Seat No.:	Enrolment No.

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

	•		:2630002 Date:09/01/ 20 e: FUNDAMENTALS OF JAVA PROGAMING (JAVA)	17
	-		M TO 01.00 PM Total Marks:	<b>70</b>
Ins	tructio	ns:		
			npt all questions.	
			suitable assumptions wherever necessary.	
	3.	Figur	es to the right indicate full marks.	
Q.1	(a)	1	What are the features of java programming language?	02
Ų.1	(a)		What is an abstract class? What is its need?	02
			What is the purpose of finalize () method?	02
			How would you define a group of constants that will be used by many	02
		4.	classes?	UI
	<b>(b)</b>	Whati	is the purpose of following java keywords?	07
	(0)		atic, super, final, synchronized, throws, enum	07
		uns, su	atic, super, finar, synchronized, throws, endin	
<b>Q.2</b>	(a)	1.	Can an interface reference variable refer to an object which implements	03
			that interface? When would you like to do it? Explain with an example.	
		2.		04
			Explain with example code.	
	<b>(b)</b>		How does Java support the use of irregular array?	02
		2.	What are the three methods using which a running thread may be	02
			brought to suspended state?	
		3.	What will be printed out if this code is run with the following command	03
			line?	
			java myprog good morning	
			public class myprog{	
			<pre>public static void main(String argv[])</pre>	
			{	
			System.out.println(argv[2]);	
			}	
			}	
			a) myprog	
			b) good	
			c) morning	
			d) Exception raised: "java.lang.ArrayIndexOutOfBoundsException: 2"	
			OR	
	<b>(b)</b>	1.	What are the daemon threads?	02
	(0)		What is Serializable? When it is used?	02
			What is the output of following code?	03
		٥.	String s1 = "Welcome to Java";	00
			String $s1 = \text{welcome to Java}$ , String $s2 = \text{s1.replace}(\text{"to","2"})$ ;	
			System.out.println(s1); System.out.println(s2);	
			a) Compile time error	
			b) Compiles but gives run time error	
			c) prints "Welcome to Java"	
			d) prints "Welcome 2 Java"	
			a, printo in ciconic 2 dana	

Q.3	(a)	1. What is constructor? Explain the use of parameterized constructor with suitable example.	03
		<ol> <li>What do you mean by dynamic method dispatching? Explain it by giving an example.</li> </ol>	04
	<b>(b)</b>	1. Which keywords are used to handle exceptions? Write a java program to explain the use of "throw" keyword.	03
		2. What do you mean by customized exception? Explain it with an example.	04
		OR	
Q.3	(a)	1. Which is the super class of every class in java? List out its important methods and explain any one of them.	03
		2. What are the different access specifiers? Write a java program to demonstrate these.	04
	<b>(b)</b>	<ol> <li>What are checked and unchecked exceptions? Give examples of each.</li> <li>Write a java program which generates an exception if negative number is given as an argument to method being called.</li> </ol>	03 04
Q.4	(a)	<ol> <li>What are the wrapper classes? Explain the use of it by giving an example.</li> <li>What is the purpose of "Pattern" and "Matcher" classes? List out their</li> </ol>	03 04
		important methods.	
	<b>(b)</b>	Write a java program that stores ten integer values in the file. Program should read these values from file and find largest value among them.  OR	07
Q.4	(a)	<ol> <li>Differentiate "Comparable" interface with "Comparator".</li> <li>List out the important methods of "Collection" and "Iterator "interface.</li> </ol>	03 04
	(b)	Write a java program to search the file named the word entered as a filename from command line; if it exists in the system then program should print the content of a file on console.	07
Q.5	(a)	<ol> <li>Differentiate "AWT" with "SWING" components.</li> <li>What is an Applet? List out and explain life cycle methods of it.</li> </ol>	03 04
	(b)		07
Q.5	(a)	1. What is MVC? Are Swing components based on MVC? Justify your	03
<b>~</b>	(4)	answer.  2. What are the adapter classes? Explain the use of it with an example.	04
	<b>(b)</b>	What do you mean by event- handling? Write a Java program to demonstrate Mouse events.	07

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