Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

MCA (2015 & Onwards)   (Sem.–3)
JAVA PROGRAMMING
Subject Code : MCA-304
M.Code : 74076

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students have to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

1. Discus method overloading and overriding in detail with example.   (10)

2. a) What is Object Oriented Programming? What are silent features of it? Explain the structure of Java program.   (7)

   b) List the differences between Java and C++.   (3)

SECTION-B

3. What is Package? Write a Program in Java to explain the concept and use of Package.   (10)

4. What are the various ways of creating a thread? How synchronization can be added in Java's thread? Illustrate with example.   (10)

SECTION-C

5. What is an Applet? How do applets differ from application programs? How arguments can be passed to an applet?   (10)

6. a) What is the use of JDBC? Explain with suitable examples.   (5)

   b) What is a Swing? Explain the concept and role of swings briefly with a program in Java.   (5)

SECTION-D

7. What is Servlet? Explain different types of servlets with suitable examples. (10)

8. Write various methods associated with TCP and UDP sockets. Also differentiate between TCP and UDP sockets. (10)

SECTION-E

9. Write short notes on following with help of example/diagram if needed : (2×10 = 20)

   a) How are arrays declared in JAVA?

   b) doPOST method

   c) JSP

   d) Method Overriding

   e) Autoboxing and Unboxing

   f) Garbage Collection

   g) User defined Exceptions

   h) HttpServlet

   i) Dynamic Binding

   j) Java Development Kit

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.