

Code: EC8T1

**IV B.Tech - II Semester – Regular / Supplementary Examinations  
March 2019**

**TV AND SATELLITE COMMUNICATIONS  
(ELECTRONICS AND COMMUNICATION ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

- a) What is aspect ratio?
- b) List the contents of a composite video signal?
- c) Define dynamic range.
- d) Write the practical limitations of D/A conversion.
- e) List various coded signals.
- f) What is the need for audio synchronization?
- g) List various frequency allocations for satellite services.
- h) Define the terms Apogee and Perigee.
- i) Define mean anomaly and true anomaly.
- j) Give some examples of Launch Vehicles?
- k) What are the functions of transponders?

## PART – B

Answer any **THREE** questions. All questions carry equal marks.

$$3 \times 16 = 48 \text{ M}$$

2. a) Explain interlaced scanning procedure. How it reduces flickers and bandwidth. 8 M
- b) Write notes on composite video signal. 8 M
3. a) Discuss the need for sampling and quantizing a signal. 8 M
- b) Explain the Dynamic Range and the Head room Concept. 8 M
4. a) Explain Digital Audio interface. 8 M
- b) Explain about the digital audio recording. 8 M
5. a) Explain about look angle determination. 8 M
- b) Discuss the factors that determine the choice of orbit for various satellites. 8 M
6. a) Describe the Telemetry and Tracking. 8 M
- b) Discuss about the Spacecraft antennas. 8 M