# CS321 - Assignment 6

## Problem Statement:

(a) Write a program to make two GPIO lines (say A and B) on the Raspberry Pi, oscillate (between HIGH and LOW states at the same frequency; when one HIGH the other is LOW) as and when a LOW input is given to another such line, say C. When a HIGH input is given to another such line say D, then both these frequencies should double. Finally when a LOW input is provided at yet another line, say E, then the program ends after ensuring all the mentioned lines remain at the HIGH state for a period of 5 seconds.

(b) Can you generate a PWM waveform using a GPIO line on the Raspberry Pi? If so write the relevant program and demonstrate/render it using a CRO. Is it possible to provide a means to control the duty cycle when the program is running? How will you use this output to rotate the shaft of a motor?

Do bear in mind that the TA may ask you to show the waveforms on a CRO.

## Deadline:

29th September 2018, Saturday
Evaluation will be from 10.00 am to 12.30pm