ASSIGNMENT-2 QUESTIONS

QUES1-

* Write a python program to create a *cosine wave* of frequency 2MHz with 256 samples per cycle.
* Plot it with proper annonation and axis labelling.
* Compute the FFT of the above signal and plot it.

QUES2-

* Create another a signal of frequency 3MHz, add it to above signal and do FFT for the resultant signal.
* Change the code such that the modulation frequency for 1 is 4MHz and for 0 it is 3MHz.
* Change the above code to simulate ASK modulation.

Ques3-

* Add demodulation to the above code and plot the time-domain waveform, as well as the FFT of the demodulated signal.
* Add a moving average filter to remove the high-frequency component from the demodulated signal.

QUES4-

* Add demodulation to the above code and plot the time-domain waveform, as well as the FFT of the demodulated signal.
* Add a moving average filter to remove the high-frequency component from the demodulated signal.

QUES5-

* Draw the spread-spectrum of the signal and also draw its FFT.