```
                                                                   [02 Marks]
iii. An online Hotel Reservation system of Hotel Kingsbury allows customer to do
     reservations online. The customers first need to register with hotel to make a
     reservation. Once, the customers have registered themselves, they can log on to the
     web site, anytime they wish, to perform or modify reservation. Each customer is
     given a Customer ID on their registration.

a. Assume the web site is supported by a MYSQL back end. Write down the code segment to establish a connection with this database. (The database name is Hotel_Kingsbury)

(Hint. hostname = kingsbury.com , username = db_hkb and password = hkb123)

```
$con = mysql_connect("kingsbury.com", "db_hkb", "hkb123");

//check connection established or not.

if(!$con){
    die("Could not connect: ".mysql_error());
}
else{

//select the database
    mysql_select_db("Hotel_Kingsbury", $con ) or
            die ("Could not select the database: ".mysql_error());
```

[03 Marks]

b. Write down the code segment to save the information of a new customer in the Hotel Kingsbury database *(Hint : Table details – Cus_Info('cus_id', 'fname', 'lname', 'dob', 'sex', 'email', 'tel_no'))*

```
mysql_query("INSERT INTO Cus_Info
VALUES('cus_id', 'fname', 'lname', 'dob', 'sex', 'email',
'tel_no')", $con);

OR

$sql ="INSERT INTO Cus_Info
VALUES('cus_id', 'fname', 'lname', 'dob', 'sex', 'email',
'tel_no')";

mysql_query($sql,$con);
```
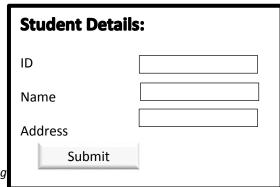
[06 Marks]

iv.

Student Details:

ID _____

Name _____

Address _____

Submit

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When a user entered details in the above page, and send the details to the next page and should be displayed like this.

```
ID : 0001

Name : Mahesh

Address : No 34, Kandy Road,
                      Kegalle
```

The HTML Code for the above page as follows,

```
<html>
<head><title>Student Details</title></head>
<body>
<form action="student.php" method="get">
ID: <input type="text" name="id"><br>
Name: <input type="text" name="name"><br>
Address: <input type="text" name="address"><br>
<input type="submit">
</form>
</body>
</html>
```

Write down the coding for student.php using $_GET method.

```
 <html>
<body>
ID: <?php echo $_GET["id"]; ?><br>
Name <?php echo $_GET["name"]; ?><br>
Address: <?php echo $_GET["address"]; ?>

</body>
</html>
```

[05 Marks]
[Total 20 Marks]