

ELCT 222
Signals and Systems
Computer Assignment 7

Notes:

- Unclear or illegible work will not receive full credit.
- Label all sketches and plots completely and clearly.
- Where appropriate, “box in” your final answer.

For the waveform given below:

1. (10 pts) Obtain its cosine/sine Fourier series representation and
 - a. (20 pts) By using this representation, plot its approximate waveform in MATLAB for $N = \{1,3,5,10,100\}$ harmonics in addition to the DC term.
2. (10 pts) Convert the representation to amplitude/phase format
 - a. (20 pts) By using this format, plot its approximate waveform in MATLAB for $N = \{1,3,5,10,100\}$ harmonics in addition to the DC term.
3. (20 pts) Convert the representation to the complex-exponential format
 - a. (20 pts) By using this format, plot its approximate waveform in MATLAB for $N = \{1,3,5,10,100\}$ harmonics in addition to the DC term.

