

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**

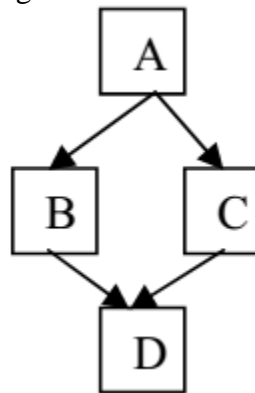


Figure 1

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 as 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. **07**
i) try ii) catch iii) throw iv) finally
- (b) What is a thread? Describe the complete life cycle of thread with example. **07**
