

GUJARAT TECHNOLOGICAL UNIVERSITYM. E. 1ST Semester Remedial Examination –July- 2011**Subject code: 710206****Subject Name: Wireless Computer Networks****Date:12/07/2011****Time: 10:30 am – 01:00 pm****Total Marks: 60****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Draw the block diagram of GSM architecture and explain the function of each subsystem **06**
- (b) What is the need of mobile IP? Explain Location and Handoff management issues in mobile IP. **06**
- Q.2** (a) Describe GPRS system architecture, its location and handoff managements **06**
- (b) Enumerate various traffic and control channels of GSM. Clearly explain function of each of them. **06**
- OR**
- (b) Describe wireless geo-location systems **06**
- Q.3** (a) Explain the following terms with respect to wireless networks: (i) Frequency hopping (ii) hard and soft handover (iii) IMEI (iv) frequency selective fading (v) Ad-hoc network **06**
- (b) Compare the Ad hoc network and infrastructure wireless networks **06**
- OR**
- Q.3** (a) Explain Bluetooth and its overall architecture, protocol stack and physical connection **06**
- (b) Describe important features of Security in Wireless Networks **06**
- Q.4** (a) Define and explain : Signal to Interference ratio calculation **06**
- (b) Compare short distance base band and ultra wide band transmission. Explain the difference between them **06**
- OR**
- Q.4** (a) Explain the effect of path loss and Doppler on radio propagation on signals of wireless networks **06**
- (b) Compare CDMA, TDMA and FDMA technologies **06**
- Q.5** (a) Write note on IEEE 802.11 standard **06**
- (b) With reference to IS-95, describe clearly soft, softer and soft-softer handoffs. **06**
- OR**
- Q.5** (a) Describe WAP architecture and its importance. **06**
- (b) Explain mobility management in wireless networks **06**
