**Câu hỏi**

1. Which of the following process state transitions are illegal?

A. running -> ready

B. waiting -> running

C. running -> terminated

D. ready -> running

2. Which is not a goal of a scheduling algorithm for batch system ?

A. Throughput

B. Turnaround time

C. Fairness

D. Response time

3. Which of the following is a preemptive scheduling algorithm

A. FCFS

B. None of the above

C. Shortest Job First

D. Round Robin

4. In order to implement mutual exclusion on a critical resource for competing processes, only one program at a time should be allowed

A. In the critical region of the program

B. To perform message passing

C. To exhibit operation

D. None of the above

5. What is the software proposal in the solution of Mutual exclusion with Busy waiting

A. Lock variables

B. Strict Alternation

C. All of the above

D. Peterson's Solution

6. In a single processor system, mutual exclusion can be guaranteed by:

A. Overlapping processes

B. Interleaving processes

C. All of the above

D. Disabling interrupts

7. Which is a wrong statement about quantum used in Round Robin algorithm?

A. A reasonable value of quantum is around 20-50 ms

B. None of the above

C. If the quantum is very large, RR is essentially FCFS

D. If the quantum is very small, the CPU efficiency is reduced

8. Which of the following conditions that causes the processes to be terminated, when processes have done their work?

A. Fatal error (involuntary)

B. Normal exit (voluntary)

C. Error exit (voluntary)

D. Killed by another process (involuntary)

9. The scheduling strategy where each process in the queue is given a certain amount of time, in turn, to execute and then returned to the queue, unless blocked is referred to as:

A. Prioritization

B. All of the above

C. Round-Robin

D. LIFO

10. Which of the following process state transitions are legal?

A. ready -> terminated

B. running -> ready

C. waiting -> running

D. waiting -> terminated

11. Which of the following cannot be shared among different threads a process?

A. Process data

B. File handles

C. Process code

D. Stack

12. The following requirement must be met by any facility or capability that is to provide support for mutual exclusion

A. Only one process at a time can be allowed into a critical code section

B. All of the above

C. A process remains in its critical region for a finite time only

D. No assumption can be made about relative process speeds

13. Which of the following synchronization mechanisms does not rely on busy-waiting?

A. Semaphores

B. Lock variables

C. Strict alternation

D. Peterson's algorithm

14. Which of the following statements is correct about Shortest Job First

A. Minimize average waiting time

B. None of the above

C. Both a and b

D. Avoid Starvation

15. Which of the following is not correct about user-level threads?

A. If one user-level thread makes a blocking system cal, the system will block the entire process (which contains that user-level thread)

B. User-level thread cannot be preempted by clock interrupts unless the whole process's quantum has been used up

C. With user-level threads, customized scheduling algorithms cannot be implemented

D. User-level threads are more efficient than kernel threads, in the sense that they do not need kernel calls to switch among threads

16. Can CPU run multiple processes at the same time ?

17. Windows operating system exist Process Hierarchies ?

18. When process A is stopped by the CPU, which component stores the process's resources for the next run??

A.Process number

B. Program counter

C. PCB

D. Registers

19. Which component dynamically allocates a process during at its runtime?

A. Stack

B. Data

C. Heap

D. Text

20. In a single-user system, jobs are processed

A.Sequentially

B. intermittently

C. randomly

D. in order of longest job to shortest job

21. The best-fit free list scheme uses memory more efficiently than the first-fit free scheme but it is slower to implement.

* 1. True
  2. False

22. During compaction, the operating system must distinguish between addresses and data values, and the distinctions are not obvious once the program has been loaded into memory.

* 1. True
  2. False

23. The operating system can tell the \_\_\_\_ of each group of digits by its location in the line and the operation code.

* 1. Function
  2. Value
  3. Order
  4. Assignment

24. After relocation and compaction, both the free list and the busy list are updated.

* 1. True
  2. False

25. To overlay is to transfer segments of a program from main memory into secondary storage for execution, so that two or more segments take turns occupying the same memory locations.

* 1. True
  2. False

26. The following,\_\_\_\_, describes the first memory allocation scheme.

* 1. Each program to be processed was loaded into secondary storage, then swapped into memory in parts
  2. Each program to be processed was partially loaded into memory, then granted more memory as needed
  3. Each program to be processed was allocated a portion of memory and could negotiate with other programs to access more memory
  4. Each program to be processed was loaded in its entirety into memory and allocated as much contiguous space in memory as it needed

27. The \_\_\_\_ of memory, sometimes referred to as garbage collection or defragmentation, is performed by the operating system to reclaim fragmented sections of the memory space.

* 1. Deallocation
  2. Redirection
  3. Compaction
  4. Reallocation

28. The \_\_\_\_ contains the value that must be added to each address referenced in the program so it will be able to access the correct memory addresses after relocation.

* 1. busy list
  2. compaction monitor
  3. relocation register
  4. bounds register

29. Research continues to focus on finding the optimum allocation scheme.

* 1. True
  2. False

30. The first attempt to allow for multiprogramming used fixed partitions.

* 1. True
  2. False

**Lời Giải**

1. Which of the following process state transitions are illegal?

A. running -> ready

B. waiting -> running

C. running -> terminated

D. ready -> running

2. Which is not a goal of a scheduling algorithm for batch system ?

A. Throughput

B. Turnaround time

C. Fairness

D. Response time

3. Which of the following is a preemptive scheduling algorithm

A. FCFS

B. None of the above

C. Shortest Job First

D. Round Robin

4. In order to implement mutual exclusion on a critical resource for competing processes, only one program at a time should be allowed

x

A. In the critical region of the program

B. To perform message passing

C. To exhibit operation

D. None of the above

5. What is the software proposal in the solution of Mutual exclusion with Busy waiting

A. Lock variables

B. Strict Alternation

C. All of the above

D. Peterson's Solution

6. In a single processor system, mutual exclusion can be guaranteed by:

A. Overlapping processes

B. Interleaving processes

C. All of the above

D. Disabling interrupts

7. Which is a wrong statement about quantum used in Round Robin algorithm?

A. A reasonable value of quantum is around 20-50 ms

B. None of the above

C. If the quantum is very large, RR is essentially FCFS

D. If the quantum is very small, the CPU efficiency is reduced

8. Which of the following conditions that causes the processes to be terminated, when processes have done their work?

A. Fatal error (involuntary)

B. Normal exit (voluntary)

C. Error exit (voluntary)

D. Killed by another process (involuntary)

9. The scheduling strategy where each process in the queue is given a certain amount of time, in turn, to execute and then returned to the queue, unless blocked is referred to as:

A. Prioritization

B. All of the above

C. Round-Robin

D. LIFO

10. Which of the following process state transitions are legal?

A. ready -> terminated

B. running -> ready

C. waiting -> running

D. waiting -> terminated

11. Which of the following cannot be shared among different threads a process?

A. Process data

B. File handles

C. Process code

D. Stack

12. The following requirement must be met by any facility or capability that is to provide support for mutual exclusion

A. Only one process at a time can be allowed into a critical code section

B. All of the above

C. A process remains in its critical region for a finite time only

D. No assumption can be made about relative process speeds

13. Which of the following synchronization mechanisms does not rely on busy-waiting?

A. Semaphores

B. Lock variables

C. Strict alternation

D. Peterson's algorithm

14. Which of the following statements is correct about Shortest Job First

A. Minimize average waiting time

B. None of the above

C. Both a and b

D. Avoid Starvation

15. Which of the following is not correct about user-level threads?

A. If one user-level thread makes a blocking system cal, the system will block the entire process (which contains that user-level thread)

B. User-level thread cannot be preempted by clock interrupts unless the whole process's quantum has been used up

C. With user-level threads, customized scheduling algorithms cannot be implemented

D. User-level threads are more efficient than kernel threads, in the sense that they do not need kernel calls to switch among threads

16. Can CPU run multiple processes at the same time ? (Sai)

17. Windows operating system exist Process Hierarchies ? (Sai)

18. When process A is stopped by the CPU, which component stores the process's resources for the next run??

A.Process number

B. Program counter

C. PCB

D. Registers

19. Which component dynamically allocates a process during at its runtime?

A. Stack

B. Data

C. Heap

D. Text

20. In a single-user system, jobs are processed

A.Sequentially

B. intermittently

C. randomly

D. in order of longest job to shortest job

21. The best-fit free list scheme uses memory more efficiently than the first-fit free scheme but it is slower to implement.

A. True

B. False

22. During compaction, the operating system must distinguish between addresses and data values, and the distinctions are not obvious once the program has been loaded into memory.

A. True

B. False

23. The operating system can tell the \_\_\_\_ of each group of digits by its location in the line and the operation code.

A. Function

B. Value

C. Order

D. Assignment

24. After relocation and compaction, both the free list and the busy list are updated.

A. True

B. False

25. To overlay is to transfer segments of a program from main memory into secondary storage for execution, so that two or more segments take turns occupying the same memory locations.

A. True

B. False

26. The following,\_\_\_\_, describes the first memory allocation scheme.

A. Each program to be processed was loaded into secondary storage, then swapped into memory in parts

B. Each program to be processed was partially loaded into memory, then granted more memory as needed

C. Each program to be processed was allocated a portion of memory and could negotiate with other programs to access more memory

D. Each program to be processed was loaded in its entirety into memory and allocated as much contiguous space in memory as it needed

27. The \_\_\_\_ of memory, sometimes referred to as garbage collection or defragmentation, is performed by the operating system to reclaim fragmented sections of the memory space.

A. Deallocation

B. Redirection

C. Compaction

D. Reallocation

28. The \_\_\_\_ contains the value that must be added to each address referenced in the program so it will be able to access the correct memory addresses after relocation.

A. busy list

B. compaction monitor

C. relocation register

D. bounds register

29. Research continues to focus on finding the optimum allocation scheme.

A. True

B. False

30. The first attempt to allow for multiprogramming used fixed partitions.

A. True

B. False