

Roll No.....

10213

MCA/M-14
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.

Q.No.1 is compulsory. All questions carry equal marks.

(Compulsory Question)

1. Explain the following:

- (a) JVM
- (b) Garbage collection
- (c) Wrapper classes
- (d) Access Specifiers
- (e) Thread communication
- (f) Copy constructor
- (g) JAVA Beans
- (h) Swing classes
- (i) I/O Stream.

8x3=24

2. Differentiate C, C++ and Java. How JAVA is pure object oriented write its various features? Does JAVA support Event Handling? Justify your answer.

3. Write java code to find the area of circle using the concept of:

- (a) Constructor
- (b) Inheritance
- (c) Overriding

(d) Package.

UNIT -II

4. (a, Discuss various levels of access protection available for packages and their implications.

(b) Differentiate multiprocessing and multithreading. Explain creating, resuming and stopping threads in JAVA.

5. (a) What are Abstract Classes? Why they are needed? Explain use of super and final keywords suitable examples.

(b) What are uncaught exceptions in JAVA, Discuss the use of Nested try statements?

UNIT -III

6. (a) Explain Applet Life Cycle with suitable Java Program? Write applet code to draw Smiling Face using graphics?

7. Write Applet code to design calculator using Layout manager and proper working of "+" "-" and "1" Buttons.

UNIT—IV

8. What are AWT Classes? Explain various features of AWT classes in details.

Write Java Program to generate Even numbers in TextField "T" while pressing Button "CLICK".

9. (a) Define various Layout Managers each with a suitable example.

(b) Discuss the importance of Menus in JAVA.