B.E. Eighth Semester (Electronics & Telecommu. Engineering) (CGS)

10641 : Wireless Communication : 8 XT 03

P. Pages : 2 | AU - 2998

Time : Three Hours | Max. Marks : 80

* 0 6 7 7 *

Notes :
1. Answer **three** question from Section A and **three** question from Section B.
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) Describe the operation of basic cellular system with neat sketch. **7**

b) Compare 1G, 2G and 3G of cellular mobile system. **7**

OR

2. a) Explain **7**
i) Fixed channel assignment strategy.
ii) Dynamic channel assignment strategy.

b) Explain frequency reuse concept in detail with suitable example. **7**

3. a) Discuss in detail the concept of range extension using repeaters. **6**

b) What is trunking? Explain grade of service and traffic intensity. **7**

OR

4. a) Discuss the various techniques to improve coverage and capacity in cellular system. **7**

b) Compare co-channel and non - channel interference. **6**

5. a) Explain the following basic propagation mechanisms **7**
i) Reflection
ii) Diffraction
iii) Scattering

b) Explain the following terms **6**
i) Coherence Bandwidth.
ii) Doppler spread and Coherence time.

OR

6. a) Explain fading effect due to Doppler spread in **6**
i) Fast Fading.
ii) Slow Fading

b) Explain Log-distance Path Loss Model. **7**

SECTION - B

7.	a)	Explain GSM system architecture with major interconnected subsystem that interact between themselves and with the user.	**7**
	b)	Explain signal processing in GSM.	**7**

OR

8.	a)	Explain various GSM services and its features in detail.	**7**
	b)	Draw and explain the GPRS network architecture.	**7**
9.	a)	Describe the power control in CDMA system. Hence compare open loop and closed loop power control.	**7**
	b)	Explain with neat diagram the processing of IS - 95 forward channels. Also give detail significance of sync, paging, forward traffic channels.	**6**

OR

10.	a)	Explain the softer handoff, soft handoff, and soft - softer handoff in IS - 95.	**7**
	b)	Describe the concept and principle of RAKE Receiver.	**6**
11.	a)	Draw Zigbee architecture and explain in brief.	**7**
	b)	Explain layered protocol architecture of Bluetooth.	**6**

OR

12.	a)	Explain the WAP reference model.	**7**
	b)	Explain Wi - Fi architecture in detail.	**6**

****