Started on	Monday, 6 November 2023, 11:04 AM
State	Finished
Completed on	Monday, 6 November 2023, 11:25 AM
Time taken	21 mins 19 secs
Marks	25.00/26.00
Grade	**9.62** out of 10.00 (**96**%)

Question **1**

Complete

Mark 1.00 out of 1.00

Which of the following is not a condition for deadlock avoidance?

- A. All of the above are conditions for deadlock avoidance.
- B. The resources must be organized in a hierarchical manner.
- C. A process must declare all the resources it will need before it starts running.
- D. The system must know in advance the maximum number of resources that any process may need.

Question **2**

Complete

Mark 1.00 out of 1.00

What is the primary disadvantage of the FIFO allocation algorithm?

- A. It is not efficient
- B. It does not support multiple resources
- C. It may result in deadlock
- D. It is difficult to implement

Question **3**

Complete

Mark 0.00 out of 1.00

Which of the following is a drawback of using the deadlock recovery algorithm?

- A. It cannot prevent all deadlocks
- B. It is slow
- C. It requires a lot of processing power
- D. It can cause data loss

Question **4**

Complete

Mark 1.00 out of 1.00

What is the purpose of the Banker's algorithm?

- A. To reduce the waiting time of processes
- B. To improve CPU utilization
- C. To allocate resources efficiently
- D. To prevent deadlock

Question **5**

Complete

Mark 1.00 out of 1.00

Which of the following conditions must hold for a deadlock to occur?

- A. All of the above
- B. Mutual exclusion
- C. No preemption
- D. Hold and wait

Question **6**

Complete

Mark 1.00 out of 1.00

Which of the following algorithms is used to recover from deadlocks in operating systems?

- A. FIFO algorithm
- B. None of the above
- C. LRU algorithm
- D. Banker's algorithm

Question **7**

Complete

Mark 1.00 out of 1.00

What is the purpose of the wait-for graph algorithm?

- A. To detect deadlocks
- B. To prevent deadlocks
- C. To recover from deadlocks
- D. None of the above

Question **8**

Complete

Mark 1.00 out of 1.00

Which of the following is not a deadlock prevention algorithm?

- A. None of the above
- B. Wait-for graph algorithm
- C. Banker's algorithm
- D. Resource allocation graph algorithm

Question **9**

Complete

Mark 1.00 out of 1.00

What is meant by no preemption in the context of deadlocks?

- A. None of the above
- B. wo or more processes are holding some resources and are waiting for resources held by others.
- C. Only one process at a time can use a particular resource.
- D. A process holding some resources cannot be forcibly removed from those resources.

Question **10**

Complete

Mark 1.00 out of 1.00

Which of the following is a drawback of using the deadlock detection algorithm?

- A. It can cause starvation
- B. It is not scalable
- C. It requires a lot of processing power
- D. It cannot prevent all deadlocks

Question **11**

Complete

Mark 1.00 out of 1.00

What is meant by mutual exclusion in the context of deadlocks?

- A. None of the above
- B. Two or more processes are holding some resources and are waiting for resources held by others.
- C. A process is holding a resource and is waiting for additional resources that are currently being held by another process.
- D. Only one process at a time can use a particular resource.

Question **12**

Complete

Mark 1.00 out of 1.00

What is a deadlock in an operating system?

- A. When a process has completed its execution and has exited the system.
- B. When a process is unable to complete its execution because it is waiting for some resource held by another process.
- C. When a process has completed its execution and has returned control to the operating system.
- D. When a process is unable to start its execution because it is waiting for some resource.

Question **13**

Complete

Mark 1.00 out of 1.00

What are the necessary conditions for a deadlock to occur?

- A. Mutual exclusion, hold and wait, no preemption, and circular wait
- B. Mutual exclusion, hold and release, no preemption, and circular wait
- C. Mutual exclusion, hold and wait, preemption, and circular wait
- D. Mutual exclusion, hold and release, preemption, and circular wait

Question **14**

Complete

Mark 1.00 out of 1.00

Which of the following is not one of the necessary conditions for a deadlock to occur?

- A. Concurrent execution
- B. Hold and wait
- C. Mutual exclusion
- D. No preemption

Question **15**

Complete

Mark 1.00 out of 1.00

Which of the following is a condition required for the Banker's algorithm to work correctly?

- A. Processes must request all resources at once
- B. Processes must release all resources at once
- C. The total number of resources must be fixed
- D. Processes must always hold all resources they are granted

Question **16**

Complete

Mark 1.00 out of 1.00

What is the purpose of the resource allocation graph algorithm?

- A. To prevent deadlocks
- B. To detect deadlocks
- C. None of the above
- D. To recover from deadlocks

Question **17**

Complete

Mark 1.00 out of 1.00

What is a deadlock in operating system?

- A. A situation where a process is unable to allocate memory for its execution
- B. A situation where a process has finished executing but has not released resources
- C. A situation where a process is waiting for a resource held by another process
- D. A situation where a process is terminated unexpectedly

Question **18**

Complete

Mark 1.00 out of 1.00

What is the drawback of the Banker's algorithm?

- A. It requires a lot of memory
- B. It may not prevent all deadlocks
- C. It may result in starvation
- D. It is computationally expensive

Question **19**

Complete

Mark 1.00 out of 1.00

Which of the following is a drawback of using the deadlock prevention algorithm?

- A. It can cause starvation
- B. It cannot prevent all deadlocks
- C. It is not scalable
- D. It requires a lot of processing power

Question **20**

Complete

Mark 1.00 out of 1.00

What is a deadlock in operating systems?

- A. A condition where a process cannot proceed because it is waiting for a resource held by another process
- B. A condition where two processes are executing each other's code
- C. A condition where the operating system has crashed and cannot recover
- D. A condition where a process has been terminated unexpectedly

Question **21**

Complete

Mark 1.00 out of 1.00

Which of the following algorithms can prevent a deadlock?

- A. Banker's algorithm
- B. Round-robin algorithm
- C. Shortest job first algorithm
- D. First-come, first-served algorithm

Question **22**

Complete

Mark 1.00 out of 1.00

Which of the following is not a resource allocation strategy in the Banker's algorithm?

- A. Release
- B. Allocate
- C. Check
- D. Request

Question **23**

Complete

Mark 1.00 out of 1.00

What is the Banker's algorithm used for?

- A. Recovering from deadlocks
- B. Detecting deadlocks
- C. Preventing deadlocks
- D. None of the above

Question **24**

Complete

Mark 1.00 out of 1.00

Which of the following algorithms is used to detect deadlocks in operating systems?

- A. FIFO algorithm
- B. None of the above
- C. LRU algorithm
- D. Banker's algorithm

Question **25**

Complete

Mark 1.00 out of 1.00

Which of the following is a way to prevent deadlocks in operating systems?

- A. Ignoring the problem and hoping it won't occur
- B. Killing all processes when a deadlock is detected
- C. Using a deadlock detection algorithm
- D. Using a deadlock prevention algorithm

Question **26**

Complete

Mark 1.00 out of 1.00

Which of the following is a preemption-based algorithm?

- A. FIFO
- B. Round-robin algorithm
- C. Priority-based algorithm
- D. Banker's algorithm