

30/12/16 FN

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Question Paper Code : 60398

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Seventh Semester

Computer Science and Engineering

CS 2402/CS 72/10144 CS 703 — MOBILE AND PERVASIVE COMPUTING

(Common to PTCS 2402 – Mobile and Pervasive Computing for B.E. (Part-Time)
Sixth Semester – CSE – Regulations 2009)

(Regulations 2008/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the security issues in mobile networking?
2. What is Mobility management?
3. What is a piconet?
4. State the hidden terminal problem.
5. Write any two factors that affect the performance of Adhoc networking.
6. What do you mean by Zone Routing Protocol?
7. What is a Case-of-Address?
8. Mention certain situations where Ad-hoc networks are the only choice.
9. List Application areas of pervasive computing.
10. What are the challenges in pervasive computing?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain in architecture of cellular mobile communication with neat diagram. (8)
(ii) Explain in connection establishment and frequency allocation in GSM. (8)

Or

- (b) How is data routing done in GPRS? In what aspect is data routing different from voice routing? State its limitations and applications. (16)
12. (a) Discuss in detail about the medium access control layer in IEEE 802.11.

Or

- (b) Explain the working principle of the MAC layer of Bluetooth.
13. (a) Explain how the concept of tunnelling and encapsulation done in Mobile IP.

Or

- (b) With an example explain the process of the dynamic source routing of the ad-hoc network.
14. (a) Explain with diagrammatic illustration the components and interface of the Wireless Application Protocol (WAP) architecture. (16)

Or

- (b) (i) Explain with diagrammatic illustration Wireless Datagram Protocol (WDP) service primitives. (8)
(ii) Explain with diagrammatic illustration Wireless Transport Layer Security (WTLS) establishing a secure session. (8)

15. (a) Discuss briefly about Pervasive Web Application Architecture. (16)

Or

- (b) Discuss briefly how the access from Personal Digital Assistants is made through WAP. (16)