Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – SUMMER • 2013

Subject code: 715304 **Date: 11-06-2013**

Subject Name: Advanced Computer Networks

Time: 10.30 am – 01.00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	What are different properties of a computer network? Explain in detail.	**07**
	(b)	Explain H-TCP:TCP for high speed and long distance networks	**07**
Q.2	**(a)**	Differentiate between S-HTTP & HTTPS. How HTTPS is different from HTTP	**07**
	(b)	Explain stop-and-wait using example. Compare Stop-and-wait with sliding window	**07**
		OR	
	(b)	Compare between ALOHA and Slotted ALOHA. List the advantages and disadvantages of each	**07**
Q.3	**(a)**	Differentiate with examples between circuit switched and packet switched networks	**07**
	(b)	Compare TCP/IP model with OSI model	**07**
		OR	
Q.3	**(a)**	Explain CSMA and how it is better over ALOHA and Slotted ALOHA	**07**
	(b)	Describe and compare CSMA with CSMA/CD	**07**
Q.4	**(a)**	Explain role for the wireless LAN. Explain wireless LAN using IEEE802.11	**07**
	(b)	Explain Infrastructure approach & ad-hoc approach in wireless LAN	**07**
		OR	
Q.4	**(a)**	Describe cable broadband Vs. DSL/ADSL FastAccess Internet Service	**07**
	(b)	Explain the most famous key distribution protocol ï Kerberos.	**07**
Q.5	**(a)**	What is IPv6? Why IPv6? How IPv6 brings quality of service for new applications such as IP Telephony, video/audio?	**07**
	(b)	Explain Mobile IPv6. Also explain basic and advanced socket API in IPv6.	**07**
		OR	
Q.5	**(a)**	Explain in detail The Internetôs Multicast Backbone (MBONE) with proper examples and diagrammatic views.	**07**
	(b)	Explain different algorithms that may potentially be employed by multicast routing protocols. List them and explain any one of them.	**07**

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