

**B028411(028)**

**B. Tech. (Fourth Semester) Examination  
April-May 2022**

**(Scheme : AICTE)**

**(Electronics & Telecommunication Engineering Branch)**

**ANALOG COMMUNICATION**

***Paper : BT-3028***

***Time Allowed : Three hours***

***Maximum Marks : 100***

***Minimum Pass Marks : 35***

***Note : Part (a) is compulsory. Attempt any two parts  
from (b), (c) and (d) in each unit.***

**Unit-I**

1. (a) Define Base band and pass band signals. 4
- (b) Describe the communication system and its parts in detail. 8

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- (c) Describe the Convolution and correlation of signals. 8
- (d) Describe Frequency division Multiplexing. 8

**Unit-II**

- 2. (a) Define amplitude Modulation. 4
- (b) Describe modulators use to generate DSBSC wave. 8
- (c) Describe SSB-SC modulator circuit in detail. 8
- (d) Describe square law demodulator for AM wave. 8

**Unit-III**

- 3. (a) Define angle modulation. 4
- (b) Describe frequency and Phase modulation in detail. 8
- (c) Short notes on Narrow band FM and Wide-band FM. 8
- (d) Describe FM wave demodulators. 8

**Unit-IV**

- 4. (a) What is TRF Receiver. 4
- (b) Describe block diagram of super heterodyne receiver. 8

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- (c) Describe Armstrong Indirect Method for FM transmitter. 8
- (d) Describe characteristics of receivers : Sensitivity, Selectivity and Fidelity. 8

**Unit-V**

- 5. (a) What is Noise in communication system? 4
- (b) Describe different types of noise in detail. 8
- (c) Describe Signal to noise ratio, Noise factor, noise figure and noise temperate. 8
- (d) Describe SNR Calculation in AM System. 8