Unit 1(Questions) :

1.Explain the components of data communication with diagram.

2.explain the way in which data is represented

3.Explain the characteristics of data communication.

4.explain the data flow with its types

5.explain types of connection.

6.Write short note on mesh topology

7.Explain star topology.

8.Explain bus topology.

9.Explain ring topology.

10.Write short note of Network layer.

11.Difference between digital and analog data/signals.

12.Write short note on sine waves.

13.Write short note on transmission impairment

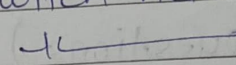14.Differentiate between TCP and UDP

* ARP (pg. 245) IMP

* pg 513

Unit II (Questions)   (submission date = 24/02/24)

15/02/24

Q.1) Write a short note on Unipolar Schemes.

Q.2 Write short note on NRZ and RZ in Polar Schemes.

Q.3 Write short note on manchester and differential manchester / biphase. / polar schemes.

Q.4 Explain the bipolar line coding scheme / AMI and pseudoternary.

Q.5 Write a note on analog to digital conversion or Explain pulse code modulation.

Q.6 Write short note on Delta Modulation.

Q.7 Which are the different transmission modes.

Q.8 Which are the different Digital to analog conversion techniques.
or Write S.N. on ASK / FSK / PSK.

Q.9 Which are the different analog to analog conversion techniques.

Q.10 Write short note on multiplexing and explain any one category of multiplexing.

Q.11 or Write short note on FDM / WDM / TDM.

Q.11 Write short note on inter-leaving

Q.12 Which are the different data rate management techniques

Q.13 Write short note on:
  1) Twisted pair cable.
  2) Coaxial cable.
  3) Fiber-optic cable
  4) Radio-waves.   } also write outline
  5) Micro-waves IMP

Q.14 Differentiate betⁿ circuit switching & packet switching network

Q 15 Short note : 1) Circuit switch network
                      2) Packet 4
                      3) virtual circuit network

Q.16 Short note on ARP

Unit 3

Q.1 Write note on ALOHA protocol (pure and slotted)
Q.2 Write short note on CSMA
Q.3 Explain the persistent methods.
Q.4 Write shorte note on i) CSMA/CD
                              2) CSMA/CA
Q.5 Which are the different controlled access methods
Q.6 Write short note: 1) FDMA
                          2) TDMA
                          3) CDMA
                          4) link-layer switches
                          5) Transparent switches
                          6) Hub
                          7) Spanning tree algorithm.
Q.7 Explain the services provided by Network layer
Q.8 Explain IPV4 addresses
Q.9 Write short note on classfull addressing.
Q.10 Explain concept of least cost routing
Q.11 Explain distance vector routing with eg.
Q.12 Explain link state routing with eg.
Q.13 Explain Dijstra algo. with eg.
Q.14 Explain path vector routing with ed eg.

Q.15 Explain the services provided by transport layer.

Q.16 Explain the concept of sliding window

Q.17 Explain the concept of connect^n less and connect^n -

Q.18 oriented protocol

Q.19 Short note   User datagram

Q.20 Explain the services of UDP

Q.21 Explain the UDP applications

Q.22 List and explain TCP services.

Q.23 Explain TCP segment format

Q.24 Diff. bet^n TCP & UDP.