1. **CVR COLLEGE OF ENGINEERING**
2. *An UGC Autonomous Institution* - Affiliated to JNTUH
   * + 1. **B.Tech**. **IV** Year **I** Sem. I**I MID Examinations –** October, 2018
3. Subject**: Satellite Communications**
4. **(Professional Elective –III)**
5. Date: 23/82018 Time: 2 hours Max. Marks: **40**
6. 
   * + - 1. **PART – A**
7. Answer **ALL** questions **5 *x* 2 = 10 M**
8. Draw the TDMA frame structure (CO3)
9. What is sun synchronous orbit and give its advantages? (CO4)
10. How delay and throughput can be affected in satellite communications? (CO4)
11. What is selective availability in GPS? (CO5)
12. What are the types of DOPs in GPS measurements? (CO5)

**PART – B**

1. Answer **ALL** questions **3 *x* 10 = 30 M**
2. a) What is the principle of CDMA? Explain in detail with an example. [5M] (CO3)

b) Compare and contrast TDMA and FDMA. [5M] (CO3)

(OR)

1. a) Explain onboard processing in satellite communications. [5M] (CO3)
2. Discuss the features of DAMA. [5M] (CO3)
3. a) What are the HPA configurations used in Earth stations? Explain in detail. [5M] (CO4)

b) Explain the factors involved while considering coverage frequency of a satellite.

[5M] (CO4)

(OR)

1. a) Describe the features of Molniya orbits. [5M] (CO4)

b) Draw the block diagram of an Earth station and explain each block. [5M] (CO4)

1. a) Describe the GPS location principle with necessary diagrams and equations.[5M] (CO5)

b) Draw the block diagram of a generic GPS Receiver. [5M] (CO5)

(OR)

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

b) How C/A code is generated in GPS? Describe it with a block diagram. [5M] (CO5)