Paper / Subject Code: 31923 / Computer Network

tion:	1: 3 Hrs.	Total Marks: 80	
2) At	Attempt any three questions, from remaining five questi	ons.	10
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a)	State and explain the design issues of OSI layers.	5	
b)	70'	ted pair and fiber optic 5	2
c)	List the types of Error Detection and Correction technique	ies with the help of example. 5	5
d)	Compare the Network layer protocols IPv4 and IPv6.	5	
a)	Explain ISO-OSI reference model with diagram.	10	0
b)	Illustrate TCP protocol for establishing a connection using the transport layer.	g 3-way handshake technique in 1	0
a)			0
b)	Analyze the steps involved in Token and Leaky bucket all benefit in the network layer with suitable diagrams.	gorithm by quoting the need and 1	0
	Evelois Linked State Douting with the help of evenuels	1	Λ
(b)	An ISP is granted a block of addresses starting with 190. The ISP needs to distribute these addresses to three grou a. The first group has 64 customers; each need 256 address. The second group has 128 customers; each need 128 acc. The third group has 128 customers; each need 64 addresses.	100.0.0/16 (65,536 addresses). 109 of customers as follows: esses. ddresses.	
a)	What is Congestion control? Explain Open loop and Clo	se loop Congestion control.	0
b)			
42	Write Short Note on (Any Two) (a) Address Resolution Protocol (ARP) (b) Classful and Classless Addressing (c) Distance Vector Routing (DVR)	2	0
	a) b) a) b) a) b) a) a) a) a) b) a) b) a) b)	 a) State and explain the design issues of OSI layers. b) Compare the performance characteristics of coaxial, twist transmission media. c) List the types of Error Detection and Correction technique down of Compare the Network layer protocols IPv4 and IPv6. a) Explain ISO-OSI reference model with diagram. b) Illustrate TCP protocol for establishing a connection using the transport layer. a) What is the throughput of the system both in Pure ALO network transmits 200 bits frames on a shared channed produces? a) 1000 frames per second b) Analyze the steps involved in Token and Leaky bucket all benefit in the network layer with suitable diagrams. a) Explain Linked State Routing with the help of example. b) An ISP is granted a block of addresses starting with 190. The ISP needs to distribute these addresses to three group a. The first group has 64 customers; each need 256 addressed b. The second group has 128 customers; each need 64 addressed c. The third group has 128 customers; each need 64 addressed allocations. a) What is Congestion control? Explain Open loop and Clob Draw and summarize the structure of HTTP request and Write Short Note on (Any Two) (a) Address Resolution Protocol (ARP) (b) Classful and Classless Addressing 	1) Question No. 1 is Compulsory. 2) Attempt any three questions, from remaining five questions. 3) Figure to the right indicates full marks a) State and explain the design issues of OSI layers. b) Compare the performance characteristics of coaxial, twisted pair and fiber optic transmission media. c) List the types of Error Detection and Correction techniques with the help of example. d) Compare the Network layer protocols IPv4 and IPv6. 5 a) Explain ISO-OSI reference model with diagram. b) Illustrate TCP protocol for establishing a connection using 3-way handshake technique in the transport layer. a) What is the throughput of the system both in Pure ALOHA and Slotted ALOHA, if the network transmits 200 bits frames on a shared channel of 200 Kbps and the system produces? a) 1000 frames per second b) 500 frames per second b) Analyze the steps involved in Token and Leaky bucket algorithm by quoting the need and benefit in the network layer with suitable diagrams. a) Explain Linked State Routing with the help of example. b) An ISP is granted a block of addresses starting with 190.100.0.0/16 (65,536 addresses). The ISP needs to distribute these addresses to three groups of customers as follows: a. The first group has 128 customers; each need 256 addresses. b. The second group has 128 customers; each need 256 addresses. c. The third group has 128 customers; each need 264 addresses. Design the subblocks and find out how many addresses are still available after these allocations. a) What is Congestion control? Explain Open loop and Close loop Congestion control. b) Draw and summarize the structure of HTTP request and response. Write Short Note on (Any Two) (a) Address Resolution Protocol (ARP) (b) Classful and Classless Addressing

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