

Paper Id:

121712

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B.TECH.
(SEM VII) THEORY EXAMINATION 2019-20
TELEMETRY AND DATA TRANSMISSION

Time: 3 Hours**Total Marks: 70****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

1. **Attempt all questions in brief.** **2 x 7 = 14**

a.	
b.	
c.	
d.	Write down short notes on Industrial Tele-control installations,
e.	Discuss the frame synchronizer codes.
f.	What is ADC ? Discuss its four applications.
g.	

SECTION B

2. **Attempt any three of the following:** **7 x 3 = 21**

a.	Explain the communication based processing control systems with its types?
b.	i) RS 232 C ii) RS 422 iii) RS 423
c.	What is sampling theorem ? Compute minimum sampling rate.
d.	Describe the ON/OFF commands and Data commands used in process control system.
e.	Discuss about pipelines used in communication based processing control systems?

SECTION C

3. **Attempt any one part of the following:** **7 x 1 = 7**

(a)	
(b)	Draw the block diagram for modulation and demodulation of delta modulation.

4. **Attempt any one part of the following:** **7 x 1 = 7**

(a)	(i) X25 (ii) Signal conditioner (iii) Differential encoder
(b)	various Components.

5. **Attempt any one part of the following:** **7 x 1 = 7**

(a)	Explain different components of Data modem system. Draw its block diagram.
(b)	factory automation? Explain Multiplier & Concentrator,

6. **Attempt any one part of the following:** **7 x 1 = 7**

(a)	Describe Serial and parallel data transmission protocols in detail.
(b)	Explain how will you analyze the reliability of telecontrol installation.

7. **Attempt any one part of the following:** **7 x 1 = 7**

(a)	Explain PSK and QPSK? compare and describe them. How they are used to transmit data.
(b)	Draw and explain the circuit diagram of a bit synchronizer.