Music 192B Homework 1

1. Explain the function of the four main settings found on a compressor: attack, release, threshold and ratio. What is the difference between a limiter and a compressor? What can side-chain access and key inputs be used for?

2. Explain how sigma-delta A/D converters operate. What does oversampling mean and what is the advantage of using it?

3. Why are error detection and correction necessary in digital systems? How is error correction accomplished?

4. Compact discs were originally designed for music. What does the continuous play requirement require of the error detection and correction systems used? CD-ROMs use the same basic system but encode the data differently in order to provide random access to data. What is the difference in the error detection and correction systems used when the disc is used for data?