

Homework #7 (chapters 5,6)

Question 1

Define and describe briefly: VCO, VCA, VCF, envelope generator, noise generator, and ring modulator.

Question 2

- a) What is the “place theory or hearing”?
- b) What is “sharpening”?
- c) What is “Ohm’s law of hearing”?
- d) What is a “JND”? Give two examples.
- e) What is “masking”? Why does it depend on frequency?
- f) What is the “critical band”?

Question 3

- a) If 1 Watt of sound power is spread out over 1m^2 of area, what is the SIL in decibels (dB)?
- b) If the SIL of one voice is 95 dB, what is the SIL if you have 100 such voices together?
- c) By what multiplicative factor is the intensity increased if we add 3dB to the SIL?