



Mid Term (Odd) Semester Examination October 2024

Roll no.....

Name of the Course and semester: Master of Computer Applications and 1st semester

Name of the Paper: Computer Networks

Paper Code: TMC 102

Time: 1.5 hour

Maximum Marks: 50

Note:

- (i) Answer all the questions by choosing any one of the sub questions
- (ii) Each question carries 10 marks.
- (iii) Please specify COs against each question.

Q1. (10 Marks)

- a. Define data communication. What are the essential components involved in data communication? (CO1).

OR

- b. Explain the client-server architecture. How does it differ from a peer-to-peer architecture?(CO2)

Q2.

- a. Compare and contrast various network topologies (star, ring, bus, mesh) in terms of advantages and disadvantages.(CO1)

(10 Marks)

OR

- b. What is the format of an HTTP message? Describe the components of both request and response messages.(CO2)

Q3. (10 Marks)

- a. Compare the OSI model with the TCP/IP protocol stack. What are the key differences (CO1)

OR

- b. Describe the File Transfer Protocol (FTP). What are its primary commands, and how does it differ from HTTP? (CO2)

Q4. (10 Marks)

- a. Compare and contrast circuit switching and packet switching. What are the benefits and drawbacks of each? (CO1)

OR

- b. Compare and contrast POP3 and IMAP. What are the advantages of each protocol for email retrieval?(CO2)

Q5. (10 Marks)

- a. Define the four types of delays in a network: processing, queuing, transmission, and propagation delays. How does each delay affect overall network performance? (CO1)

OR

- b. What are the primary functions of the DNS? How does it resolve domain names to IP addresses.(CO2)