Name:	Operating Systems Course – Quiz 1
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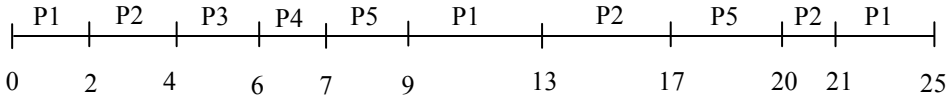
1. What do you think about the main property of an operating system designed for handheld systems? (like PDAs and cellular telephones)
2. Consider the following set of processes to have arrived in the order P1, P2, P3, P4 and P5 at time 0.

Process	P1	P2	P3	P4	P5
Burst Time	10	7	2	1	5

A black-box scheduler has produced the following schedule. What do you think about this scheduler?



3. Suppose that a machine supports the *Swap* instruction which exchanges two memory words **atomically**. Now consider the following code:
   Is it possible for two processes to be simultaneously inside their critical regions? If yes, change it in such a way that the **mutual exclusion** condition be guaranteed. (Note: the *lock* variable is global and is initiated to false and the *key* variable is local.)

```
do
{
   key = true;
   while (key = = true)
      Swap(lock , key);
   …
   Critical section
   ….
   lock = false;

} while(1)
```