*Required

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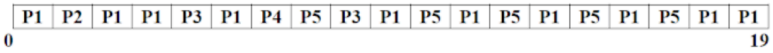
Consider the following set of processes, with the length of the CPU burst given in milliseconds.

Process	Burst Time	Arrival	Priority*
P1	10	0	3
P2	1	1	1
P3	2	4	3
P4	1	5	4
P5	5	5	2
*: Lower number means higher priority			

The following Gantt chart shows the order in which these processes are executed:



What is the response time of P5?

- (●) 2 ms.
- ( ) 5 ms.
- ( ) 7 ms.
- ( ) 17 ms.

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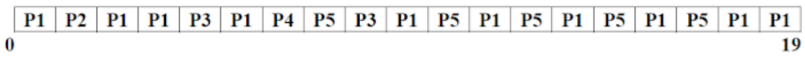

Given the following scheduling algorithms, identify which of the following scheduling algorithms is being utilized.

- ○ Shortest-Remaining-Time-First.
- ◉ Round Robin with time quantum=1.
- ○ Round Robin with time quantum=2.
- ○ Preemptive Priority Scheduling.

Student Name: *

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A Multilevel Queue scheduling algorithm partitions processes into foreground processes queue and background processes queue. Foreground queue has absolute priority over background queue. Which of the following cases occurs if a foreground process arrived the ready queue while the background process was running?

- ○ The current background process continues the execution till termination.
- ◉ The current background process would be preempted.
- ○ The current background process would be terminated immediately.
- ○ None of the above.

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Aging can be a solution to the problem of indefinite blockage of low-priority processes.

- (●) True
- ( ) False

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Which of the following scheduling algorithms is the most suitable for time-sharing systems?

- ( ) Shortest-Job-First scheduling.
- ( ) Shortest-Remaining-Time-First scheduling.
- (●) Round-Robin scheduling.
- ( ) First-Come-First-Served scheduling.

- ( ) False

*

In which of the following cases non – preemptive scheduling occurs?

- (•) When a process goes from the running state to the waiting state.
- ( ) When a process switches from the running state to the ready state.
- ( ) When a process switches from the waiting state to the ready state.
- ( ) All mentioned above.

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In symmetric multiprocessing, all system activities are handled by a single processor – the master server.

- ( ) True
- (•) False

*

Assume the system makes a context switch between process P_0 and P_1. P_0 executes before P_1, and PCB_0 and PCB_1 are respectively their process control block. Which of the following time units are included in the dispatch latency?

- ○ P0 executing.
- ◉ Save state into PCB0 and restore state from PCB1.
- ○ P1 executing.
- ○ All of the above.

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The convoy effect occurs in First-Come-First-Serve scheduling when a process with a long CPU burst occupies the CPU.

- ◉ True
- ○ False

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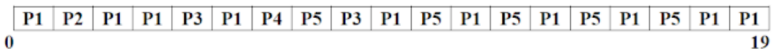

What is the response time of P5?

- (●) 2 ms.
- ( ) 5 ms.
- ( ) 7 ms.
- ( ) 17 ms.

*

In Round-Robin scheduling, the time quantum should be small with respect to the context-switch time.

- ( ) True
- (●) False