EV 305 R

B.Tech. DEGREE EXAMINATION, NOVEMBER 2009.

Seventh Semester

Electronics and Communication Engineering

SPREAD SPECTRUM COMMUNICATION

Time : Three hours 　　　　　　Maximum : 75 marks

Answer FIVE questions by choosing ONE full from each Unit.

All questions carry equal marks.

UNIT I

1. (a) Write the advantage of spread spectrum. (5)

　　(b) Derive the processing gain of spread spectrum system. (10)

Or

2. (a) List and explain the three properties of PN sequence code. (10)

　　(b) Give the methods for generating gold sequence of length 31. (5)

UNIT II

3.　Draw the block diagram and explain DS/BPSK system.　(15)

Or

4.　Explain the multi tone jammer with a neat diagram.　(15)

UNIT III

5.　(a) Compare coherent FH system and non-coherent FH system.　(10)

(b) Write short notes on frequency synthesis.　(5)

Or

6.　Explain the operation of time hopping SS technique.　(15)

UNIT IV

7.　Explain how timing synchronization achieved in DS SS.　(15)

Or

8.　Draw the block diagram of delay locked loop for PN code tracking and explain.　(15)

UNIT V

9.   How CDMA is useful in satellite communication with necessary diagrams?   (15)

Or

10.   How bandwidth efficiency is achieved by means of using CDMA technology in mobile communication?   (15)

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