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 – 2015
HNDIT2413- Web Application Development

Instructions for Candidates:	No. of questions : 06
Answer any five (05) questions.	No. of pages : 07
	Time : Three (03) hours

1)

   i.   What do the following acronyms stand for?   [05 Marks]
- a. WWW
- b. URL
- c. HTML
- d. HTTP
- e. XML

   ii. Write the basic structure of HTML document.   [04 Marks]

   iii. Write the HTML code for the following output.   [07 Marks]

Foods

A. **Milk**

B. **Dried Fish**

C. **Rice**

D. **Fruits**

    1. Grapes
    2. Apple
    3. Pinaple

E. **Vegitables**

    1. Pumkin
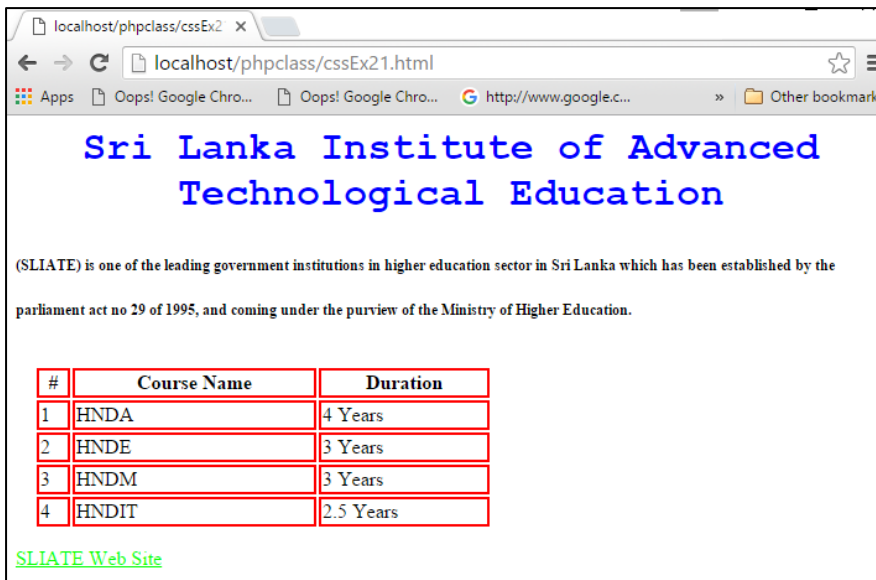   2. Tomato
    3. Beans

   iv. Give two (02) examples for each of the following.   [04 Marks]
- a. web browser
- b. Search engine

(Total 20 Marks)

2)

i. How do you insert an External CSS File named as **mystyle.css** in to a web page? Write down the appropriate HTML tag and attributes. [01 Marks]

ii. State three advantages of keeping CSS code in an external file? [03 Marks]

iii. "CSS selectors are used to "find" (or select) HTML elements based on their element name, id, class, attribute, and more." Briefly explain the importance of the following selectors with a suitable example.
   a. id Selector
   b. class Selector [06 Marks]

iv. Consider the following HTML code.

```html
<html>
<head>
</head>
<body>
<h1 id="head">Sri Lanka Institute of Advanced Technological Education</h1>
<p class="para1">(SLIATE) is one of the leading government institutions in higher
education sector in Sri Lanka which has been established by the parliament act no
29 of 1995, and coming under the purview of the Ministry of Higher Education.</p>
<table>
<tr><th>#</th><th>Course Name</th><th>Duration</th></tr>
<tr><td>1</td><td>HNDA</td><td>4 Years</td></tr>
<tr><td>2</td><td>HNDE</td><td>3 Years</td></tr>
<tr><td>3</td><td>HNDM</td><td>3 Years</td></tr>
<tr><td>4</td><td>HNDIT</td><td>2.5 Years</td></tr>
</table>
<a href="#">SLIATE Web Site</a>
</body>
</html>
```


Complete the following CSS style definitions by filling the missing code segments at given placeholders to get the above appearance of the HTML page.

```
<style type="text/css">
# [1] …………..
{
[2] ………………………………………... // set font type Courier New, Courier, mono
[3] ………………………………………………… // set text color Blue
[3] ………………………………………………….// set the center alignment
}
.para1{
[4] ……………………………………………….. // set the bold font style;
[5] ……………………………………………….. // set the font size 12px;
[6] ……………………………………………….. // set the paragraph line spacing 3.0
}
table
{
[7] ……………………………………………….. // set the table width 400px
[8] ……………………………………………….. // set the padding 15px
}
th, td
{
[9] …………………………………………………… // set the red color 2px solid border
}
a{
[10] ……………………………………………….. // set the link green color
}
</style>
```

[01*10 = 10 Marks]

(Total 20 Marks)

3)

   i.   State the importance of JavaScript in a web application.   [02 Marks]

   ii. Write the two (02) methods to include JavaScript in to a web application.   [02 Marks]

   iii. Consider the following web page layout.

Simple Calculator

Number 1: 2

Number 2: 3

Answer : 5

ADD

Following is the HTML code for the above web page.

```
<html>
<head>
</head>
<body>
<h1> Simple Calculator</h1>
<form method="get" action="" name="cal">

Number    1:<input type="text" name="t1"></Br></Br>
Number    2:<input type="text" name="t2"></Br></Br>
Answer    :<input type="text" name="t3"></Br>
<p align="left">
<input type="button" value="  ADD  " onClick="computeAdd();">

</p>
</form>
</body>
</html>
```

    a. Write a function "**computeAdd( )**" for adding two numbers from input boxes and displaying result in an appropriate input box using JavaScript.   [05 Marks]

    b. Write the code segment to call the "computeAdd( )"function when click "**ADD**" button.   [02 Marks]

iv. What will be the output of following JavaScript codes?   [09 Marks]

    a.

```
var x=2;
y=(x==1)?"Win":"TryAgain";
document.write(y);
```

    b.

```
var welcome=new String("Hi! welcome to SLIATE");
document.write(welcome.length);
document.write("<br>");
document.write(welcome.toUpperCase( ));
```

    c.

```
for(i=1;i<10;i++)
{
if (i==3) continue;
document.write(i);
}
```

(Total 20 Marks)

4)

    i.   Briefly explain *client side scripting* and *server side scripting* with examples.   [03 Marks]

    ii.   What are the differences between static and dynamic web site?   [03 Marks]

    iii.   Briefly explain how does PHP work?   [05 Marks]

    iv.   What will be the output of following PHP scripts?   [09 Marks]

        a.

```php
<?php
$a = 5;
 echo $a++,"<br>";
echo $a--,"<br>";
$b = 5;
echo ++$b,"<br>";
 echo $b,"<br>";
 $a += 2;
 echo $a,"<br>";
$b -= 2;
 echo $b,"<br>";
$sentence_c = $a . $b;
 echo $sentence_c;
?>
```

        b.

```php
<?php
for ($i=1;$i<11;$i++)
{
 $j=$i*$i;
?>
<tr>
  <td><?echo $i?></td>
   <td><?echo $j ?></td>
</tr>
<?
}?>
```

        c.

```php
<?php
$a=2;
$y= ($a==1)?"one":"other";
echo $y;
?>
```

(Total 20 Marks)

5)

   i. Consider the following web page layout.

Student Marks

Maths: [_____]

IT : [_____]

English: [_____]

Total [_____]

Average [_____]

Grade [_____]

[Total] [Average] [Grade]

    a. Write PHP functions for the followings
       1. Total of three subject marks   [05 Marks]
       2. Average of marks   [05 Marks]
       3. Grade of the student   [06 Marks]

       Grading Criteria:

A	>=90	C	>=55
B	>=75	D	>=45
C+	>=65	F	< 45

   ii. Write the output of following PHP code.   [04 Marks]

```php
<?php
$ATI=array("Kandy","Kurunegala","Galle","Dehiwala");
Foreach($Students as $temp){
    echo $temp, "<BR>";
    }
?>
```

(Total 20 Marks)

6)

   i.   Write HTML code to construct the following form. When click the submit button, the form should submit to a script called "**register.php**".   [06 Marks]

Employee Registration Form

Employee No: _____

Name   : _____

Contact No : _____

Address   : _____

[Submit]   [Reset]

   ii.   The database server (MYSQL) has a database named **Register**, with a single table named "**Employee**". You may assume the web server and the database server are hosted on the same computer. "Employee" table holds details of the above form.

      Write the code segment to create the connection to the database.   [04 Marks]

   iii. Write the code segment to insert an employer record to Employee table.

         [Hint- Employee(empno,name,contact,address)]   [05 Marks]

   iv. Write the code segment to change the employer address to "Colombo" on employer record no 75.   [05 Marks]

(Total 20 Marks)