M.E. Second Semester (Computer Sci & Engg.) (F.T.) (CGS)
13151 : Elective : Mobile Computing : 2 RMEF 4 / 4 RME 2

P. Pages : 2

Time : Three Hours

0936

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Max. Marks : 80

Notes : 1.   Assume suitable data wherever necessary.
2.   Illustrate your answer necessary with the help of neat sketches.

1.	a)	What is role and usage of reflected and difracted radio signals in a cellular system? Explain with example.	7
	b)	A receiver is tuned to 1GHz transmission and receives signals with Doppler frequencies ranging from 10Hz to 50Hz when moving at a speed of 80 km/hr. What is fading rate?	7

OR

2.	a)	Consider Antenna transmitting at 900MHz. The receiver is travelling at speed of 40km/hr. Calculate Doppler shift.	7
	b)	How radio propagation on Land is different from in free space?	7
3.	a)	What are advantages of cell sectoring? Compare with SDMA.	7
	b)	Compare FCA with DCA.	6

OR

4.	a)	What is CCIR (Co-channel Interference Ratio) ? How it is computed?	6
	b)	Explain in brief, overlapped cell-based channel allocation scheme.	7
5.	a)	Explain general operation of MS in AMPS system.	6
	b)	What is meant by Bidirectonal Tunneling? Why it is needed? HA-FA in additional to HLR-VLR pair?	7

OR

6.	a)	What are major features of IMT 2000 system?	6
	b)	What are different reasons of handover? What parameters influence the handover?	7
7.	a)	Explain in brief DSR on – demand routing protocol.	6
	b)	What are important features of Associativity based Routing used in MANET?	7

OR

8.	a)	Explain cluster based Routing protocol in WSN systems.	7
	b)	What are the design issues in WSN?	6

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9. a) What are WLANs? Give details and enhancements in EEE 802·11 a, b, g and n.   7

    b) Explain IEEE 802·16 based WiMAX.   7

OR

10. a) Compare 802·11 b, Home RF and Hyper LAN2.   7

    b) What are characteristics of UWB systems? What are the applications of UWB technologies?   7

11. a) What are smart Antennas? Explain in brief various Beam forming techniques.   7

    b) What are advances in Multicast over Mobile IP?   6

OR

12. a) Explain PTT technology used for SMS.   7

    b) What are applications of XML for wireless handheld devices.   6

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