

22676

**M.Tech. 3rd Semester (ECE) (CBCS Scheme)**

**Examination, December-2018**

**CDMA**

**Paper- 16ECE23C2**

*Time allowed : 3 hours]*

*[Maximum marks : 100*

*Note: Question No. 1 is Compulsory. Attempt any one question from each section.*

1. (a) What do you mean by FHSS? 5
- (b) Explain the term DS-CDMA? 5
- (c) What do you mean by Soft Handoff? 5
- (d) What do you mean by coding tradeoff? 5

**Section-A**

2. (a) Explain block diagram of CDMA reverse and forward channels and their use. 10
- (b) Explain the process of Direct Sequence Spread Spectrum. 10
3. Explain the process of Acquisition and tracking of spread spectrum signals in detail. 20

**Section-B**

4. (a) Explain the performance analysis of CDMA system. 10
- (b) What do you understand by pilot channel? Explain. 10

5. (a) List the advantages and disadvantages of CDMA networks. 10
- (b) Compare CDMA with GSM. 10

### Section-C

6. (a) Explain the capacity of CDMA system and calculate the forward link capacity. 10
- (b) Explain the implementation of power control in forward and reverse link of CDMA. 10
7. What do you mean by Handoff? Differentiate between Hard Handoff and Soft Handoff and Explain the process of Soft handoff in detail. 20

### Section-D

8. Explain Reverse link physical channel and its conversion with respect to CDMA 2000. 20
9. (a) Explain the process of multi user detection in detail. 10
- (b) Explain different combining techniques used in IS 95 CDMA. 10