

B.Tech 6th Semester (Internal exam) EE Department

Subject- Principles of Telecommunication

Class Test -II

Date- 07-08-2021

Part 1 - Each MCQ carry 1 mark.

1. Communication is the process of

- a. Exchanging information
- b. Keeping in touch
- c. Broadcasting
- d. Entertainment by electronics

2. In communication system Noise is mostly affected to a signal

- a. At the receiving end
- b. At transmitting antenna
- c. In the channel
- d. During regeneration of the information

3. Process of recovering information from a carrier is known as

- a. Modulation
- b. Demultiplexing



- c. Detection
- d. Carrier recovery

4. The carrier frequency is usually _____ as/than the modulating frequency

- a. Lower
- b Higher
- b. Same
- d. None of the above

5. The carrier amplitude after AM varies between 4V and 1V. The depth of modulation or modulation index is

- a. 0.5
- b. 0.6
- c. 0.55
- d. 0.65

6. For the equation of the FM signal is $10 \sin (2 \pi \times 10^6 t + 5 \sin (2 \pi \times 10^4 t))$. The modulating frequency is

- a. 10^6 Hz
- b. 10^4 Hz
- c. 5Hz



7. In PCM system, the quantization noise depends upon

- a. The sampling rate only
- b. The number of quantization levels
- c. Both of the above
- d. None of the above is correct.

8. Which of the following systems is digital?

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

9. The use of non uniform quantizer like companding leads to

- a. Increase in maximum SNR(signal to noise ratio)
- b. Reduction in transmission bandwidth
- c. Increase in SNR for low level signals
- d. Simplification of quantization process.

10. If the sampling process takes place at a rate which is lower than the Nyquist rate then

- a. Reconstruction of the signal is not possible
- b. An error called aliasing effect takes place
- c. No effect in reconstructed signal.

11. State sampling theorem. What is Nyquist rate and Nyquist interval. (2+2+1)

12. What is aliasing and how it is reduced?(1+2)

13. A 400W carrier is modulated to a depth of 75%. Calculate the total power in the modulated wave. (2)

14. Define modulation index of AM wave. (2)

15. Discuss about classification of pulse modulation. (3)