Reg.No: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

SNS College of Technology, Coimbatore-35.
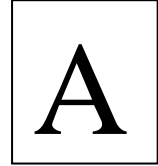**(An Autonomous Institution)**
B.E/B.Tech- Internal Assessment -II
Academic Year 2023-2024 (Odd Semester)
Fifth Semester
Electronics & Communication Engineering
19ECB301-Analog and Digital Communication

A

Time: 1$^{1/2}$ Hours   **Maximum Marks: 50**

Answer All Questions

PART - A (5x 2 = 10 Marks)

		CO	Blooms
1.	What is meant by limiter in FM receiver.	CO2	Rem
2.	Solve the frequency deviation of FM receiver.	CO2	App
3.	Distinguish Bipolar and unipolar NRZ Coding.	CO3	Ana
4.	State the main functions of Nyquist rate.	CO3	Und
5.	Define Sampling.	CO3	Rem

PART – B (2*13=26 Marks) (1*14=14 Marks)

				CO	Blooms
6.	(a)	Derive the expression for input, pre detection ,post detection SNR in FM receiver.	13	CO2	Ana
		(or)			
	(b)	Explain the transmitter of Armstrong multiplier wide band FM with necessary block diagram.	13	CO2	Und
7.	(a)	A binary data **0 1 1 0 1 0 0 1** is transmitted; Calculate a) Unipolar NRZ code b) polar NRZ code c) Unipolar RZ code d) Bipolar RZ code e) Manchester Code	13	CO3	App
		(or)			

	(b)	Explain the method of analog signal converted into digital pulse using sampling theorem.	13	CO3	Und
8.	(a)	Develop the VSB signal using the product modulator technique	14	CO2	App
		(or)			
	(b)	Inspect and discuss the factors influencing the Eye pattern and write the use of inter symbol interference .	14	CO3	Ana

Abbreviations:

CO – Course Outcomes; **Rem-** Remembering; **Und –** Understanding; **App –** Applying; **Ana –** Analyzing; **Eva –** Evaluating; **Cre**- Creating