

(MDC-02) SATELLITE COMMUNICATION

Theory paper: 100 Marks

Sessional: 50 Marks

Evolution of Satellite Technology, Communication Satellites, Satellite frequency Bands.
Satellite Channel analysis, cross-links, Carrier to Noise ratios, Frequency reuse with spot beams. Multiple beams
Satellite front end, Front-end noise Noise temperature, Front end filters.
Satellite multiple access methods. FOMA, TOMA. COMA Systems. OS-COMA and frequency hopped COMA, Satellite jamming. Code acquisition and tracking.
Satellite applications. Data Communication and VSAT network Mobile satellite services (GEO and NONGEO)

Suggested Text Books and References:

1. The Satellite Communication applications handbook. By Brauce. R. Elbert Artech House, Inc 1997
2. Electronic Communication Systems by Wayne Tomasi. Regents Prentice Hall, 1988.
3. Satellite Communication by Robert M Gagliardi, CBS Publisher & 1st ed. 1987
4. Digital Satellite Comm By Tri. T. Ha, Mc Graw Hill.