

INDIAN INSTITUTE OF TECHNOLOGY PATNA

CS226- Switching Theory Lab

Lab 5: Arithmetic and Logic Circuits

(Design and simulate)

Assignment

**P1:** Design and Simulate an 8 Bit ALU logic circuit with following functionality. Use blocks from previous labs.

Control bits	Function	Remarks
000	A+B	
001	A-B	
010	A & B	
011	A   B	
100	A xor B	
101	A > B output A	
110	A > B Output B	
111	A>B output fixed number	output 00000001

Submission:

- **Simulation report** (screen shots of design and simulation output). The simulation files p1.circ,
- Zip the above files. file name is your role number.

Course work submission through:

<https://u.pcloud.com/#page=puplink&code=FGi7Zqdd1CN8v6nhxX6SvaKG5G8ejtdqV>

This work is due on: : 2<sup>nd</sup> March 2021, 11 PM.