

Roll No.

Total Pages : 03

BCA/M-19

19044

COMPUTER NETWORKS

BCA-303

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all. Q. No. 1 is compulsory. In addition to compulsory question, attempt *four* more questions, selecting *one* question from each Unit. All questions carry equal marks.

(Compulsory Question)

- | | | |
|--------|--|---|
| 1. (a) | Discuss transmission impairment. | 4 |
| (b) | Discuss Bridges and Switches in brief. | 4 |
| (c) | What is Token Ring ? | 2 |
| (d) | Explain Digital Certificate. | 2 |
| (e) | Explain Border Gateway Protocol. | 4 |

Unit I

- | | | |
|--------|---|----|
| 2. (a) | What is OSI reference model ? Explain various layers in it. | 10 |
| (b) | Explain various network topologies with examples. | 6 |

(3-27/11)L-19044

P.T.O.

3. (a) What is Computer Network ? Discuss the types of computer network along with advantages and disadvantages. 12
- (b) Explain Web-based Model. 4

Unit II

4. (a) Differentiate between guided and unguided media in detail. 12
- (b) Explain communication satellites. 4
5. (a) Explain the concept of switching in data communication. Also discuss different types of switching. 10
- (b) Explain analog to analog conversion techniques in detail. 6

Unit III

6. What is flow control in data transmission and why is it required ? Explain different methods for flow control. 16
7. (a) Explain Cyclic Redundancy Check (CRC) in detail. 8
- (b) Elaborate on Ethernet, Fast Ethernet and Switched Ethernet. 8

Unit IV

8. (a) What do you mean by security of network ? Discuss different security attacks in data transmission. 8
- (b) Explain congestion control techniques in detail. 8
9. (a) Explain various routing algorithms in detail. 10
- (b) Write short note on Choke 'Packets and Digital Signature'. 6