



- **Show the circuits connection on the transistor level using VISIO or any other software tool.**
- **Deadline due to May 25, 2019.**
- **The group can be out of 2-3 students.**

Problem 1

Design AU (Arithmetic Unit) using any preferred transistor level logic design.

This AU must do the following:

- a) It has two inputs A and B 3-bit each (for example A "010", B "110").
- b) The arithmetic circuit performs Multiplication " $A*B$ " using 3-bit adder.

Problem 2 (Bonus)

Design Synchronous up/down counter (The flip flops in counter must designed using another preferred transistor level logic design than used in Problem 1).

Simulate this design on Multisim.

Good Luck