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Z 6137

M.E. DEGREE EXAMINATION, MAY/JUNE 2008.

Elective

Computer Science and Engineering

CS 1623 — MOBILE COMPUTING

(Common to M.E Software Engineering and M.E Network Engineering)

(Regulation 2005)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the effects of the delay spread on the signals representing the data?
2. What are the primary goals of GSM?
3. What are the services being offered by Bluetooth?
4. How do IEEE 802.11 solve the hidden terminal problem?
5. How does the symmetry of wireless links influence the routing algorithms proposed?
6. Name the requirements for a mobile IP. Does mobile IP fulfill them all?
7. What is the necessity for a bandwidth manager in the M-TCP?
8. Discuss any two advantages of snooping TCP.

9. What are the fundamental differences of WML compared to HTML?
10. What advantages does a connectionless session services offer compared to connection oriented service?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss about the multiple access with collision avoidance technique used to solve the hidden terminal problem. Present necessary diagrams for explanation.

Or

- (b) Discuss the three difference categories of services provided by the GSM. State the limitations of the GSM.
12. (a) (i) Explain about the two different basic transmission techniques used to set up wireless LAN. (8)
- (ii) Discuss briefly the MAC mechanism in a bluetooth system. (8)

Or

- (b) (i) Discuss some of the service scenarios in which WATM can be used from a user's perspective. (8)
- (ii) Explain briefly the power management scheme of IEEE 802.11. (8)
13. (a) Discuss with suitable diagrams how the packet delivery to and from the mobile node takes place and also discuss the agent advertisement and delivery method.

Or

- (b) Sketch and explain the tunneling and encapsulation technique used for forwarding packets in a mobile IP.
14. (a) (i) Discuss the fast retransmission/fast recovery mechanisms in traditional TCP. (8)
- (ii) Discuss the implications of mobility in the TCP layer. (8)

Or

- (b) Discuss how the indirect TCP improves the performance in the mobile transport layer along with its disadvantages.

15. (a) Discuss briefly about the wireless transaction protocol. Also discuss the problems associated with wireless transaction protocol.

Or

- (b) Discuss the main idea behind the wireless application environment to support mobility in a wireless platform.