练习5 (第7章)

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#1 Points possible: 3

For operating systems, deadlock means _____.

- ○ A program is looping forever
- ○ hardware malfunctions
- ○ system halts
- ◉ processes are blocked and wait for each other to finish

#2 Points possible: 3

Which of the following is not a necessary condition of deadlock?

- ◉ Number of resources
- ○ Hold and wait
- ○ Mutual exclusion
- ○ Circular wait

#3 Points possible: 3

A system has 3 concurrent processes, each of which requires 4 items of resource R. What is the minimum number of resource R in order to avoid the deadlock.

- ○ 9
- ◉ 10
- ○ 11
- ○ 12

#4 Points possible: 3

Assume that a system has 9 instances of 1 resource type shared by 4 processes. How many resource instances can a process be allowed to request in order to avoid deadlock?

- ○ 1
- ○ 2
- ◉ 3
- ○ 4

#5 Points possible: 3

There are N processes which share M mutual exclusive resources, each process can hold W resources at most. Which of the following condition may cause a deadlock?

- ○ M=2, N=1, W=2
- ○ M=2, N=2, W=1
- ○ M=4, N=3, W=2
- ◉ M=4, N=2, W=3

#6 Points possible: 3

A system is in a deadlock, if its resource allocation graph ____.

- ○ contains a cycle
- ○ doesn’t contain a cycle
- ◉ contains a cycle and there is just one instance of every resource
- ○ has at least one outgoing edge from any one of the process nodes

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#7 Points possible: 3

Banker’s algorithm is one of _____ algorithm。

- ○ deadlock recovery

- (•) deadlock avoidance
- ( ) deadlock prevention
- ( ) deadlock detection

#8 Points possible: 3

Which of the following operating system uses Banker's Algorithm to perform deadlock avoidance ?

- ( ) Windows XP
- ( ) Linux
- ( ) FreeBSD UNIX
- (•) None of the above

#9 Points possible: 3

Which of the following phenomena is not a kind of deadlock?

- ( ) Two cars crossing a single-lane bridge form opposite directions
- ( ) A person is going down a ladder while another is climbing up the ladder
- ( ) Two trains traveling toward each other in the same track
- (•) A car cannot move forward because a bridge is damaged.

#10 Points possible: 3

The deadlock prevention is a set of methods for ensuring that at least one of the necessary conditions of deadlock can not be held. In the following methods, which one breaks the “Circular Wait” condition.

- ( ) Banker’s Algorithm
- ( ) Each process request and be allocated all its resources before it begins execution
- (•) Each process request resources in the ascending order of resource ID number.

- none of the above
