

M.C.A.- I (Two Years Programme) (New CBCS Pattern) Semester - I  
**PSMCAT101 - Paper-I : Java Concepts**

P. Pages : 1

Time : Three Hours



**GUG/S/23/13635**

Max. Marks : 80

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- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagrams wherever necessary.
  3. Avoid vague answers and write answers relevant and specific to questions only.

**Either:-**

1. a) What is JAVA? Explain different features of Java. **8**  
b) What is JDK? Explain the role of JDK, JRE and JIT in detail. **8**

**OR**

- c) What is Class? Explain Accessibility Modifiers in detail. **8**  
d) What do you mean by Constructor? Write down the program to demonstrate Default Constructor. **8**

**Either :-**

2. a) What is Inheritance? Explain in detail. **8**  
b) Write a Program to calculate Area of Rectangle and Circle using Interface. **8**

**OR**

- c) What is Multithreading? Explain the Life Cycle of a Thread (Thread States) in detail. **8**  
d) Write a Java program to show use of throw, throws and finally keyword. **8**

**Either :-**

3. a) What is Stream? How is the concept of streams used in Java? **8**  
b) What is Serialization? Explain the steps involved in Object Serialization. **8**

**OR**

- c) Explain the Map Interface in Detail. **8**  
d) Write a program to demonstrate Linked List class. **8**

**Either :-**

4. a) What is Applet? Explain Applet Life Cycle in detail. **8**  
b) Write an AWT program to accept user's detail. **8**

**OR**

- c) What is JDBC? Explain JDBC Drivers in detail. **8**  
d) Write a program to demonstrate connectivity with MS-Access/Oracle. **8**

5. Attempt **all** the questions.  
a) What is Meant by Local Variable and Instance Variable? **4**  
b) What is package? Explain. **4**  
c) Define the term Linked Hash Map and Tree Map classes. **4**  
d) Define Container. Write down its various methods. **4**

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