VIT UNIVERSITY
(Estd. u/s 3 of UGC Act 1956)
Vellore - 632 014, Tamil Nadu, India.

School of Information Technology and Engineering

Fall-2015

M.S Software Engineering – V Semester

SWE 309 Computer Networks Lab

Cycle sheet-1

1.Study and test the functionality of basic networking commands in the laboratory.

A.) PING

i) What is the IP address of www.vit.ac.in ?

ii) Check whether TCP/IP is properly installed and functioning in your system.

iii) Indicate what percentage of packets sent resulted in a successful response. For the packets from which you received a response, write down the minimum, average and maximum round trip times in milliseconds.

iv) Increase or Decrease the Time Interval between Packets. Write the response.

v) Send 6 packets .Indicate what percentage of the packets resulted in a successful response.

vi) Print Only Ping Command Summary Statistics.

vii) Change Ping Packet Size of 512, 1024 bytes of data. Write the response.

viii) Execute the Timeout option for 5 seconds.

ix) Write the current version of ping program.

x) For some of the hosts, you may not have received any responses for the packets you have sent. What are the reasons for not getting a response?

B.) IFCONFIG

i) What is the MAC address of the network interface card of your system?

ii) What is the IP address of your system?

iii) Find out all the network interfaces connected to your system.

iv) Display the Network Settings of Specific Interface.

C.) HOSTNAME

i) Find the name of your system?

ii) What is the significance of the name?

D.) NETSTAT

i) List Various Listening Ports.

ii) List TCP Ports connections

iii) List UDP Ports connections

iv) List all the LISTENING Connections

v) Find the statistics of all protocols.

vi) Display Kernel IP routing table.

vii) Show the Kernel interface table, similar to ifconfig command.

viii) By simply opening a browser connection to HTTP (port 80) server (while still offline!) what will be status of ***netstat*** command?

ix) Display Service name with PID

E.) TRACEROUTE or TRACERT

i) Write the function of this command.

F.) NSLOOKUP

i) What is the IP address and name of the machine www.google.com?

G.) ARP

i) How do you show the full ARP table for your machine? Capture a printout of what it is. Explain each column of what is printed.

2) Write a Java program to run the basic networking commands.

3) Write a program to display the name of the computer and its IP address that you are currently working on.

4) Write a program to print the IP address of “www.google.com” all IP addresses of “www.microsoft.com”.

5) Write a program to print all Network Interfaces of “localhost”.

6) Implement the simple version of “nslookup” utility.

7) Write a program to download the contents associated with a HTTP URL and save it in a file.

8) Write a program to list all ports hosting a TCP server in a specified host and identify available servers in well-known ports?

9) Write a program to display the server’s date and time details at the both client and server end.

10) Write a program to implement a simple message transfer from client to server process using TCP/IP.

11)Write a program to implement a text based message transfer from client to server process using UDP.