Syllabus - V Semester
5AIML4-23: Computer Networks Lab

Credits: 1.5 **Max. Marks: 75(IA:45, ETE: 30)**
0L+0T+3P **End Term Exam: 3 Hours**

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Unit	Objectives
1	Simulation of different type of LAN using NS2 simulator.
2	Simulation and Implementation of Network topologies i.e. Star, Bus, Ring etc. using NS2 simulator.
3	Implement various types of error correcting techniques. (Such as CRC-12, CRC-16 and CRC CCIP)
4	Implement the data link layer framing methods. (Such as character count, character-stuffing and bit stuffing)
5	Implement various sorting technique used in buffers.
6	Implement a simple data link layer that performs the flow control using the sliding window protocol, and loss recovery using the Go-Back-N mechanism
7	Implement leaky bucket algorithm.
8	Implement distance vector routing algorithm for obtaining routing tables at each node.
9	Implement Dijsktra's algorithm to compute the shortest path through a network.
10	Implement the concept of data encryption and data decryption.

Suggested References/Books:
1. Computer Networks -- Andrew S Tanenbaum, David. j. Wetherall, 5th Edition. Pearson Education/PHI
2. Computer Networking: A Top-Down Approach - James Kurose , 7th Edition. Pearson
Education/PHI
3. An Engineering Approach to Computer Networks-S. Keshav, 2 nd Edition, Pearson Education
4. Data Communications and Networking – Behrouz A. Forouzan. Third Edition TMH.
5. Computer Networking: A Top-Down Approach - James Kurose - 7th edition. Pearson