RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College under University of Calcutta)

SECOND YEAR B.A./B.SC. FOURTH SEMESTER (January – June) 2013 Mid-Semester Examination, March 2013

Dat Tim	e :	06/03/2013 12 noon – 1 pm	ELECTRONICS (General) Paper : IV	Full Marks : 25
1.	a)	What is modula	ation? Why it is needed?	
	b)	Derive the equa	ation of AM wave with proper significance.	[2+3+5]
2.	a)	A transmitter r modulated. Ca transmitted sim	adiates 10KW with the carrier unmodulated and 11.5KW when lculate modulation index. If another sine wave resulting in the sultaneously, find the total radiated power.	en it is sinusoidally 50% modulation is
	b)	Draw the block	diagram of a Typical Communication System and explain each b	block. [5+5]
3.	Wr	rite short notes or	n <u>any one</u> :	[5]
	a)	Spectrum of AM	M wave	
	b)	Classification of	of Modulation	

c) Advantages of AM over FM

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SECOND YEAR B A /B SC_EOURTH SEMESTER (January – June) 2013	
Mid-Semester Examination, March 2013	
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- b) Derive the equation of AM wave with proper significance.
- 2. a) A transmitter radiates 10KW with the carrier unmodulated and 11.5KW when it is sinusoidally modulated. Calculate modulation index. If another sine wave resulting in 50% modulation is transmitted simultaneously, find the total radiated power.
 - b) Draw the block diagram of a Typical Communication System and explain each block. [5+5]

[2+3+5]

[5]

3. Write short notes on <u>any one</u> :

- a) Spectrum of AM wave
- b) Classification of Modulation
- c) Advantages of AM over FM