Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 51398

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2016.

Seventh Semester

Computer Science and Engineering

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

(Regulations 2008/2010)

(Common to PTCS 2402/10144 CS 703 — Mobile and Pervasive Computing for B.E. (Part-Time) Sixth Semester – Computer Science and Engineering Regulations 2009/2010)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the ways to improve the efficiency of cellular networks?

2. Why cellular systems require handover procedures?

3. Compare infra red and radio transmission.

4. What is piconet? What restricts the number of active devices in a piconet?

5. Write any two factors that affect the performance of Adhoc networking.

6. What do you mean by Zone Routing Protocol?

7. What is the use of WML?

8. What is WAP?

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) (i) Explain with diagrammatic illustrations architecture of an infrastructure based IEEE 802.11 . (12)

   (ii) Why is the physical layer in IEEE 802.11 subdivided? Discuss. (4)

   Or

   (b) (i) Can a network be wireless, but not mobile? Discuss. (4)

   (ii) What is WiMAX? Explain the WiMAX architecture in detail. (12)

13. (a) Give a detailed description of the concepts behind agent advertisement, discovery and registration in Mobile IP.

   Or

   (b) Discuss in detail about the Dynamic source routing with an example.

14. (a) (i) What is Wireless Telephony Application? Explain the logical architecture of WTA. (8)

   (ii) Explain how Snooping TCP ensures end to end connectivity. (8)

   Or

   (b) Discuss in detail the components and protocols of Wireless Application Protocol. (16)

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)

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