

**M.C.M. (Part—I) Semester—I Examination**

**BUSINESS DATA COMMUNICATION—I**

**Paper—I MCM 4**

**Time—Three Hours]**

**[Maximum Marks—80**

**Note :—**(1) Due credit will be given to neatness and adequate dimensions.

(2) Assume suitable data wherever necessary.

(3) Illustrate your answers wherever necessary with the help of neat sketches.

1. (a) Explain various types of switching methods.

8

(b) Describe future trends in communication and networking.

8

**OR**

2. (a) What are the different types of components of a data communication ?

8

(b) What is groupware ? Explain in brief.

8

3. (a) Explain various types of Host system.

6

(b) What are the advantages and disadvantages of optical fiber as a transmission medium ?

6

(c) Explain parallel mode and serial mode.

4

**OR**

4. (a) What is meant by protocol convertors ? 6
- (b) Explain Frequency modulation and Phase modulation. 6
- (c) Discuss the various flow of direction of data flow. 4
5. (a) Describe the various layers of OSI model. 8
- (b) What are the various network topology ? Explain each of them. 8

**OR**

6. (a) Explain the following term :
  - (i) Asynchronous Transmission
  - (ii) Synchronous Transmission. 8
- (b) Explain various MAC protocols. 8
7. Explain the following terms :
  - (i) Network cables and hubs
  - (ii) Network interface cards
  - (iii) MAC
  - (iv) Peer-to-peer networks. 16

**OR**

8. (a) What is network operating system ? Explain various popular N/W operating system. 8
- (b) How does the token ring LAN operate ? 8

9. (a) Explain the following term :
  - (i) Ring architecture
  - (ii) Mesh architecture
  - (iii) Star architecture. 9
- (b) Describe the basic architecture of packet-switched networks. 7

**OR**

10. (a) Describe Virtual Private Networks (VPN) according to MAN. 6
- (b) Explain Reducing Network Demand and SONET. 6
- (c) Discuss BRI and PRI. 4