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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.

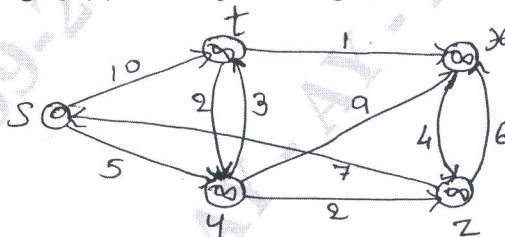


Fig Q1(b)

- 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 IPV₄ to IPV₆. (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 SNMPV₂? 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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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.