

BCA/D-21

1205

COMPUTER NETWORKING

Paper-BCA-354

Time : Three Hours]

[Maximum Marks : 80

**Note :** Attempt *five* questions in all. Question No. 1 is compulsory. In addition to compulsory question, candidates have to attempt *four* more questions selecting *one* question from each unit. All questions carry equal marks.

**UNIT-I****(Compulsory Question)**

1. (a) Define Hub. (2)
- (b) Differentiate between analog and digital Transmission. (2)
- (c) Write a Short note on Cable Modem. (2)
- (d) Write a short note on Dynamic Routing. (2)
- (e) Define VLAN. (2)
- (f) Write a short note on Security Attacks. (2)
- (g) Explain the full form of CRC. (2)
- (h) Write a short note on Gigabit Ethernet. (2)

**UNIT-II**

2. Write a short note on each of the following :
  - (a) Bridges.
  - (b) Router.

- (c) Switch. (16)
- (d) Gateway. (16)
- 3. (a) Discuss connection oriented and connection less services with Example. (8)
- (b) Explain Network topologies. (8)

### UNIT-III

- 4. (a) Differentiate Between Guided and wireless media of Transmission. (8)
- (b) Differentiate between Pulse code modulation and Frequency Modulation. (8)
- 5. Explain Multiplexing Techniques in Detail. (16)

### UNIT-IV

- 6. (a) Explain Architecture of IEEE 802.11. (8)
- (b) Explain Architecture of Bluetooth. (8)
- 7. Explain Collision based Protocols and Collision Free Protocols. (16)

### UNIT-V

- 8. (a) Explain Link State routing with Example. (8)
- (b) Explain Encryption Method in detail. (8)
- 9. (a) What do you mean by Network Security? (8)
- (b) How Congestion can be controlled in computer Network? (8)