

## **MCA–16/M. Sc. (IT)–13**

### **Programming in Java**

Master of Computer Applications/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. 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. (a) Explain about method overriding with a suitable example.  
(b) How does file and stream work in Java ?

3. (a) What are the rules for naming a Java variable ?  
(b) What are the branching statement associated with Java ?  
(c) Compare break and continue statements in term of their functions.
4. (a) What is a stream ? How is the concept of stream used in Java.  
(b) What do you mean by checked and unchecked exceptions ? Give examples.  
(c) How many catch blocks can we use with on try block ?

### Section–B

#### (Short Answer Type Questions)

**Note :** Section ‘B’ contains eight (08) short answer type questions of eight (8) marks each. Learners are required to answer *four* (04) questions only.

1. Explain the arithmetic operators in Java language with example.
2. Write a program in Java which will display all the odd numbers between 1 to 50.
3. Explain declaration, creation, initialization and accessing of an array in Java using suitable examples.
4. Explain the various forms of implementing interfaces.

5. Explain the types of inheritance supported by Java with suitable examples.
6. Explain the steps involved in loading and running a remote applet.
7. (a) What is Java applet ? What is its function ?  
(b) What is a package ? What is its function ?
8. (a) What is inheritance ? Explain single inheritance with an appropriate program.  
(b) When do we declare a method or class abstract ?

### 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.

Choose the correct answer :

1. An expression involving byte, int and literal numbers is promoted to which of these ?
  - (a) int
  - (b) long
  - (c) byte
  - (d) float
2. Which data type value is returned by all transcendental math functions ?
  - (a) into
  - (b) float
  - (c) double
  - (d) long

3. Which of these cannot be used for a variable name in Java ?
  - (a) identifier
  - (b) keyword
  - (c) identifier and keyword
  - (d) None of the mentioned
4. Decrement operator, —, decreases value of variable by what number ?
  - (a) 1
  - (b) 2
  - (c) 3
  - (d) 4
5. What is the output of relation operators ?
  - (a) Integer
  - (b) Boolean
  - (c) Characters
  - (d) Double
6. Which of the following statement is correct ?
  - (a) Public method is accessible to all other classes in the hierarchy.
  - (b) Public method is accessible only to subclasses of its present class.
  - (c) Public method can only be called by object of its class.
  - (d) Public method can be accessed by calling object of the public class.

7. Which of these keywords is not a part of exception handling ?
  - (a) try
  - (b) finally
  - (c) thrown
  - (d) catch
8. Which of these keyword must be used to inherit a class ?
  - (a) super
  - (b) this
  - (c) extent
  - (d) extends
9. Which of these method is used to implement Runnable interface ?
  - (a) stop ( )
  - (b) run ( )
  - (c) runThread ( )
  - (d) stopThread ( )
10. Which of these methods can be used to output a string in an applet ?
  - (a) display( )
  - (b) print( )
  - (c) draw string( )
  - (d) transient( )

