Solution Practice Set 2	- har ble production of the second of the se
	<u> </u>
1. lp = max {+p; 3+d	
= 90 +10	
Lustern transl # 1 100 ms in hand	minter and make a mar of the
CK+n-D.tp	Mangarlik & Alain His
= (4+1000-D-100	, both the large of mathering
= 100300 us.	ula bourgedontsei int
b. Him hather whole	vi tops I pour bis but by
= 1000. (60+50+90+9	80)
1000. 280	vi induction to tack will
280000 MS.	Landing & handles for the
Ch. Throughput for pipelis	não execution
	is executed per unit time
= 1000 / 100 300	took/ws.
= 0.01 tark/ns	to the district of the
CAILLI MANAGER HERE	
tp= man (150, 120, 160, 16	
	Australia de la materia
n= 1000 K=4 €	_ 'V
	= 1003.165
	= 165495 ms
	= 165.5 Ms
3. for four stage tp = max (8	
2 800+0	= 800 poscus exonds
So execution time for linety	chang labore and - an income
	chian= 1 chrok cycle = 800 pico ser
for two stage to = max	to a facility
Engust's Time ( 1906)	+0 = 600 picos econds
Execution time for instruct	ar = 600 pico seconds
throughput for 4 stage = 1 instruction	1800 WS.
y 2 stage = [instruction	a /for ms.

p r card at	
Solinozease 1 1600 7 1800	1
Ly madbully fan fjelm in tilleling	
so to of increase with respect to the previous one	
g	
(800 X 100 %	
$= \frac{200}{600 \times 860} \times 860 \times 100 \%$	
= (200 × 8/0) × 100 %	
= 33.33%	
madriche i vint manifel is militaril	
4. cycle time in sesigning &1 = max (3,2,4,2,3) + delay	
1 2 4 40 1 = 14 us.	
Execution time for 100 instructions in Aesign DI-	
= (K+n-1):4	
11 = (5+100-1).41	
= 416 Ws.	
the state of the second st	
Execution time for 100 immonution in Design D2	44
	etime
$= \frac{208mc}{} = 2t$	0 3 delay
$=$ $(a_1)$	2ns.
	11: 1
so time saved = (416 - 214) = 202 ms.	
The second secon	
5. p1 -> cycle time = max (1,2,2,1) + delay = 225	
clock freg. = 12 = 0.5 GHZ.	
1 P2 > clock freg. = 1/max(1,15,15,15) = 1.5 = 0	·67 GH
P3 -) = Ymax (0.5, 1, 1, 0.6, 1) = Y1 = 1	GH2
PA -> \max (0.5,0.5,1,1,1.1) = 1-1=0	
so p3 has highest clock freg.	