GOVERNMENT POLYTECHNIC CHAPRA

MORHOWRAH, BIHAR

DEPARTMENT OF ELECTRONICS ENGINEERING

DIPLOMA - 4TH SEMESTER – ASSIGNMENT – 2020

SUBJECT CODE: **1621405**

SUBJECT NAME: **BASIC COMMUNICATION TECHNIQUES AN SOUND ENGINEERING**

1. Define communication giving appropriate examples.
2. Explain the different types of barriers to effective communication.
3. Differentiate between analog and digital communication.
4. Explain with the help of block diagram about analog communication system.
5. Draw the block diagram of digital communication system and explain all the blocks.
6. Why analog design remains important.
7. Define noise and explain the different types of noises.
8. Differentiate between external and internal noises.
9. Draw the block diagram of a communication system and explain the function of each block.
10. Why is a high frequency career needed in a communication system?
11. Explain the need for modulation in a communication system?
12. How will you convert an analog signal into digital signal?
13. Define AM and derive the expression for AM wave.
14. Define FM and derive the expression for FM wave.
15. Define PM and derive the expression for PM wave.
16. Define demodulation & explain the different types of demodulators (detectors) that are used for demodulating AM wave with suitable block diagram.
17. What is the need of modulation? Write its advantages.
18. Explain the advantages of modulation.
19. Classify the different types of modulation and explain it.
20. Explain square law modulator.
21. Explain about switching modulator with the help of block diagram.
22. Explain about envelope demodulation.
23. Explain about diagonal and negative peak clipping?
24. Briefly explain about envelope detector.
25. Explain about vestigial side band suppressed carrier.
26. Explain about single side band suppressed carrier.
27. Define angle modulation and explain in brief.
28. Differentiate between NBFM and WBFM.
29. Explain about demodulation or detection.
30. Brief about square law demodulator with the help of figure.
31. Differentiate between square law demodulator and envelope detector.
32. State the phase shift discriminator with suitable circuit diagram.
33. Explain the ratio detector with the help of diagram.
34. Explain about superhetrodyne receiver with suitable block diagram.
35. Define band gap and bandwidth. And what is the difference between them.
36. What is pulse modulation and explain its classification?
37. What is the advantage of delta modulation over PCM?
38. Discuss various advantages of FM over AM.
39. What is information? How does it go from one place to another?
40. what is the need of demodulation?
41. Differentiate between flat top sampling and PAM.
42. What is pulse time modulation and explain in brief.
43. Define sampling rate and nyquist rate.
44. Explain the types of Quantization.
45. What is the similarities between A- LAW AND MEW LAW?
46. Explain the different types of digital pulse modulation.
47. Explain the basic elements of PCM.
48. Write the advantages, disadvantage and application of PCM.
49. Define remote control and ultrasonic transducers.
50. Explain the operation of remote control.
51. State the introduction on sound.
52. What is the characteristics and properties of sound waves
53. Explain the types of microgroves.

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