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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