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10EC/TE71

Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019
Computer Communication Networks

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. Describe ISO-OSI reference model of computer network. Discuss the function of each layer. (10 Marks)
b. Explain the operation of ADSL using multitone modulation with a neat diagram. (06 Marks)
c. List different types of addressing in TCP/IP. Explain any one type of addressing with suitable example. (04 Marks)
- 2 a. What is framing? Explain bit and character stuffing with help of example. (06 Marks)
b. Explain different types of HDLC frames. (06 Marks)
c. Explain design of stop and wait automatic repeat frames for a noisy channel. (08 Marks)
- 3 a. With a flow diagram, explain 1-persistent, P-Persistent and non-persistent MAC procedures. (06 Marks)
b. Discuss with an example CDMA channelization protocol. (08 Marks)
c. Explain Token passing controlled access technique. (06 Marks)
- 4 a. Explain IEEE802.3 MAC frame format. (06 Marks)
b. Compare and contrast standard, fast and Gigabit Ethernet. (06 Marks)
c. Explain in detail IEEE 802.11 MAC protocol. (08 Marks)

PART – B

- 5 a. Discuss different inter connecting devices on the basis of the layers they operate. (08 Marks)
b. Explain bus back bone and star back bone networks. (04 Marks)
c. What are virtual LAN's? What is the basis for membership in VLAN? Enumerate advantages of having VLAN's. (08 Marks)
- 6 a. Compare between IPV4 and IPV6 packet headers along with extension headers. (08 Marks)
b. Discuss three strategies proposed by IETF to help the transition between IPV4 and IPV6. (08 Marks)
c. Write short notes on logical addressing. (04 Marks)
- 7 Write short notes:
(i) Forwarding techniques.
(ii) Routing Information Protocol.(RIP)
(iii) Border Gateway Protocol (BGP).
(iv) Multicasting distance vector routing protocol (DVMRP) (20 Marks)
- 8 a. Explain TCP and UDP datagram. (12 Marks)
b. Describe TCP connection establishment using three way handshakes. (08 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.