Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 31300

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Eighth Semester

15-5-13-AN

Electronics and Communication Engineering

080290077 — SATELLITE COMMUNICATION

(Regulation 2008)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are satellites?

2. Define the term "station keeping" with reference to satellite communication.

3. Define the term "Polarization".

4. What are transponders?

5. Define the term "multiplexing".

6. What are the modulation schemes used in satellite communication systems?

7. Define the term "Antenna gain".

8. Define “EIRP”.

9. What is meant by 'INMARSAT'?

10. List out the applications of business TV.

PART B — (5 × 16 = 80 marks)

11. (a) What are look angles? With neat diagrams, explain how elevation and azimuth angles are determined. (16)

Or

(b) With neat diagrams, explain the launching of geo-stationary satellites.(16)

12. (a) With neat diagrams, explain the attitude control and orbit control subsystems. (16)

Or

(b) Derive the satellite up link and down link (C/No) equations. (16)

13. (a) Discuss in detail on digital transmission systems. Explain the concept of beam-switching. (16)

Or

(b) With neat diagrams, explain the TDMA-frame format structure. (16)

14. (a) Discuss in detail on the various building blocks of earth segment transmitter-receiver system. (16)

Or

(b) In detail, explain how the G/T and C/No measurements are made. Provide the required figures. (16)

15. (a) Give a detailed note on mobile satellite services. State all possible applications of it. (16)

Or

(b) Elaborate on various broadcasting service offered by satellite system. (16)
