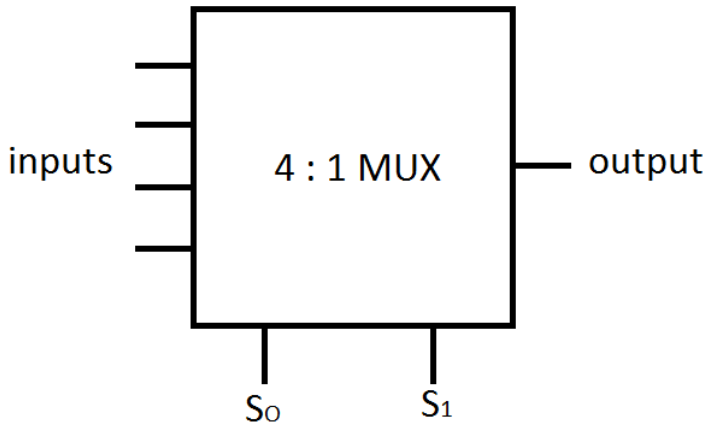
Military Institute of Science and Technology (MIST)
Department of Computer Science and Engineering
CSE-315 (DSD Sessional)
CSE-14, Level-3, Term-II
Lab-01(Group-A+B)

1. **Implement 4:1 MUX in Circuit Maker software and simulate it.**

   Instructions:
   a. **Use basic gates (AND, OR and inverter)**
   b. **Use Logic switch and logic display to give input and output.**



2. **Software implementation of 4-bit combinational logic shifter using basic gates and Shifter IC.**

S_0	S_1	S_2	Operation	Function
0	0	0	F ← A	Transfer A to F
0	0	1	F ← A'	Complement of A
0	1	0	F ←shr A	Shift right A into F
0	1	1	F ←shl A	Shift left A into F
1	0	0	F ←cr A	Circular right A into F
1	0	1	F ←cl A	Circular left A into F
1	1	0	F ←All 0's	Transfer 0's into F
1	1	1	F ←All 1's	Transfer 1's into F

F: 4-bit outputs (F0, F1, F2, F3)
A: 4-bit inputs (A0,A1,A2,A3)
S: 3-bit Selection variables (S0, S1, S2)