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

Total No. of Questions : 09

M.Sc. (IT)   (Sem.–4)
JAVA TECHNOLOGIES
Subject Code : PGCA-1939
M.Code : 79561
Date of Examination : 17-12-22

Time : 3 Hrs.   Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION - B & C have FOUR questions each.**
3. **Attempt any FIVE questions from SECTION B & C carrying TEN marks each.**
4. **Select atleast TWO questions from SECTION - B & C.**

SECTION-A

1. **Write briefly :**

   a. Why is Java said to be platform independent?

   b. Write a Java program to use Bit-wise operators.

   c. Can we have an empty catch block? Justify.

   d. Differentiate between = and = = operators.

   e. What are static class members?

   f. Give the difference between checked and unchecked exceptions.

   g. How can you exit from a nested loop using break statement?

   h. Explain final keyword.

   i. What is event delegation model?

   j. Give the differences between Abstract class and Interface.

SECTION-B

2. Explain in detail different data types in Java. Also explain automatic type conversion and type casting.

3. Explain the concept of class and object in Java? What is a constructor? What are its properties? Write a program to show constructor overloading in Java.

4. Explain with examples the different looping statements available in Java. Explain labeled break statement with the help of an example.

5. What is Inheritance? Explain with example how to inherit a class in Java? What is Method Overriding? Explain with example.

SECTION-C

6. What is an Exception? What is exception handling? How do you handle exceptions in Java? Write a program to create and throw your own exception.

7. Explain the different thread states. How can you synchronize thread access to a shared resource? Explain with the help of an example.

8. Design an applet which display three equal sized rectangles one below the other and fill them with orange, white and green color respectively.

9. a) Write a java program to implement Key events.

   b) Explain about the AWT Menu design.

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.