

### **III BCA-'B' (shift-II)**

## **DATA COMMUNICATION NETWORK**

**(CA511)**

#### **UNIT 1:**

1. What is a network? What are its characteristics?
2. What are the network criteria?
3. What are the applications of network?
4. What is a protocol? What are its components?
5. What is a data communication?
6. What is a topology? What are its types?
7. What is star topology? What are its features?
8. What is mesh topology? What are its features?
9. What are the different transmission modes?
10. What is active hub, passive hub?
11. How devices are organised in a bus topology?
12. What are the categories of network?
13. What is internetwork?

#### **UNIT 2:**

1. What is OSI model? List out the layers in OSI?
2. What is transport layer? What are its functions?
3. What is session layer? What are its functions?
4. What is network layer? What are its functions?
5. What is data link layer? What are its functions?
6. Explain OSI layer with their functions?
7. What is TCP/IP? Explain its architecture?
8. What is signal? What are its types?
9. What is frequency? How is it measured?
10. What is amplitude? How is it measured?
11. What is phase of a signal?
12. What is periodic and aperiodic signal?

13. What is encoding?
14. What is modulating?
15. What are the methods to convert digital signal to analog signal?
16. How analog signals are converted into digital signals?
17. What is PCM?
18. List out the methods for digital signal to digital signal conversion?
19. What is data transmission? What are its types?
20. What is synchronous and asynchronous transmission?
21. What is DTE?
22. What is DCE?
23. What is a modem? What are its types?
24. How modems are categorised?
25. What are the different modems standards?

### **UNIT 3:**

1. What is transmission media? What are its types?
2. Explain guided media in detail?
3. Explain unguided media in detail?
4. What is media comparison?
5. What is multiplexing? What are its types?
6. What is FDM?
7. What is TDM?
8. What is WDM?
9. What are the types of errors?
10. How error is detected and corrected?
11. What are the types of error detection?
12. What is VRC?
13. What is LRC?
14. What is CRC?
15. What is checksum?
16. What is error correction?

### **UNIT 4:**

1. What are the different switching techniques?

2. What is circuit switching?
3. What is packet switching?
4. What are the types of circuit switching?
5. What are the networking and internetworking devices?
6. What is repeater?
7. What are bridges?
8. What are routers?
9. What are gateways?

#### **UNIT 5:**

1. What are the different routing algorithms?
2. What is DVR?
3. What is LSR?
4. What is data link control?
5. What is line discipline?
6. What is flow control?
7. What is error control?