

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA INTEGRATED– SEMESTER III- EXAMINATION –SUMMER-2024**

**Subject Code: 2638601**

**Date: 21/05/2024**

**Subject Name: Object Oriented Programming in JAVA**

**Time: 02:30 PM TO 05:00 PM**

**Total Marks: 70**

**Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

- Q.1 (a) Explain following terms.(any seven) 07**
- 1) StringBuffer class
  - 2) Constructor
  - 3) Scanner class
  - 4) Method Overriding
  - 5) Inner Classes.
  - 6) Generic class
  - 7) Synchronized keyword
  - 8) Autoboxing
- (b) What is operator? Explain different types of operators in java. 07**
- Q.2 (a) Why Java is so popular? Explain Java Buzzwords 07**
- (b) Explain Initialize block and static initialize block with example. 07**
- OR**
- (b) Explain the difference between the variable of primitive data types and reference data type with java code. 07**
- Q.3 (a) Explain the uses of keyword "this" and "super" with code.. 07**
- (b) Explain abstract, final and public class modifier. 07**
- OR**
- Q.3 (a) What is Package? Explain the uses of the keywords "package" and "import". 07**
- (b) What is the class? Explain any one wrapper class with example. 07**
- Q.4 (a) What is Inheritance? Explain type of inheritance with example. 07**
- (b) Explain Abstract class. Give four differences: abstract class and interface. 07**
- OR**
- Q.4 (a) Explain the uses of keywords "throw", "throws", "try", "catch" and "finally 07**
- (b) Explain each of the following terms: Multiple Inheritance and Interface. 07**
- Q.5 (a) What is Thread? Write example to create multiple thread in Java. 07**
- (b) What is difference between Vector and ArrayList? Explain with example 07**
- OR**
- Q.5 (a) What is Thread? Explain thread life cycle. 07**
- (b) What is Character Stream Classes? Explain Reader and Writer class. 07**

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