

Quiz 1: relaxing atomicity?

- Show that the original Lamport's Bakery algorithm works even when all base registers are **safe**?

Quiz 2: what if?

Code for process p_i :

initially:

shared array $R[0, \dots, M-1]$ of 1WNR registers $:= [1, 0, \dots, 0]$

upon read()

for $j = 0$ to $M-1$ do

if $R[j].\text{read}() = 1$ then return j

upon write(v) // if $i=1$

$R[v].\text{write}(1)$

for $j=0$ to $v-1$ do $R[j].\text{write}(0)$

return ok

Quiz 3: what if?

Code for process p_i :

initially:

shared array $R[0, \dots, M-1]$ of $1WNR$ registers $:= [1, 0, \dots, 0]$

upon read()

for $j = 0$ to $M-1$ do

if $R[j].\text{read}() = 1$ then return j

upon write(v) // if $i=1$

for $j=v-1$ down to 0 do $R[j].\text{write}(0)$

$R[v].\text{write}(1)$

return ok