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Roll No .....

**EC - 702**

**B.E. VII Semester**

Examination, December 2013

**Satellite Communication**

*Time : Three Hours*

*Maximum Marks : 70*

- Note:** 1. Attempt one question from each unit.  
2. All questions carry equal marks.

**Unit - I**

1. a) Discuss about the frequency allocations for satellite systems.  
b) Explain briefly about apogee and perigee heights.

OR

2. a) Discuss the keplers three laws of planetary motion.  
b) Explain about the orbit perturbations and sun synchronous orbits.

**Unit - II**

3. a) What is meant by antenna look angles, what are polar mount antennas.  
b) Explain what is cross polarization discrimination.

OR

4. Explain antenna polarization and polarization of satellite signals.

**Unit - III**

5. a) Explain the working of TT and C subsystems.  
b) What is community antenna TV system.

OR

6. a) How is altitude and thermal control achieved in space segment.  
b) Explain the working of master antenna TV system.

**Unit - IV**

7. a) Calculate the equivalent isotropic radiation power (EIPR) of space link system.  
b) What is intermodulation noise and how it can be reduced.

OR

8. a) Calculate CNR of combined uplink and down link.  
b) What is meant by interference between satellite circuits.

**Unit - V**

9. With the help of block diagram explain the working of following:  
a) VSAT earth station  
b) Digital DBS TV.

OR

10. a) Give a brief overview of access control protocols.  
b) Discuss the principle working of satellite radio broadcasting.

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