C 1135 (Pages : 2) Name.....

Reg. No.....

SIXTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE EXAMINATION, APRIL 2016

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 × 2 = 10 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 × 5 = 20 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

Turn over

(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 × 10 = 40 marks)