Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY MCA - SEMESTER- III • EXAMINATION - WINTER 2016

•		Code:630002 Date:09/01/Name: FUNDAMENTALS OF JAVA PROGAMING	2017
•	e:10.	30 AM TO 01.00 PM Total Mark	ks: 70
	1. 2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	State which of the following are true or false. Justify your answer i) JAVA is one platform. ii) Applets are deployed on client machine. iii) The main method of a JAVA application is written inside a class. iv) The command used to compile JAVA source files is jcompile. v) goto can be used to jump to a statement in JAVA. vi) instanceof is a keyword in JAVA. vii) Static variable cannot be modified.	07
	(b)	i) What is the difference between instance method and class method?ii) What is the difference between Instance Initializer block and Class Initializer block?	04 03
Q.2	(a)		03 04
	(b)	i) Explain the uses of keywords "extends", "super" and "final".ii) What is meant by variable shadowing. Explain with example.	04 03
		OR	
	(b)	i) How method overriding will be achieved in Java application? Explain with code.ii) What is the difference between abstract class and interface?	03 04
Q.3	(a)	i) Explain the purpose of equals() method in Object class.ii) Explain the uses of the keywords "package" and "import".iii) Explain the boxing and unboxing conversions.	03 02 02
	(b)	i) Explain the difference between Comparable and the Comparator interfaces.ii) Differentiate between throw and throws keyword.	05 02
		O.D.	
Q.3	(a)	i) What is enum type in Java? Explain with code.ii) Explain Top-level nested class using Java code.	04 03
	(b)	i) In which package Pattern and Matcher classes belong?ii) Explain Pattern, Matcher class briefly with java code.iii) What is the role of Scanner class?	01 04 02

Q.4	(a)	ii) Write the Java code segment for listing files with size less than 1024	03 04
	(b)	bytes. i) Explain the two different ways of creating a new thread of execution.	05
	(D)	Justify your answer with java code.	US
		ii) Which class has method sleep(long millis)? How sleep() method will be called in Java program?	02
		OR	
Q.4	(a)		05 02
Q.4	(b)	i) Explain the event delegation model used for handling events in JAVA.ii) Explain ObjectInputStream and ObjectOutputStream.	05 02
Q.5	(a)	i) List the life-cycle methods of an Applet.ii) What is annotation?	05 02
	(b)	i)Write an application to create two threads. One thread displays odd numbers and another thread displays even numbers upto 10 and also displays its' name.	05
		ii)What are the role of hasMoreElements() and nextElement() of Enumeration Interface of java.util package.	02
o =		OR	^ -
Q.5	(a)	i) Write an application to create a frame. Frame contains two buttons and one text box. Two buttons have labels "GTU", "MCA" respectively. When a button is clicked, its' label will be displayed into textbox.	05
		ii) Why main() method in Java class is declared as static?	02
	(b)	i) What is Applet? What is the difference between Applet and Frame in Java application.	05
		ii) What are the adapter classes.	02
