25805265

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Reg. No.................................

Name...................................

INTEGRATED M.C.A. (I.M.C.A.) DEGREE EXAMINATION

OCTOBER 2025

Fifth Semester

IMCA 504—COMPUTER NETWORKS

(2019 Admissions—Supplementary/2018 Admissions—First Mercy Chance/2017 Admissions—Second Mercy Chance)

Time : Three Hours Maximum Marks : 75

Part A

Answer any **ten** *questions.*
Each question carries 3 *marks.*

1. Explain the critique of the TCP/IP reference model.
2. What are the differences between Stop-and-Wait ARQ and Go-Back-N ARQ ?
3. Write a note on Novel Netware.
4. Summarize the advantages of bus topology.
5. Memorize the concept of spanning tree algorithm.
6. Write the procedure for connecting remote LANs.
7. Mention the strengths and weakness of Infrared LAN.
8. Explain the requirements of Wireless LAN.
9. Define : "Congestion Control".
10. Write down the performance criteria of routing.
11. Describe the design goals of ATM network.
12. What are the various types of frame relay layers ?

$(10 \times 3 = 30)$

Turn over

Part B

Answer **all** *questions.*
Each question carries 9 *marks.*

13. (a) Assume the different layers of ISO OSI reference model

Or

(b) Demonstrate the implementation of sliding window protocol.

14. (a) Illustrate the functions of Mac Sub layer in Fast Ethernet with diagram.

Or

(b) Compare and construct the bridged Ethernet and switched Ethernet.

15. (a) Discuss the architecture and services of IEEE 802.11 protocol.

Or

(b) Draw and explain the general architecture of Bluetooth.

16. (a) Outline the process flow of virtual circuit identifier.

Or

(b) Identify the general requirements of adaptive routing.

17. (a) Assess the concepts of ATM headers with diagram.

Or

(b) Conclude the general of architecture of frame relay.

($5 \times 9 = 45$)