

**BT-7/M-21****47139****SATELLITE COMMUNICATION****Paper–ECE-423N**

Time Allowed : 3 Hours]

[Maximum Marks : 75

**Note** : Attempt **five** questions in all, selecting at least **one** question from each Unit. All questions carry equal marks.

**UNIT-I**

1. Discuss the Kepler's three laws of Orbital Mechanics. 15
2. (a) How Satellite is located with respect to Earth? Explain.  
(b) Discuss the Longitudinal and Inclination changes in Satellite orbits. 15

**UNIT-II**

3. Discuss in detail Tracking, Command and Monitoring with necessary diagrams. 15
4. (a) Discuss Power System Communication System.  
(b) List major Satellite subsystems. 15

**UNIT-III**

5. Derive the relation between System noise temperature and G/T ratio. 15
6. (a) Differentiate between Uplink and Downlink frequency.  
(b) Discuss Downlink link design budget. 15

**UNIT-IV**

7. What is DBS system? Discuss with the help of block diagram DBS TV reception. 15
8. (a) What is DAMA? Discuss in detail.  
(b) How C band Ku band is utilized for Satellite communication ? 15