

Roll No. ....

## **MCA–16/M. Sc. (IT)–13**

### **Programming in Java**

Master of Computer Application/Master of Science  
in Information Technology

(MCA/M.Sc.(IT)-11/12/16/17)

Fourth Semester, Examination, 2018

**Time : 3 Hours**

**Max. Marks : 80**

**Note :** This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Learners are required to attempt the questions contained in these Sections according to the detailed instructions given therein.

#### **Section–A**

##### **(Long Answer Type Questions)**

**Note :** Section ‘A’ contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. What is JDBC ? Explain the various types of JDBC drivers. Also explain major design constraints with JDBC.
2. Explain the following using suitable example :
  - (a) Keyword
  - (b) Applets
  - (c) Exception Handling
  - (d) Java Token

**(B-98) P. T. O.**

3. What are the benefits of using packages ? Explain the steps in creating a package and using it in a Java program with an example.
4. Explain the multiple inheritance in java with example.

### Section–B

#### (Short Answer Type Questions)

**Note :** Section ‘B’ contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer *four* (04) questions only.

1. Explain the characteristics of OOP.
2. Explain the java virtual machine.
3. What is method overloading ? How is it different from method overriding ?
4. Explain the an interface and applying interfaces.
5. Explain the exception handling fundamentals.
6. What is file handling in Java ? Explain reading and writing files.
7. Explain various components of event handling.
8. Explain the AWT components.

### Section–C

#### (Objective Type Questions)

**Note :** Section ‘C’ contains ten (10) objective type questions of one (01) mark each. All the questions of this Section are compulsory.

1. Which is a valid keyword in Java ?
  - (a) Interface
  - (b) String
  - (c) Float
  - (d) Unsigned

2. Which of these values can a boolean variable contain ?
  - (a) True and False
  - (b) 0 and 1
  - (c) Any integer value
  - (d) True
3. What is the order of variables in Enum ?
  - (a) Ascending order
  - (b) Descending order
  - (c) Random order
  - (d) Depends on the order( ) method
4. Which of the below data type doesn't support overloaded methods for +, -, \* and / ?
  - (a) int
  - (b) float
  - (c) double
  - (d) big decimal
5. Which of these can be returned by the operators ?
  - (a) Integer
  - (b) Boolean
  - (c) Character
  - (d) Integer or Boolean
6. Which of these have highest precedence ?
  - (a) ++
  - (b) ()
  - (c) \*
  - (d) >>

7. String in Java is a :
- (a) Object
  - (b) Variable
  - (c) Class
  - (d) Character array
8. Which of these method of object class is used to obtain class of an object at runtime ?
- (a) get( )
  - (b) void getClass( )
  - (c) class getClass( )
  - (d) None of the above
9. Which of the following operators is used to generate instances of an exception which can be thrown using throw ?
- (a) thrown
  - (b) alloc
  - (c) malloc
  - (d) new
10. Which of these can be overloaded ?
- (a) Methods
  - (b) Constructors
  - (c) All of the above
  - (d) None of the above