

S.B. Roll No.....

SATELLITE COMMUNICATION

5th/ETV/0165/Nov'15

Duration: 3Hrs

M.Marks=75

SECTION A

Q1. Do as directed

10x1.5=15

- a. Define S/N ratio.
- b. What is the need of guard time?
- c. Expand TDMA
- d. Define apogee and perigee.
- e. VSAT stands for _____
- f. Uplink & Downlink frequency ranges from _____
- g. What is the name of natural Satellite of earth?
- h. Define Attenuation.
- i. Give the advantage of geostationary orbit.
- j. Define antenna loss.

SECTION B

Q2. Attempt any FIVE Questions

5x6=30

- a. Draw & explain the Basic satellite system.
- b. Explain the concept of Global positioning system (GPS).
- c. Explain any three applications of satellite communications.
- d. What are the various advantages of satellite communication?
- e. Discuss the Erlang congestion formula.
- f. Explain the radio spectrum for satellite communications with sketch.
- g. Discuss the Tropospheric & Ionospheric effects on satellite communications.

SECTION C

Q3. Attempt any THREE questions:

3x10=30

- a. Discuss the effects of rain in satellite propagation.
- b. Explain in detail about satellite mobile service earth stations.
- c. Write a note on Satellite Transponder model.
- d. Discuss the satellite uplink & downlink analysis.
- e. Explain the system noise and Interference in detail.