Q3) STFT – Short-Time Fourier Transform

1 – Draw (sketch) the corresponding waveforms of the following spectrograms.
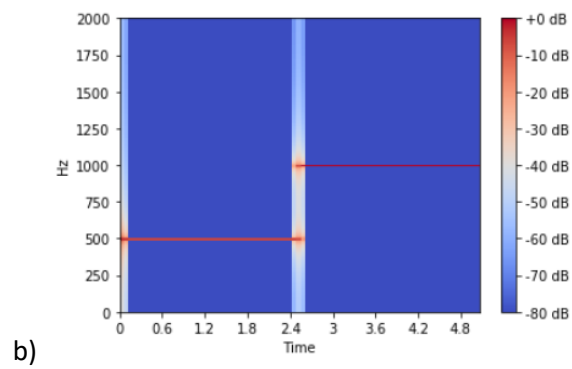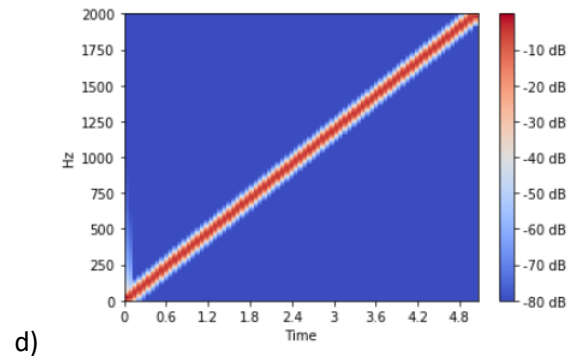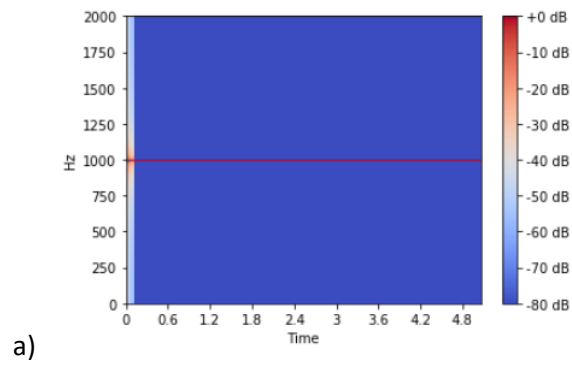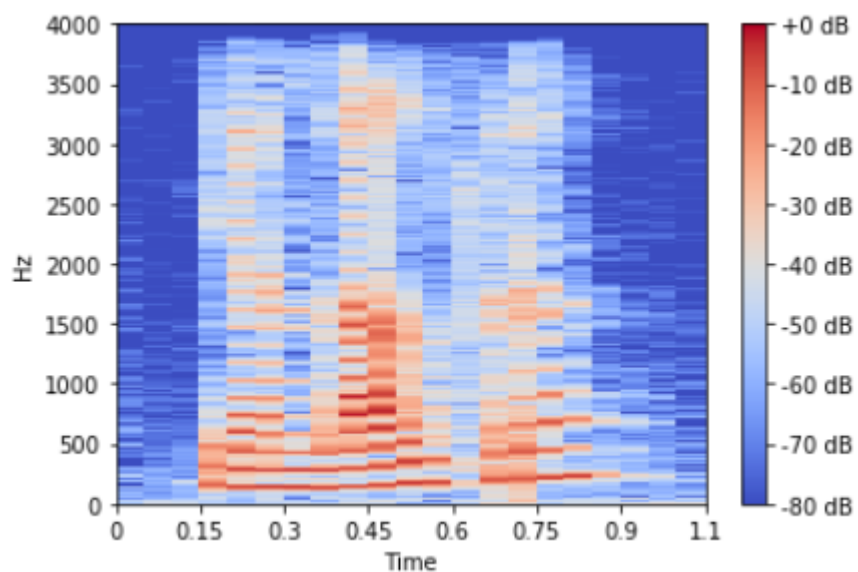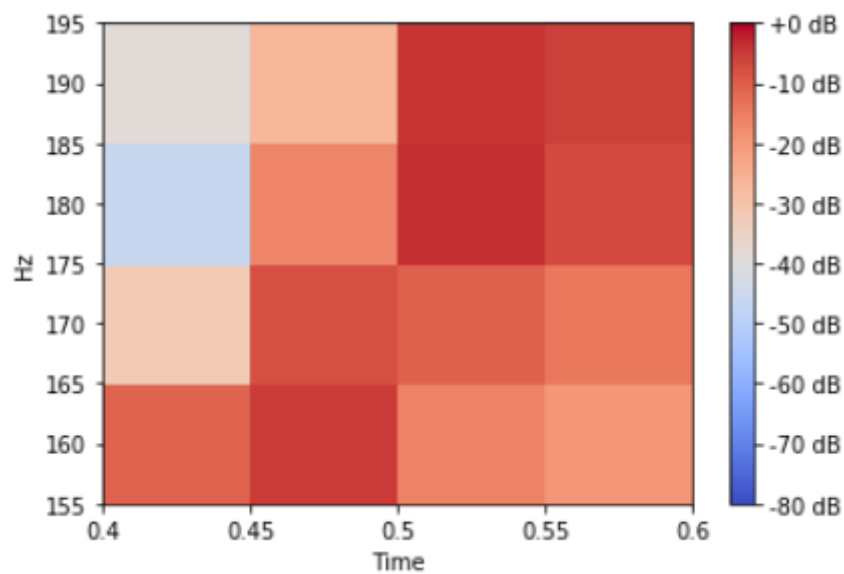

a)

d)

b)

e)

c)

f)
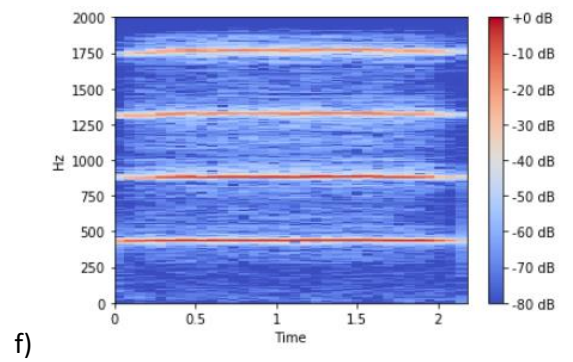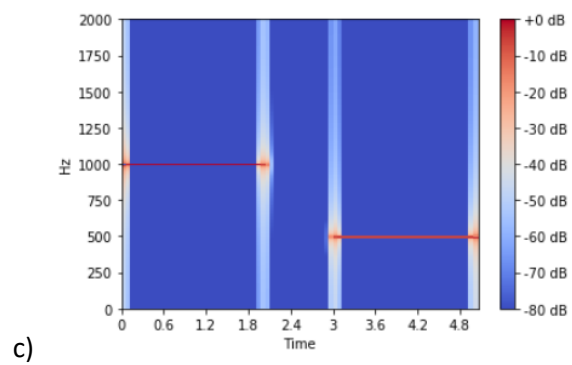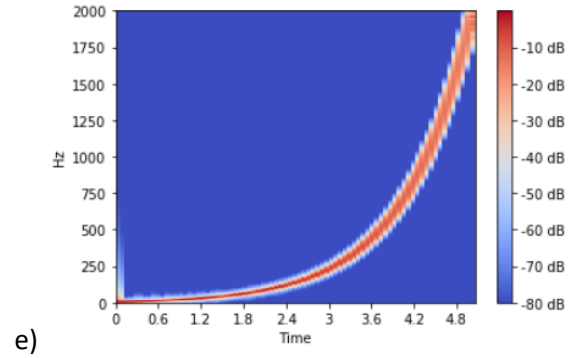
2 - The following figure is the spectrogram of a speech signal. What is the sampling rate of this signal?

3 – The following figure is a zoom-in of the above spectrogram. Calculate the frequency resolution and the window size (in samples)?

4 – Estimate the temporal resolution and calculate the hop size (in samples).