

**FACULTY OF INFORMATICS**

**M.C.A. (2 Years Course) III- Semester (CBCS) (Main) Examination, April/May 2023**

**Subject: Computer Networks**

**Time: 3 Hours**

**Max. Marks: 70**

**Note: I. Answer one question from each unit. All questions carry equal marks.  
II. Missing data, if any, may be suitably assumed.**

**Unit – I**

1. a) Discuss about components of computer networks.  
b) Briefly explain the different types of transmission media.

**(OR)**

2. a) Describe the ISO/OSI reference model.  
b) Explain the different types of modems.

**Unit – II**

3. a) Discuss the process of CRC.  
b) Briefly explain the concept of bridges.

**(OR)**

4. a) Discuss the functions of MAC.  
b) Explain the concept of RARP in detail.

**Unit – III**

5. a) Discuss about the link state routing protocol.  
b) Explain the differences between IPv4 and IPv6.

**(OR)**

6. a) Describe the CIDR with an example.  
b) Briefly explain various types of IGMP.

**Unit – IV**

7. a) Discuss the services of transport layer.  
b) Explain the User datagram protocol.

**(OR)**

8. a) Describe the Frequency Division multiplexing in detail.  
b) Briefly explain the TCP congestion control.

**Unit – V**

9. a) Discuss about the concept of socket programming in detail.  
b) Explain the concept of DNS.

**(OR)**

10. a) Describe an iterative communication by using TCP.  
b) Briefly explain the FTP.