

# 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**

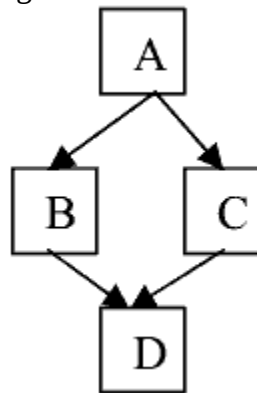


Figure 1

**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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