



Object Oriented Programming with Java

Sample Paper

Answer All Questions

(Total 60 marks)

01.

Implement a class called **Employee**. An employee has a **name** (a String) and a **salary** (float). Write a default constructor, a constructor with two parameters (name and salary), a method **raiseSalary(float percentRaise)** that raises the employee's salary by a certain percentage, methods to return the name and salary and a **displayDetails()** to display details of an employee.

(a) Identify Data and Methods of the above class.

(b) Complete the code for the class Employee.

```
public class Employee
{
    //.....
}
```

(c) Create a test class TestEmployee to test the Employee class in part (b) as follows.

i) Create an object of the Employee class known as william with the employee name of "Bill Smith" and salary of \$35000.00

ii) Invoke the **displayDetails ()** method in the Employee class to print the employee's details to the screen.

iii) Invoke the **raiseSalary (double percentRaise)** method to increase william's salary by 12.5% and print the employee's details again.

```
public class TestEmployee
{
    public static void main (String [ ] args)
    {
        //.....
    }
}
```

02.

- I. Why we use '**Inheritance**' in Java?
'Class B Inherits Class A'. Write Java Code for the statement.
- II. 'abstract class **Student** contains an abstract method **display ()**'.
Write Java Code for the statement.
- III. Name the **four access modifiers** used in Java.
- IV. What is a **package** in Java? Write three examples of 'Packages'
- V. 'Declare an interface **Paybonus** with a method **calcBonus()**. The **Employee** class uses the interface **Paybonus**.' Write Java Code for the statement.

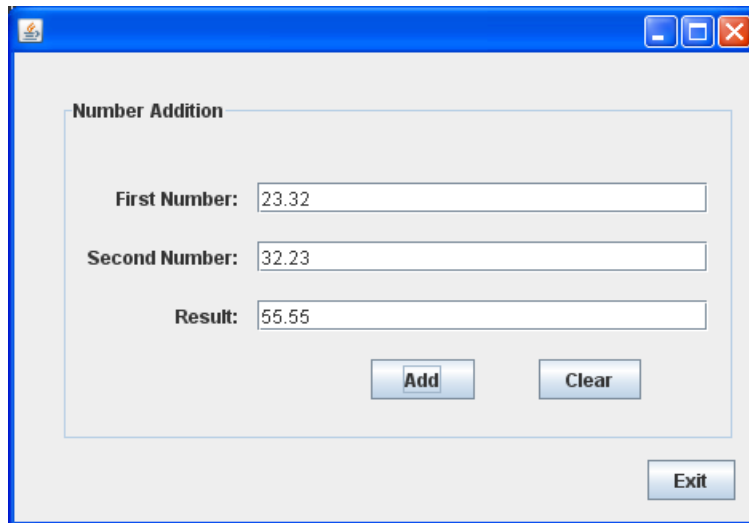
03.

- I. Briefly explain the differences between "**Method Overloading**" vs. "**Method Overriding**". Use can use code snippet to explain your answer
- II. What is an '**exception**' in Java and how we can handle exceptions?
- III. 'Dividing a number by zero generates an '**arithmetic exception**'
Write Java Code for the statement.

04.

Below questions are based on your knowledge SWING and THREADS .

a. Write code snippet for the 'Add' button of the following interface.



```
public void actionPerformed (ActionEvent e)
{
    //.....
} //actionPerformed
```

b. What is multithreading? What are the two methods of creating a Thread

c. Briefly explain the purpose of following thread methods

I. start(); II. sleep(); III. setPriority();

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