Registration No. : | | | | | | | | | | |

Total number of printed pages – 2

B. Tech

FECE 6402

Seventh Semester Regular Examination – 2014

PRINCIPLES OF MOBILE COMPUTING

BRANCH(S) : AEIE, EC, ETC, IEE

QUESTION CODE : H 312

Full Marks – 70

Time : 3 Hours

*Answer Question No. **1** which is compulsory and any **five** from the rest.*

The figures in the right-hand margin indicate marks.

1. Answer the following questions : 2 ×10

   (a) What are the benefits of Spread Spectrum technique ? How Spreading can be achieved ?

   (b) Which component of GSM System maintains Security ?

   (c) Define Mobile Againt with example.

   (d) What do you mean by capability negotiation and discus its importance ?

   (e) What are the advantages and disadvantages of Radio wave transmission ?

   (f) List the basic access mechanism used in IEEE 802.11 LAN.

   (g) Compare between Fast retransmission and Fast Recovery.

   (h) How WCDMA is different from CDMA ?

   (i) What do you mean by free space loss ?

   (j) What do you mean by footprint in the context of satellite communication?

2. With a neat diagram explain the GPRS architecture. Explain how it facilitates different type of services like mobility management and signaling. 10

P.T.O.

3. Draw the protocol architecture of Bluetooth. Discuss the power management technique used in this architecture. 10

4. (a) Explain how collision is avoided in HYPERLAN. 5

   (b) State and differentiate between wired network and ad-hoc wireless network with example. 5

5. (a) Explain the packet flow in mobile IP. What Additional hoots packet take if reverse tunneling is required. 5

   (b) Draw the Protocol stack of WAP gateway and list its benefit. 5

6. (a) Explain the Vision of IMT 2000. 5

   (b) What is WLL ? What are the advantages of WLL ? Explain with example. 5

7. (a) What is Personal Communication Services (PCS) ? Discuss different approach to achieve PCS when user and devices are in motion. 5

   (b) Discuss Global Star Satellite system with a neat diagram. 5

8. Write short notes on any two of the following : 5×2

   (a) IRIDIUM

   (b) Wireless Markup Language

   (c) Handover.