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Question Paper Code : 81336

M.E./M.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Elective

Computer Science and Engineering

CS 9251/CS 951 — MOBILE COMPUTING

(Common to M.E. Network Engineering/M.E. Computer Networking and Engineering/M.Tech. Information Technology/M.E. - Software Engineering/
M.E. Computer Networks)

(Regulation 2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the effects of multi-path propagation?
2. How does CDMA minimize fading?
3. What is polling?
4. What are the security services a GSM offers?
5. Give the purpose of PLCP preamble Fields of an IEEE 802.11 b PHY packet format.
6. Compare Pico net and scatter net.
7. How does the symmetry of wireless links influence the routing algorithms proposed in wireless?
8. What are the requirements for a mobile IP and justify them.
9. What is hoarding?
10. Draw the components and interface of the WAP 1.x architecture.

PART B — (5 × 16 = 80 marks)

11. (a) Explain the various spread spectrum techniques. (16)

Or

- (b) Explain the Hidden and Exposed terminal problem in a wireless environment. Also discuss the technique of multiple access with collision avoidance to overcome the hidden terminal problem. (16)

12. (a) Discuss the localization and handover features of GSM system. (16)

Or

- (b) Explain the bearer services, tele services and supplementary services of GSM networks. (16)

13. (a) (i) What is Blue tooth technology? Explain its protocol stack. (8)

- (ii) Write notes on ad hoc networks. (8)

Or

- (b) Write notes on IEEE 802.11 focusing on the functionalities and also explain the concept of routing, localization and handover in them. (16)

14. (a) Write notes on IP packet delivery, Agent Advertisement and Discovery. (16)

Or

- (b) Explain the DSR protocol with a suitable example. What are the advantages and pitfalls of cache maintenance in DSR? (16)

15. (a) How many types of TCP exist? Explain them in detail. (16)

Or

- (b) Describe Transaction and Session protocols of wireless. (16)