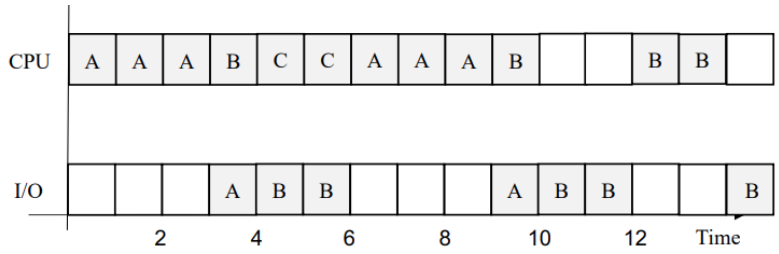
CS2106 Tutorial 3

AY 25/26 Sem 1 — github/omgeta

Q1. D represents the number of computation per process before yielding.

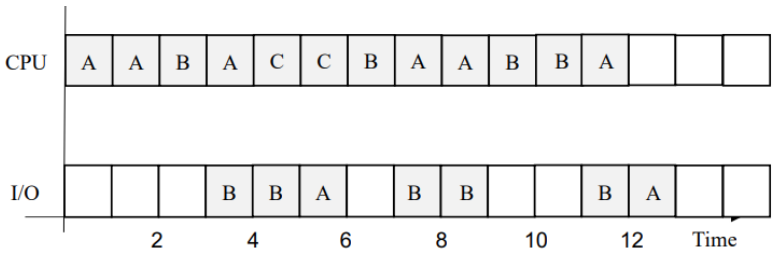
Q2. (a.)



(b.)

Program	Turnaround Time	Waiting Time
A	10	2
B	15	6
C	3	1

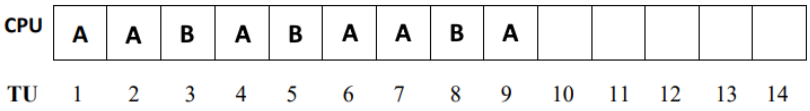
(c.)



(d.)

Program	Response Time
A	0
B	2
C	1

Q3.



Q4. (a.)

```
RunningTask.TQLeft--;

if (RunningTask.TQLeft > 0) return;

//Check for another task to run
if ( ReadyQ.isEmpty() )
  //renew time quantum if only 1 task
  RunningTask.TQLeft = TimeQuantum;
  return;

//Else if need context switching
TempTask = ReadyQ.dequeue();
//current task goes to the end of queue
ReadyQ.enqueue( RunningTask );
TempTask.TQLeft = TimeQuantum;
SwitchContext( RunningTask, TempTask );
```

(b.) There is no need to modify the RR scheduler. Instead, on block or other key events, the enqueue/dequeue of PCBs should be handled by the syscall where the information is known.