

Code: **ECMC2T2**

**I M.Tech - II Semester - Regular Examinations - December 2013**

**WIRELESS COMMUNICATIONS AND NETWORKS  
(MICROWAVE & COMMUNICATION ENGINEERING)**

Duration: 3 hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1. a) Explain the concept of 'frequency reuse' in cellular systems. 7 M  
b) What is soft handoff and hard handoff? Explain in detail. 7 M
2. a) Explain FDMA in detail. 7 M  
b) Explain CDMA and FHSS techniques. 7 M
3. a) What is PSTN? Explain. 7 M  
b) Give the packet data format and explain about Packet switching. 7 M
4. a) Explain about CDPD network and give the link layer characteristics for this network. 7 M  
b) Draw the block diagram of ISDN network and explain. 7 M

5. a) Explain WAP architecture in detail. 7 M
- b) What are the primary goals of the WAP Forum efforts and how are they reflected in the initial WAP protocol architecture? 7 M
6. a) Explain the IEEE 802.11 protocol architecture. Why the PHY layer in IEEE 802.11 is subdivided? 7 M
- b) Discuss the IEEE 802.11 services in detail. 7 M
7. a) How is QOS provided in Bluetooth? 7 M
- b) Give the formats of Bluetooth baseband. What are the advantages and problems of forwarding mechanisms in Bluetooth networks? 7 M
8. a) How much of the original GSM network does GPRS need? Which elements of the network perform the data transfer? 7 M
- b) Why different identifiers/addresses needed in GSM? Give reasons and distinguish between user-related and system related identifiers. 7 M