

Roll No.

Total No. of Pages : 02

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B.Tech. CSE (Internet of Things and Cyber Security including Block Chain Technology) (Sem.-5)

COMPUTER NETWORKS

Subject Code : BTCS-504-18

M.Code : 92362

Date of Examination :29-11-2025

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. Write briefly :

- a) Define protocols and standards.
- b) What is the difference between wired and wireless LANs?
- c) What is a Virtual LAN? Write one advantage of Virtual LAN.
- d) What is the purpose of error detection in the data link layer?
- e) Define Pure ALOHA.
- f) What is IPv6 and how is it different from IPv4?
- g) Explain the term switching in brief.
- h) Differentiate between TCP and UDP.
- i) Explain in brief about TELNET.
- j) What is cryptography in networking?

SECTION - B

2. Discuss the various transmission media used in data communication.
3. Write a detailed note on CSMA/CD.
4. What is the role of DHCP and BOOTP in IP address assignment? Explain with examples.
5. Explain the concept of process-to-process communication in the transport layer. Why is it important?
6. What is HTTP? Explain its role in the application layer.

SECTION - C

7. **Write a detailed note on following :**
 - a) Wave Division Multiplexing
 - b) Time Division Multiplexing
8. Describe in detail the Stop-and-Wait, Go-Back-N ARQ and Selective Repeat ARQ protocols.
9. **Write a detailed note on following :**
 - a) Email
 - b) File Transfer Protocol (FTP)

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.