

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA– SEMESTER –III EXAMINATION –SUMMER-2019

Subject Code:4639302**Date: 17-05-2019****Subject Name: Object Oriented Programming in JAVA****Time:02.30 pm to 5.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Do As Directed : 07

1. _____ is the cosmic super class.
2. What do you understand by Functional interface?
3. null is a keyword in java. [T/F] (With reason)
4. It is not mandatory that a class must be abstract when a method is declared as abstract in java.[T/F] (With reason)
5. Static methods can be called with its 'this' reference. [T/F] (With reason)
6. The Constructors of enum type are always private.[T/F] (With reason)
7. What is the use of Varargs in java

(b) 1. Find errors (if any), solve errors and write code again. Also give the output of the program. 04

```
import java.util.*;
package p1;

public static void main(String ar[])
{
    int a=50, b=0;
    int c;
    try
    {
        c=a/b;
        System.out.println(c);
    }
    System.out.println("Hello");
    catch(Exception e)
    {
        System.out.println(e);
    }
    catch(ArithmeticException e)
    {
        System.out.println("Divide by Zero...." + e);
    }
}
```

2. What is difference between '==' and 'equals()'? Give appropriate example for the same. 03

Q.2	(a)	List and explain Java Buzzwords in detail.	07
	(b)	Explain Character Stream and Byte Stream. Also write program to copy content of one file to another file with using command line arguments.	07
OR			
	(b)	1. Explain initializer block and class initializer block in detail.	04
		2. Give difference between abstract class and interface.	03
Q.3	(a)	1. Explain the concept of thread synchronization in brief.	04
		2. Give difference between String and StringBuffer.	03
	(b)	What is multiple inheritance? How multiple inheritance is supported in java? Explain it with suitable example.	07
OR			
Q.3	(a)	1. Explain instanceof and bitwise operator in java by giving a suitable example.	04
		2. Give difference between Comparable and Comparator interfaces.	03
	(b)	Explain this, super and final keywords in detail with e.g.	07
Q.4	(a)	What is thread? Explain thread life cycle in detail with diagram.	07
	(b)	What is package? How to create and import packages in java? Explain it with suitable example	07
OR			
Q.4	(a)	What is exception? Explain exception handling mechanism with try, catch and finally blocks. Give Suitable example of custom exception.	07
	(b)	Explain enum type in java by giving a suitable example.	07
Q.5	(a)	What is lambda expression? How to create lambda expressions? Give advantages of Lambda expression. Also give a suitable example.	07
	(b)	What is JDBC? Explain types of driver available in JDBC. Write steps of JDBC and MySQL connectivity.	07
OR			
Q.5	(a)	What is generics? What is the use of generics? Also explain how to define generic class with suitable example.	07
	(b)	Explain top level nested class and local class in detail with e.g.	07
