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, First Semester Examination – 2023
HNDIT3022-Web Programming

Instructions for candidates:	No. of questions: 06
Answer any five (05) questions only.	No. of pages : 05
All questions carry equal marks	Time : Three (03)hours

Question 01

(i) What is meant by Web Application? (02 Marks)

(ii) How scripting language differ from programming language. Write two (02) reasons.

(02 Marks)

(iii) What is three tier architecture and write two (02) benefits? (05 Marks)

(iv) Fill in the blanks with suitable words given below. (05 Marks)

    a) PHP is .... language.
    b) A PHP file that contains PHP tags and ends with the extension "............".
    c) You must place a ..$... in front of all variables.
    d) A constant. is a variable whose value cannot be changed at runtime.
    e) Array is a special variable, which can hold more than one value at a time.

(An Array, case-sensitive, client-side, php, var, $, global variable, html, constant)

(v) Write the output of the following code segments.

a)
```php
<?php
$x = "Hello world!";
echo var_dump($x);
?>
```
(02 Marks)

b)
```php
<?php
$first=array ("A"," B","C");
$second=array (1,2,3);
$third=array_merge($first,$second);
Foreach ($tthird as $val)
echo "$val <br>";    ?>
```
(02 Marks)

c)

```php
<?php
    for($i=0; $i<3; $i++){
        for($j=3; $j>0; $j--){
        echo $i;
        }
        echo "<br>";
    }
?>
```

(02 Marks)

(Total 20 Marks)

Question 02

(i) Briefly explain server-side scripting language and write two (02) examples except PHP. (04 Marks) ✓

(ii) When choosing a name for PHP variables, some rules are considering. Write three (03) rules. (03 Marks) ✓

(iii) Write PHP codes for the following.

a) To display 1-2-3-4-5-6-7-8-9-10 this series on one line. (04 Marks)

b) To find the factorial value of a given number.
(Eg, Factorial 5,5!=5*4*3*2*1=120) (04 Marks)

c) To check whether the given number is prime or not. (05 Marks)
(**Hint:** Prime number is a natural number that is greater than 1 and divisible only by 1 and itself)

(Total 20 Marks)

Question 03

(i) What is an array? (02 Marks)

(ii) Write two (02) types of arrays in PHP. (02 Marks)

(iii) Explain the purpose of is_array() function with an example. . (04 Marks)

(iv) Write PHP codes to perform the following tasks. (06 Marks)

a) Create an array for store 10, 20,15,30, and 25

b) Write code to add 35 and 40 into the above array.

c) Write a code to find size of above array.

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(v) Write the output of the following code. (06 Marks)

```php
<?php
$person=array(array("name"=>"saman",
                    "job"=>"labour",
                    "age"=> 30),
              array("name"=>"kumara",
                    "job"=>"teacher",
                    "age"=> 35));
foreach($person as $c)
{while(list($k,$v)=each($c)){
Echo $k." ....". $v." <br/>";
}}
?>
```

(Total 20 Marks)

Question 04

(i) Explain purpose of cookies.

(02 Marks)

(ii) What is meant by following codes

(03 Marks)

   a) $_SERVER['PHP_SELF']

   b) $_SERVER['SERVER_NAME']

   c) $_SERVER['REQUEST_METHOD']

(iii) What are the differences between GET and POST methods? (04 Marks)

(iv) Create the following form and write a PHP code to get the area of rectangle in the relevant text box. (11 Marks)

Calculate the Area of a Rectangle

Length: [   ]

Width: [   ]

[Calculate Area]

Area [   ]

Total 20 Marks)

Question 05

The following form is used to store marks of the students in IT Institute into MYSQL database server using PHP.

Student Marks Entering System

Student Name: [   ]

Student ID: [   ]

Subject:

Visual Programming [   ]

Web Design [   ]

Information System [   ]

[Submit] [New..]

The following text box names are used for creating above form and database details are given below.

Text box	Name
Student Name	stuName
Student ID	stuID
Visual Programming	markVP
Web Design	markWD
Information System	markIS

Database Server : localhost
User Name : root
Password : 123
Database Name : StudentDB
Table Name : Marks

(i) Write PHP code segment to do the following.

a) Create the connection to MySQL Database and check the connection. (04 Marks)

b) Insert the above data set in the form to the marks table. (07 Marks)

[Hint: Marks (stno, stname, sb1, sb2, sb3)]

c) Change the Student name to "D.N.Saman" whose student number is "IT_0015".

(03 Marks)

d) Display all details of "IT_0005" in the Marks table.   (06 Marks)

(Total 20 Marks)

Question 06

(i) Write two (02) examples for PHP framework.   (02 Marks)

(ii) One of the main modifiers in PHP is "public". Discuss the importance of it.

(03 Marks)

(iii) What are the four (04) Object oriented programming concept in PHP?   (04 Marks)

(iv) Create a class named PaySilp with the following   (11 Marks)

   a) Add a constant value to store **hourlyRate** as Rs. 250

   b) Add a field of hours to class which can be accessed everywhere in the class.

   c) Add the constructor used to initialize the values in above mentioned field.

   d) Add a function named calGrossSalary() to calculate Gross salary as follows:

   [Hint: Gross salary= hourly rate * hours]

   e) Calculate gross salary that employee worked for 400 hours.

(Total 20 Marks)