

Exam. Roll No. 21234747023

**Subject:-Java Programming**  
**Paper Code: MCAO- 201/MCSO-201**

Time: One Hour

Max. Marks: 30

Note: All questions are compulsory. Each question carries 6 marks. Part A of each question carries 4 marks and part B carries 2 marks.

Q 1. (A) Discuss the method calling mechanism for method overloading and overriding when a superclass reference variable has a subclass object.

Q 1. (B) Which of these are keywords in Java?

Select all valid answers.

- (a) default
- (b) NULL
- (c) String
- (d) throws
- (e) long

Q 2. (A) Discuss the use of **this** constructor and **super** constructor for method overloading and overriding.

Q 2. (B) Which statements are true about the following code?

```
class A {  
    public A() {}  
    public A(int i) { this(); }  
}  
class B extends A {  
    public boolean B(String msg) { return false; }  
}  
class C extends B {  
    private C() { super(); }  
    public C(String msg) { this(); }  
    public C(int i) {}  
}
```

Select all the valid answers.

- I. The code will fail to compile.
- II. The constructor in A that takes an int as an argument will never be called as a result of constructing an object of class B or C.
- III. Class C defines three constructors.
- IV. Objects of class B cannot be constructed.
- V. At most one of the constructors of each class is called as a result of constructing an object of class C.

Q 3. (A) Discuss different ways to initialize the two-dimensional array. Also shows the usage of length variable for two-dimensional array.

Q 3. (B) What will be written to the standard output when the following program is run?

```
class abc
{
    public static void main(String args[]) {
        System.out.print(9 ^ 2);
    }
}
```

(a) Compile time error

(b) 81

(c) 11

(d) 0

Q 4. (A) Describe labelled break and labelled continue statements with the help of example.

Q 4. (B) Which declarations will allow a class to be started as a standalone program?

Select all valid answers.

(a) public void main(String args[])

(b) public void static main(String args[])

(c) public static void main(String[] a)

(d) final public static void main(String arg[])

Q 5. (A) How to achieve multiple inheritance in Java. Explain multiple inheritance with the help an example.

Q 5. (B) What will be the output of the following program also justifies your answer.

```
class abc {
    public static void main(String args[]) {
        abc obj=null;
        String str="null";
        boolean bool = str == obj;
        System.out.print(bool);
    }
}
```

(a) Compile time error- incomparable types: String and abc

(b) false

(c) true

(d) Runtime exception