Unit IV

7. (a) What is ZigBee and how does it work ? What is the difference between ZigBee and Bluetooth ? **9**

   (b) With a focus on security, what are the problems of WLANs ? What level of security can WLANs provide, what is needed additionally and how far do the standards go ? **6**

8. Describe and compare EAP-TLS, EAP-TTLS and EAP-Peap. **15**

18AA1011

M.Tech. EXAMINATION, May 2019

(First Semester)

(C. Scheme) (Re-appear)

(CSE)

MTCSE545C

ADVANCED WIRELESS AND MOBILE NETWORKS

Time : 3 *Hours*]   [*Maximum Marks :* 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) What is the relationship between the bandwidth of a signal before and after it has been encoded using spread spectrum ? List three benefits of spread spectrum and explain FHSS in detail. **11**

(b) What is frequency reuse and how is it achieved in wireless networks ? **4**

2. (a) Explain IEEE802.11 protocol architecture and management. Also discuss physical layer of IEEE 802.11 in detail. **8**

(b) Explain the deployment issues in WLAN. **7**

Unit II

3. Describe the evolution of 1G, 2G, 2.5G, 3G and 4G wireless cellular networks along with their key features. **15**

4. (a) What is the reaction of standard TCP in case of packet loss ? In what situation does this reaction make sense and why is it quite often problematic in the case of wireless networks and mobility ? **6**

(b) List the entities of mobile IP and describe data transfer from a mobile node to a fixed node and vice versa. Why and where is encapsulation needed ? **9**

Unit III

5. (a) What are the design goals of IEEE 802.16 ? How is mobility managed in WiMAX ? Compare it with Wi-Fi. **10**

(b) How can the geographically unused spectrum allocated to the television broadcast be utilized ? Explain. **5**

6. How is medium access control carried out in wireless sensor networks ? Explain in detail. **15**