Kiem tra lan 2 đề thi + đáp án

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

The short term schedulers are the CPU schedulers that select a process from the ready queue and allocate the CPU to one of them

A process may transition to the Ready state by which of the following actions? - All of the above

The processes are classified into different groups in which of following scheduling algorithms? – MLQ

Dispatcher module gives control of the CPU to the process selected by the short-term scheduler

A PCB includes information on the process's state

Long-term schedulers are the job schedulers that select processes from the job queue and load them into memory for execution.

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

Throughput is number of processes that complete their execution per time unit

The time taken to stop one process and start another running is known as Dispatch Latency

Consider a set of n tasks with known runtimes r1, r2....rn to be run on a uniprocessor machine. Which of the following processor scheduling algorithms will result in the maximum throughput? - Shortest job first

Which of the following need not necessarily be saved on a Context Switch between processes? - Translation look-aside buffer

Match the following:

List - I List - II

(a) Spooling (i) Allows several jobs in memory to improve CPU utilization

(b) Multiprogramming (ii)Access to shared resources among geographically dispersed computers in a transparent way

(c)Time sharing (iii) Overlapping I/O and computations

(d)Distributed computing (iv)Allows many users to share a computer simultaneously by switching processor frequently

codes:

(a)	(b)	(c)	(d)	
(1)	(iii)	(i)	(ii)	(iv)
(2)	(iii)	(i)	(iv)	(ii)
(3)	(iv)	(iii)	(ii)	(i)

(4) (ii) (iii) (iv) (i)

Đáp án: (iii) (i) (iv) (ii)

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

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

Which of the following is non-preemptive? – FCFS

Consider the following scenario of processes:

Process	Arrival Time	Burst time	Priority
P1	9	16	4
P2	2	10	1
P3	12	2	3
P4	5	28	0
P5	0	11	2

The waiting time of P5 using preemptive priority scheduling is

Select one:

- 26
- 47
- 23
- 38

Your answer is incorrect.

The correct answer is: 38

Consider the following scenario of processes:

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

If SRTF scheduling is performed, what will be the turnaround time of P3 ?

Select one:

- 24
- 23
- 25
- 26

Your answer is incorrect.

The correct answer is: 24

Consider the following systems:

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

If Round Robin (q = 2) scheduling is performed what will be the average waiting time of the processes?

Answer:

The correct answer is: 10

Consider the following system:

Process	Arrival Time	Burst time
P0	2	3
P1	3	1
P2	4	2
P3	0	7
P4	1	5
P5	5	1

If SRT scheduling is performed what will be the average waiting time of the processes?

Answer:

The correct answer is: 4

Consider the following system with time quantumn = 2

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

The sequence of completion of the processes using the FCFS and RR scheduling is

Select one:

- FCFS: P1, P3, P2 RR: P1, P3, P2
- FCFS: P1, P3, P2 RR: P1, P2, P3
- FCFS: P1, P2, P3 RR: P1, P3, P2
- FCFS: P1, P2, P3 RR: P1, P2, P3

Your answer is incorrect.

The correct answer is: FCFS: P1, P2, P3 RR: P1, P3, P2

Consider the following system:

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

If preemptive SJF scheduling is performed what will be the average waiting time for the system?

Answer:

The correct answer is: 7 75

Turnaround time is amount of time to execute a particular process

In FIFO scheduling, the process that requests the CPU first is allocated the CPU first

The Windows CreateProcess() system call creates a new process. The equivalent

system call in UNIX is fork()

The state of a process after it reach an I/O instruction is – blocked

Round Robin schedule is essentially the pre-emptive version of – FIFO

In CPU scheduling, time taken for switching from one process to other is pure overhead

In CPU sheduling, the preemptied process is then placed at the back of the ready queue

Waiting time is amount of time a process has been waiting in the ready queue.

Process is - A program in execution

The performance of Round Robin algorithm depends heavily on - the size of the time quantum

Consider a system contains n processes and system uses the round-robin scheduling algorithm, which data structure is best suited for ready queue? - circular queue

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.

Which of the following is NOT true for plans to prevent and avoid deadlock? - In the deadlock prevention, resource requests are always accepted if the resulting state is safe

A page table entry provides base address

Which system call returns the PID of the terminated child process? Wait

. Which of the following Operating System does not implement multitasking truly ? MS DOS

.The primary purpose of an operating system is: To make the most efficient use of computer hardware.

The 'Circular wait' condition can be prevented by Define a linear order of resource types and enter the resource level

If the size of a process is an exact multiple of page size chosen, there will not be any _____ fragmentation. ????????????

Buddy system là một sự thỏa hiệp giữa _____ phân vùng cố định và phân vùng động

A system has 3 processes sharing 4 resources of the same type. If each process needs up to 2 resources then deadlock may nerver happen

.Which Operating System doesn't support long file names ? MS DOS

In a paging scheme, 16-bit addresses are used with a page size of 512 bytes. If the logical address is 0000010001111101.

The offset is 125

.Which operation is performed by an interrupt handler? All of the mentioned

The downside of calling a deadlock detection algorithm for every request is: Significant costs during calculation.

What is the minimum number of memory accesses needed in paging? 2

Starvation is a problem that is addressed when considering concurrent processes, which are closely related to deadlock

Which of the following statements is not correct for a solution to a critical section problem ? Processes running outside its critical section may block other processes.

To avoid race condition, the number of processes that can be concurrently within their critical section is 1

What is the semaphore initial value allows only one of many processes to enter its critical section ? 1

The instructions, which are not directly executed by the user but need to be passed to the OS, are known as privileged instructions. Sai

The requirements for solving a Critical Section problem are: progress bounded, waiting mutual, exclusion

Multi-user systems place more than one job/program/task in the main memory of the main computer system. The jobs are of different users who are connected through terminals to the main computer. The jobs are scheduled by time-sharing technique. Đúng

The two types of semaphore are binary and counting

In fixed partitioning, the partition size can be of fixed as well as variable

. Which is built directly on the hardware?. Operating system

The swap space is reserved in _____ the hard disk

A memory management unit performs memory-mapping by converting a logical address into a physical address, with the help of _____ base and limit registers

The OS is generally in the none memory addresses in the memory.

A system program that sets up an executable program in main memory ready for execution is : loader

To avoid deadlock a set number of allocated resources are required

Belady's anomaly is observed in the _____ algorithm FIFO

.The operating system manages all

Every entry of a page in the page table may also have its protection bits. These protection bits are known as access protection bits

Larger the page size _____ will be the memory wastage. the more

In a system, there are three processes, P1, P2, and P3, divided into 32, 189, and 65 pages, respectively. If there are 115 frames in the memory, then the proportions in which the frames will be allocated to the processes are 13, 76, 26

._____ shares characteristics with both hardware and software. Operating system

Consider the two processes P1 and P2 accessing the shared variables X and Y protected by the binary semaphore S1 and S2 respectively, both initiated by 1. The pseudocode of P1 and P2 are follows:

P1:	P2:
while(true){	while(true) {

L1: ……
L2: ……
X = X + 1;
Y = Y - 1;
signal(S1);
signal(S2);
	L3: ……
	L4: ……
	Y = Y + 1;
	X = Y - 1;
	
	signal(S2);

}	signal(S1); }

To avoid deadlock, the correct operations at L1, L2, L3, L4 are, respectively? wait(S1); wait(S2); wait(S1); wait(S2);

What is the deadlock handling method?

A. Use methods to ensure the system will never enter a deadlock state

B. Allow the system to enter deadlock state and then recover

C. Pretend that deadlock never happens in the system

A, B và C

Whenever a resource allocation request cannot be granted immediately, the deadlock detection algorithm is invoked. This will help identify: set of deadlocked processes

The operating system which was most popular in 1981 is called . CpM

Fixed partitioning is a method of partitioning the memory at the time of _____ system generation

As a control program, operating system schedules and manages the allocation of all resources in the computer system. Sai

In a paging scheme, 16-bit addresses are used with a page size of 512 bytes. If the logical address is 0000010001111101.
The physical address will be 0001111001111101 , if the frame address corresponding to the computed page number is 15.

Fixed partitioning method suffers from both internal and external fragmentation.

TLB hit ratio must be _____ to decrease the effective memory access time. High

Pages and frames are equal in size

.What is the function of an operating system ? all

.Which Operating System doesn’t support networking between computers? Windows 3.1

Memory mapping through TLB is known as ___ associative mapping

In a paging scheme, 16-bit addresses are used with a page size of 512 bytes. If the logical address is 0000010001111101.

The page number is 1

.Which of the following Operating systems is better for implementing a Client-Server network ? Windows 2000

Kernel is the part wherein only essential modules of the operating system are placed. Đúng

Shell is the part wherein only essential modules of the operating system are placed. Sai

._____ is used in an operating system to separate mechanism from policy Two level implementation

.Direct Memory Access is used for .... High speed devices

The process of initializing a microcomputer with its operating system is called ___Booting

Multi-programming is the central concept in operating system that originates all other concepts of operating system. Đúng

.Which file keeps commands to execute automatically when OS is started ? autoexec.bat

.The operating system creates _____ from the physical computer. Virtual computers.