

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

Which contains the addresses of all the interrupt service routines? Interrupt vector

A significant problem with priority scheduling algorithms is? Starvation

One way to ensure that the circular wait condition never holds is to? Impose a total ordering of all resource types and to determine whether one precedes another in the ordering

The owner right allows? Addition of new rights and removal of some rights

Close() operation? An open count associated with a given file. Decreases

The copy right allows a process to change the entries in a row in the access matrix. F

In a file system, the smaller block size, the greater the internal fragmentation. F

If the size of logical address space is 2^m , and a page size is 2^n addressing units, then the high order? Bits of a logical address designate the page number, and? Low order bits designate the page offset. $m-n, n$

By using FAT, random access time is? Decreased

Application programmers typically use an API rather than directly invoking system calls? T

The purpose of denial-of-service attacks is to gain information or steal resources. F

Consider two-level indexed allocation. If the block size is 512 bytes and pointers are bytes long. What is the maximum number of data blocks a file can have? 16384

If the current directory is /home/user/jane, then the path to file /home/user/mike/prog.c is? ../mike/prog.c

Spinlocks are not appropriate for single-processor systems. T

When mutex lock is implemented as binary semaphore, what should its value be initialized to be? 1

A capability list for a domain is? A list of objects together with the operations allowed on those objects.

Given the reference string of page accesses: 1 2 3 4 2 3 4 1 2 1 1 3 1 4 and a system with three page frames, what is the final configuration of the three frames after the LRU algorithm is applied? 3, 1, 4

Which of the following layers provides the routing function? Network Layer

Which one of the following is not shared by threads? Both program counter and stack

If no process is suspended on a condition variable, then signal operation? Nothing happens

Indexed allocation? All of the above

A system has 12 magnetic tape drives and 3 processes: P0, P1, and P2. Process P0 requires 10 tape drives, P1 requires 4 and P2 requires 9 tape drives.? P1, P0, P2

I/O completion will trigger an interrupt? T

What is a Hash Function? It creates a small, fixed block of data

What is the difference between mechanisms and policies? Mechanisms determine how something will be done, while policies decide what will be done.

The open() call returns a pointer to the appropriate entry in the system wide-open-file table.F

With paging there is no? fragmentation. External

The OSI model and the TCP/IP model have the same number of layers. F

Optimal page replacement requires that the system keep track of previously used pages. F

A system has 3 processes sharing 4 resources. If each process needs a maximum of 2 units then, deadlock? Can never occur

Consider message encryption using RSA. Assume $p=3, q=1$, public key=3, private key=7, what

is the result of encrypting message 15? 9

What is Domain? Domain = set of access-rights

Suppose the free-space list is implemented as a bit vector. What is the size of the bit vector of a 1TB disk with 512-byte blocks? 2 to the power of 8 MB

What is NOT a major reason for building distributed systems? Security

In a symmetric encryption algorithm, one key is used to encrypt and a different one is used to decrypt. F

Which of the following circumstances can preemptive scheduling take place? When a process switched from the waiting state to the ready state

Since semaphore and mutex lock are tools for synchronization, process that have used semaphores or mutex locks should not cause deadlocks. False

A nonce is used to protect against? Playback attacks

A sign of trashing is? The CPU utilization decreases as the degree of multiprogramming is increased

The following program consists of 3 concurrent processes and 3 binary semaphores. The semaphores are initialized as $S_0 = 1$, $S_1 = 0$, $S_2 = 0$? At least twice

One-to-one multithreading model provides more concurrency than the many-to-one model.

The dirty (modify) bit identifies? A page that has been modified since it was loaded

What is the objective of multiprogramming? Reduce CPU idle time

Ethernet is a LAN technology. T

When a user creates a file, the OS makes an entry for the file in the directory. T

A file's file pointer is stored in the file's system-wide open-file table entry. F

When two users keep a subdirectory in their own directories <i.e., share the subdirectory>, the structure being referred to is? Acyclic graph directory

Consider the following sequence of memory references:

2 6 5 7 7 3 5 1 3 4 1 2 4 4 5 6 7 If $\Delta = 8$, that is the size of the working set at the time between the two memory references shown in red? 5