TOTAL

/ 40

Rhodes University
Faculty of commerce
Department of Information Systems
IS302 Web Development 3 (PHP)
In-class Task – 18 July 2025
Time: **40 Minutes**
Marks: **50 Marks**

Name of student: _____

Reg Number: _____

Answer all questions. Write all answers in the spaces in this question paper

Question 1   **(12 Marks)**
Fill in the missing word in each of these sentences

a. A _CLASS_____ is a blueprint from which objects can be created

b. The process of creating an object is called **i.** ___INSTANTIATING _ **ii**. AN OBJECT

c. A class method used to create objects is _CONSTRUCTOR _

d. The ability of to represent class the real world by removing complexities is _____ABSTRACTION _

e. The ability of several classes to use the same method POLYMORPHISM

f. ___ENCAPSULATION ____ is the process of bundling methods and data into one unit to provide security in OOP applications

g. INHERITANCE is an OOP concept describing how new classes can be created from existing ones.

h. The term ___EXTENDS _____ is used to create an object from a class and ___NEW _____ is used to create a new class from an existing one

i. in OOP, **this** is used to refer to ___CURRENT OBJECT ___ and its operator is _____→_____

Question 2:   **(14 Marks)**

Given class **CalcRect**, with two variables, **length**, and **width**, a public function **Area()** taking two parameters variables to compute and return area of a rectangle. Write simple PHP scripts to:

    a.   Declare an empty class **Calrect**

```
class Calrect {


}
```

OR   class Calrect {   }   [2]

    b.   Declare and define the function **Area()**

```
function Area($length, $width) {

    return $length * $width;
    }
```
                                                                            [4]

    c.   Instantiate object **area** from class **Calrect**

```
        $area = new Calrect();
```
                                                                                   {2]

    d.   To invoke method **Area()** using object **area** and assign to a variable **area_output**. Test data is length = 15 and width = 5.

```
$area_output =$area -> Area(15, 5)
```
                                                                                                   [4]

    e. Display the area as: **Area of rectangle is: 75 sqcm**
        echo "<p> Area of rectangle is: $area_output sqcm</p>";

        OR

        echo "<p> Area of rectangle is: " .$area_output . "sqcm</p>";

Q3.   **[14 marks]**

a. Do a simple line by line code analysis by inserting comments on the provided PHP code snippet (18, 20, 23, 25,27, 29 and 35) Write all commence on the picture

```php
17    <?php
18      require 'databaseConnection.php';
19
20      $uname = $_REQUEST['username'];
21      $pword = $_REQUEST['password'];
22
23      $sql = "SELECT * FROM systemusers WHERE username = '$uname'";
24
25      $result = $conn->query($sql);
26
27      $row = $result->fetch_assoc();
28
29      if(password_verify($pword, $row['userpassword'])){
30
31        echo "<p> Welcome $row[surname] $row[firstname].";
32        echo "Your role is $row[accesslevel] </p>";
33
34
35        echo"<p> <a href= \"userReg.html\"><button>Add a record </button></a></p>";
36      ?>
37
```

[7]

Line	Comment	Mark
18	Copies code in the databaseConnection file to the current file ✓	[1]
20	Creates variable username and assign contents of a Textfields ✓	[1]
23	SQL string to read data from a table using a parameter from Textfields ✓	[1]
25	Creates a variable and store the results of execution of SQL ✓ statement in line 23	[1]
27	Creates a variable and store array containing the records from database table ✓	[1]
29	Checks if the passworded entered by the user matches the ✓ hashed one from database table ✓	[1]
35	Creates a navigation button linked to an html file userReg ✓	[1]

b. Briefly describe what is happening in line 31.   [5]

Prints the Welcome message together with the contents of the elements read from the database table in the two fields, surname, first name and accesslevel in a single line

c. Write the output of lines 31 and 32   [2]

Welcome Mahlaba Bonginkosi. Your role is Database administrator.