

M.C.A. - I (2 Years) New CBCS Pattern Semester-I
PSMCAT101 - Paper-I - Java Concepts

P. Pages : 1

Time : Three Hours



GUG/S/25/13635

Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat and labelled diagram and use supporting data wherever necessary.
 3. Avoid vague answers and write specific answers related to questions.

Either:

1. A) Explain the concept of object oriented programming in Java in detail. **8**
B) Write a Java program to calculate the area and perimeter of a rectangle. **8**

OR

- C) What is Constructor? Explain in detail about constructor overloading with example. **8**
D) Create a class named student with attributes like name roll no. and marks. Write a method to display the students detail. **8**

Either:

2. A) What is Interface? Explain how to implement and extend the interface. **8**
B) Write program to demonstrate use of inheritance. **8**

OR

- C) What is Exception Handling? Explain the significance of Finally Block in Exception Handling. **8**
D) Write a multithreaded program to demonstrate bank ATM system with multiple users. **8**

Either:

3. A) Define Stream. Differentiate between character stream and byte stream in Java I/O. **8**
B) Write a program to read and write data to a File using buffered I/O. **8**

OR

- C) Explain the purpose of Iterator interface in Java Collections. **8**
D) Create a contact management application using a HashMap to store contacts. **8**

Either:

4. A) Define Applet. Explain the use of PARAM Tag in Applet programming. **8**
B) Create a simple GUI application using AWT to display a message. **8**

OR

- C) Explain the difference between AWT and swing components. **8**
D) Develop a database – driven application to manage student records using JDBC. **8**
Note: Student table has roll no., name, DOB field.

5. Solve all the questions.
a) Discuss the purpose of garbage collection in Java. **4**
b) Differentiate between checked and unchecked exception. **4**
c) Write a note on Tree Map in Java. **4**
d) Write in short about types of Drivers. **4**
