

22661

M.Tech. 1st Semester (ECE) CBCS Scheme

Examination, December-2018

SATELLITE AND SPACE COMMUNICATION

Paper- MTECE 21C2

Time allowed : 3 hours]

[Maximum marks : 100

Note: Attempt any five questions in total. All questions carry equal marks.

1. (a) Discuss in detail synchronous Satellite communication system with the help of suitable block diagram. 10
- (b) Explain the frequency allocation for satellite communication from various bands. 10
2. (a) Explain design requirement for active and passive satellite system. 10
- (b) Enumerate various applications of satellite communication system. 10
3. (a) Discuss Up link design in details. Also draw necessary block diagram. 10
- (b) Explain briefly Earth coverage and slant range. Also derive the equation. 10
4. Write short notes on: 7+7+6=20
 - (a) Angle period.
 - (b) Returning period.
 - (c) Propagation delay.

5. Write short notes on: 10×2=20
- (a) Ionospheric scintillation.
 - (b) Tracking and Command system of satellite.
6. (a) Evaluate error rate performance of QPSK detection. 10
- (b) Discuss in detail Offset QPSK detection with the help of block diagram. 10
7. Explain Frequency Division Multiple Access technique in details. Also highlight FDMA system timing and frame format. 20
8. Write short notes on: 10×2=20
- (a) TELESAT
 - (b) GPS system.