Roll No. ………………………………. Total Pages: 3

MCA/M-15
PROGRAMMING IN JAVA
Paper-MCA-403

Time Allowed: 3 Hours] [Maximum Marks: 80

Note: Attempt five questions in all, selecting at least one question from each unit.
Question No. 1 is compulsory.

Compulsory Question

1. Write short notes on the following:
(a) Final, finally and finalize
(b) "Super" and "This" Keywords
(c) Local and Remote Applets
(d) Class and Interface
(e) Thread priorities
(f) Byte stream and character stream
(g) Applet and Servlet
(h) Java Swing and Java Beans.

UNIT-I

2 Explain various access specifiers in Java? What do you mean by class member variable and class number functions? How they are accessed?

3(a) Write Java program to find the square root of inputted command line arguments.
(b) What are the various waus of code reusability in JAVA?

UNIT-II

4 (a) Differentiate Multiple and Multilevel inheritance. Can we achive Multiple inheritance in JAVA? Justify your answer.
(b) What are exceptions in Java? Demonstrate Arithmetic Exception by taking suitable example.

5 (a) What is the advantage of Multithreading in Java? Explain thread synchronization and thread suspension.

(b) Can we use Multiple Catch blocks in Exception handling? Justify your answer.

UNIT-III

6. Explain in detail Applet life cycle. Write Java code that shoe the working of every applet function. Discuss, how Applets are virus-free.

7. Explain with an example character streem and byte stream classes. What are their importance over normal classes?

<center>UNIT-IV</center>

8. Write Java code to draw line (Line dragging) using the concept of the Mouse Listener and MouseMotionListener interfaces.

9. Write short notes on the following:
(a) Layout Managers
(b) Package
(c) JTree
(d) Servlet Life cycle.