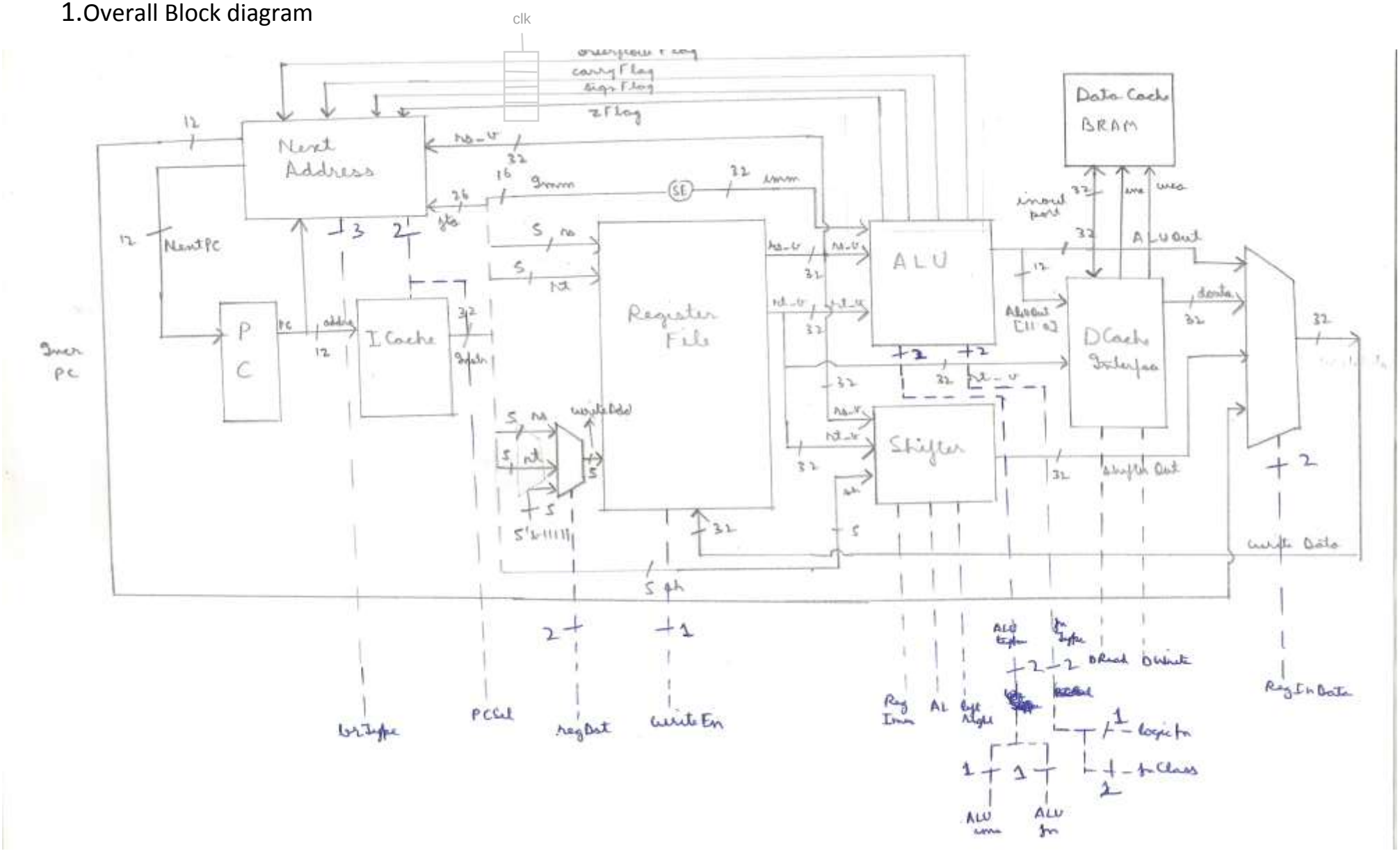
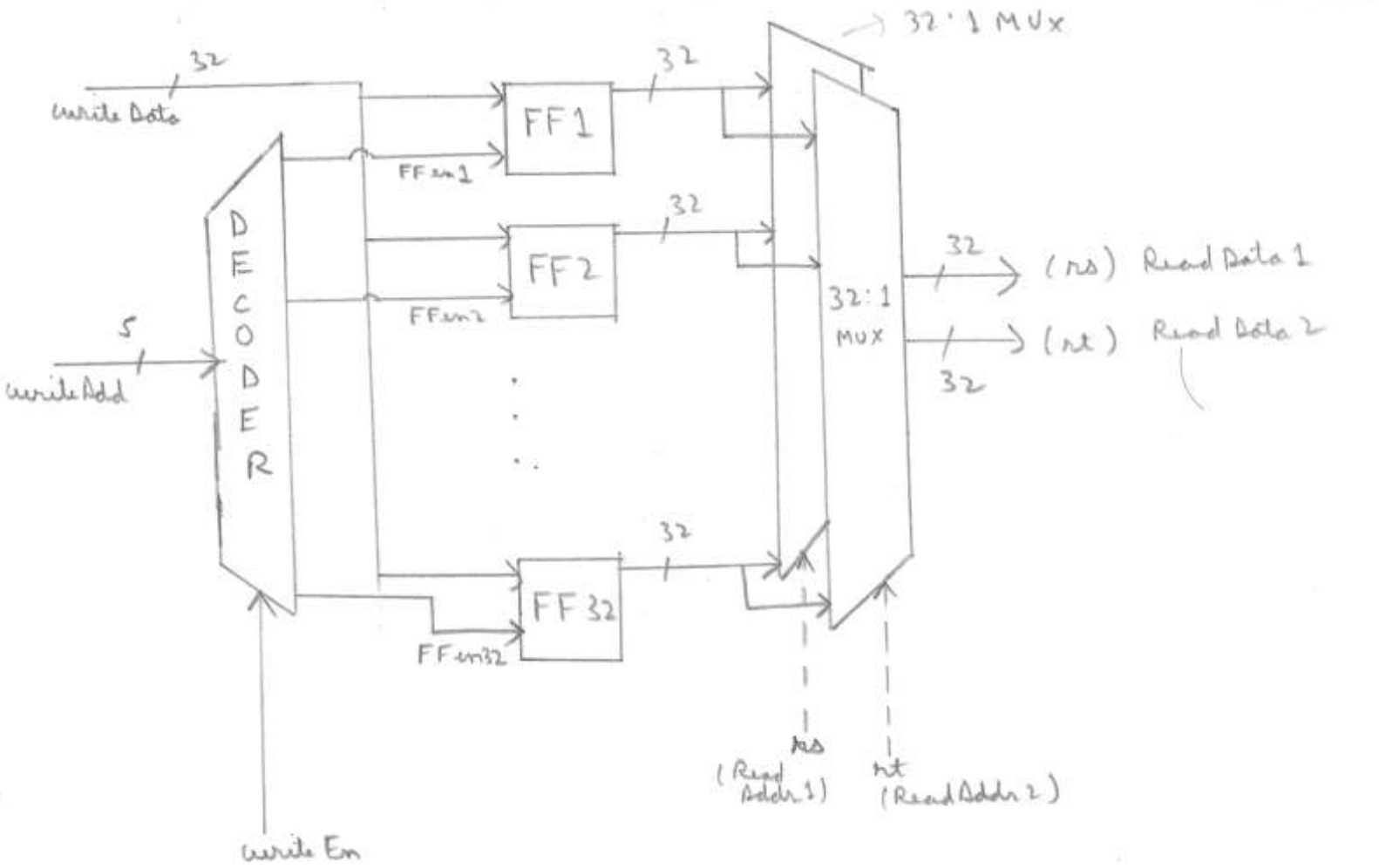
Schematic Diagrams of various blocks of the architecture

1.Overall Block diagram

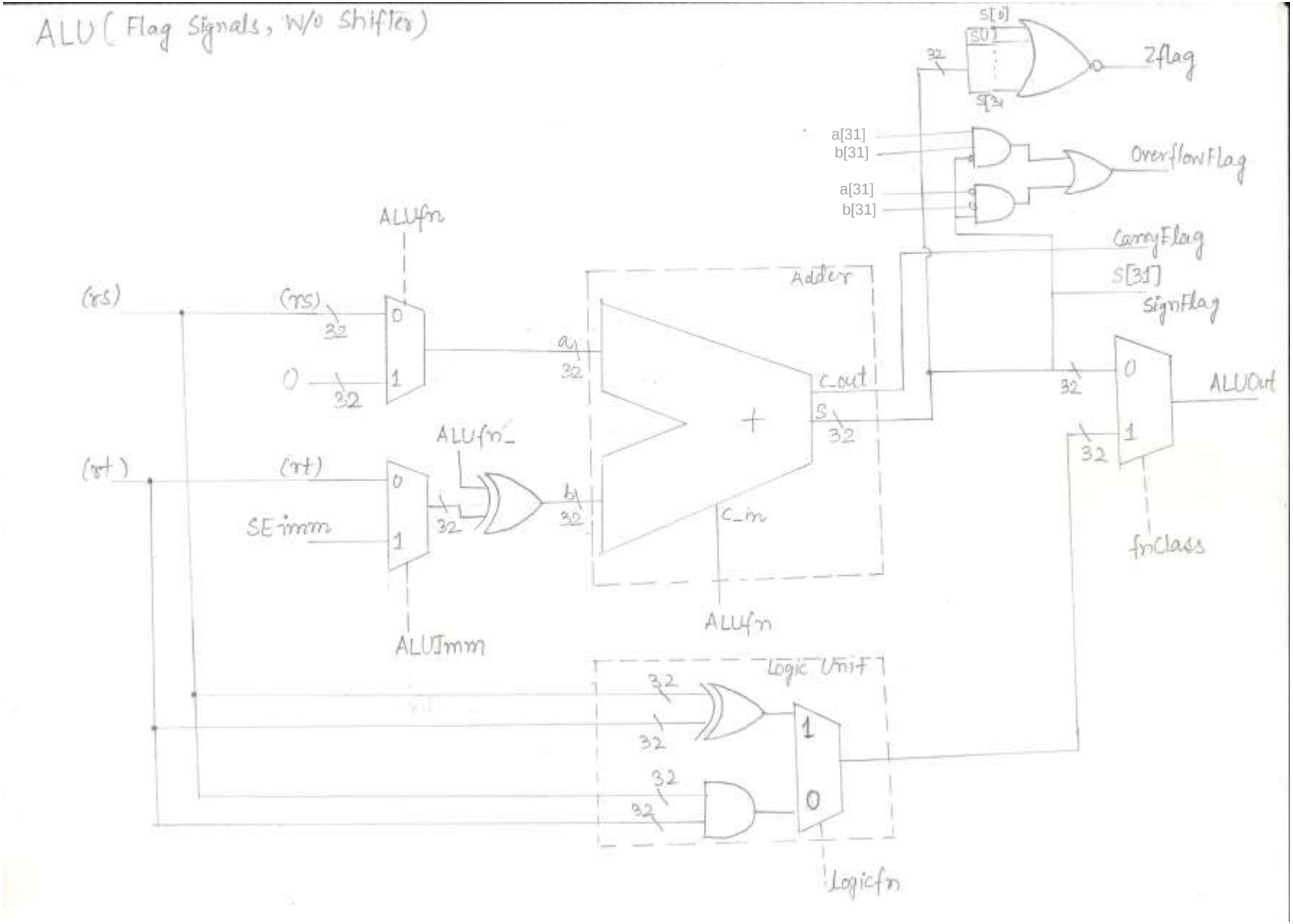


2. Register File

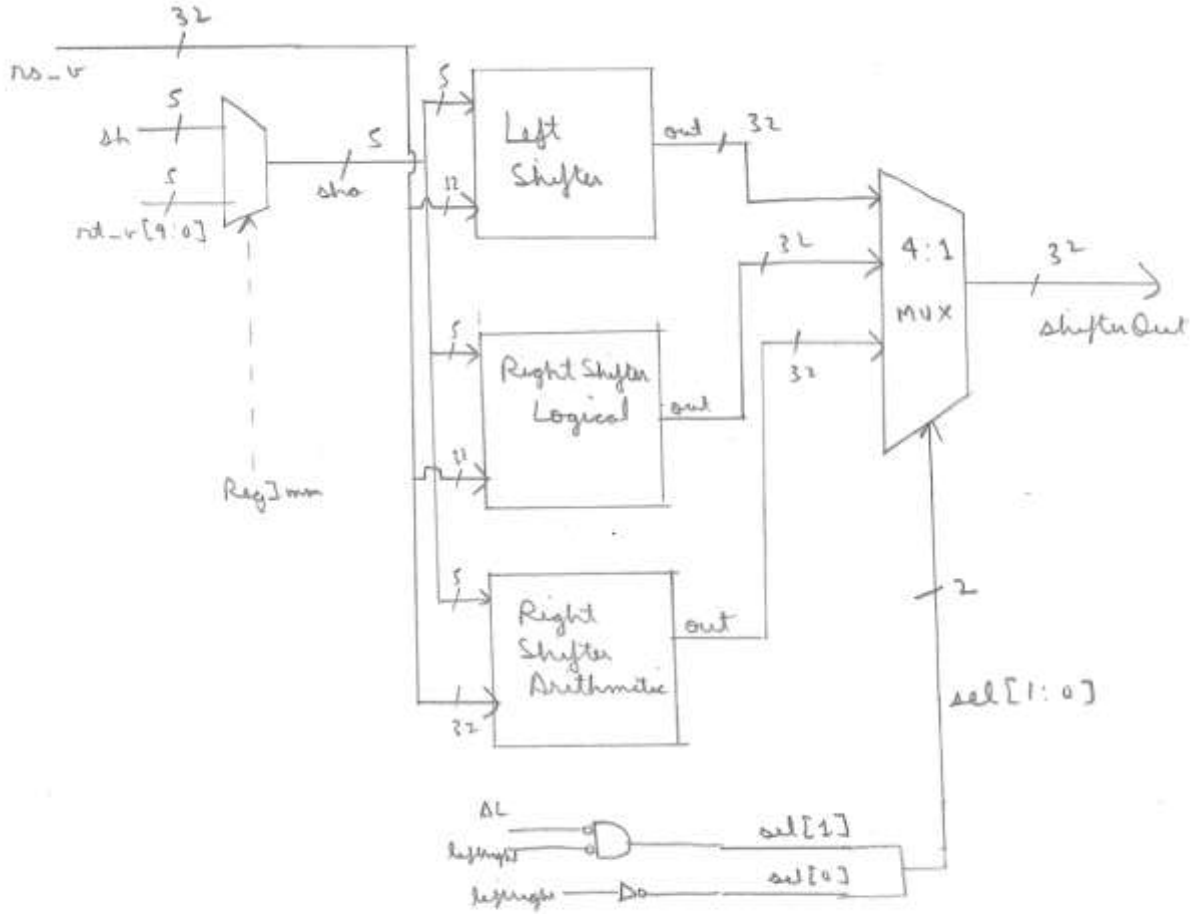


Register File

3. ALU (Without shifer)

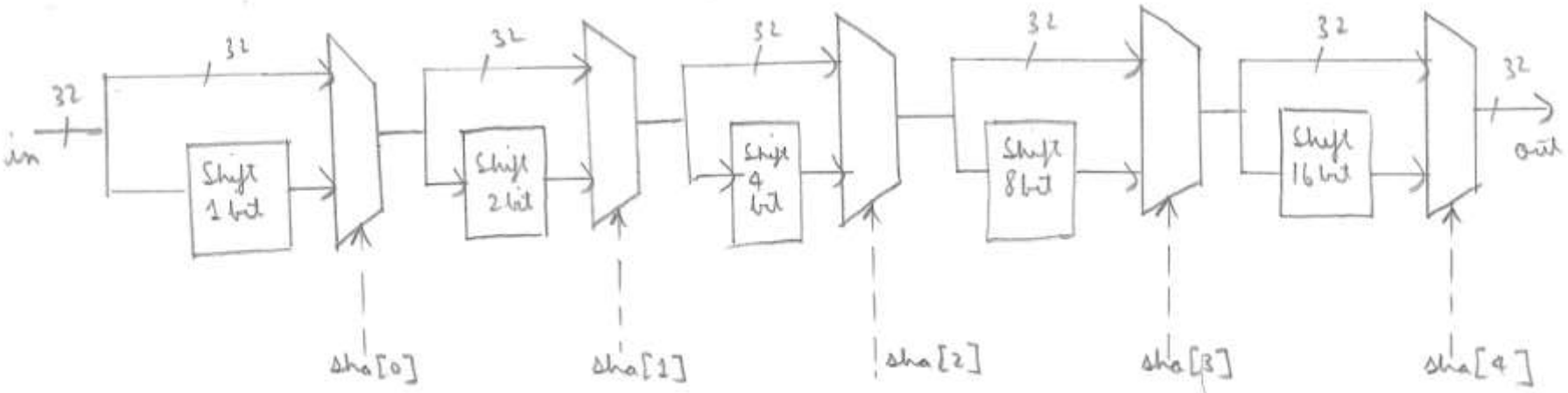


4. Shifter



Shifter

(Detailed diagram (~~s~~ schematic) of left shifter in next page



For left shifter inside "Shift k bit"

out[k-1:0] = 0
out[31:k] = in[31-k:0]

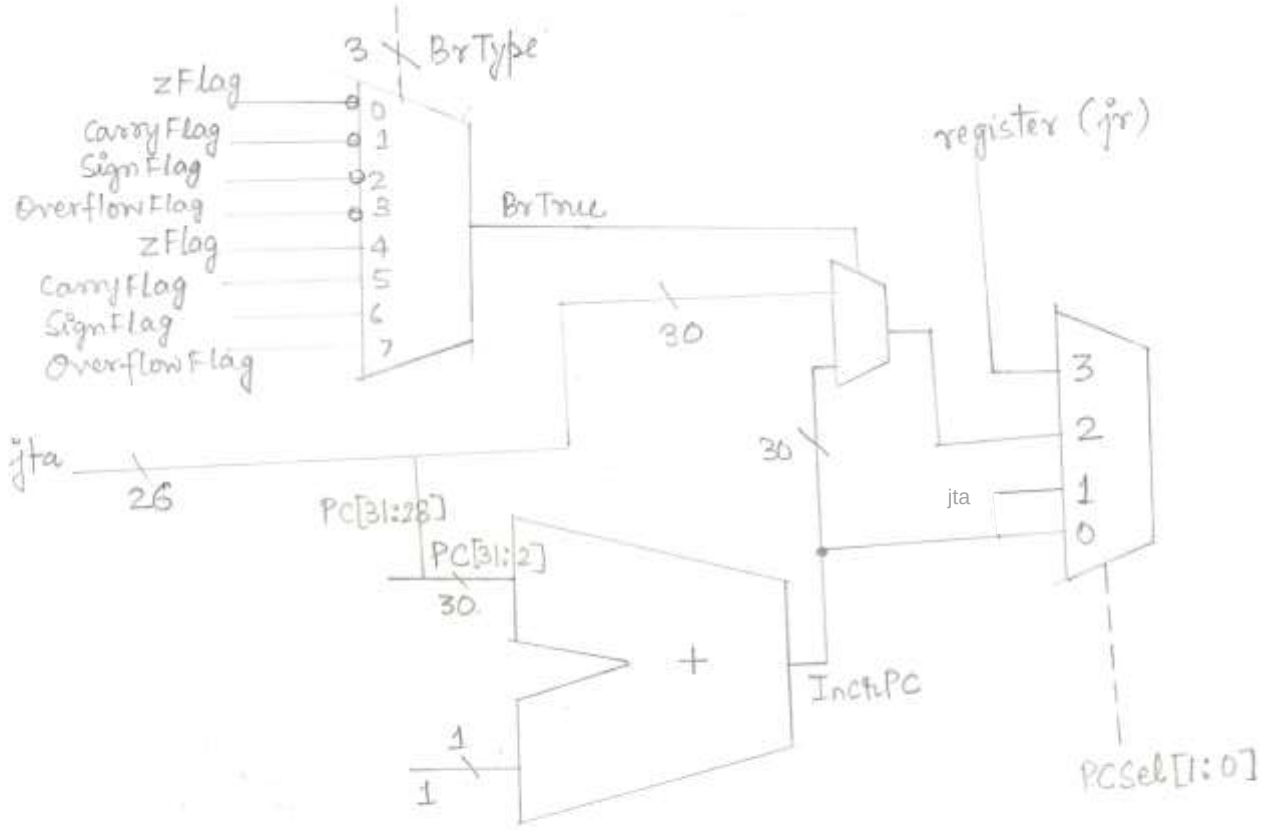
For right shifter logical inside "Shift k bit"

out[31-k:0] = in[31:k]
out[31:31-k+1] = 0

" " arith. inside "Shift k bit"

out[31-k:0] = in[31:k]
each bit from out[31] to out[31-k+1] become in[31]

5. Next Address



Next Address