Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME-SEMESTER II- EXAMINATION - SUMMER 2015

	·	Code: 2720509 Date: 03/06/	2015
Tin	·	Name: Computer Networks :30 PM – 5:00 PM Total Marks	:: 70
	1. 2.	Attempt all questions.	
Q.1	(a)	What is the purpose of physical layer? Explain multimode fiber and single mode fiber. Explain the transmission of light through fiber.	e 07
	(b)	 i) Explain the following terms: Jitter, Bandwidth and throughput. ii) Which of the OSI layers handles each of the following: " Determine which route through the subnet to use. " Dividing the transmitted bit stream into frames. " Encryption and compression of the information. " Flow control between source and destination node. 	07
Q.2	(a)	What is framing? Explain the various methods used for carrying out th framing in detail.	e 07
	(b)	Explain a protocol Using Go Back N strategy using pipelining and show the scenario in the case of "when receiver' window size is 1 and "when receiver' window size is large	07
	(b)	OR Explain Services and Design issues of transport layer	07
Q.3	(a)	(i) Which two different modes of operation are supported by Gigabs Ethernet?	it 07
	(b)	(ii) Define a) Non-persistent CSMA b) P-persistent CSMA. Explain the Link state routing protocol with suitable example. OR	07
Q.3	(a)	Write about OSPF (open shortest path first). Which four classes of router	s 07
	(b)	are distinguished by OSPF? Explain the following techniques for achieving good quality of service. (i) Traffic shaping (ii) Leaky bucket algorithm	07
Q.4	(a)	Explain Following i) What is Gateway? How it works? ii) Explain Shortest Both Pouting Algorithm	07
	(b)	ii) Explain Shortest Path Routing Algorithm Draw IP header and explain the each field of the header. Also explain th concept of fragmentation in detail.	e 07
Q.4	(a)	OR Explain the following concepts:	07
· ·	(b)	Tunneling, Network address translation (NAT) and DHCP. What is ALOHA? Explain variants of ALOHA protocol.	07
Q.5	(a)	Explain DNS and its advantages in detail with example.	07

	(b)	Explain the e-mail architecture and services. Write short note on POP3 and MIME.	07
		OR	
Q.5	(a)	Compare IPv4 and IPv6 and Explain in detail IPV6.	07
	(b)	Explain BGP in detail	07
