

Total No. of Questions :8]

[Total No. of Printed Pages :2

[2]

Roll No

EC-702 (GS)**B.E. VII Semester**

Examination, December 2017

Grading System (GS)**Satellite Communication**

Time : Three Hours

Maximum Marks : 70

- Note : i) Answer any five questions.
ii) All questions carry equal marks.

1. a) Discuss Kepler's three laws of planetary motion.
b) Discuss apogee and perigee heights. Also explain orbit perturbation and inclined orbits.
2. a) Discuss about geostationary orbit. Discuss about antenna look angles and polar mount antenna.
b) Discuss about sun transit outage and launching orbits.
3. a) Discuss about antenna polarization and polarization of satellite signals.
b) Discuss the causes of depolarization.
4. a) Discuss about altitude control, station keeping and thermal control.
b) Discuss about TT and C subsystem, transponders and antenna sub system.

5. Discuss about the following.

- a) Receiver-only home TV systems
- b) Master antenna TV system
- c) Community antenna TV system

6. a) Determine the expression of Equivalent Isotropic Radiation Power (EIRP) of the space link.
b) Determine C/N ratio of combined uplink and down link.

7. a) Explain the architecture of Very Small Aperture Terminal (VSAT) system.
b) Discuss the design and link budget of Direct broadcast satellite.

8. Write short notes on any two of the following:

- a) Cross polarization discrimination
- b) Morelos and Satmex
- c) Link margin for VSAT

506