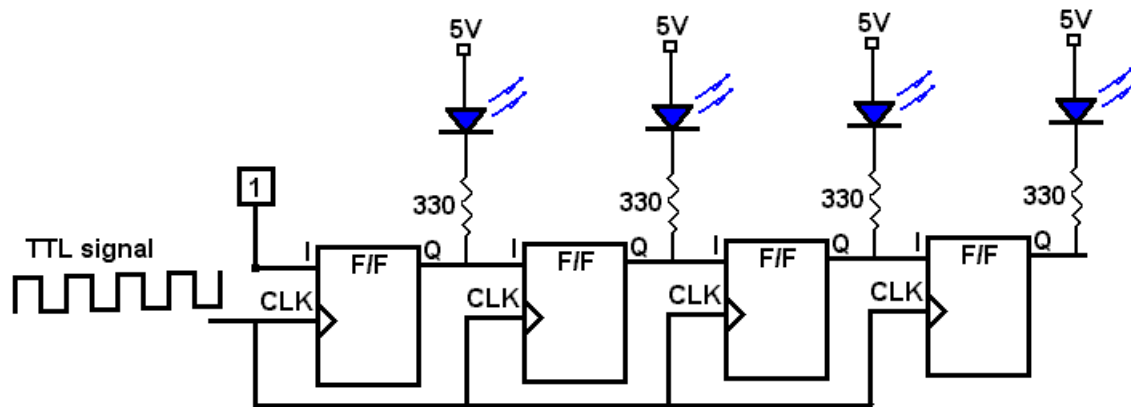# Electronics Lab

Shift register and divider

Experiment 1: *4-bit shift register.*
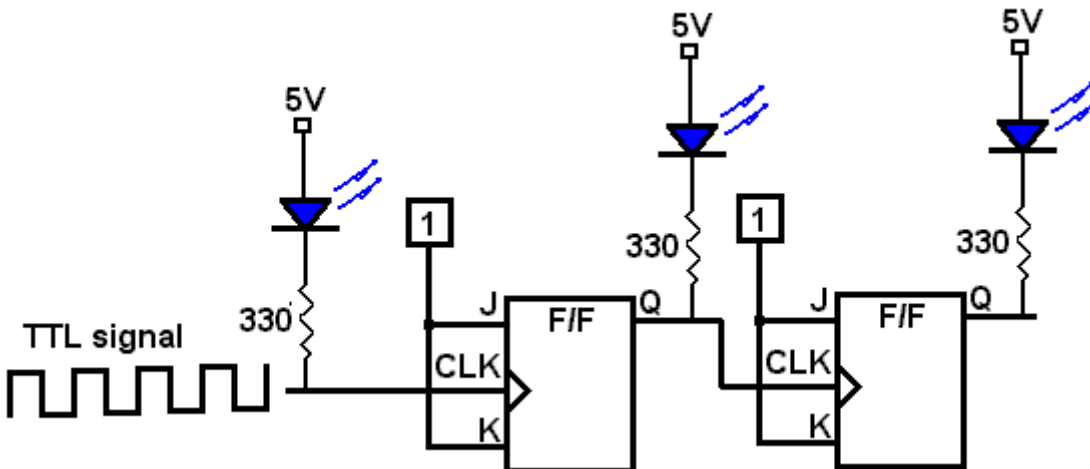- Connect the circuit shown in the figure:

- Switch the input from the first flip flop from 1 to 0 and observe the shifting of the 4-bit register controlled by the clock signal.
- Connect the clock signal manually to 5 V and use it to store a 4-bit binary number in the register.

Experiment 2: *Divider by 2 and 4.*
- Connect the circuit shown in the figure:

- Adjust the frequency of the signal generator to be able to observe the original signal and the division by 2 and 4.

Variation to Experiments 1 and 2: Connect all the circuits of your classmates in series with yours to generate a register of 4bits × (# of groups) and division by $2^{2(\#of\ groups)}$