SLIATE

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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 – 2020
HNDIT2413-Web Application Development

Instructions for Candidates:
Answer five (5) questions only.
All questions carry equal marks

No. of questions   : 06
No. of pages   :09
Time   : Three (03) hours

01.
i.   What do the following acronyms stand for?
    a. HTTP
    b. W3C   [02 Marks]
ii.   Write the three main functions of client server architecture.   [03 Marks]
iii. Explain the following concepts with examples.
    a. Web Browser
    b. Search engine   [04 Marks]

iv.   Write HTML codes to create the following.   [05 Marks]

Our Menus

1. Fried Rice
   - Sea food fried rice
   - Chicken fried rice
2. Pizza
   - Pan and other crust
     - A. Classic pizza
     - B. Supreme pizza
   - Thin crust

v. Write the output of the following HTML code.   [06 Marks]

```
<table border="2" align=Center>
<TR><TH colspan=3>Resturant food for you</TH></TR>
        <TR>
                <TH>Item code</TH>
                <TH>Item</TH>
                <TH>Price</TH> </TR>
        <TR>

                <TD>pizza-03 </TD>
                <TD>cheese pizza</TD>
                <TD>Rs.1000</TD></TR>
        <TR>

                <TD>Pizza-06 </TD>
                <TD>Spicy Seafood pizza</TD>
                <TD>Rs.2500</TD></TR>
        <TR>
        <TD colspan=2 align=center>Total</TD>
        <TD>Rs.3500</TD>
</TR> </table>
```

[Total 20 Marks]

02.
   i.   What are the benefits of using CSS for a web site?   [02 Marks]
   ii. State three advantages of keeping CSS code in an external file.   [03 Marks]
   iii. Mention three ways to insert styles into web page.   [03 Marks]
   iv. Explain the following selectors in CSS with an example.
        a. CSS id Selector
        b. CSS Universal Selector

                                                                     [04 Marks]
   vi. By considering the following web page complete the following CSS style definitions
        by filling the missing code segments at the given placeholders to get the following
        appearance of the HTML page.
                                                                     [08 Marks]

Food for you

Enjoy with our new Pizza!!!

category 01	category 02	category 03
Cheese Pizza	**Tandoori Chicken Pizza**	*Veggie Supreme Pizza*
Cheese Pizza is a catergory of pizza rich with Rich tomato sauce with a triple layer of mozzarella cheese.	Tandoori Chicken Pizza is category of pizza with rich Tandoori chicken & onions with a double layer of mozzarella cheese	Veggie Supreme Pizza is category of pizza with rich with Mushrooms, tomatoes, onions, black olives and bell peppers with a double layer of mozzarella cheese.

```html
<html>
<head><link rel="stylesheet" href="style.css"></head>
    <body>
        <h1>Food for you</h1>
        <h2>Enjoy with our new Pizza!!!</h2>
        <hr>
    <div class="cat1">
    <h3>category 01</h3>
    <h3>Cheese Pizza</h3>
    <p>Cheese Pizza is a category of pizza rich with Rich
    tomato sauce with a triple layer of mozzarella cheese.</p>
    </div>
    <div class="cat2">
    <h3>category 02</h3>
    <h3>Tandoori Chicken Pizza</h3>
    <p>Tandoori Chicken Pizza is category of pizza with rich
    Tandoori chicken & onions with a double layer of mozzarella cheese.</p>
    </div>
    <div class="cat3">
    <h3>category 03</h3>
    <h3>Veggie Supreme Pizza</h3>
    <p>Veggie Supreme Pizza is category of pizza with rich with Mushrooms,
    tomatoes, onions, black olives and bell peppers with a double layer of mozzarella
    cheese.</p>
    </div>
    </body>
</html>
```

```
body{
    (1).......................//Set full width of display fit to the web page
    (2)................... //Set margin 0px
    (3)................ //set center alignment for body text
}


    h1{}
    (4)................. //set font size 30px


    (5)................... //set horizontal line height to 10px
    div
    {
    padding-bottom:30px.//set bottom padding line 30px
    (6)....................//set width of div section to 30.5% from whole display
    float:left;
    position:relative;
    min-height:1px;
    (7).....................// set 5px margin in left side of div section
    }
    .cat1
    {
    (8)..................... //set background color of div section(cat1)to #d5f4e6
    border-color:#bce8f1 // set border color of div section(cat1)to # bce8fl
    }
    cat2{}
    cat3{}
```

[Total 20 Marks]

03.

i.   Mention two important features of Java script.   [02 Marks]
ii.   Give two examples for client-side scripting language.   [02 Marks]
iii. What is HTML DOM?   [02 Marks]
iv.   Write the outputs of the following java script codes.

      a.   [02 Marks]

```
 var a=3;

 var b=a++;

 var c=++a;

 document.write(a,b,c);
```

b.

[02 Marks]

```
var x = 6;
var y = 3;

document.write(
!(x === y) + "<br>" +
!(x > y));
```

True
False

c.

[02 Marks]

```
var arr = [1, 2, 5, 10, 20];

var sum = 0;

for (var i in arr) {

  sum += arr[i];

}

document.write(sum);
```
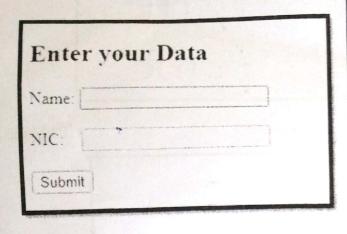
d.

[02 Marks]

```
function myFunction(a, b) {

  return a * b;

}

var x = myFunction(4, 3);

document.write(x);
```

v. Considering the following HTML form write one Java script function for following data validations.

Name and NIC fields are not empty.

NIC field must be Nine (09) digits numeric number. [06 Marks]

Enter your Data

Name: [_____]

NIC: [_____]

[Submit]

```
<h2>Enter your Data</h2>
<form name="myForm"
action="/action_page.php"
onsubmit="return validateForm()"
method="post">
   Name: <input type="text" name="fname">
   <br><br>
   NIC:&nbsp&nbsp&nbsp <input
type="text" name="fname">
   <br><br>
   <input type="submit" value="Submit">
</form>
```

[Total 20 Marks]

04.

i. Briefly explain the server-side script technology and write two examples.

[04 Marks]

ii. What are the three components need to install on the computer for developing and executing a php programme?

[03 Marks]

iii. Write the outputs of the following PHP codes.

[02 Marks]

a.

```php
<?php
$x = 100;
$y = "100";
if ($x === $y) {
echo ("Numbers are identical");

}
else

{
echo ("Numbers are not identical");

}
?>
```

b. [02 marks]

```php
<?php
$colors = array("Red", "Green", "Blue");
foreach ($colors as $value) {
  echo "$value[0] <br>";

}
?>
```

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c.

```php
<?php
Function add_sub($val1,$val2)
{
        $sum = $val1 + $val2;
        $sub=$val1 - $val2;
        return array($sum,$sub);
}
list($a,$b) = add_sub(5,4);
echo $a."<br>";
echo $b;
?>
```

iv. A Prime number is a natural number greater than 1 and divisible by 1 and itself only, for example: 2, 3, 5, 7, etc.

Write a PHP function called "primeCheck()" to check the entered number is prime number or not.

(Hint- by dividing number(N) with all natural numbers starting from 2 to N/2.)

[06 Marks]

[Total 20 Marks]

05.

i. Define PHP cookie. [02 Marks]

ii. PHP is object-oriented language. Declare a class named Fruit consisting of two properties ($name and $color) and two methods set_name () and get_name () for setting and getting the $name property.

[04 Marks]

iii. By considering the following PHP code as a multi-dimensional array and complete the blanks of the following (a) to (e) [05 Marks]

```php
<?php
    $marks = ....(a)......(
        "Hasith" => .....(b)..... (
            "Web Development" => 85,
            "Mobile Application Development" => 80,)
    );
    echo "Marks for Hasith in Web development is : " ;
    echo .....(c).......['.....(d).....']['.......(e)......'] . "<br />";
?>
Out put:
        Marks for Hasith in web Development is : 85
```

iv. Considering the following HTML form write a PHP code to do the following tasks.

PHP Form -Student Information

* required field

Name   : [   ] *

Age   : [   ] *·

Gender: ○ Female ○ Male ○ Other *

[Submit]

a. All fields are required. (Hint-If name is empty generate a message as "Name is required")   [06 Marks]

b. Once student enter correct data, display output as follows.
Your Input:
Sahan
20
Male   [03 Marks]

[Total 20 Marks]

06.

This form is used to store Employee Registration data in the MYSQL database server using PHP.

Employee Registration

Emp_No : [   ]

Name   : [   ]

Gender :

Address :

Submit

Database server: localhost

User Name: root

Password: emp123

Database Name: Employee_DB

Table Name: Employee

i.   Write HTML code to create the above form.   [04 Marks]

ii.   Write PHP code segment to create the connection and check the connection to the
      MYSQL database.   [02 Marks]

iii. Write PHP code segment to select the database "Employee_DB" and create Employee
      table.   [03 Marks]

iv.   Write PHP code segment to insert a record into Employee table.   [03 Marks]

v.   Write PHP code segment to change the name to 'Amal' whose employee id is '1003'.
                                                                                   [03 Marks]

vi.   Write PHP code segment to display the records of Employee's whose gender is male.
                                                                                   [05 Marks]

                                                                          [Total 20 Marks]