BEC-252

ASSINGNMEMT 4

1. What is angle modulation? Explain the types of angle modulation.
2. Derive the expression for frequency modulation and phase modulation.
3. Explain the relation between PM and FM.
4. Explain different types of FM. Derive expression for narrow band FM.
5. What is frequency deviation?
6. An unmodulated carrier frequency is given by 1MHz. After frequency modulation max frequency is given by 1.4MHz. Find frequency deviation and f_{min}.
7. A single tone FM is represented by voltage equation
   V(t)=12 cos [6×10^8t+5 sin125t]
   Determine: 1. Carrier frequency 2. Modulating frequency 3. Modulation index
8. Describe the following FM detector:
   a. Balance slope
   b. Foster seeley discrimination
   c. Ratio detector
9. Explain PLL (Phase Locked Loop) FM demodulator.
10. Explain superhetrodyne receiver.
11. Explain PM demodulation.
12. Compare TDMA, FDMA, and CDMA.
13. Define carson's rule for bandwidth of FM signal.