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10EC/TE71

Seventh Semester B.E. Degree Examination, July/August 2021
Computer Communication Networks

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. With a neat diagram, explain TCP/IP reference model. (10 Marks)
b. Explain the operation of ADSL using discrete modulation indicating the different channels, with neat diagram. (06 Marks)
c. Match the following to one or more layers in OSI model:
i) Framing
ii) Source to destination delivery
iii) Interface to transmission media
iv) Provide access to end user. (04 Marks)
- 2 a. What is DATA LINK LAYER? Explain Bit stuffing and Byte stuffing with example. (06 Marks)
b. With the help of flow chart explain GOBACK N sliding window protocol. (08 Marks)
c. Explain the different frames of HDLC frame. (06 Marks)
- 3 a. With the help of neat flow chart explain CSMA/CA of random access method of multiple access. (08 Marks)
b. Explain Token ring passing method with respect to different topologies, with the help of neat diagrams. (06 Marks)
c. With the help of neat diagram, explain CDMA method of channelization. (06 Marks)
- 4 a. Give the format for the IEEE802.3 frame for Ethernet. What are the minimum and maximum frame lengths? (10 Marks)
b. Explain auto negotiation. What are the purposes of using this feature in design of fast Ethernet? (10 Marks)
- 5 a. Explain each of the following:
i) Passive hub ii) Repeater iii) Bridge iv) Router v) Gateway. (10 Marks)
b. Explain briefly the concept of VLAN's and what are the advantages of VLAN's. (05 Marks)
c. What are transparent bridges? Explain loop problems. (05 Marks)
- 6 a. Explain with neat diagram datagram format of IPV4. (08 Marks)
b. Explain class full addressing in IPV4. Mention the different classes in class full addressing and define the application of each class. (08 Marks)
c. Find the net id and Host id for the following:
i) 19.34.21.5
ii) 190.13.70.10
iii) 246.3.4.10
iv) 201.2.4.2 (04 Marks)
- 7 a. Explain briefly forwarding techniques. Explain three different forwarding techniques. (06 Marks)
b. Explain distance vector RIP for intra domain routing protocol. (10 Marks)
c. What is the difference between a direct and an indirect delivery? (04 Marks)
- 8 a. Explain connection establishment and connection termination in TCP. (10 Marks)
b. Explain UDP, TCP and DNS. (10 Marks)

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.