

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV EXAMINATION – SUMMER 2025

Subject Code:3140705

Date:23-05-2025

Subject Name: Object Oriented Programming -I

Time: 10:30 AM TO 01:00 PM

Total Marks:70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

|     |  | MARKS |
|-----|--|-------|
| Q.1 | (a) Explain method overriding and method overloading in Java.  | 03    |
|     | (b) Demonstrates use of BufferedReader and the readLine() method.                                    | 04    |
|     | (c) Define and explain object and class in Java with appropriate example.                            | 07    |
| Q.2 | (a) What is constructor? What is its role? Explain various features/characteristics of constructors. | 03    |
|     | (b) What are different types of access modifier?   | 04    |
|     | (c) What is purpose of using methods? How do you declare a method? How do you invoke a method?       | 07    |
|     | OR   |       |
|     | (c) What is difference between final, finally and finalize.  | 07    |
| Q.3 | (a) What is super class?   | 03    |
|     | (b) Define interface in java.  | 04    |
|     | (c) Explain inheritance with example.  | 07    |
|     | OR   |       |
| Q.3 | (a) What is use of super keyword?  | 03    |
|     | (b) What is package concept and Describe the use of package.   | 04    |
|     | (c) Explain polymorphism with example.   | 07    |
| Q.4 | (a) Explain use of throw in exception handling with example.   | 03    |
|     | (b) Explain creation of different shapes in JAVA FX application?                                     | 04    |
|     | (c) Explain Generics classes with example.   | 07    |
|     | OR   |       |
| Q.4 | (a) Explain difference between throw and throws.   | 03    |
|     | (b) Write programs to deal with MouseEvents.   | 04    |
|     | (c) Explain Generics methods with example.   | 07    |
| Q.5 | (a) Demonstrate use of the Animation, PathTransition.  | 03    |
|     | (b) Describe the life cycle of a thread object.  | 04    |
|     | (c) Explain use of Linked List collection class with example.  | 07    |
|     | OR   |       |
| Q.5 | (a) Create a radio button using the RadioButton class and group radio buttons using a ToggleGroup.   | 03    |
|     | (b) Explain runnable interface.  | 04    |
|     | (c) Explain Sets with examples.  | 07    |

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