

COMPUTER NETWORKS (JUL -DEC 2019)

	Exam	Exam Dates	No. of Days
	T1	16-21 Sept 2019	21
	T2	21-25 Oct 2019	11
	End Term	03-Dec-19	10
S.No.	Topics	Book reference	42
	INTRODUCTION		Lec Hrs
1	Network terminologies, Clients and Servers, Connection Oriented and Connectionless services, Access networks and Physical Media		2
2	Switching techniques		1.5
3	Delay and Loss in packet switched networks		1
4	Protocol layers and their services, Network Models		1.5
5	Numericals		1.5
	APPLICATION LAYER		
6	Principles of Application-Layer Protocols		1
7	The World Wide Web: HTTP, The Internet's Directory Service: DNS		3
8	File Transfer: FTP, E-mail: SMTP		1
	TRANSPORT LAYER		
9	Transport-Layer Services and Principles, Multiplexing and Demultiplexing		1
10	UDP,TCP headers , TCP Connection Establishment and Termination		1.5
11	Transport Layer Protocols (Go back N, Stop and Wait, Selective Repeat)		3
12	Flow control (nagle , clark etc), error control		1
13	Congestion control , TCP congestion control		1
14	TCP Timers and RTO calculation		1
T1			
	NETWORK LAYER		
15	Introduction and Network Service Model		0.5
16	Subnetting , Masking , Classful , Classless addressing, IPv4 header, Fragmentation, IPv4 addressing , IPv6 header, NAT, ICMP		4.5
17	Routing algorithms		3
18	Hierarchical routing, RIP, OSPF, BGP		1
19	Broadcast and multicast routing		1
20	Numericals		1
T2			
	DATA LINK LAYER		
21	The Data Link Layer: Introduction, Services, Error Detection and Correction (parity, CRC, check summing)		2
22	Aloha, Slotted Aloha		1.5
23	CSMA, CSMA-CD, 1- persistent, K-persistent		1
24	MAC address , ARP, DHCP		2
25	Ethernet frame structure, Ethernet MAC protocol, Ethernet efficiency		1
26	Recent Trends in Networks		1.5
27	Numerical		1
End Term			