

GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – II • EXAMINATION – WINTER • 2013

Subject code: 725305**Date: 02-01-2014****Subject Name: Wireless Programming and Application****Time: 10.30 am – 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt question 1, which is compulsory and answer any five from the rest questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right hand indicate the marks.

Q. No. 1

[2 Marks X 10 = 20 Marks]

- a. Write short note on GSM.
- b. Discuss GSM's Achievements
- c. Write short note on how technology changed the communication.
- d. What is the implication of communication Technology?
- e. Discuss CSMA/CD (802.3).
- f. What is back-off timer?
- g. What is snooping TCP?
- h. Define packet transfer process.
- i. Comment of P11.
- j. What do you mean by cross layer interactions?

Q. No. 2

a. Discuss the Work Leading to the GSM Phase 1 Standard used for the Opening of Service.

[5 Marks]

b. Show the interaction of Mobile IP with Snoop- TCP with required diagram.

[5 Marks]

Q. No. 3

a. Explain briefly the utilization of Fast-Retransmit.

[5 Marks]

b. List the smallest number of changes in the peer routing tables that are necessary to return the overlay to its routable state after P11's departure.

[5 Marks]

Q. No. 4

Consider Snoop -TCP and show delivery of a packet P to a mobile node (MN) from a corresponding node (CN) and back from MN to CN.

[10 Marks]

Q. No. 5

Suppose nodes A, B, and C each attach to the same broadcast LAN (through their adapters). If A sends thousands of IP datagrams to B with each encapsulating frame addressed to the MAC address of B, will C's adapter process these frames? If so, will C's adapter pass the IP datagrams in these frames to the network layer in C? How would your answer change if A sends frames with the MAC broadcast address?

[10 Marks]

Q. No. 6

Once the receive side has advertised the window size of zero, the sender is not permitted to send anymore data, which means it has no way to discover that the advertised window is no longer 0 at some time in future. How does TCP deals with this? Further, how this particular feature can be utilized in mobile scenarios.

[10 Marks]

Q. No. 7 Discuss Services & System features to GSM phase 2.

[10 Marks]

Q. No. 8 Discuss GSM success factor.

[10 Marks]
