

## Third Year B.C.A Examination

Subject Code No. 8895

Paper Name &amp; No. : Data Communication and Networking (302)

Time: 3:00 Hours

Total Marks: 100

**Q – 1) Answer the following Questions.**

- a) Define Network and Enlist the advantages and disadvantages of Network. 5
- b) Write a note on: Microwaves. 5
- c) Differentiate between analog and digital signals. Which is better and why? 5
- d) What is Multiplexing? What are the advantages of using Multiplexing 5

**OR****Q – 1) Answer the following Questions.**

- a) Differentiate between Guided and Unguided Communication Mediums. 5
- b) What is Channel? Explain the importance of Channel in Communication System with suitable example. 5
- c) Explain De-multiplexing in detail. 5
- d) Write a note on: Coaxial Cable. 5

**Q – 2) Answer the following Questions.**

- a) Explain in Brief: Error Detection Codes at Data Link Layer. 10
- b) Write a note on: FDDI. 10

**OR****Q – 2) Answer the following Questions.**

- a) Explain the protocols available at Data Link Layer in detail. 10
- b) Write a note on: Satellite Communication. 10

**Q – 3) Answer the following Questions.**

- a) Write a note on: Shortest Path Routing. 10
- b) What do you mean by Routing Algorithm? State the advantages of having a Routing Algorithm. 10

**OR****Q – 3) Answer the following Questions.**

- a) Differentiate between Broadcast Routing and Multicast Routing. 10
- b) Explain various Switching Techniques used in Telephony. 10

**Q – 4) Answer the following Questions.**

- a) Write a note on: IP. 10
- b) What is Tunneling? Where and why it is used? 10

**OR****Q – 4) Answer the following Questions.**

- a) Explain TCP/IP Reference Model in detail. 10
- b) Differentiate among LAN, MAN and WAN. 10

**Q – 5) Answer the following Questions.**

- a) Write a note on: Networking Devices. 10
- b) Write a note on: Sliding Window Protocol. 10

**OR****Q – 5) Answer the following Questions.**

- a) Explain various Public Key Algorithms. 10
- c) Write a note on: Firewall and list out any 5 names of popular firewall. 10