Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 21517

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Seventh Semester

Information Technology

IT 2402/IT 72 – MOBILE COMMUNICATION

(Regulation 2008)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   Draw the frequency assignment for radio transmission.

2.   What is handoff? List out its characteristics.

3.   Give examples for mobile adhoc networks.

4.   Define Ad hoc wireless network with example.

5.   What is mobile number portability?

6.   Define VOIP.

7.   Why does I-TCP isolate problems on the wireless link?

8.   What is time-out freezing?

9.   Mention the primary goals of WAP.

10. What is the role of the WTA server?

PART B — (5 × 16 = 80 marks)

11. (a) (i) What is a cellular system? Give their advantages and disadvantages. (6)

    (ii) Explain in detail about the motivation for a specialized MAC. (10)

    Or

   (b) (i) Compare the mechanisms of SDMA, TDMA, FDMA and CDMA with their functions. (8)

    (ii) Discuss the principle and operation of cellular wireless networks in detail. (8)

12. (a) (i) Explain in detail about the system and protocol architecture of IEEE 802.11. (12)

    (ii) Discuss the advantages and disadvantages WLAN. (4)

    Or

   (b) (i) Describe the functions of MAC & physical layer of IEEE 802.16 in detail. (10)

    (ii) Write short notes on wireless local loop. (6)

13. (a) Explain in detail about the system architecture of Global System for Mobile communication. (16)

    Or

   (b) (i) Discuss in detail the various handover scenarios in GSM. (6)

    (ii) Describe the reliability and delay classes in GPRS. Also explain the GPRS procedures. (10)

14. (a) (i) How can the tunneling and encapsulation be performed in mobile IP? Explain. (10)

    (ii) Describe the client server configuration of DHCP. (6)

    Or

   (b) (i) Discuss how snooping TCP acts as a transparent TCP and explain the role of foreign agent in it in detail. (10)

    (ii) What happens in the case of I-TCP if the mobile is disconnected? Discuss. (6)

15. (a) Explain in detail the components and interfaces of the WAP architecture. (16)

    Or

   (b) (i) Discuss the architecture of wireless telephony application in detail. (10)

    (ii) Describe the several standard libraries for WML Script specified by WAP. (6)

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