4.1)

-> The bit rate is 128 kbps

->The measured Fs=8000Hz

->Length of the signal= 7045

->The time=7055/8000=0.88 sec

->The number of bits required =bitrae/Fs=16

->The number of levels are 2^16

->For lower frequency we find that the time of the signal is increased and for higher frequency the time is reduced. Also the voice is more shrill for higher frequencies.

->The property of fourier transform used is the time/ frequency scaling.

4.2)

-> We notice that as n increases, the quantized signal approaches the original signal and the error reduces as n gets larger.

4.3)

-> The signal with L=8 has a lot of noise

-> The signal tends to get better and better as L goes higher and higher/

->As l increases the frequency content also increases.