

Roll No.

**MCA-11/MSc(IT)-12 (Master of Computer Applications/
Master of Science in Information Technology)**

Fourth Semester Examination-2015

MCA-16/MSC(IT)-13

Programming in Java

Time : 3 Hours

Maximum Marks : 60

Note : This paper is of sixty (60) marks divided into 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 fifteen (15) marks each. Learners are required to answer any two (02) questions only. (2×15=30)

1. (a) Write AWT program in Java to find sum, multiplication and average of three numbers.
(b) How a source file of Java is converted into executable file? Explain each step and tools involves in this process.
2. (a) Why Java is called machine independent language. Explain the functionality of JVM.

- (b) How do you perform exception handling in Java? Explain with suitable example.
- 3. (a) What do you mean by an Applet? Briefly discuss about the life cycle of an Applet.
(b) Describe Java Servlets and JSP with suitable example.
- 4. (a) Explain all the decision making and control statements available in Java.
(b) What do you mean by multithreaded programming? Explain with a suitable example.

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 any four (04) questions only. (4×5=20)

- 1. What are the basic features of Java.
- 2. Write a program to create an applet that includes login-name and password. Users are allowed to login at most three times otherwise window will be closed.
- 3. Write short notes on :
 - (i) Two Tier Client Server Model
 - (ii) Three Tier Client Server Model
- 4. What is the difference between Array and Vectors? When will you use array over Vectors ?
- 5. What is the difference between overloading and overriding? Explain with example.
- 6. Write the steps to connect Java Application with any database to fetch the data from any table of that database.

7. What is Java swing? Explain the features of Java swing with the example.
8. What is the difference between string and stringBuffer class?

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. (10×1=10)

1. We use array as a parameter of main method because it
 - (a) can store multiple values
 - (b) is syntax
 - (c) both (a) and (b)
 - (d) None
2. Java language is a
 - (a) Platform independent
 - (b) Assembly language
 - (c) Procedure Oriented
 - (d) None of the above
3. Primary purpose of Inheritance is
 - (a) overloading
 - (b) Code Reuse
 - (c) overriding
 - (d) Ignoring isselevant features from software
4. Which of these keyword is used to refer to member of base class from a sub class?
 - (a) this
 - (b) upper
 - (c) super
 - (d) None
5. Which of there is necessary to specify at time of array initialization?
 - (a) Row
 - (b) Column
 - (c) both (a) & (b)
 - (d) None

6. Which class cannot be a subclass in Java?
 - (a) Final class
 - (b) Abstract class
 - (c) Parent class
 - (d) None
7. Which is a reserved word in Java ?
 - (a) native
 - (b) subclass
 - (c) reference
 - (d) method
8. What is a difference between a Java applet and Java Application?
 - (a) An application can in general be trusted whereas an applet can't.
 - (b) An applet must be executed in a browser environment
 - (c) An applet is not able to access the files of the computer it run on
 - (d) (a), (b) and (c)
9. What is the byte code in context of Java?
 - (a) It is another name for a Java source file
 - (b) The type of code generated by a Java Virtual Machine
 - (c) The type of code generated by a Java Compiler
 - (d) It is the code written within the instance methods of a class.
10. Which of the following is used to interpret and execute Java Applet classes hosted by HTML ?
 - (a) Java
 - (b) Appletviewer
 - (c) Java C
 - (d) None