

GUJARAT TECHNOLOGICAL UNIVERSITY**M.E -IVth SEMESTER-EXAMINATION – MAY- 2012****Subject code: 740401****Date: 12/05/2012****Subject Name: Wireless and Mobile Network Architectures****Time: 02:30 pm – 05:00 pm****Total Marks: 70****Instructions:**

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

Q.1 (a) Discuss cell design concept for a cellular network. **07**
(b) What is umbrella cell? What is breathing cell? **07**

Q.2 (a) Explain call set up procedure in a GSM network. **07**
(b) Describe GSM architecture with emphasis on network signaling. **07**

OR

(b) Discuss hand- off detection algorithms. **07**

Q.3 (a) Compare soft hand -off with hard hand -off. **07**
(b) How does a GPRS system work? **07**

OR

Q.3 (a) Describe GSM administration and maintenance. **07**
(b) How is the GSM SMS protocol stack arranged? **07**

Q.4 (a) What are the problems in implementing mobile IP? **07**
(b) How does a WLL system work? **07**

OR

Q.4 (a) Briefly explain Wireless Application Protocol. **07**
(b) Describe SS7 architecture. **07**

Q.5 (a) How can we solve interference issues in wireless system? **07**
(b) Write a short note on 3G mobile services. **07**

OR

Q.5 (a) How is authentication in IS-41 system achieved ? **07**
(b) Explain mobility support for IPv6. **07**
