BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSE306 (Computer Architecture Sessional), January 2019 Term
All Lab Sections, May 4, 2019

Specification for 4-bit ALU Simulation

- Required Flags:

    - Carry
    - Sign
    - Overflow
    - Zero

- Flags will be affected as per the rules of Assembly Language.

- Any SSI (AND, OR, NOT, XOR etc.) and MSI (MUX, Decoder, Adder etc.) chip can be used.

- Emphasis should be given on efficiency of design and minimization of ICs used.

- Late submission will result in reduced marking.

- For simulation you can use any simulation software (like Proteus).

- While demonstration you must bring your group specification.
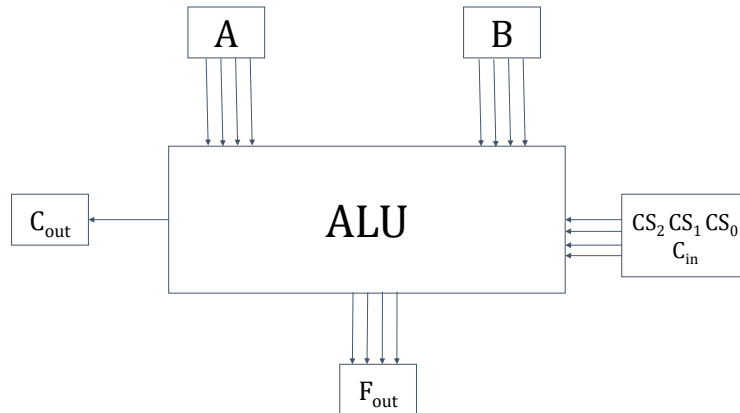

Figure 1: 4 bit ALU

Report Preparation Guideline

Your have to write a Report containing the followings:

- Introduction

- Problem Specification with assigned instructions

- Truth Table & Required k-maps

- Block Diagram

- Complete Circuit diagram

- ICs used with count as a chart

- Simulator used along with the vesrion number

- Discussion

Submission Guideline

- A submission link will be opened on Moodle for submitting your ALU simulation. Make a folder file containing all your simulation project files along with the soft copy of your report and make a zip file for submission. Please ensure a single submission from each group.

- During the evaluation bring a printed copy of your Report.

Submission Deadline: For Both A1 and A2: May 18, 2019 (Saturday) at 11.59pm.