



DG-3185
Third Year B. Sc. (Sem. V) Examination
March/April – 2016
Electronics : Paper - VII
(Analog Communication)

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

<p>नीचे दर्शाविए ← निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of ← signs on your answer book.</p> <p>Name of the Examination : ← T. Y. B. Sc. (SEM. 5)</p> <p>Name of the Subject : ← Electronics : Paper - 7</p> <p>← Subject Code No. : 3 1 8 5 ← Section No. (1, 2,.....) : Nil</p>	<p>Seat No. : □ □ □ □ □ □ □ □</p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; margin-top: 10px;">Student's Signature</div>
--	---

- (2) Figures on the right indicates full marks.
- (3) All symbols and abbreviations have their usual meaning.
- (4) Non-programmable calculators are allowed.
- (5) Q.1 is compulsory.
- (6) Assume data if necessary.

I	Answer in short (4 X 2)	08
	a Define FM	
	b Explain uses of AM and FM	
	c Define "Antenna gain"	
	d Define "Signal to Noise Ratio"	
II	Explain various types of External noise in brief	08
	Explain term 1. Antenna Resistance 2 Transit time noise	06
OR		
II	Explain Troposphere Scattering in detail	07
	Explain fundamental of Transmission line	07
III	a Prove $E_{cmax} + E_{cmin}$	08
	$ma = \frac{E_{cmax} - E_{cmin}}{E_{cmax} + E_{cmin}}$ for AM	
	b What is detection?	03
	c Calculate the radiation resistance of a $\lambda/16$ wire dipole in free space . Also find the antenna efficiency if the loss resistance is 1.05Ω	03

OR

III	a	Explain the Filter method for suppression the unwanted side band	07
	b	.Explain the working of Ratio detector in detail	07
IV		Write short note on any two:- (7 X 2)	14
		(a) Principle of an Antenna	
		(b) Losses in transmission line	
		(c) Phase Modulation	
		(d) Single side band system	
