Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

MCA - SEMESTER-III • EXAMINATION – WINTER 2016

Su	bject	t Code: 3630005 Date:06/01/2	017
Ti	me: 1 tructio 1. 2.	t Name: Programming with Java 10:30 am - 01:00 pm Total Marks ons:  Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	: 70
Q.1	(a)	Explain importance of Constructor. Discuss the overloading of methods and	07
	<b>(b)</b>	constructors with suitable java program code.  What are the difference between static variable, static method and instance variable, non-static method? Explain with java program.	07
Q.2	(a)	What are the access specifiers available in Java? Explain each of them and state which of these can be applied to members of a class and which can be applied to members of a package.	07
	<b>(b)</b>	What is Object class? Explain the hashCode(), equals() and toString() methods of Object class with example.	07
	<b>(b)</b>	OR Describe methods of String, StringBuffer and StringBuilder classes with example.	07
Q.3	(a) (b)	Explain enum type with example of java program code. What is the difference between runtime errors and compile time errors? Explain using suitable example. Give the hierarchy of Exception. Also explain checked and unchecked exceptions.	07 07
		OR	
Q.3	(a)	Differentiate Comparable and Comparator interfaces. Also give appropriate example.	e <b>07</b>
	<b>(b)</b>	Describe the process of creating and using user defined package in java. Give Example.	e <b>07</b>
Q.4	(a) (b)	What is collection framework? Discuss Map interface with example. Explain constructors and methods of formatter and scanner class with example.	07 07
Q.4	(a)	OR Explain File Class. When we are using "FilenameFilter" interface in	07
	<b>(b)</b>	application? Explain with code. What is Thread? How thread is created in Java? Explain with example.	07
Q.5	(a) (b)	List all wrapper classes and explain any two.  Discuss FileOutputStream and FileInputStream class of java I/O with example.  OR	07 07
Q.5	(a) (b)	Discuss BufferedWriter and the BufferedReader class of java I/O with example. Write a program that copies all the content from one file to another. Pass the file names using command line argument.	

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