Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## B. E. - SEMESTER - VI • EXAMINATION - WINTER 2012

Date: 03/01/2013

Subject code: 160802

Subj	ect ]	Name: Electronics Communication	
Time	e: 02	2.30 pm - 05.00 pm Total Marks: 70	
Instr	cuct	ions:	
		Attempt any five questions.	
		Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	What do you mean by "Communication"? Describe in detail Communication system with the help of block-diagram.	07
	<b>(b)</b>	•	07
Q.2	(a) (b)	Explain: "Skin effect"	07 07
		OR	
	<b>(b)</b>	A 20 MHz carrier is modulated by a 300 Hz audio sine wave, If the carrier voltage is 5 volt and the maximum deviation is 12 kHz, Write the equation of this modulated wave for :(A) F. M. (B) P.M.	07
Q.3	(a)	Describe in detail: "FRIIS'S FORMULA".	07
	<b>(b)</b>	List the methods used for SSB generation, and explain "Phase Shift method"	<b>07</b>
		for generation of L.S.B. with mathematical proof.  OR	
<b>Q.3</b>	(a)	· · · · · · · · · · · · · · · · · · ·	<b>07</b>
	<b>(b)</b>	Write a short note on: : (1) Partition Noise (2) Flicker Noise	<b>07</b>
Q.4	(a)	What do you mean by "super heterodyne receiver"? Why it is called super heterodyne receiver? Explain different blocks of receiver in detail.	07
	(b)	•	07
Q.4	(a)		07
Q.4	(b)		07
Q.5	(a) (b)	Explain Kepler's Second law in detail. Also define term: Primary body, Secondary body.	07 07
<b>.</b> -	, .	OR	. –
Q.5	(a) (b)		07 07

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