Sri SAI RAM INSTITUTE OF TECHNOLOGY

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Sai Leo Nagar, West Tambaram, Chennai - 600 044. www.sairamit.edu.in

B.E.,/B.Tech Degree Examination
CONTINUOUS ASSESSMENT TEST I

Subject : Analog &Digital Communication	Duration:10.00am-11.30am
Subject Code: EC8394	Date: 21.8.2020
Branch: IT	Max.Marks:50
Year/Sem:II/III	

PART A   (05 x 02 = 10)

Answer all the questions

1. Draw the spectrum of AM signal.**(R)**. **(CO1)**
2. What are the disadvantages of conventional (or) double side band full carrier system? **(K)(CO1)**
3. Define the modulation index for AM, FM and PM.**(K) (CO1)**
4. Compare natural sampling and flat top sampling.**(A)(CO2)**
5. Draw the block diagram of a PCM system.**(R)(CO2)**

PART B   (2 x 13 = 26)

6.(a)The output of an AM transmitter is given by Vm(t) = 500(1 + 0.4 sin3140t)sin(6.28x107t)

Calculate (i)Carrier frequency,(ii)modulating frequency,(iii)carrier power if load is

600ohm,(iv)modulation index,(v)Total power.[13]**(U) (CO1)**

(OR)

6.(b) Explain the principle of Amplitude Modulation and derive an expression for AM-DSBFC signal

. Draw the AM waveform and frequency spectrum and explain the voltage distribution[13] **(K) (CO1)**

7.(a) (i)With neat block diagram explain the generation and detection of PAM signals[8].**(R)(CO2)**

 ii)Compare the various pulse communication systems[5] **(R)(CO2)**

(OR)

(b).With neat block diagram explain the generation and detection of PWM and PPM signals **(K) (CO2)**

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PART C   (1 x 14 = 14)

8.Explain in detail about any one SSB modulation and demodulation Technique**(K)(CO1)**

R2017	C205	EC8394 ANALOG AND DIGITAL COMMUNICATION	L	T	P	C
			3	0	0	3
C205.1	Apply analog communication techniques					
C205.2	Use data and pulse communication techniques					
C205.3	Apply Digital communication techniques					
C205.4	Analyze Source and Error control coding					
C205.5	Utilize multi-user radio communication					