Dr.G.R.Damodaran College of Science

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CRISL rated 'A' (TN) for MBA and MIB Programmes

III B.Sc(Information Technology)(2012-2015)
Semester V
Core: Operating Systems- 512C
Multiple Choice Questions.

1. Information about a process is maintained in a _____.
   A. stack.
   B. translation lookaside buffer.
   C. process control block.
   D. program control block.
   ANSWER: C

2. Distributed OS works on the _____ principle.
   A. file foundation.
   B. single system image.
   C. multi system image.
   D. networking image.
   ANSWER: B

3. The time taken by the disk arm to locate the specific address of a sector for getting information is called _____.
   A. rotational latency.
   B. seek time.
   C. search time.
   D. response time.
   ANSWER: B

4. Identify the odd thing in the services of operating system?
   A. Accounting.
   B. Protection.
   C. Error detection and correction.
   D. Dead lock handling.
   ANSWER: C

5. Which of the following is not advantage of multiprogramming?
   A. Increased throughput.
   B. Shorter response time.
   C. Decreased operating system overhead.
   D. Ability to assign priorities to jobs.
   ANSWER: C

6. Real time systems are _____.

A. primarily used on mainframe computers.
B. used for monitoring events as they occur.
C. used for program development.
D. used for real time interactive users.
ANSWER: B

7. Inter process communication can be done through _____.
A. mails.
B. messages.
C. system calls.
D. traps.
ANSWER: B

8. A process is starved if _____.
A. it is permanently waiting for a resource.
B. semaphores are not used.
C. a queue is not used for scheduling.
D. demand paging is not properly implemented.
ANSWER: A

9. CPU performance is measured through _____.
A. throughput.
B. mhz.
C. flaps.
D. hz.
ANSWER: A

10. Virtual memory is _____.
A. an extremely large main memory.
B. an extremely large secondary memory.
C. an illusion of extremely large main memory.
D. a type of memory used in super computers.
ANSWER: C

11. A binary semaphore _____.
A. has the values one or zero.
B. is essential to binary computers.
C. is used only for synchronization.
D. is used only for mutual exclusion.
ANSWER: A

12. A program under execution is called _____.
A. dynamic program.
B. static program.
C. binded program.
D. a process.
ANSWER: D

13. Process said to be in _____ state if it was waiting for an event that will never occur.
A. safe.
B. unsafe.

C. starvation.
D. dead lock.
ANSWER: D

14. The removal of process from active contention of CPU and reintroduce them into memory later is known as _____.
A. interrupt.
B. swapping.
C. signal.
D. thread.
ANSWER: B

15. Paging _____.
A. solves the memory fragmentation problem.
B. allows modular programming.
C. allows structured programming.
D. avoids deadlock.
ANSWER: A

16. Which directory implementation is used in most Operating System?
A. Single level directory structure.
B. Two level directory structure.
C. Tree directory structure.
D. Acyclic directory structure.
ANSWER: C

17. A Mutual exclusion is_____.
A. if one process is in a critical region others are excluded.
B. prevents deadlock.
C. requires semaphores to implement.
D. is found only in the Windows NT operating system.
ANSWER: A

18. Which is not an Operating System?
A. Windows 95.
B. MS-DOS.
C. Windows 3.1.
D. Windows 2000.
ANSWER: C

19. Who is called a supervisor of computer activity?
A. CPU.
B. Operating system.
C. Control unit.
D. Application Program.
ANSWER: B

20. The process related to process control, file management, device management, information about system and communication that is requested by any higher level language can be performed by _____.
A. editors.
B. compilers.

C. system call.
D. caching.
ANSWER: C

21. The collection of processes on the disk that is waiting to be brought into memory for execution forms the _____.
A. ready queue.
B. device queue.
C. input queue.
D. priority queue.
ANSWER: C

22. Which technique was introduced because a single job could not keep both the CPU and the I/O devices busy?
A. Time-sharing.
B. Spooling.
C. Preemptive scheduling.
D. Multiprogramming.
ANSWER: D

23. The problem of fragmentation arises in _____.
A. static storage allocation.
B. stack allocation storage.
C. stack allocation with dynamic binding.
D. heap allocation.
ANSWER: D

24. Thrashing occurs _____.
A. when excessive swapping takes place.
B. when you thrash your computer.
C. whenever deadlock occurs.
D. when no swapping takes place.
ANSWER: A

25. Boundary registers _____.
A. are available in temporary program variable storage.
B. are only necessary with fixed partitions.
C. track the beginning and ending the program.
D. track page boundaries.
ANSWER: C

26. The principle of locality of reference justifies the use of _____.
A. virtual memory.
B. interrupts.
C. main memory.
D. cache memory.
ANSWER: D

27. The section of code which accesses shared variables is called as _____.
A. critical section.
B. block.

C. procedure.
D. semaphore.
ANSWER: A

28. In paging, physical memory is broken into fixed-sized blocks called _____.
A. pages.
B. frames.
C. blocks.
D. segments.
ANSWER: B

29. The state of a process after it encounters an I/O instruction is _____.
A. ready.
B. blocked/waiting.
C. idle.
D. running.
ANSWER: B

30. A critical region _____.
A. is a piece of code which only one process executes at a time.
B. is a region prone to deadlock.
C. is a piece of code which only a finite number of processes execute.
D. is found only in Windows NT operation system.
ANSWER: A

31. Semaphore can be used for solving _____.
A. wait & signal.
B. deadlock.
C. synchronization.
D. priority.
ANSWER: C

32. _____ is a high level abstraction over Semaphore.
A. Shared memory.
B. Message passing.
C. Monitor.
D. Mutual exclusion.
ANSWER: C

33. Mechanism of bringing a page into memory when it is needed is called _____.
A. segmentation.
B. fragmentation.
C. demand paging.
D. page replacement.
ANSWER: C

34. Resource locking _____.
A. allows multiple tasks to simultaneously use resource.
B. forces only one task to use any resource at any time.
C. can easily cause a dead lock condition.
D. is not used for disk drives.

ANSWER: B

35. CPU Scheduling is the basis of _____ operating system.
A. batch.
B. real time.
C. multiprogramming.
D. monoprogramming.
ANSWER: C

36. Multiprocessing _____.
A. make the operating system simpler.
B. allows multiple processes to run simultaneously.
C. is completely understood by all major computer vendors.
D. allows the same computer to have the multiple processors.
ANSWER: D

37. A tree structured file directory system _____.
A. allows easy storage and retrieval of file names.
B. is a much debated unnecessary feature.
C. is not essential when we have millions of files.
D. allows easy storage and retrieval of directory names.
ANSWER: A

38. What is the first step in performing an operating system upgrade?
A. Partition the drive.
B. Format the drive.
C. Backup critical data.
D. Backup old operating system.
ANSWER: C

39. The technique, for sharing the time of a computer among several jobs, which switches jobs so rapidly such that each job appears to have the computer to itself, is called _____.
A. time sharing.
B. time out.
C. time domain.
D. multitasking.
ANSWER: A

40. The strategy of making processes that are logically runnable to be temporarily suspended is called _____
A. Non preemptive scheduling
B. Preemptive scheduling
C. Shortest job first
D. First come First served
ANSWER: B

41. Situations where two or more processes are reading or writing some shared data and the final results depend on the order of usage of the shared data, are called _____.
A. race conditions.
B. critical section.
C. mutual exclusion.

D. dead locks.
ANSWER: A

42. Which technique was introduced because a single job could not keep both the CPU and the I/O devices busy?
A. Time-sharing.
B. SPOOLing.
C. Preemptive scheduling.
D. Multiprogramming.
ANSWER: D

43. _____ page replacement algorithm suffers from Belady anamoly.
A. LRU.
B. MRU.
C. FIFO.
D. LIFO.
ANSWER: C

44. In the multi-programming environment, the main memory consisting of _____ number of process.
A. greater than 100.
B. only one.
C. greater than 50.
D. more than one.
ANSWER: D

45. _____ operating system pays more attention on the meeting of the time limits.
A. Distributed.
B. Network.
C. Real time.
D. Online.
ANSWER: C

46. In the _____ method of data transfer, the participation of the processor is eliminated during data transfer.
A. buffering.
B. caching.
C. direct memory access.
D. indirect memory access.
ANSWER: C

47. Which of the following system calls transforms an executable binary file into a process?
A. Fork.
B. Exec.
C. Ioct1.
D. Longjmp.
ANSWER: B

48. Spatial locality refers to the problem that once a location is referenced, _____.
A. it will not be referenced again.
B. it will be referenced again.
C. a nearby location will be referenced soon.

D. will be referenced later.
ANSWER: C

49. Which of the following is an example of a SPOOLED device?
A. The terminal used to enter the input data for a program being executed.
B. The secondary memory device in a virtual memory system.
C. A line printer used to print the output of a number of jobs.
D. The terminal used to store data permanently.
ANSWER: C

50. Overlay is _____.
A. a part of an operating system.
B. a specific memory location.
C. a single contiguous memory that was used in the olden days for running large.
D. overloading the system with many user files.
ANSWER: C

51. Concurrent processes are processes that _____.
A. do not overlap in time.
B. overlap in time.
C. are executed by a processor at the same time.
D. are executed by a processor at the variable time period.
ANSWER: B

52. The page replacement policy that sometimes leads to more page faults when the size of the memory increased is _____.
A. FIFO.
B. LRU.
C. SSTF.
D. SJF.
ANSWER: A

53. The only state transition that is initiated by the user process itself is _____.
A. block.
B. dispatch.
C. wakeup.
D. batch.
ANSWER: A

54. Working set(t,k) at an instance of time t, is the set of _____.
A. k future references that the operating system will make.
B. future references that the operating system will make in the next k time units.
C. k references with high frequency.
D. pages that have been referenced in the last k time units.
ANSWER: D

55. Which of the following are real time systems?
A. An online railway reservation system.
B. Inventory system.
C. Aircraft control system.
D. Payroll processing system.

ANSWER: C

56. Dijkstra banking algorithm in an operating system solves the problem of _____.
A. deadlock avoidance.
B. deadlock recovery.
C. mutual exclusion.
D. context switching.
ANSWER: A

57. In paged memory systems, if the page size is increased, then the internal fragmentation generally _____.
A. becomes less.
B. becomes more.
C. remains constant.
D. not remains constant.
ANSWER: B

58. An operating system contains 3 user processes each requiring 2 units of resource R. the minimum number of units of R such that no deadlock will ever occur is _____.
A. 3.
B. 4.
C. 5.
D. 7.
ANSWER: B

59. Kernel is _____.
A. considered as the critical part of the operating system.
B. the software which monitors the operating system.
C. the software which protects all programs.
D. the set of primitive functions upon which the rest of operating system functions are built up.
ANSWER: D

60. In a time-sharing operating system, when the time slot given to a process is completed, the process goes from the RUNNING state to the _____.
A. BLOCKED state.
B. READY state.
C. SUSPENDED state.
D. TERMINATED state.
ANSWER: B

61. Which of the following algorithms tends to minimize the process flow time ?
A. First come First served
B. Shortest Job First
C. Earliest Deadline First
D. Longest Job First
ANSWER: B

62. Supervisor call _____.
A. is a call made by the supervisor of the system.
B. is a call with control functions.
C. are privileged calls that are used to perform resource management functions which are controlled by the operating system.

D. is a call made by someone working in root directory.
ANSWER: C

63. If the property of locality of reference is well pronounced in a program _____.
A. the number of page faults will be more.
B. the number of page faults will be less.
C. the number of page faults will remain the same.
D. execution will be slower.
ANSWER: B

64. Under multiprogramming, turnaround time for short jobs is usually _____ and that for long jobs is slightly _____.
A. Lengthened; Shortened
B. Shortened; Unchanged
C. Shortened; Shortened
D. Shortened; Lengthened
ANSWER: D

65. Pre-emptive scheduling, is the strategy of temporarily suspending a running process _____.
A. before the cpu time slice expires.
B. to allow starving processes to run.
C. when it requests i/o.
D. when overflow occurs.
ANSWER: A

66. Sector interleaving in disks is done by _____.
A. the disk manufacturer.
B. the disk controller cord.
C. the operating system.
D. hardware.
ANSWER: A

67. Memory protection is used in a _____.
A. single user system.
B. multiprogramming system.
C. multitasking system.
D. real time systems.
ANSWER: A

68. Some computer systems support dual mode operation-the user mode and the supervisor or monitor mode. These refer to the modes _____.
A. by which user programs handle their data.
B. by which the operating system executes user programs.
C. in which the processor and the associated hardware operate.
D. by memory access.
ANSWER: C

69. Disk scheduling involves deciding _____.
A. which disk should be accessed next.
B. the order in which disk access requests must be serviced.
C. the physical location where files should be accessed in the disk.

D. the physical location where files should be accessed in the main memory.
ANSWER: B

70. A computer system have 6 tape drives, with n processes competing for them. Each process may need 3 tape drives. The maximum value of n for which the system is guaranteed to be deadlock free is _____.
A. 2
B. 3
C. 4
D. 1
ANSWER: A

71. Dirty bit is used to show the _____.
A. page with corrupted data.
B. wrong page in the memory.
C. page that is modified after being loaded into cache memory.
D. page that is less frequently accessed.
ANSWER: C

72. Fence register is used for _____.
A. cpu protection.
B. memory protection.
C. file protection.
D. disk protection.
ANSWER: B

73. Which of the following is a service not supported by the operating system?
A. Protection.
B. Accounting.
C. Compilation.
D. I/O operation.
ANSWER: C

74. If we preempt a resource from a process, the process cannot continue with its normal execution and it must be _____.
A. aborted
B. queued
C. rolled back
D. terminated
ANSWER: C

75. Which of the following are single user operating system?
A. MS-DOS.
B. UNIX.
C. LINUX.
D. OS/2.
ANSWER: A

76. In round-robin CPU scheduling, as the time quantum is increased, the average turn around time _____.
A. increases.
B. decreases.

C. remains constant.
D. varies irregularly.
ANSWER: D

77. In a multiprogramming environment _____. .
A. the processor executes more than one process at a time.
B. the programs are developed by more than one program.
C. more than one process resides in the memory.
D. a single user can execute many programs at the same time
ANSWER: C

78. Which of the following are true?
A. A re-entrant procedure can be called any number of times.
B. A re-entrant procedure can be called finite number of times.
C. A re-entrant procedure cannot be called recursively.
D. A re-entrant procedure can be called recursively.
ANSWER: D

79. In a paged memory, the page hit ratio is 0.35, the time required to access a page in secondary memory is equal to 100 ns. The time required to access a page in primary memory is 10ns. The average time required to access a page is _____.
A. 3.0ns.
B. 68.0 ns.
C. 68.5 ns.
D. 78.5 ns.
ANSWER: C

80. A state is safe if the system can allocate resources to each process(up to its maximum) in some order and still avoid deadlock _____.
A. deadlocked state is safe.
B. safe state may lead to a deadlock situation.
C. unsafe state must lead to a deadlock situation.
D. deadlocked state is a subset of unsafe state.
ANSWER: D

81. The size of the virtual memory depends on the size of the _____.
A. data bus.
B. main memory.
C. address bus.
D. secondary memory.
ANSWER: C

82. In a multi-user operating system, 20 requests are made to use a particular resource per hour, on an average. The probability that no requests are made in 45 minutes is _____.
A. e-15.
B. e-5.
C. 1 - e-5.
D. 1 - e-10.
ANSWER: D

83. In which of the following scheduling policies does context switching never take place?

A. Round-robin.
B. Shortest job first.
C. Pre-emptive.
D. Optimal based.
ANSWER: B

84. In which of the following directory system, is it possible to have multiple complete paths for a file, starting from the root directory?
A. Single level directory.
B. Two level directory.
C. Tree structured directory.
D. Acyclic graph directory.
ANSWER: D

85. Suppose that a process is in BLOCKED state waiting for some I/O service. Which the service is completed, it goes to the _____.
A. RUNNING state.
B. READY state.
C. SUSPENDED state.
D. TERMINATED state.
ANSWER: B

86. In a system that does not support swapping _____.
A. binding of symbolic addresses to physical addresses normally takes place during compilation.
B. he compiler normally binds symbolic addresses to physical addresses.
C. the loader binds re locatable addresses to physical addresses.
D. binding of symbolic addresses to physical addresses normally takes place during execution.
ANSWER: C

87. To obtain better memory utilization, dynamic loading is used. With dynamic loading, a routine is not loaded until it is called for. For implementing dynamic loading, _____.
A. special support from hardware is essential.
B. special support from operating system is essential.
C. special support from both hardware and operating system is essential.
D. user programs can implement dynamic loading without any special support from the operating system or the hardware.
ANSWER: D

88. Which of the following is true?
A. The linkage editor is used to edit programs which have to be later linked together.
B. The linkage editor links object modules during compiling or assembling.
C. The linkage editor links object modules and resolves external references between them before loading.
D. The linkage editor resolves external references between the object modules during execution time.
ANSWER: C

89. Which of the following is true?
A. Overlays are used to increase the size of physical memory.
B. Overlays are used to increase the logical address space.
C. When overlays are used, the size of a process is not limited to the size of physical memory.
D. Overlays are used whenever the physical address space is smaller than the logical address space.

ANSWER: C

90. In partitioned memory allocation scheme, the _____.
A. best fit algorithm is always better than the first fit algorithm.
B. first fit algorithm is always better than the best fit algorithm.
C. superiority of the first fit and best-fit algorithms depend on the sequence of memory requests.
D. superiority of the first fit and best-fit algorithms depend on the sequence of process requests.
ANSWER: C

91. Cascading termination refers to termination of all child processes before the parent terminates _____.
A. normally.
B. abnormally.
C. normally or abnormally.
D. in middle of its execution.
ANSWER: C

92. For implementing a multiprogramming operating system _____.
A. special support from processor is essential.
B. special support from processor is not essential.
C. cache memory must be available.
D. more than one processor must be available.
ANSWER: B

93. Consider a system having m resources of the same type. These resources are shared by 3 processes A, B, C, which have peak time demands of 3, 4, 6 respectively. The minimum value of m that ensures that deadlock will never occur is _____.
A. 11
B. 12
C. 13
D. 14
ANSWER: A

94. A system has 3 processes sharing 4 resources. If each process needs a maximum of 2 units then, deadlock _____.
A. can never occur.
B. may occur.
C. has to occur.
D. chance of occurrence.
ANSWER: A

95. If the resources are always preempted from the same process, _____ can occur.
A. deadlock
B. system crash
C. aging
D. starvation
ANSWER: D

96. Distributed systems should _____.
A. meet prescribed time constraints.
B. aim better resource sharing.
C. aim better system utilization.

D. aim low system overhead.
ANSWER: B

97. The main function of shared memory is to _____.
A. use primary memory efficiently.
B. do intra process communication.
C. do inter process communication.
D. use secondary memory efficiently.
ANSWER: C

98. Which of the following is the most suitable scheduling scheme in a real-time operating system?
A. Round robin.
B. First-come first-served.
C. Pre-emptive scheduling.
D. Random scheduling.
ANSWER: C

99. Aging is _____.
A. keeping track of cache contents.
B. keeping track of what pages are currently residing in the memory.
C. keeping track of how many times a given page is referenced.
D. increasing the priority of jobs to ensure termination in a finite time.
ANSWER: D

100. If there are 32 segments, each of size 1 kbytes, then the logical address should have _____.
A. 13 bits.
B. 14 bits.
C. 15 bits.
D. 16 bits.
ANSWER: C

101. Memory protection is normally done by the _____.
A. processor and the associated hardware.
B. operating system.
C. compiler.
D. user program.
ANSWER: A

102. Which of the following scheduling algorithm gives minimum average waiting time?
A. FCFS.
B. SJF.
C. Round-robin.
D. Priority.
ANSWER: B

103. A certain moving arm disk storage with one head has following specifications: Number of tracks/recording surface-200 Disk rotation speed = 2400 rpm Track Storage capacity = 62500 bits What is the transfer rate?
A. 2.5Mbits/s.
B. 4.25Mbits/s.
C. 1.5 Mbits/s.

D. 3.75Mbits/s.
ANSWER: A

104. A state is safe, if _____.
A. the system does not crash due to deadlock occurrence.
B. the system can allocate resources to each process in some order and still avoid a deadlock.
C. the state keeps the system protected and safe.
D. All of above.
ANSWER: B

105. In a paged segmented scheme of memory management, the segment table itself must have a page table because _____.
A. the segment table is often too large to fit in one page.
B. each segment is spread over a number of pages.
C. segment tables point to page tables and not to the physical location of the segment.
D. the processor description base register points to a page table.
ANSWER: B

106. An optimal scheduling algorithm in terms of minimizing the average waiting time of a given set of processes is _____.
A. FCFS scheduling algorithm.
B. round robin scheduling algorithm.
C. shortest job - first scheduling algorithm.
D. shortest job - last scheduling algorithm.
ANSWER: C

107. Which of the following scheduling policy is well suited for a time-shared operating system?
A. Shortest job first.
B. Round robin.
C. First come first serve.
D. Elevator.
ANSWER: B

108. If no cycle exists in the resource allocation graph _____.
A. then the system will be in a safe state.
B. then the system will not be in a safe state.
C. either a or b.
D. None of these.
ANSWER: A

109. A computer system has 4 K word cache organized in a block-set-associative manner, with 4 blocks per set, 64 words per block. The number of bits in the SET and WORD fields of the main memory address format is _____.
A. 15,4.
B. 6,4.
C. 7,2.
D. 4,6.
ANSWER: D

110. A computer installation has 1000 k of main memory. The jobs arrive and finish in the following sequence. Job1 requiring 200k arrives Job2 requiring 350k arrives Job3 requiring 300k arrives Job1 finishes

Job4 requiring 120k arrives Job5 requiring 150k arrives Job6 requiring 80k arrives Among best fit and first fit, which performs better for this sequence?

A. First fit.
B. Best fit.
C. Both perform the same.
D. Worst fit.

ANSWER: A

111. A memory page containing a heavily used variable that was initialized very early and is in constant use is removed. When the page replacement algorithm used is _____.

A. LRU.
B. FIFO.
C. LFU.
D. SJF.

ANSWER: B

112. Consider a computer with 8Mbytes of main memory and a 128K cache. The cache block size is 4 K. it uses a direct mapping scheme for cache management. How many different main memory blocks can map onto a given physical cache block?

A. 20.
B. 25.
C. 64.
D. 456.

ANSWER: C

113. Which of the following applications are well suited for batch processing?

A. Process control.
B. Video game control.
C. Preparing inventory.
D. Preparing mailing addresses.

ANSWER: D

114. Locality of reference implies that the page reference being made by a process _____.

A. Will always be to the page used in the previous page reference.
B. likely to be one of the pages used in the last few page references.
C. Will always be one of the pages existing in the memory.
D. Will always leads to a page fault.

ANSWER: B

115. When an interrupt occurs, an operating system _____.

A. ignores the interrupt.
B. always changes the state of the interrupted process after processing the interrupt.
C. always resumes execution of the interrupted process after processing the interrupt.
D. may change the state of the interrupted process to blocked and schedule another process.

ANSWER: D

116. Protection can improve _____.

A. reliability.
B. maintenance.
C. starvation.
D. deadlock.

ANSWER: A

117. The primary distinction between long term scheduler and short term scheduler is the frequency of their_____.
A. compilation.
B. frequency of execution.
C. debugging.
D. loading.
ANSWER: B

118. A system consists of collection of _____.
A. processes.
B. softwares.
C. database.
D. printer.
ANSWER: A

119. The startup routine runs, when machine boots up is known as _____.
A. POST .
B. BOOT up .
C. Operating Routine .
D. I/O operation .
ANSWER: B

120. The Banker's algorithm is _____ than the resource allocation graph algorithm.
A. less efficient.
B. more efficient.
C. effective
D. None of these.
ANSWER: A

121. What is the maximum length allowed for primary name of a computer file under DOS?
A. 8
B. 12
C. 15
D. 30
ANSWER: A

122. Which of the following could be a valid DOS file specification?
A. NOSFILE.POST.
B. NOSFILE.P.OST.
C. NOSFILE.DOC.
D. NOST.FILEDOC.
ANSWER: B

123. How many characters form a secondary name for a file?
A. 8.
B. 12.
C. 13.
D. 25.
ANSWER: B

124. What is the name given to something that the computer will automatically use unless you tell it otherwise?
A. A Specification.
B. A Wildcard.
C. A Default.
D. A Rule.
ANSWER: C

125. The content of the matrix Need is _____.
A. Allocation – Available.
B. Max – Available.
C. Max – Allocation.
D. Allocation – Max.
ANSWER: C

126. An edge from process Pi to Pj in a wait for graph indicates that _____.
A. Pi is waiting for Pj to release a resource that Pi needs.
B. Pj is waiting for Pi to release a resource that Pj needs.
C. Pi is waiting for Pj to leave the system.
D. Pj is waiting for Pi to leave the system
ANSWER: A

127. The host repeatedly checks if the controller is busy until it is not. It is in a loop that status register & busy bit becomes clear. This is called _____ and a mechanism for the hardware controller to notify the CPU that it is ready is called _____.
A. interrupt and polling.
B. polling and spooling.
C. polling and interrupt.
D. deadlock and starvation.
ANSWER: C

128. The batch file uses the extension _____.
A. .BAT.
B. .DOC.
C. .PRG.
D. .DOS
ANSWER: A

129. To display the list of all the file of the disk you would type _____.
A. DIR.
B. COPY.
C. DIR FILES.
D. DIR AUTOEXEC.BAT.
ANSWER: A

130. _____runs on computer hardware and serve as platform for other software to run on.
A. Operating system.
B. Application software.
C. System software.
D. Compiler.

ANSWER: A

131. The primary purpose of an operating system is _____.
A. to make the most efficient use of the computer hardware.
B. to allow people to use the computer.
C. to keep systems programmers employed.
D. to make computers easier to use.
ANSWER: A

132. _____transforms one interface into another interface.
A. Program.
B. Software.
C. Data.
D. Hardware.
ANSWER: B

133. If the wait for graph contains a cycle _____.
A. then a deadlock does not exist.
B. then a deadlock exists.
C. then the system is in a safe state.
D. either b or c.
ANSWER: B

134. _____ interface consists of things like program counter, registers, interrupts and terminals.
A. Hardware.
B. Software.
C. Data.
D. Application.
ANSWER: A

135. PID is used by the system to identify _____.
A. a process.
B. the file name.
C. the i-node.
D. The hardware.
ANSWER: A

136. Suspended processes are written onto a _____.
A. swap area.
B. dedicated area.
C. rom.
D. critical area.
ANSWER: A

137. Which of the following system calls, does not return control to the calling point, on termination?
A. fork.
B. exec.
C. ioct1.
D. longjmp.
ANSWER: B

138. Which is the least level partition of disk?
A. Clusters.
B. Sectors.
C. Slides.
D. Tracks.
ANSWER: B

139. Which of the following are shared between a parent process and a child process?
A. External Variables.
B. Registers.
C. Pointer variables.
D. Pipes.
ANSWER: D

140. Choose the correct answer:
A. Interrupts are caused by events that are internal to a process.
B. An exception condition is caused by an event external to a process.
C. An exception condition happens in the middle of the exception of an instruction.
D. An interrupt happens in the middle of the execution of an instruction.
ANSWER: C

141. _____is used in operating system to separate mechanism from policy.
A. Single level implementation.
B. Two level implementation.
C. Multi level implementation.
D. Hierarchical implementation.
ANSWER: B

142. The operating system creates ____ from the physical computer.
A. virtual space.
B. virtual computers.
C. virtual device.
D. virtual memory.
ANSWER: B

143. Swapping _____.
A. works best with many small partitions.
B. allows many programs to use memory simultaneously.
C. allows each program in turn to use the memory.
D. does not work with overlaying.
ANSWER: C

144. Which of the following operating does not implement multitasking truly?
A. Windows 98.
B. Windows NT.
C. Windows XP.
D. MS DOS.
ANSWER: D

145. What is the name of the latest server operating system developed by Microsoft?
A. Windows NT.

B. Windows 2000.
C. Windows XP.
D. Windows Server 2012 R2
ANSWER: D

146. Where do you find user.dat?
A. C:\windows.
B. C:\windows\system32.
C. C:\windows\system.
D. C:\.
ANSWER: A

147. MSD.exe does not have information on _____.
A. cache.
B. video.
C. operating system.
D. com or port.
ANSWER: A

148. Which file in MSDOS contain internal command that is loaded during booting process?
A. IO.sys.
B. MSDOS.sys.
C. Command.com.
D. Config.sys.
ANSWER: C

149. Which is valid extension that user creates on operating system?
A. Exe.
B. Com.
C. Sys.
D. Bat.
ANSWER: D

150. Which of the following file names are invalid in MSDOS?
A. MYFILE.DOS.
B. CHECK$.(1).
C. Verified.###.
D. Qwerty.1?3.
ANSWER: D

151. Which of the following statements in regard to directories is false?
A. Directories can exist inside directories.
B. Directory is always at the highest level.
C. Directories with files can be deleted.
D. Directories cannot be renamed.
ANSWER: D

152. The problem of thrashing is affected scientifically by _____.
A. program structure.
B. program size.
C. primary storage size.

D. secondary storage size.
ANSWER: A

153. The disadvantage of invoking the detection algorithm for every request is _____.
A. overhead of the detection algorithm due to consumption of memory.
B. excessive time consumed in the request to be allocated memory.
C. considerable overhead in computation time.
D. All of these.
ANSWER: C

154. The request and release of resources are _____.
A. command line statements.
B. interrupts.
C. system calls.
D. special programs.
ANSWER: C

155. Deadlock prevention is a set of methods _____.
A. to ensure that at least one of the necessary conditions cannot hold.
B. to ensure that all of the necessary conditions do not hold.
C. to decide if the requested resources for a process have to be given or not.
D. to recover from a deadlock.
ANSWER: A

156. The disadvantage of a process being allocated all its resources before beginning its execution is _____.
A. Low CPU utilization.
B. Low resource utilization.
C. Very high resource utilization.
D. None of these.
ANSWER: B

157. Virtual memory allows _____.
A. execution of a process that may not be completely in memory.
B. a program to be larger than the cache memory.
C. a program to be larger than the secondary storage.
D. execution of a process without being in physical memory.
ANSWER: A

158. When a page fault occurs, the state of the interrupted process is _____.
A. disrupted
B. invalid
C. saved
D. None of these
ANSWER: C

159. When the page fault rate is low _____.
A. the turnaround time increases.
B. the effective access time increases.
C. the effective access time decreases.
D. a and b.

ANSWER: C

160. Virtual Memory is commonly implemented by _____.
A. segmentation.
B. swapping.
C. demand Paging.
D. demand line.
ANSWER: C

161. The Hardware mechanism that enables a device to notify the CPU is called _____.
A. polling.
B. interrupt.
C. system Call.
D. system request.
ANSWER: B

162. The operating system manages _____.
A. memory.
B. processor.
C. disk and I/O devices.
D. all of the above.
ANSWER: D

163. Using Priority Scheduling algorithm, find the average waiting time for the following set of processes given with their priorities in the order: Process : Burst Time : Priority respectively . P1 : 10 : 3 , P2 : 1 : 1 , P3 : 2 : 4 , P4 : 1 : 5 , P5 : 5 : 2.
A. 8 milliseconds.
B. 8.2 milliseconds.
C. 7.75 milliseconds.
D. 3 milliseconds.
ANSWER: B

164. Which of the following is contained in Process Control Block (PCB)?
A. Process Number.
B. List of Open files.
C. Memory Limits.
D. All of the Above.
ANSWER: D

165. Which of the following is a criterion to evaluate a scheduling algorithm?
A. CPU Utilization: Keep CPU utilization as high as possible.
B. Throughput: number of processes completed per unit time.
C. Waiting Time: Amount of time spent ready to run but not running.
D. All of the above.
ANSWER: D

166. The round robin CPU scheduling in a time-shared system is done _____.
A. using very large time slice degenerates in to first come first served algorithm.
B. using extremely small time slices improve performance.
C. using extremely small time slices degenerate in to last in first out algorithm.
D. using medium sized time slices leads to shortest request time first algorithm.

ANSWER: A

167. The primary job of the operating system of a computer is to _____.
A. command Resources.
B. manage Resources.
C. provide Utilities.
D. be user friendly.
ANSWER: B

168. What is PCB?
A. Program Control Block.
B. Process Control Block.
C. Process Communication Block.
D. Process Common Block.
ANSWER: B

169. CPU performance is measured through _____.
A. throughput.
B. mhz.
C. flaps.
D. flips.
ANSWER: A

170. In Priority Scheduling a priority number (integer) is associated with each process. The CPU is allocated to the process with the highest priority (smallest integer = highest priority). The problem of, Starvation a low priority processes may never execute, is resolved by _____.
A. terminating the process.
B. aging.
C. mutual exclusion.
D. semaphore.
ANSWER: B

171. RAID level 3 supports a lower number of I/Os per second, because _____.
A. every disk has to participate in every I/O request.
B. only one disk participates per I/O request.
C. I/O cycle consumes a lot of CPU time.
D. All of these.
ANSWER: A

172. Name the disk scheduling strategy that next services the request that is closest to the read-write head currents cylinder.
A. SDTP disk scheduling.
B. FSCAN disk scheduling.
C. C SCAN disk scheduling.
D. SSTF disk scheduling.
ANSWER: D

173. The smallest portion of a track that can be accessed by an I/O request is ____.
A. Sector.
B. Partition.
C. Blocks.

D. Tracks.
ANSWER: A

174. The time it takes for the read/write head to move from its current cylinder to the cylinder containing the requested data saved is _____.
A. Seek time.
B. Sector queering.
C. Seek operation.
D. Seek interval.
ANSWER: A

175. What is the area of disk where boundaries cannot be crossed by file data?
A. Sectors.
B. Partition.
C. Portion.
D. Blocks.
ANSWER: B

176. What is the average time a system spends waiting for a disk request is to be received?
A. Mean time to failure.
B. Mean response time.
C. Response time.
D. Request time.
ANSWER: B

177. In FSCAN disk scheduling, the F stands for _____.
A. Forward.
B. Freezing.
C. Fragmentation.
D. Frequently.
ANSWER: B

178. Which reduces unfairness and variance of response time as compare to SSTP?
A. SCAN disk scheduling.
B. Look disk scheduling.
C. Disk scheduling.
D. Disk processing.
ANSWER: A

179. What is the pattern that has series of request is cylinder randomly distributed access disk surfaces?
A. Seek operating.
B. Memory.
C. Random seek pattern.
D. System.
ANSWER: C

180. A technique that orders disk requests is maximize throughput and minimize residence times and the variance of seek time.
A. Disk scheduling.
B. C- SCAN disk scheduling.
C. D - SCAN.

D. Disk arm.
ANSWER: A

181. Name the data redundancy technique in RAID that maintains a copy of each disks contents on a separate disk.
A. Disk moving.
B. Disk copying.
C. Disk mirroring.
D. Disk spacing.
ANSWER: C

182. Which method can reduce access times when reading from or writing to file sequentially?
A. Data compression.
B. Data recognition.
C. Fragmentation.
D. Disk aim anticipation.
ANSWER: C

183. _____ are set of tracks that can be accessed by read / write head.
A. Cylinder.
B. Sector.
C. Boom.
D. Tracks.
ANSWER: A

184. The time taken by the disk surface for data to rotate from its current position to the beginning of the read / write head is called _____.
A. seek time.
B. transmission time.
C. read /write latency time.
D. rotational latency time.
ANSWER: D

185. The ability to withstand equipment failures in individual processors to continue operation is referred to as_____.
A. fault tolerance.
B. data flow computer.
C. multiprocessor.
D. array processor.
ANSWER: A

186. The amount of work performed per unit time is _____.
A. process time.
B. output time.
C. throughput time.
D. input time.
ANSWER: C

187. A process is said to be _____ if it is executing on a process.
A. running state.
B. ready state.

C. blocked state.
D. completed state.
ANSWER: A

188. The act of assigning the first process to the first processor on the ready list is _____.
A. dispatcher.
B. dispatching.
C. dispatched.
D. quantum.
ANSWER: A

189. An action performed by the OS to remove a process from a processor and replace it with another is _____.
A. interrupting.
B. control switching.
C. multiprocessor
D. Fragmentation
ANSWER: B

190. Technique to discover hardware status by repeatedly testing each device is _____.
A. piping.
B. polling.
C. dispatching.
D. interrupting.
ANSWER: B

191. _____ indicate that an error has occurred, either is hardware or as a result of a software instruction.
A. Quantum.
B. Exception.
C. Interrupt.
D. Dispatching.
ANSWER: C

192. _____ correspond to conditions such as overflows or breakpoints.
A. Fault.
B. Trap.
C. Abort.
D. Error.
ANSWER: A

193. _____ indicate errors from which the process cannot recover, such as hardware failure.
A. Fault.
B. Trap.
C. Abort.
D. Exception.
ANSWER: C

194. The overall I/O rate in RAID level 4 is _____.
A. low.
B. very low.
C. high.

D. None of these.
ANSWER: C

195. RAID level 5 is also known as _____.
A. bit-interleaved parity organization
B. block-interleaved parity organization
C. block-interleaved distributed parity
D. memory-style ECC organization
ANSWER: C

196. A data structure that contains information that characterizes a process is _____.
A. PID.
B. PCB.
C. process in execution.
D. process priority.
ANSWER: D

197. Removing a process from a suspended state is called ____.
A. ready.
B. running
C. resume.
D. finish.
ANSWER: C

198. A kernel code that is executed in response to an interrupt is _____.
A. interrupt handler.
B. interrupt vector.
C. interval timer.
D. interrupting clock.
ANSWER: A

199. An unit of time during which a process can execute before it is removed from the processor is _____.
A. spavn.
B. quartz.
C. quantum.
D. trap.
ANSWER: C

200. Tertiary storage is built with _____.
A. lot of money.
B. unremovable media.
C. removable media.
D. secondary storage.
ANSWER: C

201. Dijktra Barker Algorithm is an example for ____.
A. deadlock prevention.
B. deadlock detection.
C. deadlock avoidance.
D. deadlock recovery.
ANSWER: C

202. Which of the following is not a condition for a deadlock to occur?
A. Mutual exclusion.
B. Wait-for.
C. Pre-emption.
D. Circular wait.
ANSWER: C

203. A resource may be acquired exclusively by only one process at a time is ___.
A. mutual exclusion.
B. wait-for.
C. no- preemption.
D. circular wait.
ANSWER: A

204. A thread state in which a thread cannot execute until being returned to the ready state is _____.
A. active.
B. ready.
C. sleep.
D. asleep.
ANSWER: C

205. Thread operation that transitions its target from the waiting state to ready state is _____.
A. Ready.
B. Active.
C. Wake.
D. Sleep.
ANSWER: C

206. _____ facilitates parallel execution of concurrent activities within a process.
A. Quantum.
B. Thread.
C. Exception.
D. Solaris.
ANSWER: B

207. It is possible to run programs larger than the main storage by using_____.
A. boundary register.
B. coalescing.
C. overlays.
D. garbage collection.
ANSWER: C

208. _____ contains the highest address used by the operating system.
A. Coalescing.
B. Boundary register.
C. Garbage collection.
D. Overlays.
ANSWER: B

209. Loading an operating system, tapes and disks is an example for _____.

A. teardown time.
B. setup time.
C. best fit.
D. worst fit.
ANSWER: B

210. In _____ several users simultaneously compete for system resources.
A. batch processing
B. storage allocation.
C. single stream batch processing.
D. multi programming.
ANSWER: D

211. In _____ jobs would take as much space as they needed without any fixed boundaries.
A. batch processing.
B. storage allocation.
C. coalescing.
D. variable partition multiprogramming.
ANSWER: D

212. The technique of _____ involves moving all occupied areas of storage to one end or the other of main storage.
A. storage compaction.
B. storage swapping.
C. storage placement.
D. storage replacement.
ANSWER: A

213. An incoming job is placed in the hole in main storage in which it fits more tightly in ____ strategy.
A. best-fit.
B. first-fit.
C. worst-fit.
D. storage.
ANSWER: A

214. ____ strategy begins each search for an available hole at the point where the search ended.
A. Best-fit.
B. First-fit.
C. Forward-fit.
D. Next-fit.
ANSWER: D

215. Storage compaction is also called as ____.
A. coalescing.
B. overlay.
C. garbage collection.
D. virtual storage.
ANSWER: C

216. The process of merging adjacent holes to form a single larger hole is called ____.
A. coalescing.

B. overlay.
C. garbage collection.
D. virtual storage.
ANSWER: A

217. In contiguous storage allocation multiprogramming systems, protection is often implemented with ____.
A. overlays.
B. garbage collection.
C. boundary registers.
D. compaction.
ANSWER: C

218. During _____ and _____ the computer will be idle.
A. best fit and worst fit.
B. setup time and teardown time.
C. compaction and coalescing.
D. next fit and first fit.
ANSWER: B

219. Optical disks _____ magnetism.
A. use
B. do not use
C. may use
D. None of these
ANSWER: B

220. In _____ page replacement strategy, we replace the page that has been in the system the longest.
A. FIFO.
B. LRU.
C. LFU.
D. NUR.
ANSWER: A

221. WORM stands for _____.
A. write only, read mandatory.
B. write once, read many times.
C. write only once, read multiple.
D. None of these.
ANSWER: B

222. The referenced bit in not recently used page replacement is called ____.
A. modified bit.
B. waiting bit.
C. accessed bit.
D. queued bit.
ANSWER: C

223. When a process first executes, the system loads into main memory the page that contains its first instruction. This is ___ paging.
A. local paging.

B. future paging.
C. Anticipatory.
D. Demand.
ANSWER: D

224. The time between page faults is called as _____ time.
A. fault.
B. interfault.
C. intrafault.
D. error.
ANSWER: B

225. Excess paging activity causing low processor utilization is called ____.
A. crashing.
B. hashing.
C. thrashing.
D. holding.
ANSWER: C

226. The problems of determining when processors should be assigned and to which processes. This is called_____.
A. processor scheduling.
B. job scheduling.
C. high-level scheduling.
D. low-level scheduling.
ANSWER: A

227. A scheduling discipline is _____ if once a process has given the CPU.
A. preemptive.
B. non-preemptive.
C. real time.
D. on line.
ANSWER: A

228. A scheduling discipline is _____if the CPU can be taken away.
A. non-preemptive.
B. preemptive.
C. timesharing.
D. multiprogramming.
ANSWER: B

229. Keeping non-running programs is main storage involves_____.
A. no overhead.
B. page faults.
C. overhead.
D. page default.
ANSWER: C

230. Preemptive scheduling is useful in _____.
A. interactive timesharing systems.
B. real- time systems.

C. multiprogramming systems.
D. on-line systems.
ANSWER: A

231. _____ do not change.
A. Dynamic priority.
B. Static ram.
C. Static priority.
D. Dynamic ram.
ANSWER: C

232. Dynamic priority mechanisms are responsive to ____.
A. no change.
B. change.
C. rapid attention.
D. low attention.
ANSWER: C

233. In _____scheduling, certain jobs are scheduled to be completed by a specific time or deadline.
A. processor scheduling.
B. job scheduling.
C. deadline scheduling.
D. real time scheduling.
ANSWER: C

234. The simplest scheduling discipline is _____.
A. FIFO.
B. RR.
C. SJF.
D. SRT.
ANSWER: A

235. _____ is a non-preemptive discipline.
A. Quantum size.
B. HRN.
C. FIFO.
D. LIFO.
ANSWER: C

236. _____ is not useful in scheduling interactive uses because it cannot guarantee good response time.
A. SJF.
B. SRT.
C. FIFO.
D. LIFO.
ANSWER: C

237. Processes are dispatched FIFO but are given a limited amount of CPU time called_____.
A. RR.
B. time - slice or quantum.
C. SJF.
D. HRN.

ANSWER: B

238. Round Robin is _____ type of scheduling.
A. preemptive.
B. non-preemptive.
C. time sharing.
D. real time.
ANSWER: A

239. SRT has ____ overhead than SJF.
A. lower .
B. medium.
C. higher.
D. none.
ANSWER: C

240. Which one of the following is not a characteristic of a file system?
A. File management.
B. File integrity mechanism.
C. File access methods.
D. File sizing.
ANSWER: D

241. The amount of work performed per unit time is _____.
A. process time.
B. output time.
C. throughput time.
D. input time.
ANSWER: C

242. In _____ a program is divided into several blocks that is placed throughout the main storage.
A. contiguous allocation.
B. non contiguous allocation.
C. variable partition.
D. fixed partition.
ANSWER: B

243. In FIFO page replacement, page reference patterns cause more page faults when the number of page frames allocated to a process is _____.
A. decreased.
B. increased.
C. increased or decreased.
D. no response.
ANSWER: A

244. _____ page size leads to a large number of pages and page frames.
A. Small.
B. Large.
C. Medium.
D. Processor.
ANSWER: A

245. The amount of internal fragmentation can be reduced by employing _____ page sizes.
A. smaller.
B. larger.
C. simple.
D. multiple.
ANSWER: A

246. SJF stands for _____.
A. shortest job for.
B. shortest job last.
C. shortest job middle.
D. shortest job first.
ANSWER: D

247. SJF is not useful in _____ environments in which reasonable response times much be guaranteed.
A. real time.
B. time sharing.
C. online.
D. multiprogramming.
ANSWER: B

248. _____ is the system response time to the job if the job were to be initiated.
A. Time waiting.
B. Service time.
C. Time waiting + service time.
D. System time.
ANSWER: C

249. What are the two types of file system organization?
A. Encryption and decryption.
B. Data hierarchical system and flat system.
C. Single level and hierarchically.
D. Both (a) and (b).
ANSWER: C

250. Which is the component of a file system concerned with providing the mechanisms is files to be stored, to be referenced, shared and secured is _____.
A. File reorganization.
B. File integrity mechanism.
C. File management.
D. File system.
ANSWER: C

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