Lecture Plan

Subject: **Computer Networks (CSC15106) [L-T-P = 3-0-0]**
Class: **V Semester B.Tech (Computer Science & Engineering)**

Sl. No.	Name of the Topics		No. of Lectures
1.	**Overview of Data Communication and Networking:** (Network Architecture, OSI Reference Model, TCP/IP Protocol Suite)		4
2.	**Physical Layer:** (Line Configuration, Physical Topology, Signaling, Bit Synchronization, Multiplexing, Switching, Transmission Media, Bandwidth use, ISDN)		8
3.	**Data Link Layer:**		8
	Logical Link Control Layer (Framing, Error Detection & Correction, Error Control, Flow Control, HDLC Protocol)	**Medium Access Protocol** (Addressing, Collision-based Protocols (ALOHA, CSMA, CSMA/CD), Collision-free Protocols (Bit Map, Binary Countdown, Adaptive Tree Walk), Binary Exponential Backoff Algorithm, IEEE Project 802.3, 802.4 & 802.5)	
4.	**Network Layer** (Switching, Routing Algorithms (Shortest Path Routing, Flooding, Distance Vector Routing, Link State Routing, Hierarchical Routing), Congestion Control Algorithms (Leaky Bucket & Token Leaky Bucket Algorithm), Networking & Internetworking Devices, Protocols (IPv4, ARP, ICMP))		8
5.	**Transport Layer** (TCP, UDP)		6
6.	**Network Applications** (Client-Server Model, Socket Interface, SMTP, POP/IMAP, DHCP, DNS)		6
		TOTAL	40