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

Subject Code: 3630005   **Date: 24/12/2019**
Subject Name: Programming with 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.**

Q.1 **(a)** **Fill in the blanks :**   **07**
1. _____ is the base class of all classes in java.
2. _____ package is a default package in java.
3. _____ is known as father of java.
4. _____ block if present, is always executed irrespective of the Occurrence of exception.
5. To declare a variable as constant _____ keyword is useful.
6. In comapreTo() we have to pass _____ number of arguments.
7. When we declare class with final we can't _____ it.

(b) Define Thread. How different way thread is created in Java? Discuss the Thread life cycle **07**
with suitable example of java program code.

Q.2 **(a)** What is collection framework? Discuss generics in collection framework with suitable **07**
example.
(b) Give differences between Comparable and Comparator interface. Also give example. **07**
OR
(b) Distinguish between:
a) abstract class v/s interface   **03**
b) String v/s StringBuffer   **04**

Q.3 **(a)** Explain Character Stream and Byte Stream with suitable example. **07**
(b) Write a program to copy content of one file in another file. Pass both file names as command **07**
line argument.
OR
Q.3 **(a)** Discuss BufferedWriter and the BufferedReader class of java I/O with example. **07**
(b) Write a program to generate 10 random nos. and find its average and nos. more than avg. **07**

Q.4 **(a)** What is inheritance? Explain types of inheritance. Also explain how can "interface" concept **07**
eliminate code duplicity problem in java which is generated due to multiple inheritance?
(b) Explain various features of java in detail. **07**
OR
Q.4 **(a)** Explain the use of abstract and final with reference to variable, method and class with example **07**
(b) Explain exception handling mechanism in java using try, catch, throw, throws and finally with **07**
suitable example

Q.5 **(a)** Define package. State the steps to create and import a package. Also explain how to set classpath in **07**
detail
(b) Define custom exception. Differentiate between checked and unchecked exception (Reported **07**
and Unreported exception).
OR
Q.5 **(a)** Explain RandomAccessFile with suitable example **07**
(b) Explain Date class and Calendar class with suitable example **07**

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