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Seventh Semester B.E. Degree Examination, Jan./Feb. 2023
Computer Communication Networks

Time: 3 hrs.

Max. Marks:100

Note: Answer any 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 the four different types of Ethernet format briefly. (10 Marks)
- b. With neat diagram of Bluetooth layer. Explain the three types of frames in base band layers. (10 Marks)

PART – B

- 5 a. List the five different categories of connecting devices operating at different layers. Explain briefly. (10 Marks)
- b. (i) What is the basis for membership in a VLAN? (10 Marks)
- (ii) How are the station configured into different VLAN's? (10 Marks)
- 6 a. Find the range of Address in the following blocks:
 - (i) 123.56.77.32/29
 - (ii) 200.17.21.128/27
 - (iii) 17.34.16.0/23
 - (iv) 180.34.64.64/30
 (10 Marks)
- b. Explain the IPV4 datagram format. (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.

- 7 a. What is forwarding? Explain different forwarding techniques. (06 Marks)
 b. What is the difference between static and dynamic routing table? (04 Marks)
 c. Explain the distance vector routing algorithm for the example shown in Fig. Q7 (c). (10 Marks)

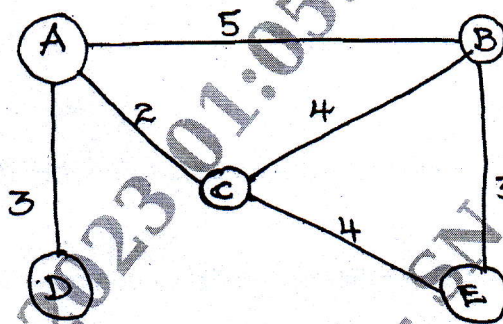


Fig. Q7 (c)

- 8 a. With a neat diagram, explain the TCP segment format. (10 Marks)
 b. What is resolver? Explain different address resolution methods. (10 Marks)
