

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-II Computer Science & Engineering AI & ML : WINTER: 2025
SUBJECT: OBJECT ORIENTED PROGRAMMING

Day : Tuesday
Date : 02/12/2025

W-27704-2025

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Assume suitable data **WHEREVER** necessary.
- 4) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 What are classes and objects in Java? Explain the concept of Encapsulation and Abstraction in java. (10)

OR

Q.1 Discuss different types of variables and data types in Java. Provide examples for each. (10)

Q.2 What are static variables and static methods in Java? How do they differ from instance variables and methods? Write a Java program to illustrate their use. (10)

OR

Q.2 What is constructor in java? Explain constructor overloading with suitable program. (10)

Q.3 Differentiate between array and Vector. Write a java program to display the transpose of user entered matrix. (10)

OR

Q.3 What are Strings in Java? Explain the difference between String and String Buffer with examples. (10)

Q.4 What are the types of Inheritance? Write a java program to demonstrate multilevel inheritance. (10)

OR

Q.4 What are interfaces in Java? How do you implement multiple interfaces in Java? Explain with an example. (10)

Q.5 Explain the thread lifecycle in Java with a diagram and example. (10)

OR

Q.5 What are the different ways to handle exceptions in java? Illustrate with an example. (10)

Q.6 Explain the Applet Life Cycle with a Program Demonstrating Applet Creation, Graphics Class, and Parameter Passing. (10)

OR

Q.6 Explain AWT. Write java program to create a registration form using AWT. (10)
