Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – WINTER • 2014

Subject Code: 150704 **Date: 01-12-2014**

Subject Name: Object Oriented Programming with Java

Time: 10.30 am - 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)** Describe the following features of java: **07**
1)Multithreaded,2)Architecture-neutral 3)Interpreted 4)High performance
5) Distributed 6) Portable 7) Dynamic

(b) Differentiate between Method overloading and method overriding with example. **07**

Q.2 **(a)** Explain the followings with example **07**
Dynamic Method Dispatch , this, super, final

(b) Write a program to demonstrate the multipath inheritance for the classes having relations as shown in figure 1. **07**

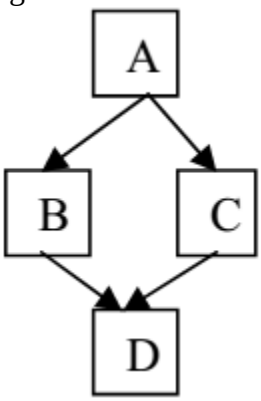

Figure 1

OR

(b) Write a program that illustrates interface inheritance. Interface A is extended by A1 and A2. Interface A12 inherits from both P1 and P2.Each interface declares one constant and one method. Class B implements A12.Instantiate B and invoke each of its methods. Each method displays one of the constants **07**

Q.3 **(a)** What are the benefits of using generic types? **03**

(b) Differentiate between abstract class and interface. **04**

(c) Discuss public, private, protected and default access modifier with example. **07**

OR

Q.3 **(a)** What is collection in Java? Differentiate between Vector and Array List. **07**

(b) Justify statement. **07**

(i) JVM is platform dependent.
(ii) There is no destructor in Java.

Q.4	**(a)**	Write a simple GUI application that traces the user's action such Keyboard action.	**07**
	(b)	Write a program to replace all "word1" by "word2" from a file1, and output is written to file2 file and display the no. of replacement.	**07**

OR

Q.4	**(a)**	Create an applet which has a Text Field to accept a URL string, and displays the document of the URL string in a new browser window.	**07**
	(b)	Differentiate String class and StringBuffer class with explanation of its methods.	**07**
Q.5	**(a)**	Write a program to create two threads, one thread will print odd numbers and second thread will print even numbers between 1 to 20 numbers.	**07**
	(b)	Write a program that counts number of characters, words, and lines in a file. Use exceptions to check whether the file that is read exists or not.	**07**

OR

Q.5	**(a)**	Explain the following terms with respect to exception handling. i) try ii) catch iii) throw iv) finally	**07**
	(b)	What is a thread? Describe the complete life cycle of thread with example.	**07**

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