

**M.C.M. (Part—II) Semester—III Examination**  
**BUSINESS DATA COMMUNICATION—II**  
**Paper—3 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) Draw diagrams wherever necessary.

1. (a) Discuss in detail IP header. 6
- (b) Describe ARP packet format. 4
- (c) Explain in detail TCP/IP protocol suite. 6

**OR**

2. (a) Explain SLIP and IEEE802 Ethernet. 8
- (b) Explain OSI reference model in detail. 8
3. (a) What do you mean by Daemon ? Explain Dynamic routing. 6
- (b) Explain in detail ICMP message types. 6
- (c) Explain OSPF in detail. 4

**OR**

4. (a) Describe the architecture of ICMP protocol. 6
- (b) Describe various contents of routing table. 4
- (c) Explain PING program in detail. 6

5. (a) Give the IGMP message format. 4
- (b) Describe the following :
  - (i) Joining the multicast group
  - (ii) IGMP reports and queries
  - (iii) Time-to-Live field. 6
- (c) Discuss in detail DNS message format. 6

**OR**

6. (a) Explain broadcasting with its limitations. 6
- (b) Explain :
  - (i) UDP header
  - (ii) Hierarchical structure of DNS. 10
7. (a) Explain in detail TCP connection establishment and termination protocol. 8
- (b) What do you mean by delayed acknowledgments ? 4
- (c) Explain the PUSH flag. 4

**OR**

8. (a) Explain BOOTP protocol with BOOTP server design. 10
- (b) Explain the concept of TCP bulk data flow. 6
9. (a) What is meant by SMTP protocol ? Explain. 6
- (b) Explain types of messages that are exchanged between manager and agent in SNMP. 6
- (c) Describe the need of Finger protocol. 4

**OR**

10. (a) Discuss in detail FTP. 8
- (b) Discuss in detail NFS. 8