

22158

ME 3rd Semester (ECE) Examination,

December-2017

CDMA SYSTEM

Paper-MEEC- 603

Time allowed : 3 hours]

[Maximum marks : 100

Note : All questions carry equal marks. Attempt any five questions.

1. (a) Give Differences and similarities between DS and FH spread spectrum. 10
- (b) What is the bandwidth of CDMA traffic channel and which component comprise the CDMA traffic channel. 10
2. (a) A rake receiver in a CDMA mobile phone receives a direct signal from a cell A located 1 km away and a reflected signal from a building 0.5 km behind the mobile. It also receives a direct signal from another cell site B located 3 Km away, as in CDMA environment. Calculate the amount of time delay each finger of the CDMA mobile receives needs to be applied. 10
- b) Explain the process of CDMA call processing. 10
3. Explain block diagram of CDMA reverse and forward channels. How these are used ? 20

22158-P-2-Q-8(17)

[P.T.O.]

4. Explain the following : 20
- (i) Cell Breathing
 - (ii) Erlang cell capacity
 - (iii) Frequency Hopping
 - (iv) Time Hopping
5. (a) Explain in detail IS 95 CDMA system 10
- (b) Explain multi user detection 10
6. (a) Explain the Performance analysis of cellular CDMA 10
- (b) Explain various microscopic diversity techniques. 10
7. (a) Write short note on Spreading/coding tradeoffs. 10
- (b) Distinguish between third generation and second generation CDMA system. 10
8. (a) What are Orthogonal Walsh Code. 10
- (b) Write short note on handoff strategies in CDMA. 10