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Total Number of Pages: 02

B.TECH
FECE6402

7th Semester Regular / Back Examination 2015-16
PRINCIPLES OF MOBILE COMPUTING

BRANCH: AEIE,EC,ETC,IEE

Time: 3 Hours

Max marks: 70

Q.CODE: T567

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 are the basic transmission technologies used for WLAN ? Mention the advantages of WLAN.
 - b) What do you mean by mobile computing ? Name the types of devices used for mobile computing.
 - c) Explain how mobility management is carried out in PCS system.
 - d) What is the difference between infrastructure-based and infrastructure-less network ? Explain.
 - e) Explain the significance of signaling system-7.
 - f) What is mobile-IP ? Define the components home agent and foreign agent of a mobile-IP network.
 - g) Give a comparison between Bluetooth piconet and scatternet.
 - h) Differentiate between MSC and Gateway-MSC.
 - i) What is the purpose of pervasive computing ? Mention some application of pervasive computing.
 - j) Explain the importance of SIM in mobile communication system .
- Q2** a) Sketch the architecture of a PCS system and explain all component of it. **(5)**
- b) Explain the functions of virtual private network. What are the merit and demerit of VPN ? **(5)**
- Q3** a) Draw the WAP pull and push technology architecture and explain how it works. **(5)**
- b) Describe the process of accessing a website using WAP-enabled device and list the applications of WAP. **(5)**
- Q4** Using block diagram describe the functions of each components in GSM system architecture. Also explain the authentication and encryption security services offered by GSM. **(10)**
- Q5** a) What is WLL? Explain the working of WLL architecture using block diagram. **(5)**
- b) Describe the features of Bluetooth and mention it applications. **(5)**

- Q6** a) Using block diagram explain the process of IP-packet delivery to and from a mobile node . **(5)**
b) Explain infrastructure based and ad-hoc network architecture of IEEE 802.11 WLAN. **(5)**
- Q7** a) Define global mobile satellite system ? Give a brief comparison between IRIDIUM and GLOBALSTAR satellite system. **(5)**
b) Discuss the features of ICO global mobile satellite system **(5)**
- Q8** Write short notes on any two: **(5 x 2)**
a) HLR and VLR
b) IMSI AND IMEI
c) W-CDMA
d) CDMA-2000