

BCA (H) 2nd Semester Examination 2022

Subject: Computer Application

Paper Name: Computer Network

Paper Code: BCA – 204

Time: 4 Hours

Full Marks: 80

Answer Question No. 1 and any four from rest.

1. Answer any eight questions. 8X2=16
 - a. Define Computer Network.
 - b. What is the drawback of Mesh Topology?
 - c. Write differences between connection less and connection-oriented service.
 - d. Define Packet Switching.
 - e. What is bit rate?
 - f. What do you mean by synchronous transmission?
 - g. Write the difference between MAN and WAN.
 - h. Define Collision.
 - i. What is Hub.
 - j. Write the function of router.
 - k. Define full duplex communication.
 - l. What do you mean by protocol.

2.
 - a. What are the differences between guided and unguided media. Write the transmission characteristics of co-axial cable and microwave.
 - b. If a signal with two states is sent over 4KHz noiseless channel the what is maximum data rate.
 - c. Define topology. Discuss in brief Ring and Tree Topology. 2+6+3+1+4

3.
 - a. Write the functions of session and presentation layer of OSI Model.
 - b. Discuss CSMA/CD protocol for 802.3 LAN.
 - c. Differentiate between Broadband, baseband and base LAN.
 - d. Explain Distributed Network. 4+6+3+3

4. a. What do you mean by Bit Oriented Protocol? Give Example.
b. Discuss the frame format of HDLC protocol.
c. Explain packet switching technique. 2+9+5
5. a. Sketch the NRZ, NRZ-L and Manchester encoding for string 11001010.
b. Discuss MAC protocol of Ethernet LAN.
c. Write short note on Token Ring LAN. 6+5+5
6. a. Discuss in brief QPSK, FSK and ASK.
b. Explain Hamming Code Algorithm for error detection and correction. Using Hamming code algorithm generate code for the bit string 1110101 6+10
7. Write short note on (Any Two) 2X8=16
- a. X.25
 - b. Optical Fiber
 - c. TCP/IP
 - d. TDM and FDM