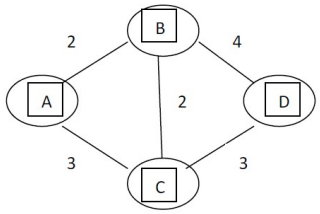
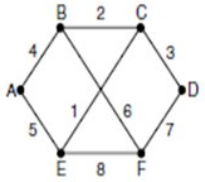
3rd Internal Examination of MSc. (CS/IT) 2nd Semester 2023
Paper: Data Communication and Computer Networks
Paper Code: CSC2016/INF2016
Full Marks: 25
Time: One and half hour

1. For the following network, calculate the routing table for router A using distance vector routing algorithm. 4



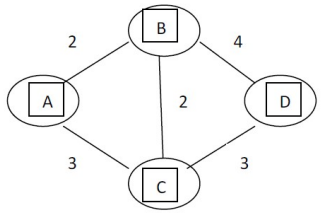
2. Describe the features of Link State routing algorithm. Create Link State packet for nodes A, B, C, D, E and F of the following network- 2+2=4



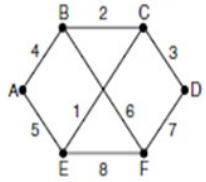
3. Write the difference between Leaky bucket and Token bucket algorithm. 2
4. Describe IPV_4 header format. 4
5. Calculate number of networks and hosts available for Class B of IP classes. 1
6. Define the following terms in terms of TCP protocol- 3
   Byte number, Sequence number, Acknowledgement number
7. Describe the TCP connection establishment process. 3
8. What are ARP and RARP? 3
9. Write about Ethernet Terminology. 1

3rd Internal Examination of MSc. (CS/IT) 2nd Semester 2023
Paper: Data Communication and Computer Networks
Paper Code: CSC2016/INF2016
Full Marks: 25
Time: One and half hour

1. For the following network, calculate the routing table for router A using distance vector routing algorithm. 4



2. Describe the features of Link State routing algorithm. Create Link State packet for nodes A, B, C, D, E and F of the following network- 2+2=4



3. Write the difference between Leaky bucket and Token bucket algorithm. 2
4. Describe IPV_4 header format. 4
5. Calculate number of networks and hosts available for Class B of IP classes. 1
6. Define the following terms in terms of TCP protocol- 3
   Byte number, Sequence number, Acknowledgement number
7. Describe the TCP connection establishment process. 3
8. What are ARP and RARP? 3
9. Write about Ethernet Terminology. 1