Reference questions for CNS viva

* ISO-OSI reference model, TCP/IP protocol suite and comparison between the two.
* Functions of each layer
* Devices used at each layer (basic working of a hub, switch, bridge, router)
* Information about PICT campus network
* IP addressing in DETAIL (Classful & Classless)
* MAC address, port address
* Public and private networks, NAT
* CSMA/CD and CSMA/CA in detail.
* IP header with field description
* TCP header with field description
* UDP header
* Socket address
* Classification of networking ports with range and usages
* Well known port numbers for standard application layer protocols
* Explanation of the demonstrations during the lab

Experiment 1

1. What is NIC?

2. Give some applications of the different types of UTP-CAT

3. Explain straight cable

4. Explain crossover cable

5. Explain star topology

6. Explain ring topology

7. Explain bus topology

8. State the four generations of ethernet

9. What are the functions of LLC

10. What is the advantage of FDSE over CSMA/CD

Experiment 2

1. Explain in brief about file transfer protocol?

2. What is anonymous FTP?

3. Features of Bison FTP server

4. Explain FTP site

5. Which port is opened by the server for client connections

6. What is archive

7. What is the most common use of ftp

8. At which layer of tcp ip ftp works

9. What access options does the user have while using the bison ftp server

10. Advantages of FTP over TCP/IP

Experiment 3: Telnet server

1. What is Telnet?

2. When was Telnet developed and standardized?

3. Access to what interface is provided on a remote host?

4. What is the more secure alternative to Telnet and what is its full form?

5. Which TCP port no. does Telnet establishes a connection to?

6. State some features of BFTelnet software?

7. What command is used to view all commands and their functions in BFTelnet?

8. State some commands and their functions in BFTelnet.

9. Is Telnet connection oriented? What protocol does it use?

10. What are some differences between Telnet and SSH?

Experiment 4: Web Server

1. what is a web server?

2. what is full form of http?

3. what is a web service?

4. list some features of web servers.

5. what is bandwidth throttling?

6. what is abyss web server.

7. give some other examples of web servers

8. explain how you will install and configure abyss

9. explain how you will set up a website using abyss

10. explain how a website loads and how DNS works.

Experiment 5: DHCP Server

1. What is the full form of DHCP?

2. What is the basic function of DHCP and what basic information does the DHCP server provide the client?

3. What configuration information does DHCP server database include?

4. What are some of the benefits of DHCP?

5. State the names of four phases of DHCP operations?

6. What is DORA?

7. When does a DHCP enabled client follow the lease Process?

8. Name the steps involved in the DHCP Lease Process.

9. What does the IP pool option of DHCP server configuration denote?

10. Which command is used to practically observe what IP address is allocated to a client by DHCP server?

Experiment 6

1. What is network protocol analyzer?

2. For what can we use network protocol analyser?

3. What is wireshark?

4. Technical features of Wireshark?

5. What is difference between UNIX and windows?

6. Features of wireshark?

7. Wire shark is used for?

8. What is IEEE 802.11?

9. What is Token-Ring?