

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2018****Subject Code:2150704****Date:11/12/2018****Subject Name:Object Oriented Programming using 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.

		MARKS
Q.1	(a) Define following. 1) Byte code 2) Java Virtual Machine 3) Unicode	03
	(b) Write a program which takes five numbers as command line argument from user, store them in one dimensional array and display count of negative numbers.	04
	(c) What do you mean by Interface? Compare interface and abstract class with suitable example.	07
Q.2	(a) When will you declare a method as a static? Explain static method with suitable example.	03
	(b) Explain inner class with example.	04
	(c) Explain following keywords of java with example. 1) final 2) finally	07
	OR	
	(c) Explain following keywords of java with example. 1) super 2) this	07
Q.3	(a) What is java collection framework? What are the benefits of the java collection framework?	03
	(b) What is Exception? Demonstrate how you can handle different types of exception separately.	04
	(c) What is dynamic method dispatch? Explain with suitable example.	07
	OR	
Q.3	(a) What is wrapper class? What is the use of wrapper class in Java?	03
	(b) What do you mean by Overloading? Explain constructor overloading with suitable example.	04
	(c) Explain following keywords with example 1) throw 2) throws	07
Q.4	(a) Write a program that reads file name from user, through command line argument and displays/reads content of the text file on console.	03
	(b) What is package? What are the requirements of it? What we can achieve using package?	04
	(c) What is multithreading? What are the ways in which you can create a thread? Explain with Example	07

Q.4 (a) Write a program that accepts name of website from user, and displays IP address of it on console. **03**

(b) What will be the output of following code snippet? **04**

```
(1)
class evaluate {
    public static void main(String args[])
    {
        int arr[] = new int[] {0 , 1, 2, 3, 4, 5, 6, 7, 8, 9};
        int n = 6;
        n = arr[arr[n] / 2];
        System.out.println(arr[n] / 2);
    }
}
```

```
(2)
class equality {
    int x;
    int y;
    boolean isequal()
    {
        return(x == y);
    }
}

class Output {
    public static void main(String args[])
    {
        equality obj = new equality();
        obj.x = 5;
        obj.y = 5;
        System.out.println(obj.isequal());
    }
}
```

(c) Explain use of following methods with suitable example **07**
 isAlive(), join(), setPriority().

Q.5 (a) What is use of fork and join in activity diagram? Explain with suitable example. **03**

(b) What is UML? Explain Class Model, State Model and Interaction Model in brief. **04**

(c) Draw class diagram of bank management system. **07**

OR

Q.5 (a) What is usefulness of sequence diagram? List components of it. **03**

(b) Explain generalization in class diagram with example. **04**

(c) Draw use case diagram for hotel management system. **07**
