

Operating Systems. Homework 4. Due Date 30/03/2018

1- Assume that we have 3 running processes P1, P2, and P3 that share a strong semaphore with initial value 2 and call the wait and signal functions as the following table. What are the possible states (running or blocked) of processes after the last operation in the table.

Order	Process	Operation
1	P1	wait(s)
2	P1	wait(s)
3	P2	wait(s)
4	P3	signal(s)
5	P1	wait(s)
6	P3	wait(s)
7	P2	signal(s)
8	P1	wait(s)
9	P2	signal(s)

2- Assume that we have the following 2 processes that prints A and B in the output. Using semaphores synchronize these processes in such a way that we always have two A followed by one B. (The output should be AABAABAABAABAABAABAABAAB...).

Prosesse P1:

```
{  
  while(true) {  
    cout<<"A";  
  }  
}
```

Prosesse P2:

```
{  
  while(true) {  
    cout<<"B";  
  }  
}
```