

# CBCS SCHEME

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18EI743

## Seventh Semester B.E. Degree Examination, Feb./Mar. 2022 Computer Communication Networks

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. Describe the OSI reference model with a neat diagram. (10 Marks)  
b. Compare the Local Area Networks (LAN), Metropolitan Area Networks (MAN) and Wide Area Networks (WAN). (10 Marks)

OR

- 2 a. Discuss the different guided transmission methods along with a neat diagram. (12 Marks)  
b. Compare the TCP/IP reference model with OSI reference model. (08 Marks)

### Module-2

- 3 a. Summarize the design issues employed in the data link layer. (06 Marks)  
b. List out the 4 framing techniques used in the data link layer. (08 Marks)  
c. Assess error and flow control in the data link layer. (06 Marks)

OR

- 4 a. Describe the transition in petrinet model with necessary diagrams. (10 Marks)  
b. Illustrate the working of simple stop and wait protocol. (10 Marks)

### Module-3

- 5 a. Describe the ALOHA protocol with necessary diagrams. (10 Marks)  
b. Discuss the dynamic channel allocation used in LAN's and MAN's. (10 Marks)

OR

- 6 a. Illustrate the CSMA/CD with different states. (10 Marks)  
b. Explain the Bluetooth architecture with neat diagram. (10 Marks)

### Module-4

- 7 a. Discuss the comparison of virtual-circuit and datagram subnets. (10 Marks)  
b. Explain the distance vector routing algorithm with example. (10 Marks)

OR

- 8 a. What are all the techniques for achieving Good Quality of Service? (10 Marks)  
b. Explain the general principles of congestion control and list out the prevention policies of congestion. (10 Marks)

### Module-5

- 9 a. Discuss the three way handshaking technique used in TCP. (10 Marks)  
b. What are all the performance issues are very important in computer networks? Explain in detail. (10 Marks)

OR

- 10 a. Identify the architecture and services of an electronic mail or EMAIL. (10 Marks)  
b. Describe the working of World Wide Web, with suitable diagram. (10 Marks)

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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.