

Q. P. Code: 27441

Time: 3 hours

Marks: 80



NB: 1) Question number 1 is compulsory.

- 2) Answer any three questions out of remaining questions.
3) Answer the questions with suitable diagrams.

1. Answer the following
- (a) Discuss 1) GPS and VSAT 10
- (b) Compare (i) FH- CDMA and DS-CDMA. 10
(ii) Explain Launching of Geo stationary satellites
2. (a) Explain block diagram of Transmit and receive type of earth station, 10
Explain each block in detail.
- (c) Which types of antennas are used in satellite communication 10
Explain one antenna in detail
3. (a) What is Earth eclipse of Satellite ? 10
Are there any ways of avoiding eclipse during lifetime of satellite.
- (b) Explain the following: 10
(i) 1 db Compression point
(ii) AM to PM conversion
4. (a) Describe different stabilization Techniques 10
(b) Explain TT & C system with the help of block diagram. 10
5. (a) What is EIRP ? discuss the importance of [G/T] ratio 10
Calculate overall [C/N] for a satellite link if
[C/N] uplink=25db, [C/N] downlink=20db and [Intermodulation] =12db
- (b) Explain SPADE system and SCPC of FDMA 10
6. Write short notes on *any two* 20
- (a) Optical link satellite transmitter and receiver
(b) Onboard connectivity with transparent processing
(c) Frame organization and window organization
