

Roll No. \_\_\_\_\_

**7E4103****7E4103****B. Tech. VII Semester (Back) Examination, Nov-Dec-2011****Information Technology****7TT4 Wireless Communication****Time : 3 Hours****Maximum Marks : 80****Min. Passing Marks : 24****Instructions to Candidates:**

Attempt any **five questions** selecting **one** question from **each unit**. All questions carry **equal marks**. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

**Unit - I**

1. i) Explain the following for cellular networks :
  - a) Channels
  - b) Hand off
  - c) Frequency Reuse (2+3+3)
- ii) Describe the GSM cellular architecture and its features. (6+2)

**OR**

1. i) For the GSM network explain the followings :
  - a) Home Location Register (HLR) (4+4)
  - b) Visitor Location Register (VLR) (4+4)
- ii) Explain WCDMA and compare with cdma 2000.

**Unit - II**

2. i) Explain the protocol architecture of WAP. (8)
- ii) Explain the advantages of WLL over a wired subscriber loop. Discuss the limitations of WLL. (4+4)

**[Contd....**

**OR**

2. i) Explain the principle and working of WLL services How does WLL different from cellular services? (4+4)
- ii) Explain the significance of A field and B field used in DECT frame format. (8)

**Unit - III**

3. i) Explain GEO, MEO and LEO satellite on the basis of orbit parameter and their application. (8)
- ii) What are the advantages and disadvantages of Mobile Satcom? (4+4)

**OR**

3. i) Explain routing, localization and handover in Satellite Common. (3+3+2)
- ii) Discuss in detail mobile satcom. (8)

**Unit - IV**

4. i) Discuss the DAB system and the frame structure used in it. (4+4)
- ii) Explain the principle of DVB. (8)

**OR**

4. i) Compare the salient features of DAB and DVB systems. (8)
- ii) Explain the different principles of cyclic repetition of data. (8)

**Unit - V**

5. i) What is Bluetooth technology? Explain the packet/frame format for a Bluetooth device. (4+4)
- ii) Explain IEEE 802.11 MAC data frame structure. (8)

**OR**

5. i) Compare the infrared V/S radio transmission for wireless LAN (8)
- ii) What are adhoc networks? Explain IEEE 802.11 protocol architecture. (4+4)