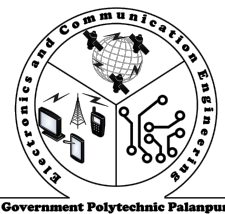




Government Polytechnic, Palanpur
Department of Electronics & Communication
Mid Semester Examination
Even 2025-26



Branch: ICT

Semester: 4

Subject Code: 4343203

Subject Name: Java Programming

Date: / /2026

Time: 11:30 AM to 12:45 PM

Total Marks: 30

Enrollment No: _____

Instructions:

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Use of non-programmable scientific calculator is permitted.

Question 1 (CO1) – Attempt any 2 questions: **Marks Level**

- | | | |
|--|---|---|
| a) Write a Java program to find the largest of three numbers using conditional operator. | 3 | A |
| b) Write a Java program to reverse the digits of a given number. | 3 | A |
| c) Write a Java program to generate and display the first n prime numbers. | 3 | A |

Question 2 (CO2) – Attempt any 2 questions: **Marks Level**

- | | | |
|--|---|---|
| a) Create a class Rectangle with instance variables height and width. Initialize using constructor and calculate area. | 3 | A |
| b) Demonstrate the use of 'static' and 'final' keywords in Java with an example program. | 3 | U |
| c) Create a class Student with instance variables enrollmentNo and name. Create 3 objects and display student details. | 3 | A |

Question 3 (CO3) – Attempt any 2 questions: **Marks Level**

- | | | |
|--|---|---|
| a) Write a Java program to demonstrate single and multilevel inheritance with appropriate example. | 3 | A |
| b) Create an abstract class Shape with abstract method area(). Create subclasses Triangle, Rectangle, and Circle. Override area() method in each subclass. | 3 | A |
| c) Create a user-defined package with classes and demonstrate its usage in another program. | 3 | A |

Question 4 (CO4) – Attempt any 2 questions: **Marks Level**

- | | | |
|---|---|---|
| a) Develop a user-defined exception for 'Divide by Zero' error and handle it appropriately. | 3 | A |
| b) Develop a Banking Application where user deposits Rs. 25000 and throws 'InsufficientFundsException' when balance becomes negative. | 3 | A |
| c) Write a program where two threads print even and odd numbers from 1 to 100 respectively. | 3 | A |

Question 5 (CO5) – Attempt any 2 questions:		Marks	Level
a)	Write a Java program to perform read and write operations on a text file.	3	A
b)	Create an ArrayList to store weekdays and a LinkedList to store months. Display both lists.	3	A
c)	Create a HashMap to store 5 students' data (enrollment number and name). Retrieve and display student name using enrollment number.	3	A

Course Outcomes:

CO CO Statement

CO1	Write simple java programs for a given problem statement.
CO2	Use object oriented programming concepts to solve real world problems.
CO3	Develop an object-oriented program using inheritance and package concepts.
CO4	Develop an object oriented program using multithreading and exception handling.
CO5	Develop an object-oriented program by using the files and collection framework.

Note: R=Remember, U=Understand, A=Apply and above (Revised Bloom's taxonomy)

All the Best
