Intro to Operating Systems Chapter 4 Midterm Questions

Quizlet
Study online at quizlet.com/_1mznmp

1. **Any alteration of a resource by one thread affects the environment of the other threads in the same process.**	TRUE
2. **_____ are characterized by the presence of many single-threaded processes.**	multiprocess applications
3. **The _____ are the fundamental entities that can be scheduled and dispatched to run on one of the system processors.**	Kernel threads
4. **As a default, the kernel dispatcher uses the policy of hard affinity in assigning threads to processors.**	FALSE
5. **The basic form of communication between processes or threads in a micro kernel operating system is _____.**	messages
6. **The blocked state in which the process is waiting for an event, such as the end of an I/O operation, the availability of a resource, or a signal from another process is the _____ state.**	interruptible
7. **The Clouds operating system implements the concept of a thread as primarily an entity that can move among address spaces which represents the _____ Thread-to-Process relationship.**	One-to-Many
8. **An example of an application that could make use of threads is a file server.**	TRUE
9. **The idea of having a many-to-many relationship between threads and processes has been explored in the experimental operating system _____.**	TRIX
10. **If a process is swapped out, all of its threads are necessarily swapped out because they all share the address space of the process.**	TRUE
11. **If there is an application or function that should be implemented as a set of related units of execution, it is far more efficient to do so as a collection of separate processes rather than a collection of threads.**	FALSE
12. **In a multithreaded environment, a _____ is defined as the unit of resource allocation and a unit of protection.**	process
13. **In a multithreaded environment there are separate stacks for each thread, as well as a separate control block for each thread.**	TRUE
14. **In a pure ULT facility, all of the work of thread management is done by the application, and the kernel is not aware of the existence of threads.**	TRUE
15. **A _____ is a dispatchable unit of work that executes sequentially and is interruptible so that the processor can turn to another thread.**	thread
16. **_____ is a good example of an OS using a combined user-level and kernel-level thread approach.**	Solaris
17. **A _____ is an entity corresponding to a user job or application that owns resources such as memory and open files.**	process
18. **A _____ is a single execution path with an execution stack, processor state, and scheduling information.**	thread
19. **A _____ is a static entity, consisting of an address space and ports through which messages may be sent and received.**	domain
20. **A _____ is a user-created unit of execution within a process.**	user-level thread
21. **The _____ is the collection of program, data, stack, and attributes defined in the process control block.**	process image
22. **It is necessary to _____ the activities of various threads so they do not interfere with each other or corrupt data structures.**	synchronize
23. **It takes less time to terminate a process than a thread.**	FALSE
24. **The key states for a thread are: Running, _____, and Blocked.**	Ready
25. **Most operating systems contain two fundamental forms of concurrent activity: processes and _____.**	interrupts
26. **On a uniprocessor, multiprogramming does not enable the interleaving of multiple threads within multiple processes.**	FALSE
27. **The OS performs a protection function to prevent unwanted interference between processes with respect to resources.**	TRUE
28. **The potential performance benefits of a multicore organization depend on the ability to effectively exploit the parallel resources available to the application.**	TRUE
29. **The principal disadvantage of the _____ approach is that the transfer of control from one thread to another within the same process requires a mode switch to the kernel.**	kernel-level thread
30. **A process or task in Linux is represented by a _____ data structure.**	task_struct

31.	**_____ refers to the ability of an OS to support multiple, concurrent paths of execution within a single process.**	Multithreading
32.	**The six states of a Windows thread are: Ready, Standby, Running, Waiting, Transition, and _____.**	Terminated
33.	**The _____ state is when the thread has terminated.**	ZOMBIE
34.	**Termination of a process does not terminate all threads within that process.**	FALSE
35.	**There are four basic thread operations associated with a change in thread state: Block, Unblock, Finish, and _____.**	Spawn
36.	**There are two broad categories of thread implementation: user-level threads and _____.**	kernel-level threads
37.	**A thread enters the _____ state, after waiting, if it is ready to run but the resources are not available.**	transition
38.	**The traditional approach of a single thread of execution per process, in which the concept of a thread is not recognized, is referred to as a _____.**	single-threaded approach
39.	**The unit of dispatching is usually referred to as a process or task.**	FALSE
40.	**A way to overcome the problem of blocking threads is to use a technology referred to as _____, which converts a blocking system call into a nonblocking system call.**	jacketing
41.	**Windows is an example of a kernel-level thread approach.**	TRUE
42.	**Windows makes use of two types of process-related objects: processes and _____.**	threads
43.	**Windows process design is driven by the need to provide support for a variety of OS environments.**	TRUE
44.	**A windows process must contain at least _____ thread(s) to execute.**	1
45.	**The _____ Windows Process Object Attribute describes who created an object, who can gain access to or use the object, and who is denied access to the object.**	security descriptor