22U628	(Pages: 2)	Name	:
		Reg. No	:

SIXTH SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, APRIL 2025

(CBCSS-UG)

(Regular/Supplementary/Improvement)

CC19U BCS6 B13 / CC19U BCA6 B13 - COMPUTER NETWORKS

(Computer Science / Computer Application - Core Course) (2019 Admission onwards)

Time: 2 Hours Maximum: 60 Marks

Credit: 3

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

- 1. List the functions of Physical layer.
- 2. Define circuit switching.
- 3. Distinguish Burst error and single bit error.
- 4. Define Piggybacking.
- 5. Define ALOHA.
- 6. List the various IPV4 to IPV6 transition strategies.
- 7. List the functions of RARP protocol.
- 8. Define Routing protocols.
- 9. Describe connection oriented and connectionless protocols with examples.
- 10. Explain SCTP protocol.
- 11. Describe ciphers.
- 12. Describe modern block ciphers.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer all questions. Each question carries 5 marks.

- 13. Write a detailed note on various topologies and discuss advantages and disadvantages of each.
- 14. Write a note on various connecting devices in computer networks.
- 15. Discuss IPV6 packet format with suitable diagram.
- 16. Define Open loop congestion control techniques in detail.
- 17. Write a note on working of e-mail.

- 18. Describe SHA-1 Hash algorithm. Explain.
- 19. Disuss the concept of signing the Digest. Explain.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

- 20. Define Ethernet. Explain various ethernet standards.
- 21. Define Asymmetric key cryptography. Discuss RSA algorithm in detail with an example.

 $(1 \times 10 = 10 \text{ Marks})$
