	1. ca) -3 ns Add _6ns +4ns +5ns +4ns =19ns
(h)	11.1 - 701 306
00)	L 6 rs +4ns + 5ns+ bns+4ns 7xns
	~ 610379107 1 3167 1 1037 4113 ~ 03713
Cl	SN T 3ns 6ns t 4ns t 5ns t 6ns = z ns
	6n3 tyns y 5ns to ns z 1ns
	\ _00 < 201 \ \201 \ _00
col	beg [3ns x3ns = 6ns 6ns x 4ns x5ns = 15ns
	L 6 N3 7 4N3 83 N3 2/3 N3
	UE) The system clock time should be acos
	because vsns is the langest time that instruction consumed.
	instruction consumed.
	(f) Tax i myrachian Non hander Darl vo
	(f) For i instruction the wingest path time should be bus
	radd Alu-3ns
	PC-1 605
	-Read Address - control - Mux - update PC
	Shift 2
	PC— 6ns —Read Address—Control—Mux—vedate PC —shift 2—
The state of the s	

2.0) 6ns is the longest path time. So the system clock time should be ons b) add: Tmadd = 6x4 = 24 ns W: TMW = 5x6 = 30,05 5W: Inm = 4x6=24 ns beg = Imbg = 5x6=18 ns j : Trj = 3x 6 = 18 ns Tm = 24730+24 + 18+18 = 114/18 For single cycle: To 30X5=150 ns Therefore: Speed upe Thy 21.32 gimes faster

