Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE -	SEMESTER-	-VII ((OLD)	- EXAMINA	TION -	SUMMER	2017
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		BE - SEMESTER-VII (OLD) - EXAMINATION - SUMMI	ER 2017
Sub	ject	Code: 172405 D	ate: 29/04/2017
Sub	ject :	Name: Industrial Communication Systems (Departm	ent Elective - I)
Tim	ne: 02	2:30 PM to 05:00 PM	Cotal Marks: 70
Instr	uction	ns:	
	1.	Attempt all questions.	
	2.	Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Explain block diagram of communication systems.	07
	(b)	Define modulation. What are the advantages of modulation?.	07
Q.2	(a)	Explain frequency modulation (FM).	07
•	(b)	Explain mathematical representation of FM.	07
		OR	
	(b)	Differentiate between ASK and FSK.	07
Q.3	(a)	Differentiate between PSK and PWM.	07
	(b)	Explain power relation in the AM wave.	07
		OR	
Q.3	(a)	Explain communication modes.	07
	(b)	Explain asynchronous system with suitable examples.	07
Q.4	(a)	Explain synchronous system with suitable examples.	07
	(b)	What is serial data communication interface standards?. Explain OR	in details. 07
Q.4	(a)	Explain RS 232 interface standards.	07
	(b)	Explain RS 485 interface standards.	07
Q.5	(a)	What is the protocol? Explain TCP/IP.	07
	(b)	Explain Modbus protocol.	07
_		OR	
Q.5	(a)	Explain network topology with neat figures.	07
	(b)	Explain satellite communication systems.	07
