NOVEMBER 2025 **52510/326E5A/ 327E5A/325E5A**

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. List the benefits of computer networks.
2. Write any two features of OSI model.
3. Name any two guided transmission media.
4. What is the purpose of multiplexing?
5. Define: Sliding window protocol.
6. What is channel allocation problem?
7. Define IP address.
8. Mention two congestion control techniques.
9. What is connection management?
10. List any two transport layer protocols.
11. What is the use of cryptography?
12. Write the full form of FTP and DNS.

PART B — ($5 \times 5 = 25$ marks)

Answer any FIVE questions.

13. Explain the OSI model with a neat diagram.

14. Discuss switching techniques in telephone systems.

15. Explain the need for error detection and correction.

16. Describe multiple access protocols in medium access layer.

17. Write a note on routing algorithms in network layer.

18. Explain IP protocol and addressing.

19. Describe cryptography in network security.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

20. Describe various types of transmission media and their characteristics.

21. Explain satellite communication and telephone system structure.

22. Explain the function of sliding window protocol with diagrams.

23. Discuss congestion control algorithms with examples.

24. Explain TCP/IP protocol suite and discuss transport services in detail.

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