Q.1. What is the perquisite for installing NS3?

Ans

1) ns-3.tar file

2) g++ compiler

3) python

4) ./build or ./waf to build the simulation

Q.2. What is the use of options –xvf?

-x extract

-v verbose

-f specifies the archive file name

Q.3. Give command to install c++ and python

Ans : sudo apt –get install g++ python

Q.4. What is role of NetAnim in NS3?

Ans: NetAnim is a tool to visualization of network simulation done in NS3 using xml trace file.

Q.5. Give command to build and test NS3 installation.

Ans: ./build.py –enable-examples –enable-tests

./test/py

Q.6. Give list of any five modules in NS3

Ans a)Point-To-Point Layout Module, Core Module, Netanim Module,csma-layout Module, Mobility Module, Wifi Module

Q.7. List the Components of NS3 Architecture

Ans : STL –Standard Template Libraries

Core-for timers, random number generators

Model – All network Related code

Q.8. What is a node in NS3?

Ans A node is a husk of computer to which Application stacks and NICs are added

Q.9. Which layers are used in node

Ans 1) Data link layer – NetDevive container

2) Network Layer – Internet Stack

3) Transport Layer – TCP/UPD Server client

4) Application Layer – ServerApps, ClientApps

Q.9. Give structure of program in NS3
Ans a) Include necessary header files
b) use ns3 workspace
c) Enable log to your program
d) Main function
e) Enable log to your applications
f) create nodes
g) create channels and set its attributes
h) create NIC
i) Assign IP addresses
j) Create Server and client Apps
k) Run simulator

Q.10. What is IPV4 address, network address and subnet mask

Q.11. Which attributes can you set in client server communication in ns3 program?
Ans MaxPackets
Interval
PacketSize
Data Rate
Delay
Q.12. Which header files needs to be included for NetAnim animation?
Ans netanim-module.h and mobility-module.h

Q.13. What is mobility model used for fixed node network animation?
Ans ConsantPositionMobilityModel

Q.14. What is Point-To-Point protocol?
Ans
A Point to Point Connection is a private data connection securely connecting two or more locations for private data services.

Characteristics of Point to Point Protocol.

PPP resides at the layer two of the OSI model. This protocol supports other essentials such as authentication, error detection, link quality monitoring, load balancing, compression, etc.

Q15. What will happen if the client starts first then the server?

Ans If there is no server running, there is nothing for it to connect tohence clientwould be in idle state.

Q.16. What is difference between star topology and bus topology?

Q.17. What is DHCP?

Q.18. What is Wireshark?

Ans Wireshark is a network protocol analyser that captures packets from network connection.

Q.19. How does Wireshark work?

Ans When you open Wireshark, you see a screen that shows a list of all network connections you can monitor. Click on shark fin on the tool bar to capture all packets of a particular network. You can filter the packets based on protocol, ip address

Q.20. Which real time network protocols can be implemented in ns3?

Ans UDP,FTP,TCP,DHCP

Q.21. Give difference between TCP and UDP

Q.22 Give difference between IPv4 and IPv6

Q.23. Give tool for plotting graph

Ans :GNUPLOT or pyviz