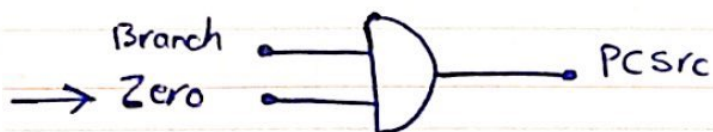
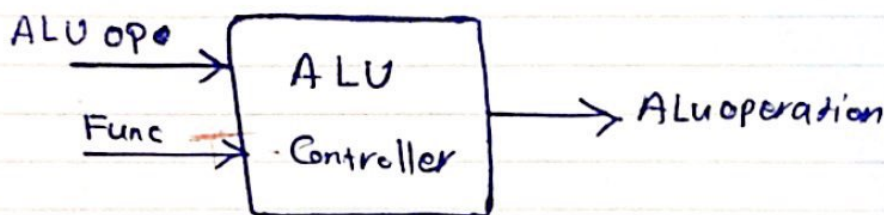
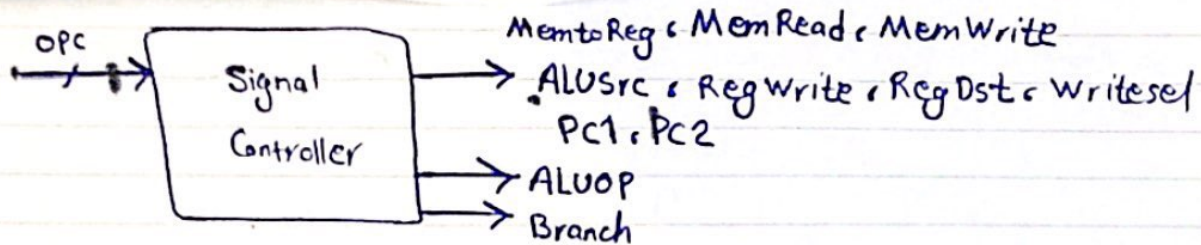


« Controller »

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ALU Controller

ALUoperation	F	ALUOP	Func	ALUoperation	
000	and	00	_____	011	beq
001	or	01	_____	010	addi Mem.
010	add	10	000001	010	RT
011	sub		000010	011	
111	slt		000100	000	
			001000	001	
			010000	111	
		11	_____	111	slti

Signal Controller	ALUOP	Mem to Reg	Mem Read	Mem Write	ALU Src	Reg Write	Reg Dst	Write sel	Pc1	Pc2	Branch
R-type	10	0	0	0	0	1	10	1	X	0	0
addi	01	0	0	0	1	1	00	1	X	0	0
slli	11	0	0	0	1	1	00	1	X	0	0
Lw	01	1	1	0	1	1	00	1	X	0	0
sw	01	X	0	1	1	X	X	X	X	0	0
beq	00	X	X	X	0	X	X	X	X	0	1
j	X	X	X	X	X	X	X	X	0	1	0
jr	X	X	X	X	X	X	X	X	1	1	0
jal	X	X	X	X	X	1	01	0	0	1	0

Output Waveform



$\text{Max}\{\text{arr}\}=20$

Index=7

Datapath Wiring

