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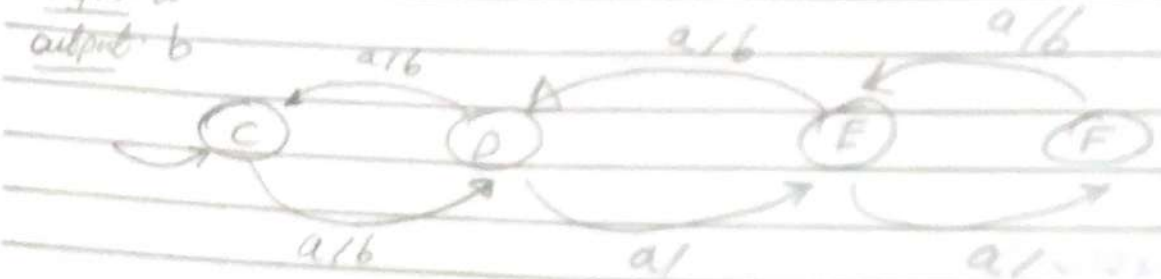
Sheet 4

Chapter 5: Question 5



Chapter 12: Question 1

$P_1 = 4$ & $P_2 = 6$

a) using $U_i = \frac{C_i}{T_i}$

Task 1 $U_1 = \frac{1}{4} = 0.25$

$U_2 = \frac{e_2}{6} = ?$

$U_1 + U_2 \leq 1$

$U_2 \leq 0.75 \Rightarrow \frac{e_2}{6} \leq 0.75$

$e_2 = 4.5$

b) $e_2 = P_1 - e_1 = 4 - 1 = 3$

c) both have utilization of 1

d) $e_1 = 1$ $P_1 = 4$ $U_1 = 0.25$

$e_2 = 3$ $P_2 = 6$ $U_2 = 0.5$

Utilization = 0.75 #

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Question 2 :-

a) $e_1 = 1 \quad P_1 = 4 \quad P_2 = 6$

$U_1 = 0.25 \qquad U_2 = \frac{e_2}{6}$

$e_2 = 4.5$

b) Both are the exact same

Question 3:

a) $P_1 = 2 \quad e_1 = 1$

$P_2 = 3 \quad e_2 = 1$

using $U = \sum_{i=1}^{n} \frac{e_i}{T_i}$

$U = \frac{1}{2} + \frac{1}{3} = \frac{5}{6}$

b) $U = \frac{e_1}{P_1} + \frac{e_2}{P_2}$ if e_1 & e_2 incrase the utilization increases

c) if $e_2 = 1.5$

$U = \frac{1}{2} + \frac{1.5}{3} = 1$ so EDF is feasible

~~Question 6:~~

"I acknowledge that I am aware of the academic integrity guidelines of this course, and that I worked on this assignment independantly without any unauthorized help"

2) عبد الرحمن عادل عبد الفتاح