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**B. E. (Fifth Semester) Examination,
April-May/Nov.-Dec. 2020**

(New Scheme)

(IT Branch)

PROGRAMMING in JAVA

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : Attempt all questions. Part (a) is compulsory.

Attempt any two parts out of remaining part

(b), (c) & (d).

Unit-I

1. (a) Why Java is not known as 100% OOPS language? 2
- (b) Explain various features of JAVA. 7
- (c) Compare C, C++ and JAVA. 7

[2]

(d) How Garbage collection works in Java? What will be the output of following program? 7

```
Public class A
{
    public static void main (String args [ ])
    {
        A a1 = new A ( );
        A a2 = new A ( );
        a1 = null ;
        system.gc ( ) ;
        a2 = null ;
        system.gc ( ) ;
        protected void finalize ( ) throw Exception
        {
            system.out.println ("Garbage collector
            called" );
            system.out.println ("Object Garbage
            collected called : " + this);
        }
    }
}
```

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[3]

Unit-II

2. (a) Write the use of 'this' and 'super' keyword in JAVA. 2
- (b) Write a program to create a package named MyPackage and illustrate the working of access specifiers in JAVA. 7
- (c) What is Inheritance? Explain with the help of example that how we achieve multiple inheritance in JAVA? 7
- (d) Write a program which performs the generation of fibonacci series using command line arguments in JAVA. 7
- Input : 5
Output : (0 1 1 2 3)

Unit-III

3. (a) What is the difference between == and equals () method while comparing strings? 2
- (b) Describe exception handling mechanism. Also explain the difference between throw and throws. 7
- (c) Write a program to create a user defined exception. 7

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[4]

- (d) Differentiate between string and string Buffer classes in JAVA. 7

Unit-IV

4. (a) Name the exception generated when the thread is interrupted? 2
- (b) Describe the thread life cycle with appropriate example. 7
- (c) Explain the concept of Monitors with corresponding to Producer-Consumer problem. 7
- (d) Which method is most suitable for creating a thread :
- (i) Implementing Runnable Interface
 - (ii) Extending thread class
- Justify. 7

Unit-V

5. (a) Differentiate between Applet and Application. 2
- (b) How param attribute should be implemented in applet tag? Explain with example. 7
- (c) Explain Applet Life Cycle. 7

[5]

- (d) Write a program to display file containing stud_id, stud_name, stud_address by using JDBC connectivity. 7