

Subject: DCN (17430) Class: IF4G

Chapter no: 1

1. Describe component of data communication and explain characteristics of data communication? 4M
2. Define protocol, protocol standards organization. 4M
3. Describe standard organization with their types. 3M
4. Describe bandwidth of signal, and bandwidth of medium. 4M
5. Explain data transmission rate and bit rate, baud rate. 3M
6. Compare digital signal and analog signal 3M
7. Describe the concept of modem. 4M
8. Explain use of modem in transmission. 3M
9. Describe Parallel transmission in details. 4M
10. Describe the Serial communication and their types. 4M
11. Describe half duplex and full duplex communication 3M
12. Compare FDM and TDM. 3M

Chapter no: 2

13. Describe transmission impairment (classification of errors). 4M
14. Explain single bit error and burst bit error. 3M
15. Describe VRC with example 3M
16. Describe CRC error detection technique with suitable example. 4M
17. Describe Star topology with neat diagram and advantages and disadvantages. 3M
18. Describe mesh topology with neat diagram and list its advantages and disadvantages. 3M
19. Describe Bluetooth technology with neat diagram. 4M
20. Describe Piconet with neat diagram. 3M
21. Explain twisted pair cable with their types. 4M
22. Describe the fiber optic cable with their advantages and disadvantages. 4M

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Chapter-3:

[4 Marks]

1. Compare Ethernet, Token-ring and FDDI?
2. Explain DQDB in detail?
3. Explain OSI model in detail?
4. Compare LAN, MAN, WAN?
5. 2. Explain Different Devices in OSI model with their respective position in OSI model?
6. 4. Explain FDDI structure in detail?
7. 7. Explain network layer functions in details?
8. How router is important in internetworking?

Chapter-4:

[4 Marks]

1. Explain various board level issues in Internetworking?
2. Describe Internet Topology with help of diagram?
3. Explain internal structure of ISP in detail?
4. Briefly describe cable modem?

5. [3 Marks]

6. Explain the working of Gateway with the help of diagram?
7. 14. List out various internetworking devices?
8. 15. Explain Dial-up access for individual user?

Chapter-5:

[4 Marks]

1. Explain TCP/IP layers in detail?
2. Draw the Comparative diagram of TCP/IP and OSI model?
3. Why IP address is necessary and Explain different IP classes in detail?
4. Give IP Datagram Format?

5. [3 Marks]

6. Explain ARP in details?
7. Explain RARP details?
8. Explain FTP with example?
9. Explain TCP packet format in details?
10. Explain UDP packet format in details?
11. Compare TCP and UDP?
12. Explain TFTP in details?
13. Compare FTP and TFTP?