Seventh Semester B.E. Degree Examination, Jan./Feb. 2021

Computer Communication Networks

Time: 3 hrs.

Max. Marks:100

(10 Marks) (10 Marks)

a. Describe the ISO OSI reference model of a computer networks. Discuss the functions of each layer. b. Discuss dial-up MODEMS. c. Briefly explain services provided by telephone network. 2 a. What is an ARQ? Describe in detail about Stop and Wait ARQ. b. With a neat diagram, explain HDLC frame format. c. Explain bit stuffing with an example. 3 a. Compare pure ALOHA with slotted ALOHA. What are the reasons for poor channel utilization in ALOHA system. How the same is improved in CSMA? (10 Marks) b. A pure ALOHA network transmits 200 bit from on a shared channel of 200 KBPS. What is the throughput if system produces (i) 500 frame/sec (ii) 250 frame/sec. (04 Marks)	Note: Answer any FIVE full questions, selecting at least TWO questions from each part.				
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To 1 ' I was set and D persistent schemes (00 Marks)			Evaluin I persistent and Penersistent schemes.	(06 Marks)	
		c.			
4 a. Compare the data rates for Standard Ethernet, Fast Ethernet, Giga-bit Ethernet and	4	0	Compare the data rates for Standard Ethernet, Fast Ethernet, Giga-bit	Ethernet and	
Tea Giga-hit Ethernet.	4	a.	Tea Giga-bit Ethernet.	(04 Marks)	
b Evplain 802 3 MAC frame format.		h	Explain 802 3 MAC frame format.	,	
c. Discuss IEEE 802.11 MAC Layer Wireless LAN in detail. (08 Marks)			Discuss IEEE 802,11 MAC Layer Wireless LAN in detail.	(08 Marks)	
PART - B					
5 a. Explain the following connecting device: (iv) Gate way (08 Marks)	5	a.	Explain the following connecting device:	(08 Marks)	
(i) Repeater (ii) Bridge (iii) Router (iv) Suite (iv)			(i) Repeater (ii) Bridge (iii) Router (iv) Gate way	•	
b. Explain Bus backbone and Star backbone networks.		b.	Explain Bus backbone and Star backbone networks.	•	
c. Éxplain VLAN.		c.	Explain VLAN.	,	
(05 Marks)		C	The NATE OF CHAIN NAT help in address depletion.	(05 Marks)	
6 a. What is NAT? Explain how NAT help in address depletion. (05 Marks) b. Explain structure, address space, uni-cast address of IPV6 address with an example. (10 Marks)	6		What is NAT? Explain now NAT help in address depretion.	mple.	
		b.	Explain structure, address space, uni-cast address of it	,	
c. Explain classful addressing of IPV4 with examples. (05 Marks)		C	Explain classful addressing of IPV4 with examples.	(05 Marks)	
		C.	*		
7 a. With a suitable diagram, explain distance vector routing. (10 Marks)	7	я	With a suitable diagram, explain distance vector routing.	,	
b Discuss different forwarding techniques with a neat figure.	,		Discuss different forwarding techniques with a neat figure.		
c. What do you mean by uni-cast? (02 Marks)			. What do you mean by uni-cast?	(UZ Marks)	

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Describe a TCP connection establishment using three way handshake. Explain TCP with a neat diagram. Write UDP frame format.