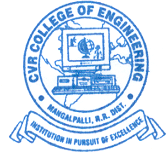
**CVR COLLEGE OF ENGINEERING**

*An UGC Autonomous Institution* - Affiliated to JNTUH

* + - 1. **B.Tech**. **IV** Year **I** Sem. **II MID Examinations –** October, 2018

Subject**: Satellite Communications**

**(Professional Elective –III)**

1. Date: 23/8/2018 Time: 2 hours Max. Marks: **40**
2. 
   * + - 1. **PART – A**
3. Answer **ALL** questions **5 *x* 2 = 10 M**
4. What are the properties of DSSS codes? (CO3)
5. Why L-band is preferred for LEO satellites? (CO4)
6. Explain off-Axis scanning. (CO4)
7. What is the effect of clock offset/bias in GPS? (CO5)
8. What are the differences among SPS and PPS in GPS? (CO5)

**PART – B**

1. Answer **ALL** questions **3 *x* 10 = 30 M**
2. a) Explain principle of TDMA with its frame structure. [5M] (CO3)

b) Describe advantages of TDMA over FDMA. [5M] (CO3)

(OR)

1. a) Explain synchronization in TDMA Networks . [5M] (CO3)
2. Explain the concept of CDMA with an example. [5M] (CO3)
3. a) Draw the block diagram of an Earth Station transmitter and explain each block in detail. [5M] (CO4)

b) How the delay and throughput will be affected in satellite communications?

[5M] (CO4)

(OR)

1. Describe various satellite tracking systems used in earth stations. [10M] (CO4)
2. a) Draw the block diagram of GPS signal generation in a GPS satellite. [5M] (CO5)

b) What are the segments used in GPS? Describe each in detail. [5M] (CO5)

(OR)

1. a) Describe the principle of a GPS Receiver. [5M] (CO5)

b) What are the advantages of Differential GPS? Describe its principle. [5M] (CO5)