

Micro Syllabus of Computer Networks

Course Code	20CS3503	Year	III	Semester	I
Course Category	PCC	Branch	CSE	Course Type	Theory
Credits	3	L-T-P	3-0-0	Prerequisites	Computer Organisation and Architecture
Continuous Evaluation	30	Semester End Evaluation	70	Total Marks	100

CO	Course Outcome Statement	Blooms Level
CO1	Understand the basic concepts and protocols of different layers.	L2
CO2	Apply Error Correction or MAC Protocol mechanism for a given scenario.	L3
CO3	Apply various Addressing mechanisms/Routing protocols for a given network.	L3
CO4	Apply appropriate Transport & Application layer protocol for a given context.	L3
CO5	Analyze the given scenario and use appropriate methods/mechanisms / protocols for designing a network.	L4

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:Substantial, 2: Moderate, 1:Slight)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3													
CO2	2													
CO3	2													
CO4													2	
CO5		2							1	1				

Micro Syllabus		Mapped CO
Unit No.	Contents	
I	Introduction: -Networks, Network Types, Network Models: The Protocol Layering TCP/IP Protocol Suite, The OSI Model Physical Layer :-Transmission Media - Guided Media, Un-Guided Media Data-Link Layer: Introduction to DLC: Introduction Link Layer Addressing Error Detection and Correction Introduction Data Link Control: DLC Services Media Access Control (MAC)	CO1,CO2
II	Network Layer: Introduction to Network Layer Network-Layer Services, Packet Switching, Network-Layer Performance, IPv4 Addresses, Forwarding of IP Packets. Next Generation IP- IPv6 Addressing, The IPv6 Protocol.	CO1,CO3,CO5
III	Network-Layer Protocols Internet Protocol (IP) Unicast Routing- Introduction Routing Algorithms Distance vector and Link State Routing Unicast Routing Protocols.	CO1,CO3, CO5
IV	Introduction to Transport Layer Transport Layer Protocols-Introduction User Datagram Protocol(UDP) Transmission Control Protocol(TCP)	CO1,CO4,CO5
V	Application Layer: World Wide Web, Hyper Text Transfer Protocol (HTTP) File Transfer Protocol (FTP) Electronic Mail TELNET & Secure Shell (SSH) Domain Name System (DNS)	CO1,CO4

Learning Resources
Text Books
1. Data Communications and Networking, Behrouz A. Forouzan, Fifth Edition, McGrawHill
References
1. Computer Networking A Top-Down Approach, James F. Kurose, Keith W. Ross, Sixth Edition, Pearson Education
2. Computer Networks - A Systems Approach, Larry L. Peterson, Bruce S. Davie, Fifth Edition, Morgan Kaufmann.
e-Resources & other digital material
1. https://nptel.ac.in/courses/106/105/106105183/
2. https://nptel.ac.in/courses/106/105/106105081/
3. https://www.youtube.com/playlist?list=PLEAYkSg4uSQ2NMmzNNsEK5RVbhxqx0BZF