

Unit-IV

8. (a) Define Routing. How is it used and useful ? Discuss routing algorithms with examples.
- (b) Explain congestion control and its algorithms with suitable examples. 8,8
9. Explain the following briefly with examples :
- (a) Network layer and its advantages
- (b) Network security threats
- (c) Encryption methods 6,6,4

Roll No. :

Total No. of Questions : 9]

[Total No. of Pages : 4

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B.C.A. Vth Semester (New)
Examination, March-2021
(Full & Reappear)

DATA COMMUNICATION AND NETWORKING

Paper-BCA-303

Time : Three Hours]

[Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note :- Question No. 1 is compulsory. Attempt *four* more questions, selecting *one* question from each Unit. All questions carry equal marks.

1. Answer the following questions briefly :
- (a) What is computer networking ?
- (b) Describe analog communication.
- (c) Explain Repeater and its use briefly.

- (d) Define switch and gateway.
- (e) What is Datagram ?
- (f) Explain shortest path routing.
- (g) Describe role of wireless protocols in networking.
- (h) Explain frame relay and X.25. 2×8=16

Unit-I

- 2. (a) What is TCP/IP Reference Model ?
Discuss its working and advantages with examples.
- (b) Explain use and importance of client/server model briefly. 9,7
- 3. Explain the following briefly with suitable examples :
 - (a) Network topologies and their relative merits and demerits.
 - (b) Distributed system and its advantages.
 - (c) Types of computer networks. 7,4,5

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- 4. (a) What is Modulation ? How is it used ?
Explain its techniques and advantages with examples.
- (b) Describe switching and multiplexing and their advantages with examples. 9,7
- 5. Describe the following with examples :
 - (a) Data encoding and its techniques and advantages
 - (b) Digital carrier systems and their uses 10,6

Unit-III

- 6. (a) What is Ethernet ? How is it useful and used ? Explain its types with examples.
- (b) Describe use and role of connector, hub, network interface card and bridge in networking with examples. 8,8
- 7. Explain the following with examples :
 - (a) Token passing protocols and their uses
 - (b) Network software and Hardware components
 - (c) Wireless LANs 6,6,4

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P.T.O.