Code: 9A04803 **R09**

B.Tech IV Year II Semester (R09) Regular & Supplementary Examinations April 2016

SATELLITE COMMUNICATIONS

(Electronics & Communication Engineering)

Time: 3 hours Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

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1 (a) Discuss in detail the satellite applications in different areas.
(b) Discuss the progress made by India in satellite communications.

2 Explain and define with neat diagrams:
(a) Sub-satellite point.
(b) Look angles.
(c) Ascending node with respect to a satellite.

3 (a) With neat diagrams, explain the Attitude and Orbital control systems.
(b) Explain the details of power systems in a satellite.

4 (a) From the basic transmission theory define the necessary equation for the power received by an antenna from the satellite.
(b) List the major factors for a geo-stationary satellite design to have maximum performance at an acceptable cost.

5 (a) What is meant by TDMA frame acquisition and frame synchronization?
(b) Write notes on DAMA and CDMA.

6 Explain the step tracking system. Give a comparison of auto-track systems.

7 Explain the important factors that influence the design of LEO satellite communication.

8 Write notes on differential GPS.

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