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Total No. of Pages : 02

Total No. of Questions : 09

M.Sc. (IT) (Sem-4)
JAVA TECHNOLOGIES
Subject Code : PGCA1939
M.Code : 79561
Date of Examination : 05-06-2023

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) Explain the difference between class and object.
- b) Differentiate between run time and compile time polymorphism.
- c) Explain static keyword with all its usages.
- d) What is interface?
- e) Explain super keyword with all its usages.
- f) What is finally in exception handling? Explain.
- g) Define multithreading.
- h) Differentiate between applet and application.
- i) Which method is used to set background color?
- j) List the stages of applet life cycle.

SECTION-B

2. What are constructors used for? Can constructors be overloaded? Write a program in support of your answer.

3. Write a program for the following :
 - a) To convert binary to decimal and decimal to binary conversion.
 - b) To convert inches to centimeters.
4. How interface is different from an abstract class? Explain.
5. Define a class MotorVehicle as described below:
Data members: modelName, modelNumber and modelPrice
Methods:
 - a) Display method to display the name, price and model numberDefine another class named Car that inherits the class Motor Vehicle and has the following:
Data member: discount Rate Methods:
 - a) Display() method to display the car name, car model number, car price and the discount rate
 - b) Discount() method to compute the discount.Create the classes Motor Vehicle and Car with suitable constructors and test it.

SECTION-C

6. Consider a student examination database system that prints the mark sheet of students. Input the following from the command line.
 - a) Students' name
 - b) Marks in six subjects.These marks should be between 0 and 50. If the marks are not in the specified range, raise a Range Exception, else find the total marks and print the percentage of the student.
7. What is thread priority? How can it be set for a thread? Explain.
8. What is JDBC? Explain in detail, to establish connection between Java program and Database.
9. Describe the complete life cycle of servlets.

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.