Q.33 Explain the working principle of Armstrong FM transmitter.

Q.34 What are different performance characteristics of radio receiver?

Q.35 What is need of Modulation and demodulation.

Section-D

Note: Long answer Questions. Attempt any two Questions out of three Questions. (2x10=20)

Q.36 Explain the working principle of reactance FET based AM transmitter.

Q.37 Derive the expression of phase modulated wave & its modulation index.

Q.38 Draw block diagram of communication system. What are applications of communication.

No. of Printed Pages : 4
Roll No.....

126563

6th Sem,
Branch : Elect & Eltx. Engg
Subject : Analog Communication System

Time : 3 Hrs. **M.M. : 100**

SECTION-A

Note : Multiple choice questions. All questions are compulsory. (10x1=10)

Q.1 The modulation index of an AM wave is changed from 0 to 1. The transmitted power is :

a) Increase by 50 percent
b) Unchanged
c) Half
D) Half

Q.2 Amplitude Modulation Index varies between _____.

a) 0 to 1 b) 0.1 to 1
c) 1 to 2 d) None of these

Q.3 Balance modulator produces

a) DSB-SC d) SSB
c) SCB d) None of these

Q.4 No of sidebands in the AM signal is

a) 1 b) 2
c) 3 d) 4

Q.5 Frequencyof carrier signal is

a) High b) Low
c) Zero d) None of these

Q.6 VCO is used to generate
a) Direct FM b) Indirect FM
c) AM d) None of these

Q.7 In phase Modulation, the modulation Index is proportional to :
a) Signal strength b) Signal frequency
c) Modulating Frequency d) None of these

Q.8 Value of modulation index in F M Signal is
a) 0 to 2 b) 1
c) 0 d) None

Q.9 Reactance Modulator is used to modulate _____ wave.
a) FM b) AM
c) PM d) None

Q.10 Collector Modulator is used to modulate.
a) FM b) AM
c) PM d) None

Section B

Note: Objective type Questions. All Questions are compulsory. (10x1=10)

Q.11 VCO stands for ____.

Q.12 Frequency Range of VHF is _____.

Q.13 The collector modulation is a _____ type of modulation.

Q.14 FM broadcast range _____.

Q.15 FM has _____ sidebands.

Q.16 Ratio detector is used to modulate FM wave. (True/False)

Q.17 PM stand for_____.

Q.18 Define Sensitivity

Q.19 Define S/N ratio.

Q.20 Pre-emphases circuit is used to boost frequency. (High or Low)

Section-C

Note: Short answer type Questions. Attempt any twelve Questions out of fifteen Questions. (12x5=60)

Q.21 Give advantage of AM over FM

Q.22 What is pre-emphasis and it's uses.

Q.23 Give working principle of ratio detector.

Q.24 Sate and Explain Carson's rule.

Q.25 Explain the concept of transmission band width.

Q.26 What is effect of Modulation index on modulated AM signal.

Q.27 What is selection criteria for IF.

Q.28 How to represent AM signal in time and frequency domain.

Q.29 Explain the concept of clipping used in AM demodulation.

Q.30 Describe the feature of High level modulator.

Q.31 Explain power distribution in carrier bands in AM.

Q.32 What are applications of square law modulator.