# Computing Assignment 3 (A)

## Generating sampled signals for sound synthesis

(i) Write a function (x[n]) to generate samples of a sinusoid of F0 Hz sampled at 16,000 samples/sec of duration 500 ms. Vary F0 in steps of 500 Hz in the range [1000, 9500] Hz. Play out (listen to) your waveforms in increasing order of F0. Comment on the variation in perceived pitch (low -> high -> aliased?) with F0.

(ii) Use your function to synthesize the song with the previously provided score (notes). This time, however, you are using your own "sinusoid generator". Like before, you should use several harmonics to synthesize each musical note. Also, apply a fade-in/fade-out temporal shaping to avoid click artifacts.