SLIATE

Jumail - 0039

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 – 2022
HNDIT3022-Web Programming

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

No. of questions: 06
No. of pages : 05
Time   : 03 hours

Question1

HTTP

1. Describe **WWW** in brief.   [02 Marks]
2. Mention three (03) syntactic components used in WWW.   [03 Marks]
3. Illustrate the client-server architecture in the context of web application development.
                                                                     [04 Marks]
4. State whether the following statements are true or false.   [05 Marks]

   a. PHP stands for Personal Home Page.
   b. **define** is a function used in PHP to create constants.
   c. PHP arrays have fixed size once it defined.
   d. PHP's == operator checks for both value and type equality.
   e. PHP is support for both procedural and object-oriented programming paradigms.

5. Write down the output of the following code segments.   [06 Marks]

   a.

   20

   ```php
   <?php
        $num1=40;
        $num2=20;
        $answer= $num1++-$num2;
        echo $answer;
   ?>
   ```

   b.

   Hello

   ```php
   <?php
        $color=array("red","yellow","white");
        $x=in_array("black",$color);
        if($x==0)
        echo "good bye";
        if($x==1) echo "Hello";
   ?>
   ```

HTTP

c.
```php
<?php
    $str="hello";
    echo ++$str;
?>
```

[Total 20 Marks]

Question 2

1. What is a scripting language? [02 Marks]
2. List down three server-side scripting languages. [03 Marks]
3. Explain the **Ternary Operator** using an appropriate example. [04 Marks]
4. Write down a PHP code to print the first 10 Fibonacci numbers. [05 Marks]
   [Hint: The Fibonacci sequence is a type series where each number is the sum of the two that precede It. 0, 1, 1, 2, 3, 5, 8, 13, 21, and 34]
5. Write down the output of the following code segments. [06 Marks]

a.
```php
<?php
    $str="pwd 12";

    if(strlen($str)<6)
        echo "Too short";
    else if(strlen($str)>10)
        Echo "Too Long";
    else
        echo "Looking Good";
?>
```

b.
```php
<?php
    $num=25;

    if($num%3==0 || $num%5==0){
        echo "A multiple";
    }else{
        echo "Not a multiple";
    }
?>
```

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

000
111
222

[Total 20 Marks]

2

Question 3

1. Briefly describe the term **Array**. [02 Marks]
2. What is an **Associative array** in PHP? [03 Marks]
3. Discuss the use of **implode ()** function in terms of the array. [04 Marks]
4. Write down PHP codes to perform the following tasks. [05 Marks]
   a. Create a numerically indexed array to store five numbers given as 10, 5, 4, 34, and 6.
   b. You are given another array with 3 numbers 4, 7, and 9. Create a new array by merging the two arrays.
   c. Display the array items in descending order.
5. You are asked to store the details of two books. Each book consists of an ISBN, Title, and published year. Write down a PHP code to create a multidimensional array for the above and display the book details given below. [06 Marks]

```
ISBN - 9780136083238
Title - Clean Code
Year - 2007
ISBN - 9332555400
Title - Design Patterns
Year - 2013
```

[Total 20 Marks]

Question 4

1. State two uses of cookies in WWW. [02 Marks]
2. Write down a PHP code to set a cookie for the below-given details. [03 Marks]
   Cookie name -> userID
   Cookie value -> Tom Tom
   Expire date -> after 3 days of creation. (86400 -> 1 day)
3. Explain the usage of $_GET and $_POST superglobals in PHP. When should each be used? [04 Marks]
4. You need to write down a PHP code segment to validate a Login form. If the user enters the correct username and password user will be navigated to the dashboard (dashboard.php). Otherwise, an error message should be given. [05 Marks]
   Correct username=admin and password=123.

Login Form

Username [_____]

Password [_____]

[Login]

5. Follow given a code segment for reading a text file using PHP. Describe the purpose of terms given in bold. [06 Marks]

```php
<?php
        $file=fopen("textfile.txt", "w");
                or die("Error in file");
        while(!feof($file)){
                $line=fgets($file);
                echo $line;
        }


        fclose($file);
?>
```

[Total 20 Marks]

Question 5

The following details are given regarding the student management system in ATI.

1. You are asked to create a database connection for a MySQL database. Write down the PHP code segment to connect the database. [02 Marks]
   Server name=localhost,
   Port=80, username=root,
   password=r123,
   database=atiWeb

2. Add a suitable PHP code block to the above to check whether the connection is established or not. [03 Marks]

3. Write down a suitable PHP code to collect the data from the form and insert it into the table named as student. The form and the table details are given below. [04 Marks]

Register Here

Name [_____]

Email [_____]

Birthday [Month: ▾] [Day: ▾] [Year: ▾]

[Enter]

#	Name	Type	Extra
☐ 1	ID 🔑	int(11)	AUTO_INCREMENT
☐ 2	Name	varchar(120)	
☐ 3	Email	varchar(250)	
☐ 4	DOB	date	

Registration Form   Student table

[Hint: - date type is stored in the format yyyy-mm-dd in the database]

4. Write down a PHP code segment to display all the records in student table. [05 Marks]

5. Explain **MVC architecture** in the context of software development. Describe the responsibilities of each component (Model, View, and Controller). [06 Marks]

[Total 20 Marks]

4

PHP, Ruby, adyan

Syh

HTTP
HTML
URL

1. Define the keyword extends in PHP. . php.   [02 Marks]
2. State three access modifiers used in PHP.   [03 Marks]
3. Differentiate **Constructor** and **Destructor**?   [04 Marks]
4. Create a class named Employee with the followings.   [11 Marks]

a. Add a field to store the basic salary of an employee, which can be accessed within the class and derived classes.
b. Add the constructor used to initialize the values in above mentioned field.
c. Add a function named calNetSalary(). Which will take the OT hours and OT rate as parameters and return the Net salary.
   [Hint:- Net Salary=basic salary+(OT hours*OT rate)]

Client system
Server syste,

d. Add the destructor to display as "Calculation Completed".
e. Create an object of the Employee class named **emp1**. The basic salary of emp1 is 25000.
f. Invoke the calNetSalary() with given arguments. OT hours=12, OT rate=250

[Total 20 Marks]

Consturctor is a varicble whoes
Value connot be changed at runtine.

A Constructor allow you to intialize an object is

```
function -constr ()
{

}
```

A desturcto is called when the objecti
is dastucbo or the script is stoppe of dh.

```
function_destructo.()
{

}
```