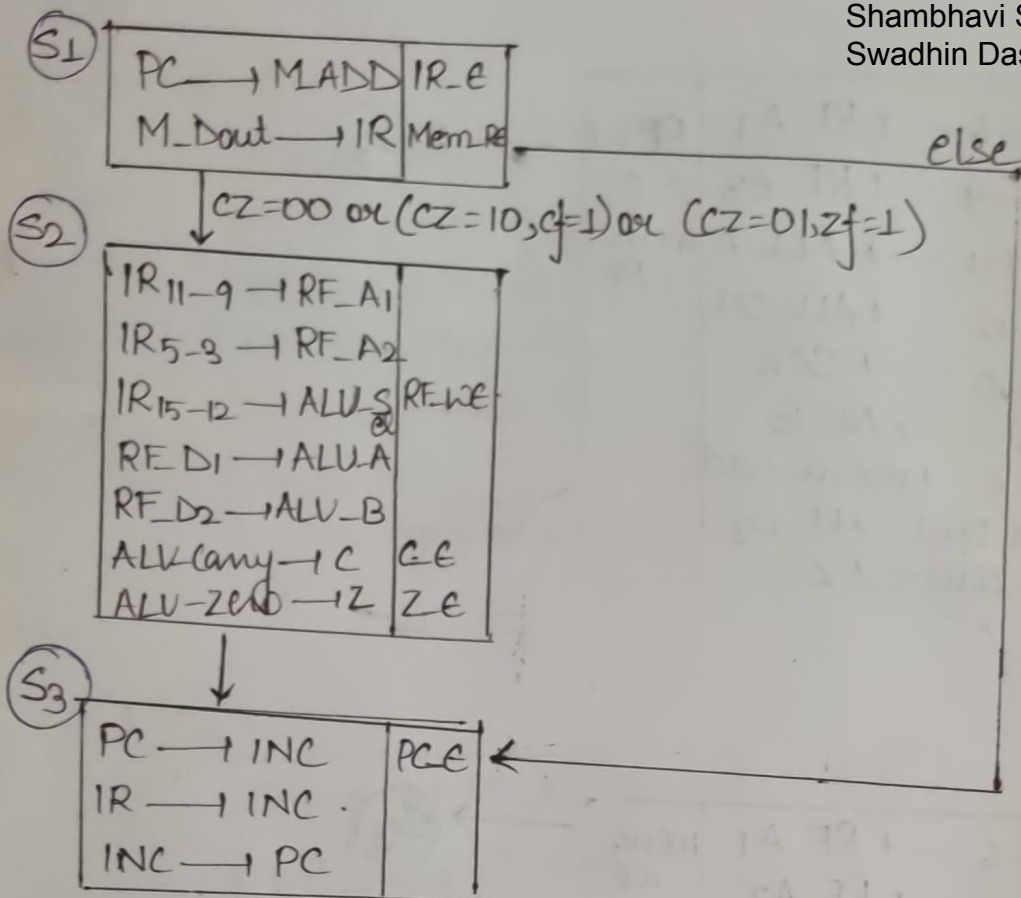
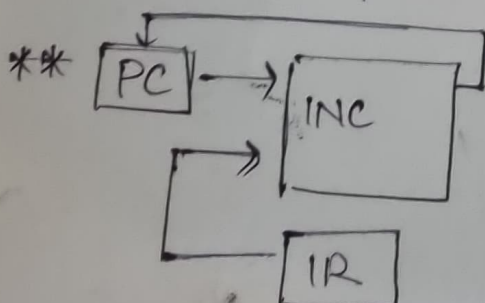
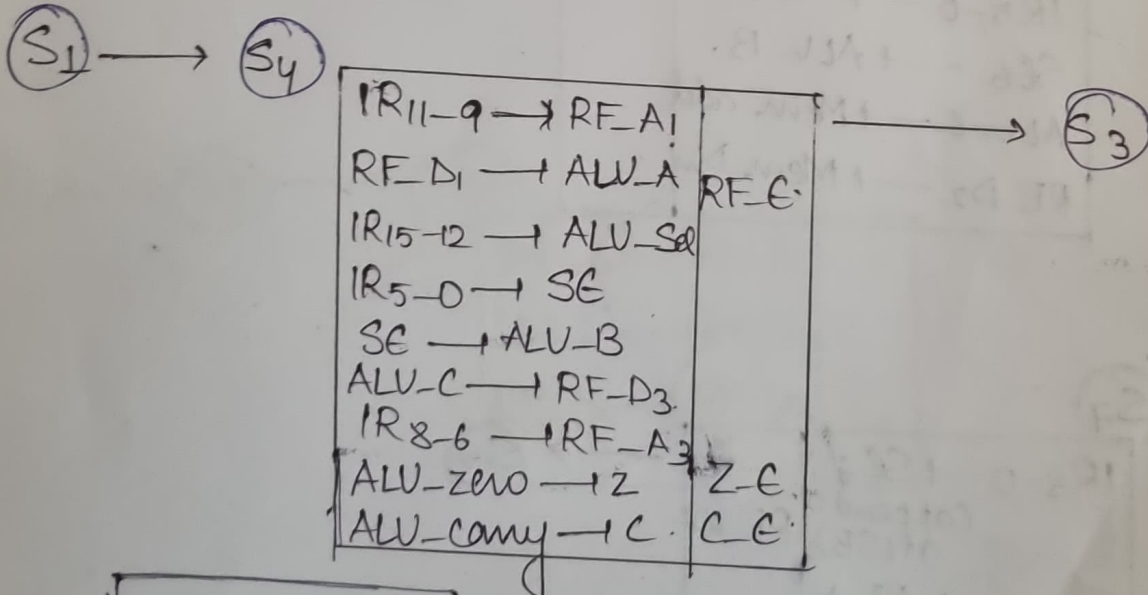


ADD/ADC/ADZ/NDC/NDU/NDZ

Deep Boliya 21D070022
scaria Kochidanadu 210020022
Shambhavi Shanker 21D070066
Swadhin Dash 210020142



ADI



INC increments PC according to the instructions stored in IR.

LW

(S1) → (S5)

IR8-6 → RF_A1	REWE → (S3)
IR11-9 → RF_A3	ZC
RF_D1 → ALU.A	mem-RE
IR15-12 → ALU_sel	
IR5-0 → SE6	
SE6 → ALU.B	
ALU.C → mem_add	
Mem_Dout → RF_D3	
ALU_zno → Z	

SW

(S1) → (S6)

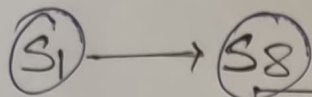
IR8-6 → RF_A1	mem-we → (S3)
IR11-9 → RF_A2	
RF_D1 → ALU.A	
IR5-0 → SE6	
SE6 → ALU.B	
ALU.C → Mem_add	
RF_D2 → Mem_Din	

LHI

(S1) → (S7)

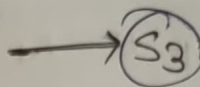
IR8-0 → SE7	REWE → (S3)
Capend 0 at LSB	
IR11-9 → RF_A3	
SE7 → RF_D3	

BEB

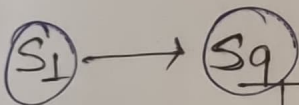


IR ₁₁₋₉ → RF_A1	T.C.
IR ₈₋₆ → RF_A2	
RED ₁ → ALU_A	XOR.
RF_D2 → ALU_B	
IR ₁₅₋₁₂ → ALU_S	
ALU_C → T.	

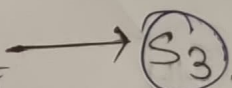
(global signal)



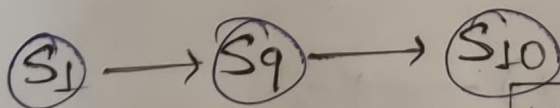
JAL



IR ₁₁₋₉ → RF_A3	RE_WC
'111' → RF_A1	
RED ₁ → RF_D3	

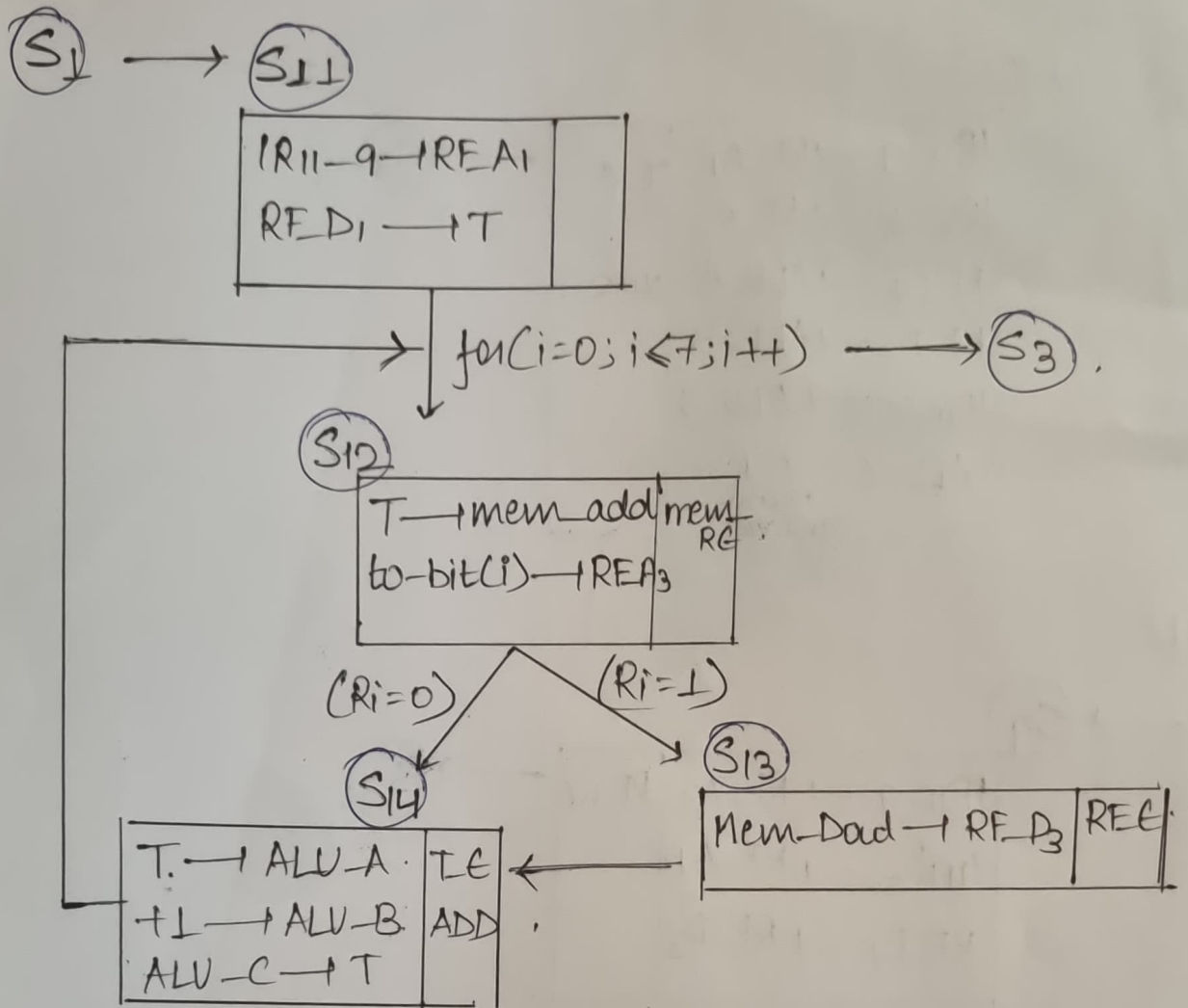


JLR



IR ₈₋₆ → RF_A1	
'111' → RF_A3	
RED ₁ → RF_D3	

LM



SM.

