



**DHARMSINH DESAI UNIVERSITY, NADIAD**  
**FACULTY OF TECHNOLOGY**  
**THIRD SESSIONAL**  
**SUBJECT: (IT 616) CORE JAVA TECHNOLOGY**

**Examination : B.TECH - Semester - VI**  
**Date : 29/03/2014**  
**Time : 12:45 to 2:00**

**Seat No. :**  
**Day : Saturday**  
**Max. Marks : 36**

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**INSTRUCTIONS:**

1. Figures to the right indicate maximum marks for that question.
  2. The symbols used carry their usual meanings.
  3. Assume suitable data, if required & mention them clearly.
  4. Draw neat sketches wherever necessary.
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**Q.1 Do as directed.**

- (a) What is a Socket in context of networking? [2]
- (b) Suppose MyThread extends java.lang.Thread and MyRunnable implements java.lang.Runnable. Both classes have no-argument constructor. Which of the following cause a thread in the JVM to begin execution? [2]
  1. (new MyThread()).start();
  2. (new MyRunnable()).run();
  3. (new Thread(new MyRunnable())).start();
  4. (new MyThread()).run();
- (c) List methods used in InterThread Communication. [2]
- (d) What is the basic purpose of DataStreams ? [2]
- (e) What are the differences between server socket and client socket? [2]
- (f) Write a code for reading String data using BufferedReader class. [2]

**Q.2 Attempt *ANY TWO* from the following questions. [12]**

- (a) Explain the life cycle of a thread. Explain different ways for creating Thread. [6]
- (b) Write programs for client-server application, in which client gets the integer value (number) from user/console and sends it to server. Server calculates the area of circle for that number and sends result back to client. Client displays area of circle for entered number. [6]
- (c) Write a program that takes input for filename and search word from command line arguments and checks whether that file exists or not. If exists, the program will display those lines from a file that contains given search word. [6]

**Q.3 Attempt the following questions.**

- (a) Write a program to simulate moving banner applet. Banner moves from left to right or right to left on pressing button ">>" and "<<" respectively. [6]
- (b) Write a program to read the contents of a file into a character array and write it into another file. Get names of both the files from the user through standard input. [6]

**OR**

**Q.3 Attempt the following questions.**

- (a) Write a client/server application. The client provides the file name to server, server opens and retrieves file content and send it to client. [6]
- (b) What is synchronization? Explain how java provides synchronization. Explain how access to an object is synchronized in java with example. [6]