Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY BE- Vth SEMESTER-EXAMINATION - MAY/JUNE - 2012

Subje	ect c	ode: 150702	Date: 02/06/2012		
Subje	ect N	lame: Computer Network			
Time	: 02:	30 pm – 05:00 pm	Total Marks: 70		
Instr	ucti	ons:			
1.	Atte	empt all questions.			
2.	Mal	ke suitable assumptions wherever necessary.			
3.	3. Figures to the right indicate full marks.				
0.1	(.)		07		
Q.1	(a)	(i) Which notwork replaced V 25 networks? What is	07 04		
		(i) Which network replaced X.25 networks? What is the essence of this new network?	V4		
		(ii) What is cyclic redundancy check? Show the	03		
		calculation polynomial code checksum for a			
		frame 1101011011 using the generator x^4+x+1 .			
	(b)		07		
		fiber and single mode fiber. Explain the transmission of			
		light through fiber.			
Q.2	(a)	Explain link state routing with all the five steps in detail.	07		
	(b)	Explain the term piggybacking, sending window and	07		
		receiving window. Explain One-Bit sliding window protocol.			
		OR			
	(b)	Explain the following two collision free protocol.	07		
	(,-)	(i) A bit map protocol			
		(ii) Binary countdown			
Q.3	(a)	How route discovery is done in Ad Hoc networks. Explain	07		
	<i>a</i> >	format of ROUTE REQUEST and ROUTE REPLY packet.	0=		
	(b)	Explain the following techniques for achieving good	07		
		quality of service. (i) Traffic shaping			
		(ii) Leaky bucket algorithm			
		OR			
Q.3	(a)	Explain congestion control in Datagram subnets. Write	07		
_	` ´	about hop by hop choke packets scheme.			
	(b)	Write about OSPF(open shortest path first). Which four	07		
		classes of routers are distinguished by OSPF?			
0.4			A=		
Q.4	(a)	(i) Frankin fallanina midh manad da	07		
		(i) Explain following with respect to ATM(asynchronous transfer mode)	04		
		a) Virtual circuits			
		b) Cells			
		(ii) Define	03		
		a) nonpersistent CSMA			
		b) p-persistent CSMA.			

	(b)		07	
		(i) Which two different modes of operation are supported by Gigabit Ethernet?	04	
		(ii) What is the similarity and difference between switch and bridge. Also explain cut through switched.	03	
		OR		
Q.4	(a)		07	
		(i) Write the two differences between Ethernet and wireless LAN 802.11 in the physical and data link	04	
	layers.			
		(ii) Explain switched Ethernet.	03	
	(b)		07	
		(i) Explain spanning tree bridges	04	
		(ii) Explain remote bridges.	03	
Q.5	(a)	Explain connection establishment and connection release in Transport protocols.	07	
	(b)	E-mail systems contain which two subsystems? Write the	07	
	` /	five basic functions provided by e-mail system.		
		OR		
Q.5	(a)	Write about flow control and buffering mechanism in	07	
Z	()	Transport protocols.	٠.	
	(b)	Describe the built in HTTP request methods.	07	
	(~)	2 como un como maria la request memoris.	٠.	
