Student 1: _____
Student 2: _____

Exercise   [CPU Scheduling, parallel I/O]

The Ready queue of an operating system at a particular time instance is as follows:

Process	Next CPU burst (in milliseconds)
P1	2
P2	3
P3	7
P4	18

The behavior of each process (if it were to use the CPU exclusively) is as follows: it runs for the CPU burst given, then requests an I/O operation that takes 10 milliseconds, then runs for another CPU burst of equal duration to its first CPU burst and then terminates.

However, the four processes must share the CPU. Assume that the I/O operations can proceed in parallel.

a) Draw a chart showing the execution of these processes under RR, with time quantum = 2

b) Draw a chart showing the execution of these processes under preemptive PSPN. For each process, calculate the total waiting time (time spent in the Ready queue).

(ps.: PSPN - Preemptive Shortest Process Next)