

December - Examination 2025

MSCCS (Final)/MCA (II Year) Examination

DATA COMMUNICATION AND NETWORKS

Paper : MSCCS-11/MSCCS-205/MSCCSC-205/MCA-205

[Time: 3 Hours]

[Maximum Marks: 80]

Note :- The question paper is divided into three Sections A, B and C. Write answers as per the given instructions.

Section-A

8×2=16

(Very Short Answer Type Questions)

Note :- Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries **2** marks.

1. (i) What is Internet?
- (ii) Differentiate between HTTP and SMTP.
- (iii) Define Fiber Optics.
- (iv) What is Token Ring?
- (v) List types of Computer Networks.
- (vi) What is IEEE 802?
- (vii) Differentiate between Spectrum and Bandwidth.
- (viii) What is Asynchronous and Synchronous Transmission?

Section-B

4×8=32

(Short Answer Type Questions)

Note :- Answer **any four** questions. Each answer should not exceed **200** words. Each question carries **8** marks.

2. Explain various types of Transmission Modes.
3. Explain IPv4. Also discuss its advantages and disadvantages.
4. List and explain the layers of OSI reference model.
5. Write short note on -
 - (a) WWW
 - (b) SNMP
 - (c) MIME
6. Explain Error Detection in Data Link Layer.
7. Differentiate between LAN, MAN and WAN with suitable examples.
8. What is Internet Relay Chat? Explain its features.
9. Explain Noiseless channels and Noisy Channels with examples.

Section-C

2×16=32

(Long Answer Type Questions)

Note :- Answer **any two** questions. You have to delimit your each answer maximum up to **500** words. Each question carries **16** marks.

10. Explain TCP/IP Model.
11. Write short notes on -
 - (a) Router
 - (b) POP3
 - (c) Data Traffic
 - (d) Switch and Bridge
12. Explain Transmission Services with an example. Also write down its advantages and disadvantages.
13. Write short notes on -
 - (a) FDDI
 - (b) Token Ring
 - (c) ATM
