

GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – II • EXAMINATION – WINTER 2012

Subject code: 725305**Date: 02/01/2013****Subject Name: Mobile Communication Technologies****Time: 10.30 am – 01.00 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) What are the advantages and disadvantages of dynamic channel assignment strategy over fixed channel assignment? **07**
- (b) Explain the concept of cell splitting with diagram. **07**
- Q.2** (a) Explain: **07**
- (i) Umbrella cell concept
- (ii) Grade of service (GOS)
- (b) Draw and explain GSM architecture. **07**
- OR**
- (b) Explain GSM channels in brief. **07**
- Q.3** (a) What is signaling protocol structure in GSM? Explain. **07**
- (b) Write a short note on GPRS. **07**
- OR**
- Q.3** (a) Compare TCP reno and TCP vegas. **07**
- (b) Give advantages and disadvantages of indirect, snoop and mobile TCP. **07**
- Q.4** (a) Explain mobile IP and two level addressing schemes in terms of IP addressing. **07**
- (b) Describe IP-in-IP encapsulation method for mobile IP. **07**
- OR**
- Q.4** (a) Compare first generation (1G) and second generation (2G) wireless networks. **07**
- (b) Write a short note on Advanced Mobile Phone System (AMPS). **07**
- Q.5** (a) For W-CDMA, what are different physical layer issues? Also explain WCDMA physical layer characteristics. **07**
- (b) Write a short note on 3G service classes and applications. **07**
- OR**
- Q.5** (a) Explain Vehicular Ad-hoc Network (VANET) in detail. **07**
- (b) What are message passing and message queuing? Explain. **07**
