Operating System MCQs

List of Operating System MCQs

1. An operating system is ____ which performs the entire basic task like file management, process management, etc.

A. Software
B. Program
C. Process
D. Thread

Answer: A) Software

Explanation:

An operating system is a software that performs all the basic tasks like file management, process management, etc.

Discuss this Question

2. How many types of the operating system are there?

A. 3
B. 8
C. 7
D. 6

Answer: C) 7

Explanation:

Mainly there are 7 types of operating systems: Batch OS, Multitasking OS, Multiprocessing OS, Real-time OS, Distributed OS, Network OS, and mobile OS.

Discuss this Question

3. Which of the following is the feature of the operating system?

A. Error detection aids
B. Control over system performance

C. Job Accounting
D. Coordination between other software and users
E. All of the above

Answer: E) All of the above

Explanation:

Error detection aids, Control over system performance, Job accounting, Coordination between other software and users, Process management, Memory management, etc are some of the common features of the operating system.

Discuss this Question

4. Which of the following operating system does not interact with the computer directly, in fact in this operating system each user prepares his job in an offline device and submits it to the computer?

A. Batch Operating system
B. Multitasking Operating System
C. Time-sharing Operating System
D. Distributed Operating System

Answer: A) Batch Operating system

Explanation:

Batch Operating system does not interact with the computer directly, in fact in this operating system each user prepares his job in an offline device like a punch card and submits it to the computer.

Discuss this Question

5. ___ Operating system is a technique that enables many people, located at various terminals, to use a particular computer system at the same time?

A. Batch Operating system
B. Multitasking Operating System
C. Time-sharing Operating System
D. Distributed Operating System

Answer: C) Time-sharing Operating System

Explanation:

Time-sharing Operating System is a technique that enables many people, located at various terminals, to use a particular computer system at the same time; it is shared among different users.

Discuss this Question

6. Which of the following is not a feature of the batch Operating system?

A. Large turnaround time
B. It is very easy to debug the program in this operating system
C. Other pending jobs are affected due to a lack of protection schemes

Answer: B) It is very easy to debug the program in this operating system

Explanation:

No, in the batch OS it is very difficult to debug the program.

Discuss this Question

7. What is the main difference between batch Operating systems and time-sharing Operating systems?

A. In a multi-programmed batch system, the objective is to minimize processor use, whereas, in time-sharing systems, the objective is to maximize response time
B. In a multi-programmed batch system, the objective is to maximize processor use, whereas, in time-sharing systems, the objective is to minimize response time

Answer: B) In a multi-programmed batch system, the objective is to maximize processor use, whereas, in time-sharing systems, the objective is to minimize response time

Explanation:

In a multi-programmed batch system, the objective is to maximize processor use, whereas, in time-sharing systems, the objective is to minimize response time.

Discuss this Question

8. Among the Batch operating system and time-sharing operating system, which operating system reduces the CPU idle time?

A. Batch Operating System
B. Time-sharing Operating Systems

Answer: B) Time-sharing Operating Systems

Explanation:

In Timesharing Operating Systems, CPU idle time is reduced as it provides a quick response, whereas in batch OS CPU is often idle.

Discuss this Question

9. Which of the following Operating systems use multiple central processors to serve multiple real-time applications and multiple users?

A. Batch Operating system
B. Multitasking Operating System
C. Time-sharing Operating System
D. Distributed Operating System

Answer: D) Distributed Operating System

Explanation:

Distributed Operating systems use multiple central processors to serve multiple real-time applications and multiple users.

Discuss this Question

10. Which of the following Operating systems runs on a server and provides the server the capability to manage data, users, groups, etc?

A. Batch Operating system
B. Network operating system
C. Mobile Operating system
D. Real-time Operating system

Answer: B) Network operating system

Explanation:

Network Operating System runs on a server and provides the server the capability to manage data, users, groups, security, applications, and other networking functions.

Discuss this Question

11. Which of the following is not a network operating system?

A. Mac OS X
B. Novell Netware
C. BSD
D. Oracle

Answer: D) Oracle

Explanation:

Oracle is not a network operating system.

Discuss this Question

12. In which of the following Operating systems the response time is very less as compared to online processing?

A. Batch Operating system
B. Network operating system
C. Mobile Operating system
D. Real-time Operating system

Answer: D) Real-time Operating system

Explanation:

In a real-time Operating system the response time is very less as compared to online processing.

Discuss this Question

13. How many types of real-time Operating systems are there?

A. 3
B. 2
C. 5
D. 6

Answer: B) 2

Explanation:

There are two types of real-time Operating Systems: Hard real-time systems, and soft real-time systems.

Discuss this Question

14. In which real-time Operating system, secondary storage is limited or missing and the data is stored in ROM?

A. Hard real-time systems
B. The soft real-time system

Answer: A) Hard real-time systems

Explanation:

In a hard real-time system, secondary storage is limited or missing and the data is stored in ROM, moreover in these systems virtual memory is never found.

Discuss this Question

15. What is a bootstrap program?

A. It is the first code that is executed when the computer system is started
B. It is the program that helps in restarting the system

C. It is just a simple program like we have other programs in a system

Answer: A) It is the first code that is executed when the computer system is started

Explanation:

It is the first code that is executed when the computer system is started; it is stored in computer hardware.

Discuss this Question

16. ___ is the heart of an operating system?

A. Software
B. Programs
C. CPU
D. Kernel

Answer: D) Kernel

Explanation:

The kernel is the heart of an operating system; it is the kernel of an OS through which the OS controls the computer system.

Discuss this Question

17. How many types of kernels are there?

A. 6
B. 7
C. 9
D. 5

Answer: D) 5

Explanation:

In total there are 5 types of kernels: Monolithic kernels, Microkernel kernels, Hybrid Kernels, Nano Kernels, and Exo kernels.

Discuss this Question

18. In which type of kernel does the entire operating system run as a single program?

A. Monolithic kernel
B. Microkernel kernels
C. Hybrid Kernels
D. Nano Kernels
E. Exo kernels

Answer: A) Monolithic kernel

Explanation:

In a Monolithic kernel, the entire operating system runs as a single program.

Discuss this Question

19. Which of the following does not use Monolithic Kernel?

A. Windows 95
B. Windows 7
C. Windows 98
D. Linux

Answer: B) Windows 7

Explanation:

Windows 7 uses hybrid kernels.

Discuss this Question

20. The function of ___ is to provide a communication facility between the client programs?

A. Monolithic kernel
B. Microkernel
C. Hybrid Kernels
D. Nano Kernels

Answer: B) Microkernel

Explanation:

The function of a microkernel is to provide a communication facility between the client programs; it also provides a facility for various services that are running in user space.

Discuss this Question

21. Among monolithic kernel and microkernel which have the larger size?

A. Monolithic kernel
B. Microkernel

Answer: A) Monolithic kernel

Explanation:

Monolithic kernel size is large as it is complex to design.

Discuss this Question

22. Which of the following kernel reduces the level of abstraction provided by operating systems and allows application-level management of hardware resources as much as possible?

A. Exo Kernels
B. Hybrid Kernels
C. Nano Kernels
D. Monolithic Kernel

Answer: A) Exo Kernels

Explanation:

Exo Kernel reduces the level of abstraction provided by operating systems and allows application-level management of hardware resources as much as possible.

Discuss this Question

23. State whether the statement is True or False
Interrupts are an important part of computer architecture?

A. True
B. False

Answer: A) True

Explanation:

True, interrupts are an important part of computer architecture as we know that external devices are comparatively slower than the CPU, so if there is no interruption CPU would waste a lot of time.

Discuss this Question

24. ___ refers to putting data of various I/O jobs in the buffer.

A. Spooling
B. Memory Buffer
C. Processors

Answer: A) Spooling

Explanation:

Spooling refers to putting data of various I/O jobs in the buffer; this buffer is a special area in memory.

Discuss this Question

25. Which of the following is the main advantage of a microprocessor system?

A. Increased throughput
B. Economy of scale
C. Increased reliability
D. All of the above

Answer: D) All of the above

Explanation:

Increased throughput, Economy of scale, and increased reliability are the three main advantages of a microprocessor system.

Discuss this Question

26. How many components does the Linux Operating system have?

A. 4
B. 2
C. 3
D. 5

Answer: C) 3

Explanation:

Linux Operating system has primarily three components: - Kernel, System library, system utility.

Discuss this Question

27. A collection of the node which contains the information about all the files is known as ____?

A. Files
B. File management
C. Directory

Answer: C) Directory

Explanation:

A collection of the node which contains the information about all the files is known as a directory.

Discuss this Question

28. Which of the following activities are managed by disk management ____?

A. Free space management

B. Storage allocation
C. Disk scheduling
D. All of the above

Answer: D) All of the above

Explanation:

Free space management, Storage allocation, and Disk scheduling are the activities that are managed by disk management.

Discuss this Question

29. Directory system can be classified into how many types?

A. 3
B. 5
C. 6
D. 2

Answer: D) 2

Explanation:

The directory system can be classified into single-level and hierarchical directory systems.

Discuss this Question

30. In ____ there is a root directory that has all files, there are no subdirectories?

A. Single level directory system
B. Hierarchical directory system

Answer: A) Single level directory system

Explanation:

In Single level directory system there is a root directory that has all files. It has a simple architecture and there are no subdirectories.

Discuss this Question

31. Which of the following method of disk space allocation requires all blocks of a file to be kept together contiguously, also performance is fast in this method?

A. Linked Allocation
B. Contiguous Allocation
C. File Allocation

Answer: B) Contiguous Allocation

Explanation:

Contiguous Allocation method requires all blocks of a file to be kept together contiguously; also performance is fast in this method.

Discuss this Question

32. Which of the following method of disk space allocation involves no external fragmentation and is only efficient for sequential access files?

A. Linked Allocation
B. Contiguous Allocation
C. File Allocation

Answer: A) Linked Allocation

Explanation:

Linked allocation method involves no external fragmentation and it is only efficient for sequential access files.

Discuss this Question

33. State whether the given statement is True or False - The disk scheduling algorithm that gives a minimum average seek time is better?

A. True
B. False

Answer: A) True

Explanation:

Seek time is the time taken by the head to move from the current track to the one where data is present, so the disk scheduling algorithm that gives a minimum average seek time is better.

Discuss this Question

34. State whether the given statement is True or False - Seek time always greater than Disk access time?

A. True
B. False

Answer: B) False

Explanation:

Disk access time is the time required by the computer to process a read/write request and retrieve the data, so Seek time is always less than Disk access time.

Discuss this Question

35. What is the formula to find disk access time?

A. Disk Access time=Seek time +Rotational latency +transfer time
B. Disk Access time=Seek time-Rotational latency+ transfer time
C. Disk Access time=Seek time-Rotational latency-transfer time
D. Disk Access time=Seek time+ Rotational latency/transfer time

Answer: A) Disk Access time=Seek time +Rotational latency +transfer time

Explanation:

Disk Access time=Seek time +Rotational latency +transfer time

Discuss this Question

36. A part of a computer program that performs a well-defined task is known as a ___?

A. Software
B. Process
C. Algorithm

Answer: C) Algorithm

Explanation:

A part of a computer program that performs a well-defined task is known as an algorithm.

Discuss this Question

37. A collection of computer programs, libraries, and related data are referred to as____?

A. Software
B. Process
C. Algorithm

Answer: A) Software

Explanation:

A collection of computer programs, libraries, and related data are referred to as software.

Discuss this Question

38. What are schedulers?

A. Schedulers are the special software that handles process scheduling in various ways
B. Schedulers are the processes that manage queues
C. Schedulers are the system that schedules the processes

Answer: A) Schedulers are the special software that handles process scheduling in various ways

Explanation:

Schedulers are the special software that handles process scheduling in various ways.

Discuss this Question

39. How many types of schedulers are there?

A. 5 types
B. 3 types
C. 2 types
D. 4 types

Answer: B) 3 types

Explanation:

There are 3 types of schedulers: Long term schedulers, short-term schedulers, Medium term schedulers.

Discuss this Question

40. Long-term schedulers are also known as ___?

A. Fix scheduler
B. Duration scheduler
C. Job scheduler
D. CPU scheduler

Answer: C) Job scheduler

Explanation:

Long-term schedulers are also known as job schedulers.

Discuss this Question

41. Primary objective of job scheduler ____?

A. The primary objective of a job scheduler is to provide a balanced mix of jobs
B. The primary objective of the job scheduler is to increase system performance in accordance with the chosen set of criteria
C. The primary objective of the job scheduler is to suspend the processes

D. The primary objective of the job scheduler is to decrease the traffic of processes

Answer: A) The primary objective of a job scheduler is to provide a balanced mix of jobs

Explanation:

Long Primary objective of a job scheduler is to provide a balanced mix of jobs, such as I/O bound and processor bound.

Discuss this Question

42. What is the other name of the short-term scheduler?

A. Fix scheduler
B. Duration scheduler
C. Job scheduler
D. CPU scheduler

Answer: D) CPU scheduler

Explanation:

The other name for the short-term scheduler is CPU scheduler also dispatchers.

Discuss this Question

43. What is the Primary objective of CPU scheduler ____?

A. The primary objective of the CPU scheduler is to provide a balanced mix of jobs
B. The primary objective of the CPU scheduler is to increase system performance in accordance with the chosen set of criteria
C. The primary objective of the CPU scheduler is to suspend the processes
D. The primary objective of the CPU scheduler is to decrease the traffic of processes

Answer: B) The primary objective of the CPU scheduler is to increase system performance in accordance with the chosen set of criteria

Explanation:

The primary objective of the CPU scheduler is to increase system performance in accordance with the chosen set of criteria.

Discuss this Question

44. Among the long-term scheduler and short-term scheduler which is faster?

A. Long term scheduler
B. Short term scheduler

Answer: B) Short term scheduler

Explanation:

Short-term schedulers are faster than long-term schedulers.

Discuss this Question

45. How many types of process states are there?

A. 5
B. 6
C. 3
D. 2

Answer: A) 5

Explanation:

There are 5 states of processes: new, running, waiting, ready, and terminated.

Discuss this Question

46. Instructions are executed in which state?

A. New
B. Running
C. Waiting

D. Ready
E. Terminated

Answer: B) Running

Explanation:

Instructions are executed in a running state.

Discuss this Question

47. At which state the process is waiting to be assigned to a processor?

A. New
B. Running
C. Waiting
D. Ready
E. Terminated

Answer: D) Ready

Explanation:

When the process is in a ready state, it waits to be assigned to a processor.

Discuss this Question

48. What is pre-emption?

A. In Pre-emption, the process is forcefully removed from the CPU
B. In Pre-emption, the processes are not removed until they complete the execution

Answer: A) In Pre-emption, the process is forcefully removed from the CPU

Explanation:

In Pre-emption, the process is forcefully removed from the CPU.

Discuss this Question

49. What is Non-pre-emption?

A. In Non-Pre-emotion, the process is forcefully removed from the CPU
B. In Non-Pre-emption, the processes are not removed until they complete the execution

Answer: B) In Non-Pre-emption, the processes are not removed until they complete the execution

Explanation:

In Non-Pre-emption, the processes are not removed until they complete the execution.

Discuss this Question

50. What is PCB (Process control block)?

A. A PCB just contains the information of terminated processes
B. A PCB just contains information about new processes
C. A PCB contains the information of processes that are in waiting for the state
D. A PCB contains information about the process, i.e. registers

Answer: D) A PCB contains information about the process, i.e. registers

Explanation:

A PCB contains information about the process, i.e. registers

Discuss this Question

51. In priority CPU scheduling, the process with a larger CPU burst has ____ priority.

A. Lower
B. Higher

Answer: A) Lower

Explanation:

In priority CPU scheduling, the process with a larger CPU burst has lower priority and vice versa.

Discuss this Question

52. Which algorithm is best when there are equal qualities of processes in the queue?

A. First Come First Serve
B. Round Robin Scheduling
C. Shortest Job First
D. Priority CPU Scheduling

Answer: B) Round Robin Scheduling

Explanation:

Round Robin scheduling algorithm is best when there are equal qualities of processes in the queue.

Discuss this Question

53. Which of the following states the correct - difference between the process and thread?

i. A thread is a program in execution while a process is a flow of control within a thread
ii. A process is a program in execution while a thread is a flow of control within a process
iii. A thread does not share the CPU as processes do
iv. Threads share the CPU as processes do

Select the correct answer.

A. Only (i)
B. Only (iii)
C. Both (i) and (iii)
D. Both (ii) and (iv)

Answer: D) Both (ii) and (iv)

Explanation:

A process is a program in execution while a thread is a flow of control within a process also; Threads share the CPU as processes do.

Discuss this Question

54. ____ memory is placed between the CPU and the main memory.

A. Virtual memory
B. ROM
C. RAM
D. Cache

Answer: D) Cache

Explanation:

Cache memory is placed between the CPU and the main memory.

55. ____ Address is an actual location in main memory whereas ____address is a reference to a memory location.

A. Absolute address and physical address
B. Physical address and virtual address
C. Virtual address and logical address

Answer: B) Physical address and virtual address

Explanation:

Physical address is an actual location in main memory whereas virtual address is a reference to a memory location. (Virtual address is also known as a logical address).

56. The run-time mapping from virtual to physical addresses is done by which hardware device?

A. Chipset
B. CPU
C. Memory management unit
D. Physical address and virtual address

Answer: C) Memory management unit

Explanation:

The run-time mapping from virtual to physical addresses is done by the Memory management unit.

57. What is swapping?

A. Moving the threads from one software to another is called swapping
B. Swapping is just replacing a process
C. Moving a process from main memory to disk and vice versa is known as swapping
D. Shifting the process and threads directly into the disk is called swapping

Answer: C) Moving a process from main memory to disk and vice versa is known as swapping

Explanation:

Moving a process from main memory to disk and vice versa is known as swapping.

58. ____ is a memory management scheme that removes the requirement of contiguous allocation of physical memory?

A. Paging
B. Swapping
C. Segmentation
D. Fragmentation

Answer: A) Paging

Explanation:

Paging is a memory management scheme that removes the requirement of contiguous allocation of physical memory.

59. ____ is a technique that allows the execution of the process that may not be completely in memory?

A. Virtual memory
B. Segmentation
C. Memory management unit
D. Cache

Answer: A) Virtual memory

Explanation:

Virtual memory is a technique that allows the execution of a process that may not be completely in memory.

60. ____ controls the execution of processes running concurrently so as to produce consistent results?

A. Process asynchronization
B. Process synchronization

Answer: B) Process synchronization

Explanation:

Process synchronization controls the execution of processes running concurrently so as to produce consistent results.

Discuss this Question

61. Why do we need process synchronization?

A. To avoid some of the processes
B. For the easy transfer of process from disk to memory
C. To avoid the inconsistent result

Answer: C) To avoid the inconsistent result

Explanation:

To avoid the inconsistent result, we need process synchronization.

Discuss this Question

62. What is the critical section?

A. It is the part of the process which is being executed for so long
B. It is the part of the thread which is going to be terminated
C. It is the part of the program where shared resources are accessed by the process

D. It is the part of the program where different processes are shared

Answer: C) It is the part of the program where shared resources are accessed by the process

Explanation:

Critical section is the part of the program where shared resources are accessed by the process. If multiple processes access the critical section concurrently, then the results produced might be inconsistent.

63. If multiple processes access the critical section concurrently, then the results produced might be inconsistent. These types of problem are commonly known as ____.

A. Process synchronization problems
B. Process mechanism problems
C. Critical section problem
D. Mutual exclusion

Answer: C) Critical section problem

Explanation:

If multiple processes access the critical section concurrently, then the results produced might be inconsistent. This problem is called a Critical section problem.

64. Among the four criteria for synchronization mechanism which of the two criteria are mandatory?

A. Mutual Exclusion and Progress
B. Progress and Architectural neural
C. Bounded wait and mutual exclusion
D. Bounded wait and progress
E. Architectural neural and bounded wait

Answer: A) Mutual Exclusion and Progress

Explanation:

Mutual Exclusion and Progress are the mandatory criteria. They must be fulfilled by all the synchronization mechanisms.

65. ____ allows I/O devices to access memory directly without the participation of the processor.

A. DMA
B. DMA Controller
C. Data Controller
D. Device drivers

Answer: B) DMA Controller

Explanation:

DMA controller allows I/O devices to access memory directly without the participation of the processor.

Discuss this Question

66. Data transfer to and from the peripherals can be done in how many ways?

A. 2 ways
B. 3 ways
C. 4 ways
D. 6 ways

Answer: B) 3 ways

Explanation:

Data transfer to and from the peripherals can be done in three ways Programmed I/O, Interrupt- initiated I/O, and Direct memory access (DMA).

Discuss this Question

67. What is DMA?

A. Direct memory access method of data transfer between main memory and peripheral devices
B. Direct memory access method of data transfer between main memory and other devices
C. Direct memory access method of data transfer between chip units memory and main memory

Answer: A) Direct memory access method of data transfer between main memory and peripheral devices

Explanation:

Direct memory access method of data transfer between main memory and other devices.

68. Whenever an I/O device wants to transfer the data to or from memory, it sends the DMA request (DRQ) to the ____.

A. DMA
B. DMA Controller
C. Data Controller
D. Device drivers

Answer: B) DMA Controller

Explanation:

Whenever an I/O device wants to transfer the data to or from memory, it sends the DMA request (DRQ) to the DMA controller accepts this DRQ, and asks the CPU to hold for a few clock cycles.

69. The address of the I/O device that wants to read or writes data. Is stored in the ____.

A. Chip units
B. DMA Controller
C. Data registers
D. Device drivers

Answer: C) Data registers

Explanation:

The address of the I/O device that wants to read or writes data is stored in the data registers.

70. Which of the type of OS reads and reacts in terms of actual time?

A. Batch OS
B. Quick Sharing OS

C. Time Sharing OS
D. Real Time OS

Answer: D) Real Time OS

Explanation:

The Real Time OS reads and reacts in terms of actual time.

71. DMA controller transfers the block of data to and from memory in how many ways?

A. 2 ways
B. 3 ways
C. 4 ways
D. 6 ways

Answer: B) 3 ways

Explanation:

Burst mode, cycle steal mode, and transparent mode are the three modes in which the DMA controller transfers the block of data to and from memory.

72. ____is the ability of a database to allow multiple Processes to affect multiple transactions?

A. Transactions
B. Concurrency
C. Semaphores
D. Normalization

Answer: B) Concurrency

Explanation:

Concurrency is the ability of a database to allow multiple Processes to affect multiple transactions.

73. Which of the following problem is faced during concurrency?

A. The fundamental problem in concurrency is processes interfering with each other while accessing a shared global resource

B. The ability to offer concurrency is unique to databases
C. Only A
D. Only B
E. Both A and B

Answer: C) Only A

Explanation:

The fundamental problem in concurrency is processes interfering with each other while accessing a shared global resource.

74. ____is simply a variable that is non-negative and shared between threads.

A. Critical variable
B. Semaphore
C. Process variable
D. Global variable

Answer: B) Semaphore

Explanation:

Semaphore is simply a variable that is non-negative and shared between threads.

75. State whether the statement is true or false - Semaphore always holds a non-negative integer value.

A. True
B. False

Answer: A) True

Explanation:

Semaphore is simply a variable that is non-negative always.

76. How many types of semaphores are there?

A. 2 types
B. 3 types
C. 5 types
D. 6 types

Answer: A) 2 types

Explanation:

The two common kinds of semaphores are: Counting semaphores, Binary semaphores.

77. Which type of Semaphore uses a count that helps tasks to be acquired or released numerous times?

A. Counting semaphores
B. Binary semaphores

Answer: A) Counting semaphores

Explanation:

Counting semaphores are a type of Semaphore that uses a count that helps a task to be acquired or released numerous times.

78. In which semaphore, the wait operation works only if semaphore = 1, and the signal operation succeeds when semaphore= 0?

A. Counting semaphores
B. Binary semaphores

Answer: B) Binary semaphores

Explanation:

In binary semaphore, the wait operation works only if semaphore = 1, and the signal operation succeeds when semaphore= 0.

79. Among counting semaphores and binary semaphores which semaphore is easy to implement?

A. Counting semaphores
B. Binary semaphores
C. Both A and B
D. None of the above

Answer: B) Binary semaphores

Explanation:

Binary semaphore is easy to implement, as their value is restricted to 0 and 1.

80. Processes can communicate with each other using ____ and ____.

A. Shared Memory and Message Passing
B. Shared Memory and Data controller
C. DMA and DMA controller
D. Devices drivers and other peripherals

Answer: A) Shared Memory and Message Passing

Explanation:

Shared Memory and Message passing are the two methods in which processes communicate with each other.

81. ____ is a situation where each of the computer processes waits for a resource that is being assigned to another process.

A. Deadlock
B. Starvation
C. Inversion
D. Aging

Answer: A) Deadlock

Explanation:

Deadlock is a situation where each of the computer processes waits for a resource that is being assigned to another process, in this situation, none of the processes gets executed.

82. Which of the following conditions causes a deadlock situation?

A. Mutual Exclusion
B. Hold and Wait
C. No Preemption
D. Circular Wait
E. All of the above

Answer: E) All of the above

Explanation:

Deadlock can arise if four conditions hold simultaneously: Mutual Exclusion, Hold and Wait, No Preemption, and Circular Wait.

83. State whether the statement is true or false? - Deadlocks can be prevented by preventing at least one of the four conditions: Mutual Exclusion, Hold and Wait, No Preemption, and Circular Wait.

A. True
B. False

Answer: A) True

Explanation:

Deadlocks can be prevented by preventing at least one of the four conditions: Mutual Exclusion, Hold and Wait, No Preemption, and Circular Wait because all these four conditions are required simultaneously to cause deadlock.

84. When all the low priority processes got blocked, while the high priority processes execute then this situation is termed as ____.

A. Deadlock
B. Starvation
C. Inversion
D. Aging

Answer: B) Starvation

Explanation:

When all the low priority processes got blocked, while the high priority processes execute then this situation is termed starvation.

85. Is starvation an infinite process?

A. True
B. False

Answer: B) False

Explanation:

No, starvation is long but not an infinite process whereas deadlock is an infinite process.

86. The occurrence of deadlock can be detected by the ____.

A. Long term scheduler
B. Medium Scheduler
C. Resource Scheduler
D. Short term scheduler

Answer: C) Resource Scheduler

Explanation:

The occurrence of deadlock can be detected by the resource scheduler.

87. Every starvation is a deadlock?

A. Strongly agree
B. Strongly disagree
C. Not necessary
D. Not possible

Answer: C) Not necessary

Explanation:

It is not necessary that every starvation is a deadlock.

88. Which of the following algorithm is commonly known as the deadlock avoidance algorithm?

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

Answer: B) Banker's algorithm

Explanation:

Banker's algorithm is commonly known as the deadlock avoidance algorithm

89. ____ is a condition that takes place when two or more programs change their state continuously, with neither program making progress.

A. Live Lock
B. Dead Lock
C. Aging
D. None of the above

Answer: A) Live Lock

Explanation:

Live lock is a condition that takes place when two or more programs change their state continuously, with neither program making progress.

90. What causes the condition of starvation?

A. It occurs due to uncontrolled priority and preemption
B. It occurs due to uncontrolled mutual exclusion and resource management
C. It occurs due to the uncontrolled priority and resource management
D. All of the above

Answer: C) It occurs due to the uncontrolled priority and resource management

Explanation:

Starvation occurs due to uncontrolled priority and resource management.

91. Whenever a process needs I/O to or from a disk it issues a ____.

A. System call to the operating system
B. Separate directory structure
C. Only A
D. Only B
E. Both A and B

Answer: C) Only A

Explanation:

Whenever a process needs I/O to or from a disk it issues a System call to the operating system.

92. Which system call creates the new process in Linux?

A. Create
B. Fork
C. Exec

D. vfork

Answer: B) Fork

Explanation:

In Linux, the Fork system call creates a new process.

93. If no frames are free how many page transfers are required?

A. 3
B. 4
C. 2
D. 5

Answer: C) 2

Explanation:

If no frames are free then 2-page transfers are required

94. If a process is spending a lot of time paging than executing then this situation is known as ____.

A. Aging
B. Thrashing
C. Live lock
D. None of the above

Answer: B) Thrashing

Explanation:

If a process is spending a lot of time paging than executing then this situation is known as thrashing.

95. Each entry is a segment table that has a ____.

A. Segment base
B. Segment value
C. Segment length
D. Segment peak

Answer: A) Segment base

Explanation:

Each entry is a segment table that has a segment base.

96. Which of the following approach is used to recover a process from deadlock?

A. Preempt resources
B. Terminate one or more processes involved in the deadlock
C. Inform the system operator, and allow him/her to take a manual intervention
D. All of the above

Answer: D) All of the above

Explanation:

Preempt resources, terminate one or more processes involved in the deadlock, Inform the system operator, and allow him/her to take manual intervention all these approaches to recover from deadlock.

97. ____ is the interface between the command language user and the OS.

A. Kernel
B. System Utilities
C. Shell
D. None

Answer: C) Shell

Explanation:

Shell is the interface between the command language user and the OS.

98. The architecture of the Linux system has how many layers?

A. 3
B. 4
C. 2
D. 5

Answer: B) 4

Explanation:

Hardware layer, kernel, shell, and utilities are the layers of the Linux system.

99. Among network operating systems and distributed operating systems which is more reliable?

A. Network OS
B. Distributed OS

Answer: B) Distributed OS

Explanation:

Distributed OS is more reliable or fault tolerant.

100. If a process fails, most operating system write the error information to a ____.

A. New file
B. Another running process
C. Log file
D. None of the mentioned

Answer: C) Log file

Explanation:

If a process fails, most operating system write the error information to a Log file.