

**SYAMAPRASAD COLLEGE**

**INTERNAL EXAMINATION**

**SEMESTER III**

**PAPER: Communication Electronics**

**PAPER CODE: ELT-G-CC-3-3-TH**

**FULL MARKS: 10**

**TIME: 30 MINUTES**

**Answer any ten (10) of twelve (12) MCQs. Each carries one (1) mark.**

1. The modulation index of an AM wave is changed from 0 to 1. The transmitted power is
  - a. unchanged
  - b. halved
  - c. doubled
  - d. increase by 50%
2. Indicate which one of the following is not an advantage of FM over AM:
  - a. Better noise immunity is provided
  - b. Lower bandwidth is required
  - c. The transmitted power is more useful
  - d. less modulating power is required
3. One of the following is an indirect way of generating FM. This is the
  - a. reactance FET modulator
  - b. varactor diode modulator
  - c. Armstrong modulator
  - d. reactance bipolar transistor modulator
4. The Hartley states that
  - a. the maximum rate of information transmission depends on the channel bandwidth
  - b. the maximum rate of information transmission depends on the depth of modulation
  - c. redundancy is essential
  - d. only binary codes may be used
5. The most common modulation system used for telegraphy is
  - a. frequency-shift keying
  - b. two-tone modulation
  - c. pulse-code modulation
  - d. single-tone modulation

**6.** Pulse-width modulation system used for telegraphy is

- a. by differentiating pulse-position modulation
- b. with a monostable
- c. by integrating the signal
- d. with a free-running multivibrator

**7.** Indicate which of the following system is digital.

- a. Pulse-position modulation
- b. Pulse-code modulation
- c. Pulse-width modulation
- d. Pulse-frequency modulation

**8.** Quantizing noise occurs in

- a. time-division multiplex
- b. frequency division multiplex
- c. pulse-code modulation
- d. pulse-width modulation

**9.** In order to reduce quantizing noise, one must

- a. increase the number of standard amplitudes
- b. send pulses whose sides are more nearly vertical
- c. use an RF amplifier in the receiver
- d. increase the number of samples per second

**10.** Indicate which of the following pulse modulation systems is analog

- a. PCM
- b. Differential PCM
- c. PWM
- d. Delta

**11.** The biggest disadvantage of PCM is

- a. its inability to handle analog signals
- b. the high error rate which its quantizing noise introduces
- c. its incompatibility with TDM
- d. the large bandwidths that are required for it

**12.** Which of the following is the most reliable measurement for comparing amplifier noise characteristics?

- a. signal-to-noise ratio
- b. noise factor
- c. shot noise
- d. thermal noise agitation