

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED– SEMESTER III- EXAMINATION –WINTER-2023

Subject Code:2638601**Date: 04/12/2023****Subject Name: Object Oriented Programming in JAVA****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. Use of simple calculators and non-programmable scientific calculators are permitted.

- Q.1 (a) Do as directed. 07**
- 1) -----method is used to convert an ArrayList to an array.
 - 2) -----method return size of stringBuffer constructor.
 - 3) -----method is used to convert string to int type.
 - 4) ----- is a method which is work with garbage collection
 - 5) -----keyowrd is used to allocate memory of an object.
 - 6) What is the use of printStackTrace() method
 - 7) What is the use of sleep() method
- (b) What is the loop? Explain different type of loop with example. 07**
- Q.2 (a) What is Java? Explain any four features of Java. 07**
- (b) 1) Explain Integer class with example. 03**
- 2) Explain Class Loader in Java. 02**
- 3) Explain work of JVM. 02**
- OR**
- (b) 1) Why Java main () method is public, static and also has one argument? 03**
- 2) Why Java is Platform Independent. 02**
- 3) What is Boxing, Auto boxing and Unboxing? 02**
- Q.3 (a) Difference between static and instance variable with example. 07**
- (b) Explain Constructor with Constructor and Method Overloading with Example. 07**
- OR**
- Q.3 (a) If we are declaring variable, method, class as final. What will happen? Explain it. 07**
- (b) Explain String, StringBuffer? Also explain its method. 07**
- Q.4 (a) Explain Polymorphism and Encapsulation with example. 07**
- (b) What is an interface? How it is important in Java? Explain with example. 07**
- OR**
- Q.4 (a) Explain Comparable and Comparator Interface. 07**
- (b) What is an Exception? How to create your own exception? Explain with example. 07**
- Q.5 (a) What is Thread? How many ways thread can be created in java? Write down steps for creating thread. 07**
- (b) Write a note: List, Set and Map Collection. 07**
- OR**
- Q.5 (a) What is Generic class? How to create generic class and generic method. 07**
- (b) What is Stream? Explain different types of stream classes. 07**
