Code No: P18CST08

HALL TICKET NUMBER

PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)
III B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, MARCH/APRIL – 2023
COMPUTER NETWORKS
(Common to CSE,CSIT,IT,CSE(IOTCSBT),AIDS,AIML Branches)

Time: 3 hours   Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A

Answer all the questions in Part-A (5X2=10M)

Q. No.		Questions	Marks	CO	KL
1.	a)	Compare FDMA with TDMA techniques.	[2M]	1	2
	b)	What is piggybacking? What is the advantage of that technique?	[2M]	2	1
	c)	State the optimality principle.	[2M]	3	2
	d)	Discuss the services provided by the transport layer to the upper layers.	[2M]	4	2
	e)	What is the resource record? What is the purpose that in the DNS?	[2M]	5	1

PART-B

Answer One Question from each UNIT (5X10=50M)

Q. No.		Questions	Marks	CO	KL
		UNIT-I			
2.	a)	Define network. Explain different types of networks.	[6M]	1	2
	b)	Compare the OSI reference model with the TCP/IP reference model.	[4M]	1	2
		OR			
3.	a)	Define transmission media. Explain in detail the wireless transmission media.	[5M]	1	2
	b)	Define switching. Explain different switching techniques used in computer networks.	[5M]	1	2
		UNIT-II			
4.	a)	Write about any two error detection techniques.	[5M]	2	2
	b)	Write short notes on following sliding window protocols. i)Go-back-N protocol ii)Selective-Repeat	[5M]	2	2
		OR			
5.	a)	Explain the CSMA and CSMA/CD protocols.	[5M]	2	2
	b)	Explain any two collision-free protocols. i)A bit-map protocol ii) Binary countdown	[5M]	2	2
		UNIT-III			
6.	a)	Illustrate the shortest path routing algorithm with an example.	[5M]	6	2
	b)	Explain the Address Resolution Protocol (ARP) internet control protocol.	[5M]	4	2
		OR			
7.	a)	Illustrate the hierarchical routing with an example.	[5M]	6	2
	b)	Explain the IP address classes in detail.	[5M]	4	2
		UNIT-IV			
8.	a)	Draw and explain each segment in TCP header.	[5M]	4	2

	b)	Explain Real Time Transport protocol.	[5M]	4	
		OR			
9.	a)	Explain the three-way handshake connection establishment and release in TCP.	[5M]	4	
	b)	Explain the header format of UDP.	[5M]	4	
		UNIT-V			
10.	a)	What are the services provided by the application layer?	[5M]	3	
	b)	Define encryption. Explain the steps of the RSA algorithm.	[5M]	5	
		OR			
11.		What is an e-mail? Explain the two architectures of e-mail in detail.	[10M]	5	

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