Name:.....
Roll No:.....

MAR ATHANASIUS COLLEGE OF ENGINEERING (AUTONOMOUS),
KOTHAMANGALAM - 686666
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

B.TECH SECOND SERIES EXAMINATION, OCTOBER 2026 (S3 CS, DS A & B,AIML)
B24CS2T03 COMPUTER NETWORKS

Max. Marks: 40 Duration: 1.5 Hours

PART A

Answer all questions. Each question carries 3 marks.

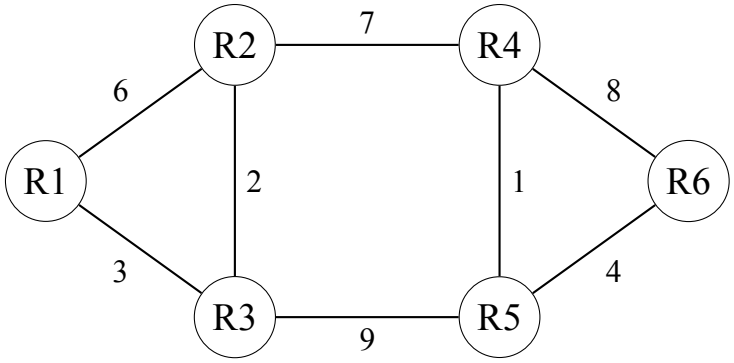
1. Differentiate between Open loop and Closed loop approaches for congestion control. Give one example for each. (CO3)
2. An organization is granted the block 130.34.12.64/26. The organization needs to have four subnets. What are the subnet addresses and the range of address for each subnet? (CO3)
3. What is silly window syndrome?Discuss the solutions to silly window syndrome? (CO4)
4. Explain the steps in the implementation of Remote Procedure Call. (CO4)

PART B

Answer all questions. Each question carries 14 marks.

5. (a) List and explain the steps in Link State Routing? (6 Marks)(CO3)

   (b) Find the Distance vector Routing tables of the nodes given below .Using the Distance Vector Routing algorithm, determine the final shortest-path distance vector and routing table for each router, including the destination, minimum cost, and next hop.



(8 Marks)(CO3)

P.T.O.

VISION

To mould competent computing professionals, innovators, and leaders guided by ethical values and committed to technological advancement and sustainable societal development.

MISSION

- Provide quality education through strong theoretical foundations, experiential learning, and exposure to emerging computing technologies.
- Cultivate critical thinking, research aptitude, and innovation through problem-based learning, industry interaction, and research initiatives.
- Foster ethical values, leadership, social responsibility, and an aspiration for lifelong learning through professional practices, teamwork, and mentoring.

6. (a) Explain the features of the TCP Protocol. (4 Marks)(CO4)

(b) What is TCP? Draw and explain TCP segment header. Explain TCP connection establishment process. (10 Marks)(CO4)

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