# HDH-Lan2

Hệ điều hành (Trường Đại học Sư phạm Kỹ Thuật Thành phố Hồ Chí Minh)

**saves low-priority processes from resource starvation**
Aging
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**Low context switch operating costs _____ degree of multiprogramming in the system**
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**What is Inter-Process Communication?**
communication between two processes
---
**What is Dispatch Latency ?**
the time lost by the dispatcher to stop one process and start another
---
**Which system call returns the PID of the terminated child process?**
wait
---
**The performance of the Round Robin algorithm is highly dependent on**
The magnitude of the time quantum
---
**Consider a system with 4 processes with the following parameters:**

| Process | Arrival Time | Burst time |
|---|---|---|
| **P1** | **0** | **53** |
| **P2** | **0** | **8** |
| **P3** | **0** | **68** |
| **P4** | **0** | **24** |

**If using the RR(q = 20) scheduling algorithm, the average waiting time is**
66.25
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**Blocked → Ready :** Chọn
Wake up
**Ready → Running :** Chọn
Dispatch
**---------**
**Consider a system with 4 processes with the following parameters:**

| Process | Arrival time | Burst time |
|---|---|---|
| **P1** | **0** | **5** |
| **P2** | **1** | **7** |
| **P3** | **2** | **8** |
| **P4** | **3** | **9** |

**If using the preemptive-SJF CPU scheduling algorithm, the average waiting time of the processes is:**
7.75
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Consider a system with 4 processes with the following parameters:

| Process | Arrival time | Burst time |
|---|---|---|
| P1 | 0 | 6 |
| P2 | 0 | 8 |

| Process | Arrival time | Burst time |
|---|---|---|
| P3 | 0 | 7 |
| P4 | 0 | 3 |

If using the SJF process scheduling algorithm, the average waiting time of the processes is:
7
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**Inter-Process Communication**
allows processes to communicate and synchronize their actions without using the same address space
---
**Process is also known as**
heavy weight process
---
**Which word does not indicate the state of a process?**
Finished
---
**Match the following pairs of data:**
Round Robin Time sharing
LIFO Stack operation
Scan Disk check
---
**If the resource is always preempted from the same process, starvation can happen**
Starvation
---
**Low context switch operating costs _____ degree of multiprogramming in the system**
Increases
---
**The term "aging" refers to**
gradually increase the priority of long-awaited processes in the system to overcome the infinite process blocking
---
**The CPU transferring from one process/thread to another is called**
context switch
---
**In a time-sharing operating system, when the CPU time allocated to a process expires, what state will the process go from running to?**
Ready
---
**READY is the state of a process**
when the process is scheduled to run after execution
---
**In Unix, what system call creates a new process?**
fork

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**The state of a process is determined by**

current activity of the process

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**Xét hệ thống có 4 process với thông số như sau:**

| Process | Arrival Time | Burst time |
|---|---|---|
| P3 | 2 | 8 |
| P1 | 0 | 5 |
| P4 | 3 | 9 |
| P2 | 1 | 7 |

**If using the preemptive-SJF cpu scheduling algorithm, the average waiting time of the processes is**

7.75

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**Consider a system with 5 processes with the following parameters:**

| Process | Arrival time | Burst time |
|---|---|---|
| P1 | 0 | 140 |
| P2 | 40 | 75 |
| P3 | 50 | 320 |
| P4 | 300 | 280 |
| P5 | 315 | 125 |

**If using SJF CPU scheduling algorithm, the waiting time of P4 is:**

360

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**Consider a system with 3 processes with the following parameters:**

| Process | Arrival Time | Burst time |
|---|---|---|
| P1 | 0 | 10 |
| P2 | 2 | 20 |
| P3 | 6 | 30 |

**Assuming there is no context switch at time 0, if using SRT cpu scheduling algorithm, how many times context switch.**

2

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**Consider a system with 4 processes with the following parameters:**

| Process | Arrival Time | Burst time |
|---|---|---|
| P1 | 0 | 8 |
| P2 | 1 | 4 |
| P3 | 2 | 9 |
| P4 | 3 | 5 |

**If using the SRT scheduling algorithm, the turnaround time of P3 is**

24

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**Consider a system with 3 processes with the following parameters:**

| Process | Arrival Time | Burst time |
|---|---|---|
| P1 | 0 | 24 |
| P2 | 0 | 3 |
| P3 | 0 | 3 |

**If using RR (q = 4) cpu scheduling algorithm, what is the average waiting time of the processes?**

5.66

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**Consider a system with 4 processes with the following parameters:**

| Process | Arrival Time | Burst time |
|---|---|---|
| P1 | 0 | 9 |
| P2 | 1 | 5 |
| P3 | 2 | 3 |
| P4 | 3 | 4 |

**If using the RR(q = 2) scheduling algorithm, the average waiting time is**

10

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**Consider a system with 3 processes with the following parameters:**

| Process | Arrival Time | Burst time |
|---|---|---|
| P1 | 0 | 5 |
| P2 | 1 | 7 |
| P3 | 3 | 4 |

**The order of completion of the 3 processes under the RR(q = 2) algorithm is**

P1, P3, P2

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**Consider a system with 4 processes with the following parameters:**

| Process | Arrival Time | Burst time |
|---|---|---|
| P1 | 0 | 12 |
| P2 | 2 | 4 |
| P3 | 3 | 6 |
| P4 | 8 | 5 |

**If using SRTF scheduling algorithm, the average waiting time is**

5.5

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**Consider a set of n tasks with known runtimes**

Shortest job first

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**The Windows CreateProcess() system call**

fork()

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**Consider a system contains n processes and system uses the round-robin**

Circular queue

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**Module gives control of the CPU to the process selected**

Dispatcher
---
**Is number of processes that complete their execution per time**
Throughput
---
**Long-term schedulers are the**
Job schedulers
---
**In CPU scheduling, time taken for switching from one process to other is**
Context-switch time
---
**A process may transition to the Ready state by which of the following actions?**
All of the above
---
**The state of a process after it reach an I/O instruction is**
Blocked
---
**In CPU scheduling, the preemptied process is then placed at back of the**
Ready queue
---
**If Multi-Level Feedback Queue has the following configuration is used Q1: RR (q=8)**
64
---
**Round Robin schedule is essentially the pre-emptive version of**
FIFO
---
**Which of the following need not necessarily be saved on a Context Switch between processes?**
Translation look-aside buffer
---
**The processes are classified into different groups in which of following scheduling algorithms?**
MLQ
---
**Nếu dùng giải thuật lập lịch cpu SRT, thì turnaround time trung bình của các tiến trình là**
43/6
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**Time is amount of time to execute a particular process**
Turnaround
---
**In a time-sharing operating system, when the time slot given to a process is completed, the process goes from the running state to the**
Ready state
---
**In a time-shared system, Round-Robin CPU scheduling is used.**
When large time slices are used, the method degenerates into the First Come First Served (FCFS) algorithm.
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**is amount of time a process has been waiting**
Waiting time
---

**If the quantumn time used in the round-robin scheduling algorithm is more than the maximum time required to execute any process, then the algorithm will**
Become to first come first serve
---
**If Multi-Level Queue scheduling is performed with**
19
---
**Which of the following is non-preemptive?**
FCFS
---
**Includes information on the process's state**
PCB
---
**Match the following:**
(2)
---
**The performance of the Round Robin algorithm depends heavily on**
The size of the time quantum
---
**The time taken to stop one process and start process another running is known as**
Dispatch latency
---
**Which of the following actions is/are typically not performed by the operating system when switching context from process P1 to process P2?**
Swapping out the memory image of process P1 to the disk
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**Schedulers are the CPU schedulers that select a**
Short-term
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**Scheduling, the process that requests the CPU first is**
FCFS
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