

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE) (AI & ML) (Sem-6)

COMPUTER NETWORKS

Subject Code : BTCS504-18

M.Code : 93394

Date of Examination : 30-04-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Answer briefly :

- What is the need of Protocols?
- What is Frequency division multiplexing? Explain.
- Explain the term Flow Control in Data link layer.
- What is Error? Explain types of error.
- How many bits are consumed by IPv4 and IPv6 addresses respectively.
- Differentiate between ARP and RARP.
- Write disadvantages of Token Bucket algorithm.
- What are the advantages of User Datagram Protocol (UDP)?
- Explain in brief about the term WWW.
- What do you mean by DDNS? Discuss.

SECTION - B

2. Write a detailed note on following Connection Topologies along with their advantages and disadvantages.
 - a) Bus
 - b) Ring
3. Explain how errors are detected using CRC.
4. Explain in detail about BOOTP.
5. Write a detailed note on Leaky Bucket Algorithm.
6. Write a detailed note on HTTP.

SECTION - C

7. Write a detailed note on various Transmission Media along with their advantages and disadvantages.
8. **Explain in detail about following protocols :**
 - a) Stop & wait
 - b) Go-back-N ARQ
 - c) Selective repeats ARQ
9. Write a detailed note on Transmission Control Protocol (TCP).

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.