**Assignment:1**

**Make a figure anywhere possible.**

1. What is Networking? Describe in brief about necessity of networking for connecting you home computer with the server located at Cloud Himalayan.

2. What is FQDN? Describe about different hierarchy in FQDN.

3. Differentiate between Router, Switch, Hub, Gateway and Repeater. (The description should include the layer they will be used, protocol compatible, functionalities, attributes, characteristics and so on.)

4. What are different types of network architecture? Explain in terms of you home network and your college network.

5. What are different types of network topology? Give a use case for each network topology. 6. What different types of network? Explain with figure.

7. Differentiate between client server and peer-peer network.

8. Explain OSI reference model with each layer protocol used.

9. What is TCP/IP? Explain its different layer in brief.

10. Differentiate between OSI and TCP/IP reference model.

11. Differentiate between TCP and UDP.

12. Explain TCP segment and UDP Datagrams in brief.

13. Why is TCP considered to be more advantageous that UDP?

14. What is IP and IP addressing?

15. Write in brief about IP and its types.

16. Explain the term unicast, broadcast, multicast, any cast, full duplex, half duplex and simplex. Give an example for each.

17. What is sub netting? Explain with example.

18. What is subnet mask? Give its class with use case for each.

19. Why do we need sub netting? Distribute class C IP address as per the department. (HR-100pc, Marketing-19pc, Front Desk-6pc, IT-200pc and Finance-60pc)

20. What is class full and classless IP addressing? Explain with example.

21. Differentiate between IPv4 and IPv6?

22. What is physical and logical addressing? Explain.

23. What is the use of CIDR? Explain.

24. Enlist at least 20 different protocols and explain their use with default ports. 25. What is port and Socket addressing?

26. Explain different types of ports and list some commonly used ports.

What is SNMP? Explain..What is Dual Stack? Describe with figure.How is Tunneling used for communication between different version of IP?Differentiate between IPv6 and IPv4 in relation to headers.

Please complete the questions and submit.