

Term End Examination - May 2013

Course : ITE311 - Network Programming Slot: G2+TG2

Class NBR : 3002 / 3003

Time : Three Hours Max.Marks:100

PART - A (8 X 5 = 40 Marks) Answer ALL Questions

- 1. Write short notes on IP and its popular versions.
- 2. Explain the following methods of the URI class with an example.
 - a) Resolve(URI uriobj) [1.5]
 - b) Resolve(String str) [1.5]
 - c) Relativize(URI uriobj) [2]
- 3. Write a Java program for Chat application using TCP socket in which Server broadcasts the chat message to all its clients.
- 4. List the sequence of steps involved in reading data using URLConnection class.
- 5. List and explain the FIVE attributes of the JavaMail API.
- 6. Write a Java program to access the contents of http://www.vit.ac.in through the proxy server whose host name is myproxy.com and is running on port 8080 using the system properties from within the program.
- 7. a) Write a Java client program using TCP socket such that the client program waits [2.5] for 5000 ms to receive any pending data from the server after the client socket is closed.
 - b) Write a Java program to print the name of the NetworkInterface which is available [2.5] in the localhost.
- 8. a) Write a Java client program to print the address of the host to which the TCP client [2.5] socket is bounded. The client is connected to remote server using TCP socket.
 - b) Write a Java client program using TCP sockets to establish a connection from client [2.5] to server i.e., client can only send the data to server and cannot receive data from server.

PART - B (6 X 10 = 60 Marks) Answer any <u>SIX</u> Questions

- 9. Explain the TCP/IP protocol suite with necessary diagrams.
- 10. Explain in detail the interoperability issues between IPv4 and IPv6 networks.
- 11. Explain in detail about accessing the contents of a password protected URL with a simple example.
- 12. Explain about the various categories of methods provided by Java ServerSocket class.
- 13. Explain about the various categories of methods provided by Java DatagramPacket class.
- 14. Explain the steps involved in sending and receiving an email.
- 15. Write a Java RMI program in which Client sends the temperature (in Celsius) to server, Server converts it to Fahrenheit and returns it back to client, Client displays the temperature (in Fahrenheit).

$$F = (C*9/5)+32$$

Write a Java program to broadcast data from a host to other hosts using Java UDP DatagramChannel class.

