M.E. First Semester (Computer Science & Information Technology) (New-CGS)

13182 : Wireless Communication & Network Computing : 1 RNME 4

P. Pages : 2

AW - 3602

Time : Three Hours

* 0 7 9 3 *

Max. Marks : 80

Notes : 1. All question carry marks as indicated.
2. Due credit will be given to neatness and adequate dimensions.
3. Assume suitable data wherever necessary.
4. Illustrate your answer necessary with the help of neat sketches.
5. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION – A

1. a) What is quantization? Explain uniform and non uniform quantization. 7

   b) Explain 1G, 2G, 3G and 4G wireless system. 7

OR

2. a) What is convolution? Explain in detail. 7

   b) What is QPSK? What is the symbol rate for QPSK, 8 PSK and 16 PSK scheme if the bit rate is 256 Mbps? 7

3. a) Explain the various diversity combining techniques in detail. 6

   b) Explain the Rician Fading Model in detail. 7

OR

4. a) Explain in detail. 6

   i) AWGN.

   ii) Ground reflection loss.

   b) Explain ground wave and sky wave propagation. 7

5. Explain the various Wi – Fi standard, IEEE 802.11, IEEE 802.16 in detail. 13

OR

6. a) What is DAB? Why is it necessary to form DAB? 7

   b) Explain advantages and applications of MIMO. 6

SECTION – B

7. a) Explain the concept of reverse CDMA channel in detail. 7

   b) Compare FDMA and TDMA. 7

OR

8.	a)	Explain frequency hopping spread spectrum in detail.	7
	b)	What are the protocols required for GSM network? Explain.	7
9.	a)	Explain RFID structure in detail.	7
	b)	What is UMTS? Explain various UMTS security elements in detail.	6

OR

10.	a)	Explain the OSI layer model in detail.	7
	b)	Explain 802.11 b security mechanism in detail.	6
11.	a)	Explain various types of wireless intrusion prevention systems.	7
	b)	What is QoS? Explain QoS service in 3G wireless networks.	6

OR

12.	a)	What is public key infrastructure? Explain its security methods.	7
	b)	Explain the terms.	6
		i) Radio waves.	
		ii) Digital certificate.	

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