

Roll No.

Printed Pages : 2

1244

BCA / D-18

COMPUTER NETWORKS

Paper-BCA-354

Time allowed : 3 hours]

[Maximum marks : 80

Note : Student will be required to attempt five questions in all. Question No. 1 is compulsory. In addition to compulsory question, student will have to attempt four more questions selecting one question from each unit. All questions carry equal marks.

Compulsory Question

1. (a) Write ways of connecting to internet at home. 4
- (b) What do you mean by VLANs ? Explain. 2
- (c) Write short note on Token Ring ? 2
- (d) Explain digital signature. 2
- (e) What is flow control in data transmission ? 2
- (f) Write a short note on ATM. 2
- (g) Explain DSL modem. 2

Unit-I

2. (a) Explain the various layers of OSI reference model in detail. 12
- (b) Explain Distributed system in detail. 4
3. (a) Distinguish between client/sever and peer-to-peer network model. 8
- (b) What do you mean by network topology ? Discuss various topologies. 8

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(2)

Unit-II

4. (a) What is data transmission mode ? Explain different types of data transmission modes. 8
(b) What do you mean by switching ? Explain various switching techniques. 8
5. (a) What do you mean by transmission media ? Explain guided media in detail. 8
(b) Explain Pulse code and Delta modulation in detail. 8

Unit-III

6. (a) What is flow control in data communication ? Explain different flow control protocols. 8
(b) Explain Cyclic Redundancy Check (CRC) in detail with suitable example. 8
7. (a) What is media access control ? Explain ALOHA & Slotted ALOHA in detail. 8
(b) Explain different error detecting techniques in detail. 8

Unit-IV

8. Explain the following in detail: 16
(a) Choke Packets
(b) Digital Certificate
(c) Encryption methods
(d) Security attacks
9. What do you mean by Routing ? Discuss different types of routing algorithm with its advantages. 16