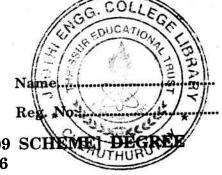
(Pages: 2)



SIXTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEMENT | 100 SCHEMENT |

AI 09 L01—WIRELESS COMMUNICATION SYSTEMS

Time: Three Hours

Maximum: 70 Marks

Part A

Answer all questions.

- 1. Distinguish between analog and digital microwave systems.
- 2. Give the classification of satellite orbits.
- 3. Define FDM.
- 4. What are the sources of interference in mobile communication?
- 5. What is GSM? List the features of GSM.

 $(5 \times 2 = 10 \text{ marks})$

Part B

Answer any four questions.

- 6. Write a note on satellite communication.
- 7. Explain the concepts frequency hopping spread spectrum and direct sequence spread spectrum.
- 8. Illustrate the concept of frequency reuse.
- 9. Discuss about forward and reverse CDMA channels.
- 10. Write a brief note on Multiple Access.
- 11. What is an orbit? Give brief note on geostationary satellites.

 $(4 \times 5 = 20 \text{ marks})$

Part C

Answer all questions

12. (a) Discuss about the spacing and frequency allocation in satellite communication.

Or

- (b) Explain about the different types of geostationary satellites.
- 13. (a) Discuss about first and second generation cellular networks.

Or

- (b) What is WLL? Explain the role of WLL and give the propagation considerations of WLL.
- 14. (a) Discuss about improving coverage and capacity in cellular systems.

Or

- (b) A durkin's model of outdoor propagation models. Elaborate.
- 15. (a) Elaborate about the hybrid spread spectrum techniques.

Or

(b) Discuss in detail about the mobile IP architecture, features, frame structures.

 $(4 \times 10 = 40 \text{ marks})$