

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 ñ 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 Internet's 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**
