

B.Tech IV Year I Semester (R13) Supplementary Examinations June 2017

**TELEMETRY & TELECONTROL**

(Electronics and Instrumentation Engineering)

Time: 3 hours

Max. Marks: 70

**PART – A**  
(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Define telemetry and importance of telemetry system.
  - (b) Draw the block diagram of optical telemetry system.
  - (c) What is the need of telecontrol?
  - (d) Distinguish between FM and PM.
  - (e) Mention different multiple access techniques used in satellite communication.
  - (f) Why do we require radio frequency modulation?
  - (g) Define noise and also mention few names of noise.
  - (h) What are the applications of wireless telemetry?
  - (i) What are the different types of optical fiber cables?
  - (j) Write the uses of optical telemetry.

**PART – B**  
(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 Draw the block diagram of telemetry system and explain each component.

**OR**

- 3 What are the different types of classification of telemetry system and explain and also give the reasons for classification.

**UNIT – II**

- 4 With a neat block diagram, explain FM data transmission and PAM/PM data transmission.

**OR**

- 5 What are the telemetry standards for baseband communication given by IRIG?

**UNIT – III**

- 6 Explain the functioning of TT&C systems of satellite communication system with a neat diagram.

**OR**

- 7 Discuss the operation of analog and digital transmission in satellite telemetry.

**UNIT – IV**

- 8 Write a brief note on losses in optical fibers.

**OR**

- 9 What are the different types of sources used in optical telemetry and give its advantages and disadvantages?

**UNIT – V**

- 10 Explain the analog and digital techniques used in telecontrol.

**OR**

- 11 Explain the steps for installation of telecontrol systems.

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