

CBCS SCHEME

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22SCS/SCN13

First Semester M.Tech. Degree Examination, June/July 2023 Advances in Computer Networks

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	What is multiplexing? Explain different methods of multiplexing in detail.	10	L1	CO1
	b.	Explain in detail stop and wait algorithm.	10	L1	CO1
OR					
Q.2	a.	With the help of neat diagram, explain the sliding window algorithm.	10	L1	CO1
	b.	Explain how latency or bandwidth can dominate network performance.	10	L1	CO1
Module – 2					
Q.3	a.	Write the characteristics of datagram networks.	04	L1	CO1
	b.	Write a note on virtual circuit switching.	06	L3	CO2
	c.	Discuss the features of ATM (Asynchronous Transfer Mode Network).	10	L3	CO2
OR					
Q.4	a.	Explain in detail about subnetting.	06	L3	CO2
	b.	Write a note on classes addressing.	06	L3	CO2
	c.	With a help of neat diagram, explain how DHCP server is responsible for providing configuration information.	08	L3	CO2
Module – 3					
Q.5	a.	With the help of the following graph, explain how the distance vector algorithm works. (Consider cost of each link is set to 1). <div style="text-align: center;"> <p style="text-align: center;">Fig.Q5(a)</p> </div>	10	L3	CO2
	b.	Write a note on interdomain routing (BGP).	10	L3	CO2
OR					
Q.6	a.	Explain the OSPF header format and OSPF link state advertisement.	10	L3	CO2
	b.	Explain the IPV6 packet header in detail.	10	L2	CO3
Module – 4					
Q.7	a.	Explain in detail about adaptive retransmission.	10	L2	CO3
	b.	Write a note on following queuing discipline: (i) FIFO (ii) Fair Queuing	10	L3	CO2

OR					
Q.8	a.	Explain slow start mechanism of TCP.	10	L2	CO3
	b.	With the help of diagram, explain how duplicate Acks lead to fast retransmit.	10	L2	CO3
Module – 5					
Q.9	a.	Write the domain hierarchy and explain how names are translated into addresses using Domain Name Service (DNS).	10	L3	CO3
	b.	What is Congestion Avoidance Mechanism? Explain in detail RED (Random Early Detection).	10	L2	CO3
OR					
Q.10	a.	Write a note on caching.	04	L3	CO2
	b.	Explain in detail about SMTP protocol.	08	L2	CO3
	c.	Explain the Decbit.	08	L2	CO3
