MCA (2019 Batch)   (Sem.–3)
JAVA PROGRAMMING
Subject Code : MCA-304
M.Code : 70775

Time : 3 Hrs.   **Max. Marks : 100**

INSTRUCTION TO CANDIDATES :
1. **SECTIONS-A, B, C & D contains TWO questions each carrying TWENTY marks each and students has to attempt any ONE question from each SECTION.**
2. **SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.**
3. **Use of non-programmable scientific calculator is allowed.**

SECTION-A

1. Discuss the various features of Java. How Java is different from C/C++?

2. Write various steps to develop compile and run Java program by taking a suitable example.

SECTION-B

3. How one can implement multiple inheritance in Java state and prove your answer by giving example?

4. What are the various techniques to handle Exception in Java? Explain with the help of program example.

SECTION-C

5. What are applets? How one can use an applet in java program? Give example.

6. Write notes on the following :

   a) Event Handling

   b) JDBC

SECTION-D

7. Explain with the help of suitable diagram for Servlet's life cycle.

8. Differentiate between TCP & UDP sockets. Also explain the various methods associated with TCP & UDP.

SECTION-E

9. Write briefly :

a) Enlist Java tokens.

b) Define Access specifiers.

c) What is Auto boxing & unboxing in Java?

d) How Garbage collection is done in java?

e) Write about String buffer classes.

f) What is Scanner class?

g) Define Error handling in Java.

h) Define Applets in brief.

i) What are Servlets in Java?

j) Write short note on JSP.

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.