

# 4-YEAR B. TECH. IN COMPUTER SCIENCE & ENGINEERING

V SEMESTER B. TECH - CSE					
Course No.	Name of the Courses	L	T	P	Credit Hrs.
CSC15101	Combinatorics and Graph Theory	3	0	0	6
CSC15102	Operating Systems	3	0	0	6
CSC15103	Theory of Computation	3	0	0	6
CSC15106	Computer Networks	3	0	0	6
CSC15202	Operating Systems Lab	0	0	2	2
CSC15206	Computer Networks Lab	0	0	2	2
CSC15801	Project	0	0	4	4
<b>Total</b>					<b>32</b>
<b>Contact Hrs.</b>		<b>12</b>	<b>0</b>	<b>8</b>	<b>20</b>

CSC15106	COMPUTER NETWORKS	3-0-0
<p><b>Overview of Data Communication and Networking:</b> Network Architecture, OSI Reference Model, TCP/IP Protocol Suite.</p> <p><b>Physical Layer:</b> Line Configuration, Physical Topology, Signaling, Bit Synchronization, Multiplexing, Switching, Transmission Media, Bandwidth use, ISDN.</p> <p><b>Logical Link Control Layer:</b> Framing, Error Detection &amp; Correction, Error Control, Flow Control, HDLC Protocol.</p> <p><b>Medium Access Protocol:</b> Addressing, Collision-based Protocols (ALOHA, CSMA, CSMA/CD), Collision-free Protocols (Bit Map, Binary Countdown, Adaptive Tree Walk), Binary Exponential Back-off Algorithm, IEEE Project 802.3, 802.4 &amp; 802.5.</p> <p><b>Network Layer:</b> Switching, Routing Algorithms (Shortest Path Routing, Flooding, Distance Vector Routing, Link State Routing, Hierarchical Routing), Congestion Control Algorithms (Leaky Bucket &amp; Token Leaky Bucket Algorithm), Networking &amp; Internetworking Devices, Protocols (IPv4, ARP, ICMP).</p> <p><b>Transport Layer:</b> TCP, UDP</p> <p><b>Network Applications:</b> Client-Server Model, Socket Interface, SMTP, POP/IMAP, DHCP, DNS.</p>		