

Code No: **R1641043**

R16

Set No. 1

IV B.Tech I Semester Advanced Supplementary Examinations, May - 2022

COMPUTER NETWORKS

(Common to Electronics & Communication Engineering and Electronics & Instrumentation 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 FOUR questions from Part-B

PART-A (14 Marks)

1. a) Explain about MAN. [2]
b) What is the difference between TDM & FDM? [3]
c) What are the design issues of Data Link layer? [2]
d) List the key requirements for wireless LANs. [2]
e) Define Congestion. What are the general Principles of Congestion? [3]
f) Mention the record types of DNS resource record. [2]

PART-B (4x14 = 56 Marks)

2. a) Explain different Network Topologies. [7]
b) Write about peer-to-peer processes and encapsulation concepts in OSI model. [7]
3. a) Explain the frequency division multiplexing with a neat sketch. [7]
b) What are the elementary data link protocols? Explain. [7]
4. a) What is the need of Flow control? Describe the stop & wait protocol. [7]
b) In the Hamming code for a data unit of 'm' bits, how do you compute the number of redundant bits 'r' needed? Explain with an example. [7]
5. a) Explain about the 802.11 Architecture. [7]
b) Explain the working of Multiple Access Protocols. [7]
6. a) With an example explain the shortest path routing algorithms used in computer networks. [7]
b) Explain Distance Vector routing algorithm with an example. [7]
7. a) Explain the structure of UDP Header format. [7]
b) Discuss the role played by the message transfer agent. [7]

