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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING**

**MAKEUP EXAMINATION – JAN 2023**

**Course Code:** CSE2008

**Course Name:** Programming in JAVA

**Program & Sem:** B. Tech - CSE

**Date:** 23-JAN-2023

**Time:** 09:30AM to 12.30PM

**Max Marks:** 100

**Weightage:** 50%

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**Instructions:** i) Read the all questions carefully and answer accordingly.

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**Part A [Memory Recall Questions]**

**Answer all the Questions. Each question carries TWO marks.**

**(10Qx 2M= 20M)**

1. Which Statement is TRUE?

(C.O.No. 1) [Knowledge]

- 1) int a=5, b=6;
- 2) int a=4,b;
- 3) double a, b=6;
- 4) String name="kumar";

- A. Only 1 ,3 and 2 True.
- B. Only 1 and 4 True
- C. Only 2 and 4 True
- D. All are True

2. Find the output of the following Java code.

(C.O.No. 1) [Comprehension]

```
class Test
{ int a=10; }
public class MyClass {
    public static void main(String args[]) {
        Test t=new Test();
        t.a=100;
        t.a=1000;
        System.out.println(t.a);
    }
}
```

- A. 10
- B. 100
- C. 1000
- D.All the above

3. In array the position of the element is more formally called a \_\_\_\_\_or \_\_\_\_\_(C.O.No. 1) [Knowledge]

- 1) subscript
- 2) index
- 3) position
- 4) element

- A. Line 1 and 2 True.
- B. Line 1 and 4 True
- C. Line 2 and 4 True
- D. Line 2 and 3 True

4. Find the output of the following code.

(C.O.No. 2) [Comprehension]

```
class A {
    public int i=10;
    int j=10;
}
class B extends A {
```

```

void display() {
    super. j = super. i + 1;
    System.out.println(super. i + " " + super. j);
} }
class inheritance {
    public static void main(String args[]){
        B obj = new B();
        obj.i=1;    obj.j=2;
        obj.display();
    } }

```

5. The \_\_\_\_\_ keyword is used to extend an interface. [2M] D. 10 11  
(C.O.No. 3) [Knowledge]

- A. extend
- B. extends
- C. implements
- D. implement

6. What is the output of this program? (C.O.No. 3) [Comprehension]

```

class ExceptionHandling{
    public static void main(String args[ ]) {
        try{
            int num1, num2;
            num1=5;
            num2=num1/0;
            System.out.print("A");
        }
        catch(ArithmeticException e) {
            System.out.print("0");
        }
        finally {
            System.out.print("B");
        }
    }
}

```

- A. 0
- B. A B
- C. A 0
- D. 0 B

7. Which of this method of Thread class is used to suspend a thread for a period of time? (C.O.No. 4) [Knowledge]

- A. sleep()
- B. terminate()
- C. suspend()
- D. stop()

8. What is the output of the following program? (C.O.No. 4) [Comprehension]

```

public class Question extends Thread {
    public void run() {
        for(int i=1;i<5;i++) {
            System.out.println(++i);
        }
    }
    public static void main(String args[]) {
        Question t1=new Question();
        t1.run();
    }
}

```

- A. 1 3
- B. 1 2 3 4
- C. Runtime error
- D. 2 4

9. Which is the container that contain title bar and can have MenuBar. It can also contain other components like button, textfield etc.?  
(C.O.No. 5) [Knowledge]

- A. Panel
- B. Frame
- C. Window
- D. Container

10. Select the correct output of the following code snippet.

(C.O.No. 5) [Comprehension]

```
public static void main(String args[]){
    ArrayList<String> list=new ArrayList<String>();
    list.add("Ravi");
    list.add("Vijay");
    list.clear();
    list.add("Ravi");
    list.add("Ajay");
    list.remove(1);
    System.out.println(list);
}
```

- A. [Ravi, Ajay]      B. [Ravi]      C. [Ajay]      D. []

### Part B [Thought Provoking Questions]

**Answer all the Questions. Each question carries TEN marks.**

**(2Qx10M=20M)**

11. A University has decided promotion criteria for students. According to criteria a student cannot be promoted to next academic year if he has less than 4.5 CGPA. A developer is trying to implement this situation using exception handling in JAVA by reading the necessary details of all 6 subjects.

(C.O.No. 3) [Application]

12. Design two processes that runs simultaneously and the first process should take even numbers for every 1000 seconds, second process take odd numbers at every 1000 seconds. If the value is even, the first process computes the square of the number and prints, If the value is odd, the second process will print the value of the cube of the odd number. Develop a code for the given scenario.

(C.O.No. 4) [Application]

### Part C [Problem Solving Questions]

**Answer all the Questions. Each question carries THIRTY marks.**

**(2Qx30M=60M)**

**(Students need to write and execute the following programs)**

13. The University planned to conduct the end semester examination through online mode using Edhitch software. You are a part of the development team to design a login page with following details. Login page contains two labels, one text field, one password field and two buttons (Login and Cancel). Design an interactive Login form using Java AWT and validate the user.

(C.O.No. 5) [Application]

14. Design a Java program to implement the following 'is-a' relationship using inheritance. Use proper constructors in base and subclasses, add at least one concrete method in all the classes. Add necessary code to demonstrate accessing superclass members with subclass objects.

(C.O.No. 2) [Application]

