Code No:**RT41042**

R13

Set No. 1

IV B.Tech I Semester Supplementary Examinations, March - 2021
COMPUTER NETWORKS
(Electronics and Communication Engineering)

Time: 3 hours   **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
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PART–A *(22 Marks)*

1. a) Write about connection-oriented service-reliable communication.   [4]
    b) Discuss various carriers used in ATM networks.   [4]
    c) How to establish flow control using sequence numbers.   [4]
    d) Write short notes on routing for mobile hosts.   [4]
    e) What are the services provided by transport layer?   [3]
    f) Explain dynamic and static web documents with suitable example.   [3]

PART–B *(3x16 = 48 Marks)*

2. a) Explain various network categories based on size of network and physical
       structures.   [8]
    b) List out and explain milestones in establishment of internet.   [8]

3. a) In detail explain how frequency division multiplexing combines analog signals.   [8]
    b) Explain how narrow band ISDN replace the analog telephone system with a
       digital one. Explain its expansion to broadband ISDN.   [8]

4. a) Where do we use wireless LAN? Draw the architecture and explain its frame
       format.   [8]
    b) What is the window size of sender and receiver sides in selective repeat
       protocol? Explain with timing diagram.   [8]

5. a) Explain congestion control in virtual circuit sub nets and datagram subnets.   [8]
    b) With an example explain 5 different phases of Link State Routing Algorithm.   [8]

6. a) Write about connectionless unreliable transport protocol and its services.   [8]
    b) Discuss the following with respect to Transmission Control Protocol
          i.   TCP connection management modeling
          ii.   TCP transmission policy
          iii. TCP segment header.   [8]

7. a) Write about internet radio and voice over IP services in multimedia.   [8]
    b) With neat sketch explain the architecture, services and message format of
       Electronic Mail.   [8]