24441

B.Tech. 7th Sem.
(Electronics and Communication Engg.) Examination–May, 2013

SATELITE COMMUNICATION

Paper ECE-403-F

Time : 3 hours   **Max. Marks : 100**

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt **five** questions in total. **Question No. 1 is compulsory.** Select **one** question from each Section.

1. (a) Advantages of satellite communication.   5

    (b) Explain TDM.   5

    (c) What is TDMA frame efficiency ?   5

    (d) Give applications of satellite in defense.   5

SECTION - A

2. (a) Compare the advantages and disadvantages of analog and digital communication through satellite.   10

     (b) What is the difference b/w codec and modem ?   10

3. Derive general link design equation. Find out expression for C/N and G/T ratios. Explain the importance of these ratios on satellite link design.   20

SECTION - B

4. (a) Explain SCPC systems.   10

     (b) Explain the elements of digital satellite communication systems.   10

5. (a) Explain analog TV transmission through satellite. Write down the expression by S/N calculation of satellite.   10

(b) Explain the digital Modulation techniques.   10

SECTION - C

6. (a) What is burst ? Explain the difference between burst and traffic burst.   10

(b) Compare TDMA and FDMA.   10

7. Write short note on :

(i) Looks angle   10

(ii) Satellite stabilization.   10

SECTION - D

8. Write short notes on :

    (i) MSAT   10

    (ii) LEO's   10

9. (a) What is station keeping of satellite ? Explain its significance and methods to achieve it.   10

    (b) Explain the satellite beam Acquisition.

                                    10

_____