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B.Tech
FECE6402

7th Semester Back Examination 2018-19
PRINCIPLES OF MOBILE COMPUTING
BRANCH : AEIE, ECE, EIE, ETC, IEE
Time : 3 Hours
Max Marks : 70
Q.CODE : E338
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) Explain how mobility management is carried out in PCS system.
   b) Mention advantage and disadvantage of mobile computing.
   c) Mention two differences between 2G and 3G network.
   d) What are the basic transmission technologies used for WLAN? Mention the advantages of WLAN.
   e) Give a comparison between Bluetooth piconet and scatternet.
   f) Which component of GSM System maintains security?
   g) Compare the IEEE 802.11a and IEEE 802.11b standards.
   h) Write different types of satellites and their uses.
   i) What is the fundamental difference between WML and HTML?
   j) Write the advantages that IPV6 offer for mobility.

Q2 **a)** Discuss Global Star Satellite System with a neat diagram. **(5)**
   b) Draw the Bluetooth protocol stack architecture and explain the functions of all the protocols. **(5)**

Q3 **a)** Explain infrastructure based and ad-hoc network architecture of IEEE 802.11 WLAN. **(5)**
   b) What is Wireless Markup Language? Mention its features. **(5)**

Q4 **a)** Mention the features of IRIDIUM satellite system. **(5)**
   b) Describe the process of accessing a website using WAP-enabled device and list the applications of WAP. **(5)**

Q5 **a)** Explain the architecture of wireless local loop with a neat diagram. **(5)**
   b) Explain briefly the function of network and switching subsystem in GSM. **(5)**

Q6 **a)** Draw 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)**

Q7 With a neat diagram explain the GPRS architecture. Explain how it facilitates different type of services like mobility management and signalling. **(10)**

Q8 **Write short answer on any TWO :** **(5 x 2)**
   a) WAP gateway
   b) IMT-2000
   c) CDMA-2000
   d) Handover