

**M.C.A. DEGREE EXAMINATIONS: NOVEMBER 2009**

Fifth Semester

**P07CAE13 MOBILE COMPUTING**

**Time: Three Hours**

**Maximum Marks: 100**

**Answer ALL Questions:-**

**PART A (10 x 2 = 20 Marks)**

1. How are guard spaces realized between users in CDMA?
2. What are the two different basic transmission technologies used to set up WLAN?
3. How the mobility is restricted using WLANs?
4. Mention the different phases in HIPERLAN.
5. What are the reasons for delays in GSM for packet data traffic?
6. List four applications of Adhoc networks.
7. What is fast retransmit in TCP?
8. What is the need for encapsulation?
9. How can DHCP be used for mobility and support of mobile IP?
10. Give the basic objectives of the WAP.

**PART B (5 x 16 = 80 Marks)**

- 11 a (i) Explain the handover procedures and security services of GSM. (8)  
(ii) Compare GEO, MEO and LEO. (8)

**(OR)**

b. Draw and explain the UMTS core network together with a 3G RNS and 2G BSS

- 12 a (i) Present and explain the schematic of Bluetooth protocol architecture (10)  
(ii) Compare and Contrast wired and wireless LANS. (6)

**(OR)**

12 b Explain how power management is done in IEEE 802.11 infrastructure based and ADHOC network.

13 a (i) Discuss the characteristics of an ADHOC network. (8)

(ii) Discuss the drawbacks of ADHOC networks and how to overcome it. (8)

**(OR)**

b. Discuss in detail about the DSR routing protocol used in ADHOC networks.

14 a (i) Compare and contrast I-TCP, S-TCP and M\_TCP (8)

(ii) Explain traditional TCP in detail. (8)

**(OR)**

b. How mobile IP supports registration, tunneling and encapsulation.  
Explain in detail.

15 a. Discuss in detail about the components in interface of the WAP architecture.

**(OR)**

b. Explain WTP with message transfer for different classes during the interaction between a client and server .

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