

Roll No.

MCA–16/M. Sc. (IT)–13

Programming in Java

Master of Computer Applications/

Master of Science in Information Technology

(MCA–11/16, M. Sc. IT–12/16)

Fourth Semester, Examination, 2017

Time : 3 Hours

Max. Marks : 60

Note : This paper is of **sixty (60)** 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 fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. Explain the following using suitable example :
 - (a) Object
 - (b) Inner classes
 - (c) Abstract class
2. What is JDBC ? Explain various type of JDBC drivers, also explain major design constrains with JDBC.

3. Explain the following terms using suitable example :
 - (a) Polymorphism
 - (b) Encapsulation
4. What do you mean by stream ? Discuss the various types of stream in Java. How files are handled using stream ? Write a program in java to accept employee information (Name, Father's name, Designation, Salary and Employee ID etc.) from console and write back to empDetails.dat file.

Section-B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of five (05) marks each. Learners are required to answer *four* (04) questions only.

1. Explain Inheritance using suitable example.
2. Write short notes on the following :
 - (a) Strings
 - (b) Vectors
3. What is an Interface ? Explain its significance using suitable example.
4. Differentiate between AWT and swing component. List *three* components from each category.
5. Define exception handling using a suitable example.
6. Explain copy constructor using suitable example.
7. Differentiate between Super Class and Final Class.
8. Explain Structure of a Java Program.

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 reserved word in the Java programming language ?
 - (a) method
 - (b) native
 - (c) subclasses
 - (d) reference

2. Which is a valid keyword in java ?
 - (a) interface
 - (b) string
 - (c) float
 - (d) unsigned

3. Which is the valid declarations within an interface definition ?
 - (a) public double methoda();
 - (b) public final double methoda();
 - (c) static void methoda(double dl);
 - (d) protected void methoda(double dl);

4. What is the numerical range of a char ?
 - (a) - 128 to 127
 - (b) - (215) to (215) - 1
 - (c) 0 to 32767
 - (d) 0 to 65535

5. You want subclasses in any package to have access to members of a superclass. Which is the most restrictive access that accomplishes this objective ?
- (a) public
 - (b) private
 - (c) protected
 - (d) transient
6. `public class Test { }`
What is the prototype of the default constructor ?
- (a) `Test()`
 - (b) `Test (void)`
 - (c) `public Test ()`
 - (d) `public Test (void)`
7. Given a method in a protected class, what access modifier do you use to restrict access to that method to only the other members of the same class ?
- (a) final
 - (b) static
 - (c) private
 - (d) protected
8. Java programs perform I/O through _____
- (a) I/O methods
 - (b) I/O package
 - (c) streams
 - (d) compiler

9. _____ is a feature that allows one interface to be used for a general class of actions.
- (a) Class
 - (b) Inheritance
 - (c) Polymorphism
 - (d) Interface
10. The default package that is implicitly called in a java program is :
- (a) java.Lang
 - (b) java.System
 - (c) java.Window
 - (d) java.Lang.System

