B.E. Electronics & Telecommunication / Communication Engineering Eighth Semester
ET / EC803 - Wireless Communication

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Notes : 1. All questions carry equal marks.
         2. Due credit will be given to neatness and adequate dimensions.
         3. Assume suitable data wherever necessary.
         4. Diagrams and Chemical equation should be given wherever necessary.
         5. Illustrate your answers wherever necessary with the help of neat sketches.

1.	a)	Give the spectrum limitation in wireless communication.	**8**
	b)	Define multiple access. What are the types of multiple access? Explain in detail each.	**8**

OR

2.	a)	Write down the requirements for the services in wireless communication.	**8**
	b)	Explain the frequency reuse technique and adjacent channel interference in wireless communication cellular system.	**8**
3.	a)	Explain the knife edge diffraction model in detail.	**8**
	b)	Write Erlang B and Erlang C formula and explain it. Also tell what does it represents.	**8**

OR

4.	a)	Explain in detail channel classification.	**8**
	b)	Define fading. What are the factors influencing small scale funding? Explain.	**8**
5.	a)	Explain in detail QPSK system with the help of waveforms.	**8**
	b)	Explain in detail Gaussian minimum shift keying.	**8**

OR

6.	a)	Explain in detail Binary frequency shift keying.	**8**
	b)	Compute the BER of binary FSK in an AWGN channel with $V_B = 5dB$ and compare it with DBPSK and BPSK.	**4**
	c)	Draw and explain block diagram of BPSK system.	**4**
7.	a)	Explain error probability in delay and frequency dispersive fading channds.	**8**
	b)	Define diversity. Explain in detail space diversity and its classifications.	**8**

OR

8.	a)	Explain speech coding techniques and data packet format.	**8**
	b)	Explain angle diversity and polarization diversity.	**8**
9.	a)	Draw & explain frame of GSM.	**4**
	b)	Write down the advantage and disadvantages of OFDMA.	**4**
	c)	Explain in detail CDMA systems.	**8**

OR

10.	a)	Explain orthogonal frequency division multiplexing in detail.	**8**
	b)	List the benefits of GSM and GPRS.	**8**

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