Assignment 1

Q-1 Explain the Block diagram of communication in detail.

Q-2 Explain different types of channels.

Q-3 What is modulation and explain need of modulation.

Q-4 Explain Electromagnetic spectrum of communication.

Q.5 Define : Noise figure and Noise factor

Q.6 Explain Friss transmission formula and derive.

Q.7 What are types of internal noises and external noises

Q.8 Summarise: Equivalent Noise Temperature

Q.9 Explain: Short noise and equivalent temperature. Discuss Friss formula (Overall Noise Figure)

Q.10 What is meant by signal to noise ratio? Discuss the importance of SNR .

Q.11 Define the following terms: (i) Noise Figure (ii) Noise temperature iii) Noise Factor

Q.12 Define Signal to Noise ratio. Apply the concept to explain the effect of cascade connection on a signal to noise ratio. An amplifier with 20dB noise figure and a 6dB power gain is cascaded with a second amplifier which has a 15dB power gain. Estimate overall noise figure .

Q-13 All types of sums which we have done in lecture.

Q.14 Explain briefly the mechanism of propagation. What are the different types of Wave propagation?

Q.15 Explain ground wave propagation with the help of diagram. State advantages and disadvantages of ground wave propagation

Q.16 Explain principles of Sky wave propagation. State advantages and disadvantages of sky wave propagation.

Q.17 Explain space wave propagation with sketch. List its advantages, disadvantages and applications.

Q.18 Compare Ground wave, Sky wave and Space wave propagation