M.C.A. 1st Semester (MCA 2 Year Programme)
w.e.f. - 2020-2021 Examination, November–2023
OBJECT ORIENTED PROGRAMMING USING JAVA
Paper–20MCA21C1

Time allowed : 3 hours]   [Maximum marks : 80

Note: *Students shall be required to attempt **five** questions, selecting at least **one** question from each unit. All questions shall carry equal marks.* **Question No.1 will be compulsory.**

1. (a) What is the Static variable?   8×2=16

   (b) What do you mean by Automatic Garbage Collection?

   (c) What is synchronization?

   (d) What is finally keyword?

   (e) What is the Iterative Statement?

   (f) What is Paint mode in Graphics?

   (g) What is Array?

   (h) What is Stream?

Unit-I

2. What do you mean by Genesis and Evolution of the Java Language? Explain the characteristics of Java with example.   16

3. (a) How StringBuffer class works? How StringBuffer class differ from String class? Explain String-Buffer and String. 8

(b) What is Array? Explain with Example. 4

(c) What are Operators in JAVA? Explain with example. 4

Unit-II

4. (a) How Package used in JAVA? What are the types of Package? Explain with example. 10

(b) What is Access Protection in Package? Explain. 6

5. (a) What is Multiple Inheritance? How it is different from Interface in JAVA? Explain with example. 10

(b) How to make an abstract class? Explain with example. 6

Unit-III

6. (a) How Exception Handling works in Java? What are the types of exceptions? Explain with example. 12

(b) What is Random Access Files? Explain with example. 4

7.   Explain the following with example: 6+5+5

(a)   Commonly Constructors used in Multithreading

(b)   I/O Basic and I/O Classes

(c)   Reading and Writing on File

Unit-IV

8.   Why Applet is not a pure Java component? How is Applet different from the main () method? Explain the life cycle of Applet with any four inbuilt methods.   16

9.   What is Window Fundamentals? What is AWT? How AWT classes are heavyweight components? Explain AWT classes and methods with examples.   16