

EV 307 R

B.Tech. DEGREE EXAMINATION, APRIL 2010.

Eighth Semester

Electronics and Communication Engineering

SATELLITE COMMUNICATION SYSTEM

Time : Three hours

Maximum : 75 marks

Answer any FIVE questions.

Choose ONE full question from each Unit.

All questions carry equal marks.

(5 × 15 = 75)

UNIT I

1. Write a detailed note on :
 - (a) Orbital elements (5)
 - (b) Satellite constellation (5)
 - (c) Liquid propulsion. (5)

Or

2. (a) Discuss in detail about Telemetry and tracking. (10)
- (b) Explain an antenna subsystems. (5)

UNIT II

3. Describe the Tropospheric and Ionospheric effects on Radio wave propagation in detail. (15)

Or

4. (a) Explain the satellite link design in detail. (10)
(b) What are the main elements of a receiver used for obtaining the receiver noise temperature? Briefly explain. (5)

UNIT III

5. (a) Write a detailed note on SPADE system. (7)
(b) Explain the antenna systems used in earth station. (8)

Or

6. What is CDMA? Explain with the aid of DS and FH-CDMA system. (15)

UNIT IV

7. What is inter satellite link? Explain. (15)

Or

8. Write a detailed note on Optical beam acquisition, tracking and pointing. (15)

UNIT V

9. (a) Describe the broad cast satellite services. (8)
(b) Discuss briefly about the role of satellite in future network. (7)

Or

10. Write a detailed note on :
(a) ATM over satellite. (6)
(b) Global Positioning Satellite system. (9)
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