Lec 3 High performance

Ex. 1

PP	SP	IP
j)	c) ..	e) h)
i) a)	d) b)	f)
g)		

Ex. 2 Consider task execution graph

a) What are the critical path lengths for the two task dependency graphs

figur a $10+6+11+7 = 34$, figur b 27 "

b) -11- = 40 ms, -11- = 30 ms

c) 2 fig c, 4 fig b

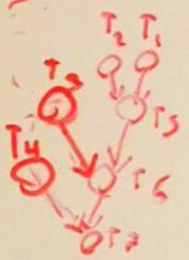
d) Max degree of concurrency = 4 tasks running parallel

(Based on fig and not c) answer)

Fig M

(Node = t)

c) 2 proc



Ex. 3

a) Fig K) 8 max concurrency, Fig. (b) 8, fig. (c) 2

b) -11- 4, -11- 7, -11- 7

c) $S = \frac{15}{4} = 3{,}75$, $\frac{14}{7} = 2$, $\frac{13}{7} = 1.857$ $S = \frac{\text{Seq time}}{\text{par time}}$

d) 8, 8, 2 (Processors)

e) 2 processor: $\frac{15}{8} = 1.875$, $\frac{14}{10} = 1.4$, $\frac{13}{7} = 1.857$

3 processor: $\frac{15}{6} = 2.5$, $\frac{14}{8} = 1.75$, $\frac{13}{7} = 1.857$

Ex. 4

a)