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Question Paper Code : 27420

5 Years M.Sc. DEGREE EXAMINATION, MAY/JUNE 2016

Elective

Information Technology

XIT 004/10677 SWE 71 – MOBILE COMPUTING

(Common to 5 Years M.Sc. Software Engineering)

(Regulations 2003/2010)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. What are wireless devices ? Give examples.
2. What is the need for mobile computing ?
3. What are the antennas used in mobile units ?
4. Compare and contrast the infrared and radio transmissions of WLANs.
5. How is synchronization achieved in a busy 802.11 ad hoc network ?
6. List the differences between Infrared and radio waves.
7. What are the factors that affect the performance of Ad hoc networking ?
8. Distinguish between a Foreign Agent and a Home Agent in Mobile IP technology.
9. Mention the security issues in Wireless protocols.
10. Define XML parser. Mention any two XML parsers.

PART – B (5 × 16 = 80 Marks)

11. (a) (i) Discuss the direction sequence spread spectrum technique. (12)
(ii) List the advantages of frequency hopping spread spectrum. (4)

OR

- (b) (i) Discuss any two dynamic TDM schemes used for wireless transmission. (12)
(ii) What is the main physical reason for the failure of many MAC schemes known from wired networks ? Explain. (4)

12. (a) Describe briefly the location and handover features of GSM system. (16)

OR

- (b) Explain about the UMTS radio interface and the basic architecture of the UTRA network.

13. (a) Explain IEEE 802.11 standard for wireless LAN. (16)

OR

- (b) Explain Bluetooth network architecture, service offered, packed format, security and link management. (16)

14. (a) (i) What are the goals of mobile IP ? Explain the applicability of Mobile IP and Cellular IP. (8)
(ii) Explain packet delivery and location management in Mobile IP. (8)

OR

- (b) (i) Discuss upon Tunneling and Encapsulation. (8)
(ii) Explain about the routing strategy of Ad-hoc networks. (8)

15. (a) What is the main objective of wireless Application Protocol ? Explain the components and interfaces of the WAP architecture. (16)

OR

- (b) Describe the WML Script with example. (16)