10CS/IS64

Sixth Semester B.E. Degree Examination, Aug./Sept. 2020
Computer Network – II

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions, selecting at least TWO questions from each part.*

PART – A

1 a. Differentiate connection oriented and connectionless services. **(05 Marks)**
b. Consider the network in Fig Q1(b). Use Dijkstras algorithm to find shortest path.
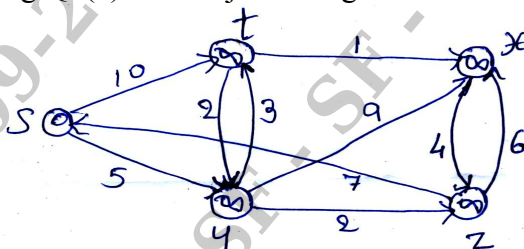

Fig Q1(b) **(07 Marks)**

c. Explain briefly the structure of generic packet switch with the help of diagram. **(08 Marks)**

2 a. Describe briefly the Random early detection. **(05 Marks)**
b. Explain Traffic management at flow aggregate level. **(10 Marks)**
c. Discuss FIFO and priority queue scheduling for managing traffic at packet level. **(05 Marks)**

3 a. Explain IPV4 Header in detail with neat diagram. **(10 Marks)**
b. Discuss the migration issues from IPV_4 to IPV_6. **(10 Marks)**

4 a. Describe in detail the 3-way handshake for establishing a TCP connection. **(06 Marks)**
b. Discuss the Header fields of OSPF operation. **(06 Marks)**
c. Write a note on : i) DHCP   ii) Mobile IP. **(08 Marks)**

PART – B

5 a. What do you mean by remote login and also Secure Shell (SSH) protocol? **(06 Marks)**
b. What is SNMP? List the PDU of $SNMPV_2$? Explain SNMP PDU format. **(08 Marks)**
c. Apply RSA and do the following :
    i) Encrypt a = 3, b = 11, x = 3 and m = 9.
    ii) Find corresponding y
    iii) Decrypt the cipher text. **(06 Marks)**

6 a. List the benefits of creating VPNs, explain VPN types. **(10 Marks)**
b. What is an MPLS network? Explain with diagram how the packets are forwarded using MPLS? **(10 Marks)**

7 a. Briefly explain various compression methods without loss. **(12 Marks)**
b. List and explain different servers of SIP. **(08 Marks)**

8 a. List the security issues in adhoc network. Explain types of attacks. **(10 Marks)**
b. Write note on : i) Zigbee Technology ii) Intra cluster routing protocols in WSN. **(10 Marks)**

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