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Total Number of Pages: 01

**B.Tech.
PECS5301**

5th Semester Back Examination 2017-18

Mobile Computing

BRANCH: CSE

Time: 3 Hours

Max Marks: 70

Q.CODE: B344

**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) Mention one advantage and one disadvantage of mobile computing.
 - b) Explain the role of HLR entity in GSM network.
 - c) Discuss the concept of tunneling and encapsulation.
 - d) Mention two differences between 2G and 3G network.
 - e) What is DHCP ?
 - f) What are the main elements of UMTS ?
 - g) Compare MANET vs VANET.
 - h) Give 4 examples of mobile OS.
 - i) What for IEEE802 standard is used ?
 - j) Differentiate E-Commerce vs M-Commerce.
- Q2 a) Explain the various applications of mobile computing. (5)**
b) Explain the PCS architecture with suitable diagram. (5)
- Q3 a) Explain the GSM architecture in details. (5)**
b) What are the security issues in GSM and how security of GSM is achieved ? (5)
- Q4 a) Explain the MAC frame format of IEEE 802.11 wireless LAN. (5)**
b) Explain the functions of GPRS protocol stack with a neat diagram. (5)
- Q5 a) Compare FDMA, TDMA, SDMA, CDMA. (5)**
b) Give the functions of mobile agent, application server, gateways and portals. (5)
- Q6 a) Brief out the features and need about XML. (5)**
b) Elaborate on J2ME, java card component. (5)
- Q7 Explain about the key mechanism in Mobile IP. (10)**
- Q8 Write short answer on any TWO : (5 x 2)**
- a) Component of GLOBALSTAR system.
 - b) Bluetooth network
 - c) Pervasive web application architecture
 - d) Android SDK.