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Total Number of Pages: 2

B.Tech
FECE6402

7th Semester Regular / Back Examination 2016-17

PRINCIPLES OF MOBILE COMPUTING

BRANCH: AEIE, ECE, EIE, ETC, IEE

Time: 3 Hours

Max Marks: 70

Q.CODE: Y336

**Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.**

Q1 Answer the following questions: (2 x 10)

- a) What is an ISM frequency band ?
- b) Mention the number of satellites used in IRIDIUM satellite system.
- c) Define the tunneling and encapsulation mechanism in mobile IP.
- d) What is the role of gateway MSC ?
- e) Mention the frequency bands used in IEEE 802.11 wireless LAN.
- f) What are the networks used for mobile computing ?
- g) Differentiate between IP4 and IP6.
- h) What do you mean by asynchronous transmission ?
- i) Define pervasive computing.
- j) Mention the advantages of global mobile satellite system.

Q2 Define GPRS system. With a neat block diagram explain every component of GPRS system architecture. (2+8)

Q3 a) Explain the vision of IMT-2000. (5)

b) With a neat diagram explain the architecture of wireless local loop. (5)

Q4 a) Explain the role of WAP gateway in WAP using block diagram. (5)

b) Describe the functions of various layers present in WAP protocol architecture. (5)

Q5 a) Draw the GSM system architecture and mention at least any four features of GSM system. (5)

b) Explain briefly the functions of network and switching subsystem in GSM. (5)

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Q6 a) Mention the features of IRIDIUM satellite system. **(5)**

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b) With a neat diagram describe the system architecture of infrastructure based IEEE 802.11 LAN. **(5)**

Q7 Draw the Bluetooth protocol stack architecture and explain the functions of all the protocols. **(10)**

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Q8 Write short answer on any TWO: **(5 x 2)**

a) Virtual private network

b) ICO satellite system

c) CDMA- 2000

d) WCDMA

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