# Object Oriented Programming using Java

**Answer All Questions**                                          **(Total 60 marks)**

**01.** Suppose you have a class called "Student" which contains string variable called 'Std_name' and integer variable called 'admission_no'. Write suitable java code for each of the following with above data and given methods. (Write separate programs)

    I. Include a method to set values using parameters and method to display values

    II. Include no parameterized constructor and parametrized constructor

    III. Create an object from the above class and call the methods in Part 01. I

    IV. Create an object from the above class and call the methods in Part 01. II

    V. Create a child class named 'ComputingStudent' inherits from class Student.

                                            (3 X 5 = 15 marks)

**02.**

    I. What kind of classes cannot be inherited? Declare an example class for the statement.

    II. What is an abstract class and why we use abstract class in Java?

    III. Write a code snippet to declare an abstract class Employee and abstract method display

    IV. What is an interface and why we use interface in Java?

    V. Write a code snippet to declare an interface Paybonus with a method calcBonus. The Employee class uses the interface Paybonus.

                                            (2 X 5 = 10 marks)

**03.**

    I. Briefly explain the differences between "Overloading" vs. "Overriding". Use appropriate code snippets where necessary

                                            (4 marks)

    II. What is an exception and what are the two methods available to handle exceptions?

                                              (2 marks)

    III. Write a java code to show how you can handle an "ArrayIndexOutOfBoundsException".

                                              (4 marks)

**04.**
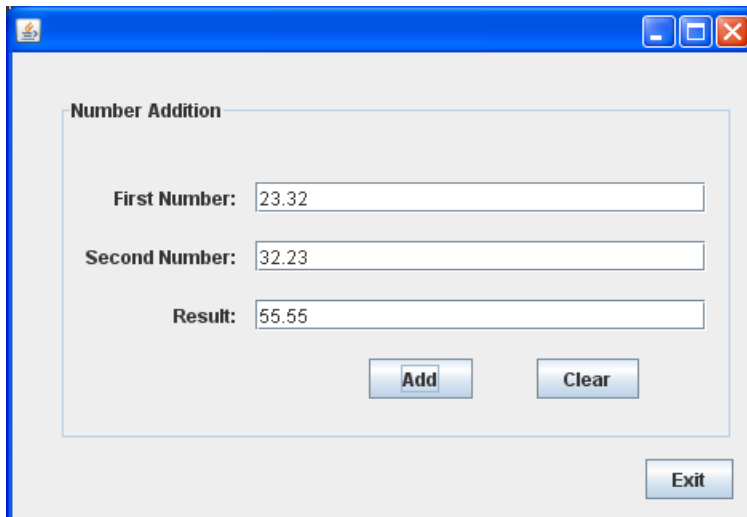
Below questions are based on your knowledge on JDBC, SWING , FILE HANDLING and THREADS .

a.  Write down the connection string/URL to connect with a DB called "Employee_DB" which is hosted in localhost. Username is set to "root" with no password.

(5 marks)

b.  Write code snippet to insert an employee record to the table "Employee". Employee table stores employee name (varchar), Age (int) and Salary (float).  Try to execute the query for below data:

  Name: Sunil    Age: 38    Salary: 47500

(5 marks)

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



(5 marks)

d.  Write a code to create a text file named 'Sample' and write the content "Hello World" on the text file. Read the file and display the information on the console.

(5 marks)

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

(2 marks)

f.  Briefly explain the purpose of following thread methods
    I.      run();          II. sleep();      III. setPriority();

(3 marks)

……………………END OF PAPER…………………………….