USN | | | | | | | | | | **10EC/TE71**

Seventh Semester B.E. Degree Examination, Feb./Mar. 2022
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. Discuss the functions of following layers of OSI model with relevant diagrams :
   i) Physical layer
   ii) Date link layer
   iii) Transport layer
   iv) Application layer. **(12 Marks)**
   b. Explain the cable TV networks for data transfer. **(08 Marks)**

2. a. Discuss the sliding window concept of GO-BACK-N ARQ with relevant diagrams. **(10 Marks)**
   b. Explain the two approaches of variable size framing. **(10 Marks)**

3. a. Explain the operation and vulnerable time of pure ALOHA networks. **(08 Marks)**
   b. Discuss three persistence methods of CSMA. **(06 Marks)**
   c. Discuss the concept token parsing. **(06 Marks)**

4. a. Explain the four common implementation of standard Ethernet. **(08 Marks)**
   b. Discuss two kinds of services of IEEE 802.11 standard. **(06 Marks)**
   c. Explain the frame of 802.3 MAC frame. **(06 Marks)**

PART – B

5. a. Discuss Bus backbone and star back bone networks. **(06 Marks)**
   b. Explain the concept of virtual LANs. **(06 Marks)**
   c. Discuss spanning tree formation with relevant diagrams. **(08 Marks)**

6. a. Explain the class full addressing of IPV4 Addresses. **(08 Marks)**
   b. Discuss the network addresses and its hierarchy levels. **(06 Marks)**
   c. Explain the advantages of IPV6 over IPV4. **(06 Marks)**

7. a. Explain the types of routing tables and common fields in a routing table. **(08 Marks)**
   b. What is a distance vector routing? Discuss three different techniques of distance vector routing. **(12 Marks)**

8. a. Discuss the user datatgram format. **(06 Marks)**
   b. Explain the TCP segment format. **(08 Marks)**
   c. Discuss the name – addresses resolution. **(06 Marks)**

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