

M.C.M. - II (CBCS Pattern) Semester-IV
PMCMT402 - Paper-II : Java Concepts

P. Pages : 2

Time : Three Hours



GUG/S/25/10779

Max. Marks : 80

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

Either :

1. a) Explain the key features of Java and its advantages over other programming languages. **8**
- b) Write a Java Program to find the largest among three numbers. **8**

OR

- c) Describe different control structures with example. **8**
- d) Write a Java program to create a class “Student” with roll number, sub1, sub2, and sub3 as data members. Include methods to get and print student details. **8**

Either :

2. a) Explain the concepts of data hiding and encapsulation in Java. **8**
- b) Write a Java program to create a class “Box” with width, height and length as data members. **8**

OR

- c) What is method overloading and method overriding in Java? Explain in detail. **8**
- d) Define and explain user Define package in detail. **8**

Either :

3. a) Explain types of exceptions in Java with suitable example. **8**
- b) Write a Java program to handle Arithmetic-Exception using try...catch. **8**

OR

- c) What is Multithreading? Explain thread life cycle in detail. **8**
- d) Write a Java program to create multiple threads using the Runnable interface. **8**

Either :

4. a) Explain the event delegation model in AWT. Also explain event sources and event handlers. **8**

- b) Write a Java program to create a simple AWT-based UI with a button and text field to display a message on button click. 8

OR

- c) What is serialization in Java? Explain its importance with an example. 8
- d) Write a Java program to read the contents and write the content. 8

5. Attempt all the questions.

- a) Write a short note on garbage collection. 4
- b) Discuss the significance of 'this' keyword in Java. 4
- c) What is thread synchronization? Why it is important in Multithreading. 4
- d) Write short note on layout manager in AWT? Name any four layout managers. 4
