EC 701

Seat No. _____

GANPAT UNIVERSITY

B. Tech. Semester VII Electronics & Communication Engineering
Regular Examination November/December 2011
EC 701 Wireless Communications

Max. Time: 3 Hrs.]   [Max. Marks: 70

Instructions:
1. Attempt **all** questions.
2. Answers to the two sections must be written in separate answer books.
3. Figures to the **right** indicate full marks.
4. Assume suitable data, if necessary.
5. Question numbers three and six are compulsory.

SECTION-I

1	(A)	Write short note on reflection in wireless communication.	6
	(B)	Give difference between large scale and small scale propagation.	6

OR

1	(A)	Write short on any two large scale propagation models used for urban areas.	6
	(B)	Briefly explain FSK modulation and all variants of the same.	6

2	(A)	How to measure the effect of diffraction? Explain in detail.	5
	(B)	Write short note on modulation used in CDMA.	6

OR

2	(A)	What is equalization? Explain any one of nonlinear equalization technique.	5
	(B)	Write short note on:	6
		i. Subband coding	
		ii. Formant Vocoder.	

3		Write short note on:	12
		i. Any two diversity techniques used to compensate for fading.	
		ii. Turbo codes and iterative decoding.	

SECTION-II

4	(A)	What do you understand by term paging system? Explain in complete detail.	4
	(B)	Explain various upgrade paths for 1G technology to 2.5 G technologies.	8

OR

4	(A)	How back up time in batteries is considered for GSM site? What should be the charging current of batteries?	5
	(B)	Explain different types of hand off in mobile environment (GSM /CDMA).	7

5		Write short notes:	11
	(A)	Drive test for optimization of GSM or CDMA network.	
	(B)	Forward link in CDMA one.	

OR

5		Write short notes:	11
	(A)	Compare GSM & CDMA.	
	(B)	Signal processing in GSM network.	

6	(A)	Explain use of CDMA technology for general mobile scenario. How it is different from other related technology?	3
	(B)	What is FDD & TDD?	3
	(C)	What is Umbrellas cell concept in wireless environment?	3
	(D)	Define deciphering.	3

END OF PAPER