

Velammal Engineering College,
Department of Electrical and Electronics Engineering,
Basic Electrical Electronics and Communication Engineering (19EE103T)

PART A (1 MARK) – UNIT IV

1. The ratio of maximum deviation to the maximum modulating frequency is called

- a. Carrier swing
- b. Deviation ratio
- c. Modulation factor
- d. Modulation index

Ans : (b) Deviation ratio

2. A carrier signal has

- a. Constant amplitude
- b. A frequency of 20 kHz and above
- c. A varying amplitude
- d. The information content

Ans : (b) A frequency of 20 kHz and above

3. Which of the following is considered as an indirect method of generating FM?

- a. Reactance modulator
- b. Balanced modulator
- c. Varactor diode modulator
- d. Armstrong system

Ans : (d) Armstrong system

4. What is the highest percentage of modulation for AM?

- a. 50 %
- b. 75 %
- c. 100 %
- d. 80 %

Ans : (c) 100 %

5. What aspect of the carrier is changed by modulation?

- a. Frequency
- b. Phase
- c. Amplitude
- d. Depends on the type of modulation

Ans : (d) Depends on the type of modulation

6. The modulation index of FM is given by
- a. $\mu = \text{frequency deviation} / \text{modulating frequency}$
 - b. $\mu = \text{modulating frequency} / \text{frequency deviation}$
 - c. $\mu = \text{modulating frequency} / \text{carrier frequency}$
 - d. $\mu = \text{carrier frequency} / \text{modulating frequency}$
- Ans : (a) frequency deviation/ modulating frequency

7. Modulation is done in
- a. Transmitter
 - b. Radio receiver
 - c. Between transmitter and radio receiver
 - d. None of the above
- Ans : (a) Transmitter

8. In a transmitter oscillator is used
- a. Hartley
 - b. RC phase-shift
 - c. Wien-bridge
 - d. Crystal
- Ans : (d) Crystal

9. In India, modulation is used for radio transmission
- a. Frequency
 - b. Amplitude
 - c. Phase
 - d. None of the above
- Ans : (b) Amplitude

10. In an AM wave useful power is carrier by
- a. Carrier
 - b. Sidebands
 - c. Both sidebands and carrier
 - d. None of the above
- Ans : (b) Sidebands

11. In amplitude modulation, bandwidth is the audio signal frequency
- a. Thrice
 - b. Four times
 - c. Twice
 - d. None of the above
- Ans : (c) Twice

12. In amplitude modulation, the of carrier is varied according to the strength of the signal.
- a. Amplitude
 - b. Frequency

- c. Phase
 - d. None of the above
- Ans : (a) Amplitude

13. Over modulation (amplitude) occurs when signal amplitude is carrier amplitude
- a. Equal to
 - b. Greater than
 - c. Less than
 - d. None of the above
- Ans : (b) Greater than

14. Over modulation results in
- a. Weakening of the signal
 - b. Excessive carrier power
 - c. Distortion
 - d. None of the above
- Ans : (c) Distortion

15. If modulation is 100% then signal amplitude is carrier amplitude
- a. Equal to
 - b. Greater than
 - c. Less than
 - d. None of the above
- Ans : (a) Equal to

16. As the modulation level is increased, the carrier power
- a. Is increased
 - b. Remains the same
 - c. Is decreased
 - d. None of the above
- Ans : (b) Remains the same

17. Demodulation is done in
- a. Receiving antenna
 - b. Transmitter
 - c. Radio receiver
 - d. Transmitting antenna
- Ans : (c) Radio receiver

18. A high Q tuned circuit will permit an amplifier to have high
- a. Fidelity
 - b. Frequency range
 - c. Sensitivity
 - d. Selectivity
- Ans : (d) Selectivity

19. If level of modulation is increased power is increased

- a. Carrier
- b. Sideband
- c. Carrier as well as sideband
- d. None of the above

Ans : (b) Sideband

20. Man made noise are variations.

- a. Amplitude
- b. Frequency
- c. Phase
- d. Both phase and frequency

Ans : (a) Amplitude