



26. The memory allocation scheme subject to "external" fragmentation is  
 1) segmentation      2) swapping  
 3) pure demand paging  
 4) multiple fixed contiguous partitions
27. Page fault occurs when  
 1) the page is corrupted by application software  
 2) the page is in main memory  
 3) the page is not in main memory  
 4) one tries to divide a number by 0
28. Overlay is  
 1) a part of an operating system  
 2) a specific memory location  
 3) a single contiguous memory that was used in the olden days for running large programs by swapping  
 4) overloading the system with many user files
29. Determine the number of page faults when reference to pages occur in order -1, 2, 4, 5, 2, 1, 2, 4. Assume that the main memory can accomodate 3 pages and the main memory already has the pages 1 and 2, with page 1 having been brought earlier than page 2. (Assume LRU algorithm is used)  
 1) 3      2) 5      3) 4  
 4) none of the above
30. Concurrent processes are processes that  
 1) do not overlap in time  
 2) overlap in time  
 3) are executed by a processor at the same time  
 4) none of the above
31. Supervisor call  
 1) is a call made by the supervisor of the system  
 2) is a call with control functions  
 3) are privileged calls that are used to perform resource management functions, which are controlled by the operating system  
 4) is a call made by someone working in root directory
32. Fence register is used for  
 1) CPU protection      2) memory protection  
 3) file protection      4) all of the above
33. Which of the following is a service not supported by the operating system ?  
 1) Protection      2) Accounting  
 3) Compilation      4) I/O operation
34. The first fit, best-fit and the worst-fit algorithms can be used for  
 1) contiguous allocation of memory  
 2) linked allocation of memory  
 3) indexed allocation of memory  
 4) all of the above
35. Which of the following is single-user operating system ?  
 1) MS - DOS      2) UNIX      3) OS/2  
 4) None of these
36. Which of the following are true ?  
 1) A re-entrant procedure can be called any number of times  
 2) A re-entrant procedure can be called even before the procedure has not returned from its previous call  
 3) Re-entrant procedures cannot be called recursively  
 4) None of these
37. A state is safe if the system can allocate resources to each process (up to its maximum) in some order and still avoid deadlock.  
 1) Deadlocked state is unsafe  
 2) Unsafe state may not be lead to a deadlock situation  
 3) Unsafe state must lead to a deadlock situation  
 4) None of these
38. The size of the virtual memory depends on the size of the  
 1) data bus  
 2) main memory  
 3) address bus  
 4) none of the above
39. In which of the following scheduling policies does context switching never take place ?  
 1) Round-robin  
 2) Shortest job first  
 3) Pre-emptive  
 4) None of these
40. In which of the following directory systems, is it possible to have multiple complete paths for a file, starting from the root directory ?  
 1) Single-level directory  
 2) Two-level directory  
 3) Tree structured directory  
 4) Acyclic graph directory
41. Suppose that a process is in "BLOCKED" state waiting for some I/O service. When the service is completed, it goes to the  
 1) RUNNING state      2) READY state  
 3) SUSPENDED state  
 4) TERMINATED state

42. In a system that does not support swapping
- the compiler normally binds symbolic addresses (variables) to relocatable addresses
  - the compiler normally binds symbolic addresses to physical addresses
  - user programs can implement dynamic loading without any special support from the operating system or the hardware
  - None of these
43. To obtain better memory utilization, dynamic loading is used. With dynamic loading, a routine is not loaded until it is called. For implementing dynamic loading
- special support from hardware is essential
  - special support from operating system is essential
  - special support from both hardware and operating system are essential
  - user programs can implement dynamic loading without any special support from the operating system or the hardware
44. Which of the following is true ?
- The linkage editor is used to edit programs which have to be later linked together
  - The linkage editor links object modules during compiling or assembling
  - The linkage editor links object modules and resolves external references between them before loading
  - The linkage editor resolves external references between the object modules during execution time
45. Which of the following application is well suited for batch processing
- Process control
  - Video game control
  - Preparing pay bills of employees
  - None of these
46. Locality of reference implies that the page reference being made by a process
- will always be to the page used in the previous page reference
  - is likely to be one of the pages used in the last few page references
  - will always be one of the pages existing in memory
  - will always lead to a page fault
47. An operating system uses Shortest Remaining Time first (SRT) process scheduling algorithm. Consider the arrival times and execution times for the following processes :
48. The essential component(s) in each entry of a page table is/are
- virtual page number
  - page frame number
  - both virtual page number and page frame number
  - access right information
49. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because
- it reduces the memory access time to read or write a memory location
  - it helps to reduce the size of page table needed to implement the virtual address space of a process
  - it is required by the translation look aside buffer.
  - it helps to reduce the number of page faults in page replacement algorithms
50. Which of the following statements are true ?
- Shortest remaining time first scheduling may cause starvation
  - Preemptive scheduling may cause starvation
  - Round robin is better than FCFS in terms of response time
- I only
  - I and II only
  - II and III only
  - I, II and III
51. What is the correct matching for the following pairs?
- |                         |                |
|-------------------------|----------------|
| A) Disk scheduling      | 1) Round robin |
| B) Batch Processing     | 2) SCAN        |
| C) Time sharing         | 3) LIFO        |
| D) Interrupt processing | 4) FIFO        |
- A-3, B-4, C-2 and D-1
  - A-4, B-3, C-2 and D-1
  - A-2, B-4, C-1 and D-3
  - A-2, -1, C-4 and D -3
52. Dirty bit for a page in a page table
- helps avoid unnecessary writes on a paging device
  - helps maintain LRU information
  - allows only read on a page
  - none of the above

53. In a multiprogramming environment
- the processor executes more than one process at a time
  - the programs are developed by more than one person
  - more than one process resides in the memory
  - a single user can execute many programs at the same time
54. Which of the following scheduling policy is well suited for a time-shared operating system?
- Shortest job first
  - Round robin
  - First - come - first - serve
  - Elevator
55. 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
- LRU
  - FIFO
  - LFU
  - none of the above
03. Suppose that a process is in blocked state waiting for some I/O service. When the service is completed, it goes to the \_\_\_\_\_ state
- Running
  - Ready
  - Suspended
  - Terminated
04. Real time systems are
- Primarily used on mainframe computers
  - Used for Monitoring events as they occur
  - Used for program development
  - Used for real time interactive users
05. Memory management is
- Not used in Modern Operating system
  - Replaced with virtual memory on concurrent systems
  - Not used on multi programming systems
  - Critical for even the simplest operating systems
06. In Preemptive mode, the currently running process may be -interrupted and moved to \_\_\_\_\_ state
- Ready
  - Blocked
  - Suspended
  - Terminated

### PRACTICE SET - I KEY

01-3	02-2	03-2	04-1	05-3
06-3	07-4	08-3	09-2	10-1
11-3	12-3	13-1	14-4	15-1
16-2	17-2	18-3	19-1	20-2
21-3	22-3	23-1	24-2	25-2
26-1	27-3	28-3	29-3	30-2
31-3	32-2	33-3	34-1	35-1
36-2	37-1	38-3	39-2	40-4
41-2	42-1	43-4	44-3	45-3
46-2	47-1	48-2	49-2	50-4
51-3	52-1	53-3	54-2	55-2

### PRACTICE SET - II

01. Virtual Memory is \_\_\_\_\_
- An Extremely Large Main Memory
  - An Extremely Large Secondary Memory
  - An illusion of Extremely Large Memory
  - A type of Memory used in super computers
02. The size of the virtual memory depends on
- The size of data bus
  - The size of main memory
  - The size of address bus
  - None
03. Suppose that a process is in blocked state waiting for some I/O service. When the service is completed, it goes to the \_\_\_\_\_ state
- Running
  - Ready
  - Suspended
  - Terminated
04. Real time systems are
- Primarily used on mainframe computers
  - Used for Monitoring events as they occur
  - Used for program development
  - Used for real time interactive users
05. Memory management is
- Not used in Modern Operating system
  - Replaced with virtual memory on concurrent systems
  - Not used on multi programming systems
  - Critical for even the simplest operating systems
06. In Preemptive mode, the currently running process may be -interrupted and moved to \_\_\_\_\_ state
- Ready
  - Blocked
  - Suspended
  - Terminated
07. The pieces or chunks of program that are in variable length are called \_\_\_\_\_
- Pages
  - Blocks
  - Segments
  - Functions
08. \_\_\_\_\_ in the actual location in main memory?
- Relative address
  - logical address
  - physical address
  - none
09. Fixed partitioning suffers from \_\_\_\_\_ issue
- internal fragmentation
  - external fragmentaiton
  - compaction
  - none
10. Fragmentation of the file system
- Occurs only if the system is used improperly
  - Can always be prevented
  - Can be temporarily is moved by compaction
  - Is a characteristic of all file systems
11. Overlay is
- A part of an Operating system
  - A single memory location
  - A single contiguous memory that is used in olden days for running large program by swapping
  - overloading the system with many user files



30. A public key encryption system  
 1) Allows only the correct receiver to decode the data  
 2) Allows only one to decode the transmission  
 3) Allows only the correct sender to decode the data  
 4) Does not encode the data before transmitting it.
31. Spatial locality refers to the problem that once a location is referenced  
 1) it will not be referenced again  
 2) it will be referenced again  
 3) a nearby location will be referenced soon  
 4) none of these
32. Which of the following is an example of a SPOOLED device ?  
 1) The terminal used to enter the input data for program being executed  
 2) The secondary memory device in a virtual memory system  
 3) A line printer used to print the output of a number of job      4) None of the above
33. The page replacement policy that sometimes leads to more page faults when the size of the memory is increased is  
 1) FIFO                          2) LRU  
 3) no such policy exists  
 4) none of the above
34. The only state transition that is initiated by the user process itself is  
 1) block                        2) dispatch  
 3) wakeup  
 4) none of the above
35. Working set ( $t, k$ ) at an instant of time,  $t$ , is the set of  
 1)  $k$  future references that the operating system will make  
 2) future references that the operating system will make in the next ' $k$ ' time units  
 3)  $k$  references with high frequency  
 4) pages that have been referenced in the last  $k$  time units
36. In Round Robin CPU scheduling, as the time quantum is increased, the average turn around time  
 1) increases                    2) decreases  
 3) remains constant  
 4) varies irregularly
37. Which of the following is true ?  
 1) Overlays are used to increase the size of physical memory  
 2) Overlays are used to increase the logical address space  
 3) When overlays are used, the size of a process is not limited to the size of physical memory  
 4) Overlays are used whenever the physical address space is smaller than the logical address space
38. In partitioned memory allocation scheme, the  
 1) best fit algorithm is always better than the first fit algorithm  
 2) first fit algorithm is always better than the best fit algorithm  
 3) superiority of the first fit and best-fit algorithms depend on the sequence of memory requests  
 4) none of the above
39. Cascading termination refers to termination of all child processes before the parent terminates  
 1) normally  
 2) abnormally  
 3) normally or abnormally  
 4) none of the above
40. For implementing a multiprogramming operating system  
 1) special support from processor is essential  
 2) special support from processor is not essential  
 3) cache memory must be available  
 4) more than one processor must be available

### PRACTICE SET - II KEY

01-3	02-3	03-2	04-4	05-2
06-1	07-3	08-3	09-1	10-3
11-3	12-3	13-2	14-1	15-2
16-2	17-4	18-1	19-4	20-2
21-4	22-1	23-3	24-2	25-2
26-3	27-4	28-4	29-2	30-1
31-3	32-3	33-1	34-1	35-2
36-4	37-2	38-3	39-3	40-2

### PRACTICE SET - III

01. Fragmentation is  
 1) Dividing the Secondary memory into equal size fragments  
 2) Dividing the main memory into equal size of fragments  
 3) Fragments of memory words used in a page  
 4) fragments of memory unused in a page
02. Dirty bit is used to show the  
 1) Page with corrupted the  
 2) Wrong page in memory  
 3) Page that is modified after being loaded into cache memory  
 4) None of the above
03. Banker's algorithm is the strategy used for  
 1) Deadlock Detection  
 2) Deadlock Prevention  
 3) Deadlock Avoidance  
 4) Deadlock Recovery
04. CPU scheduling determines which programs are admitted to the system for processing.  
 1) Long term                    2) Medium Term  
 3) I/O                            4) Short Term
05. The page replacement policy that sometimes leads to more faults when the size of the memory is increased is  
 1) FIFO    2) LRU    3) No such policy exists  
 4) None
06. critical region is  
 1) A part of the operating system which is not allowed to be accessed by any process  
 2) A set of instructions that access common shared resource which exclude one another in time  
 3) The portion of them in memory which can be accessed only by one process at a time  
 4) none of the above
07. The output of Lexical analyzer is  
 1) a set regular expressions  
 2) syntax tree                    3) set of tokens  
 4) string of characters
08. Output in an Assembler is  
 1) source code                    2) assembly code  
 3) intermediate code            4) machine code
09. An assembler is  
 1) programming language dependent  
 2) syntax dependent  
 3) machine dependant  
 4) data dependant
10. Which of the following is not a fundamental process state  
 1) ready                            2) terminated  
 3) executing                      4) blocked
11. 'LRU' page replacement policy is  
 1) Last Replaced Unit    2) Last Restored Unit  
 3) Least Recently Used  
 4) Least Required Unit
12. Which of the following loader is executed when a system is first turned on or restarted  
 1) Boot loader  
 2) Compile and Go loader  
 3) Bootstrap loader            4) Relating loader
13. Poor response time is usually caused by  
 1) Process busy                2) High I/O rates  
 3) High paging rates  
 4) Any of the above
14. "Throughput" of a system is  
 1) Number of programs processed by it per unit time  
 2) Number of times the program is invoked by the system  
 3) Number of requests made to a program by the system    4) None of the above
15. Nested Macro calls are expanded using the  
 1) FIFO rule (First in first out)  
 2) LIFO (Last in Fist out)  
 3) FILO rule (First in last out)  
 4) None of the above
16. A linker program  
 1) places the program in the memory for the purpose of execution  
 2) relocates the program to execute from the specific memory area allocated to it.  
 3) links the program with other programs needed for its execution  
 4) interfaces the program with the entities generating its input data.
17. Which scheduling policy is most suitable for a time-shared operating system  
 1) Shortest-job First    2) Elevator  
 3) Round-Robin  
 4) First-Come-First-Serve
18. A critical section is a program segment  
 1) which should run in a certain specified amount of time  
 2) which avoids deadlocks  
 3) Where shared resources are accessed.  
 4) which must be enclosed by a pair of semaphore operations, P and V.

19. TII stands for  
 1) Table of incomplete instructions  
 2) table of information instructions  
 3) translation of instructions information  
 4) translation of information instruction
20. The field that contains a segment index or an internal index is called  
 1) target datum      2) target offset  
 3) segment field      4) fix dat
21. A program in execution is called  
 1) process      2) function  
 3) CPU      4) Memory
22. SSTF stands for  
 1) Shortest-seek-time-first scheduling  
 2) small-small-time-first  
 3) simple-seek-time-first scheduling  
 4) small-simple-time-first
23. Before proceeding with its execution, each process must acquire all the resources it needs is called  
 1) hold and wait      2) No pre-emption  
 3) circular wait      4) starvation
24. Resolution of externally defined symbols is performed by  
 1) Linker      2) Loader  
 3) Compiler      4) Editor
25. Relocatable programs  
 1) cannot be used with fixed partitions  
 2) can be loaded almost anywhere in memory  
 3) do not need a linker  
 4) can be loaded only at one specific location
26. To avoid race condition, the maximum number of processes that may be simultaneously inside the critical section is  
 1) zero      2) one  
 3) two      4) more than two
27. In which of the following page replacement policies Balady's anomaly occurs ?  
 1) FIFO    2) LRU    3) LFU    4) NRU
28. \_\_\_\_\_ is a technique of temporarily removing inactive programs from the memory of computer system  
 1) Swapping      2) Spooling  
 3) Semaphore      4) Scheduler
29. \_\_\_\_\_ is a technique of improving the priority of process waiting in Queue for CPU allocation  
 1) Starvation      2) Ageing  
 3) Revocation      4) Relocation
30. File record length  
 1) Should always be fixed  
 2) Should always be variable  
 3) Depends upon the size of file  
 4) Should be chosen to match the data characteristics
31. If the property of locality of reference is well pronounced in a program  
 1) the number of page faults will be more  
 2) the number of page faults will be less  
 3) the number of page faults will remain the same  
 4) none of these
32. At a particular time of computation, the value of counting semaphore is 7. Then 20 P operations and 'x' V operations were completed on this semaphore. If the final value of the semaphore is 5, x will be  
 1) 15      2) 22      3) 18      4) 13
33. Sector interleaving in disks is done by  
 1) the disk manufacturer  
 2) the disk controller card  
 3) the operating system  
 4) none of the above
34. Memory protection is of no use in a  
 1) single user system  
 2) non-multiprogramming system  
 3) non-multitasking system  
 4) none of the above
35. Disk scheduling involves deciding  
 1) which disk should be accessed next  
 2) the order in which disk access requests must be serviced  
 3) the physical location where files should be accessed in the disk  
 4) none of the above

### PRACTICE SET - III KEY

01-4	02-3	03-3	04-1	05-1
06-2	07-3	08-4	09-3	10-4
11-3	12-3	13-4	14-1	15-2
16-3	17-3	18-3	19-1	20-1
21-1	22-1	23-1	24-1	25-2
26-2	27-1	28-1	29-2	30-4
31-2	32-3	33-3	34-4	35-2

## SELF TEST

- 01.** Scheduling is  
 1) Allowing jobs to use the processor  
 2) Unrelated to performance consideration  
 3) Not required in uni processor systems 4) The same regardless of the purpose of the system
- 02.** Object code  
 1) is ready to execute  
 2) is the output of compilers but not assemblers  
 3) must be loaded before execution  
 4) must be rewritten before execution
- 03.** \_\_\_\_\_ is a collection of related fields.  
 1) file                    2) database  
 3) record                4) none
- 04.** The time it takes for the beginning of the sector to reach the head is known as \_\_\_\_\_  
 1) Access time            2) Seek time  
 3) Rotational Delay      4) Disk time
- 05.** RAID stands for \_\_\_\_\_  
 1) Reduced Array of Independent Disks  
 2) Redundant Array of Integrated Disks  
 3) Redundant Array of Inexpensive Disks  
 4) Reduced Array of Inexpensive Disks
- 06.** Dynamic partitioning suffers from \_\_\_\_\_ issue  
 1) Internal fragmentation  
 2) External fragmentation  
 3) Compaction  
 4) None
- 07.** File record length  
 1) should always be fixed  
 2) should always be variable  
 3) depends upon the size of the file  
 4) should be chosen to match the data characteristics
- 08.** Dijkstra's banking algorithm in an operating system solves the problem of  
 1) deadlock avoidance  
 2) deadlock recovery    3) Mutual Exclusion  
 4) Contextswitching
- 09.** Necessary conditions for deadlock are  
 1) non preemption and circular wait  
 2) mutual exclusion and partial location  
 3) both 1 and 2  
 4) none of the above
- 10.** Which of the following is a service not supported by the operating system  
 1) Protection            2) Accounting  
 3) Compilation          4) I/O operation
- 11.** The page replacement policy that sometimes leads to more page faults when the size of the memory is increased is  
 1) FIFO                    2) LRU  
 3) No such policy exists  
 4) None of the above
- 12.** Memory protection is normally done by  
 1) The processor and the associated hardware  
 2) The operating system  
 3) The compiler            4) The user program
- 13.** The scheduling in which CPU is allocated to the process with least CPU-burst time is called  
 1) Priority Scheduling  
 2) Shortest job first Scheduling  
 3) Round Robin Scheduling  
 4) Multilevel Queue Scheduling
- 14.** The term 'page traffic' describes  
 1) number of pages in memory at a given instant  
 2) number of papers required to be brought in at a given page request  
 3) the movement of pages in and out of memory  
 4) number of pages of executing programs loaded in memory.
- 15.** The 'turn-around' time of a user job is the  
 1) time since its submission to the time its results become available  
 2) time duration for which the CPU is allotted to the job  
 3) total time taken to execute the job  
 4) time taken for the job to move from assembly phase to completion phase
- 16.** Memory utilization factor shall be computed as follows  
 1) memory in use/allocated memory  
 2) memory in use/total memory connected  
 3) memory allocated / free existing memory  
 4) memory committed / total memory available
- 17.** Program 'preemption' is  
 1) forced de allocation of the CPU from a program which is executing on the CPU  
 2) release of CPU by the program after completing its task  
 3) forced allotment of CPU by a program to itself  
 4) a program terminating itself due to detection of an error.
- 18.** \_\_\_\_\_ is the time required by a sector to reach below read/write head  
 1) Seek Time            2) Latency Time  
 3) Access Time          4) None

19. Fragmentation is  
 1) dividing the secondary memory into equal sized fragments  
 2) dividing the memory into equal - sized fragments  
 3) fragments of memory words used in a page  
 4) fragments of memory words unused in a page
20. Which of the following are real - time systems ?  
 1) An online railway reservation system  
 2) A process control system  
 3) Payroll processing system  
 4) None of these
21. Dijkstra's banking algorithm in an operating system solves the problem of  
 1) deadlock avoidance  
 2) deadlock recovery  
 3) mutual exclusion  
 4) context switching
22. Critical region is  
 1) a part of the operating system which is not allowed to be accessed by any process  
 2) a set of instruction that access common shared resource which exclude one another in time  
 3) the portion of the main memory which can be accessed only by one process at a time  
 4) none of the above
23. Kernel is  
 1) considered as the critical part of the operating system  
 2) the software which monitors the operating system  
 3) the set of primitive functions upon which the rest of operating system functions are built up  
 4) none of the above
24. With a single resource, deadlock occurs  
 1) if there are more than two processes competing for that resource  
 2) If there are only two processes competing for that resource  
 3) if there is a single processes competing for that resource  
 4) none of the above
25. Necessary conditions for deadlock are  
 1) non-preemption and circular wait  
 2) Mutual exclusion and partial allocation  
 3) both 1 and 2      4) none of the above
26. Pre-emptive scheduling is the strategy of temporarily suspending a running process  
 1) before the CPU time slice expires  
 2) to allow starving processes to run  
 3) when it requests I/O  
 4) none of the above
27. Mutual exclusion problem occurs  
 1) between two disjoint processes that do not interact  
 2) among processes that share resources  
 3) among processes that do not use the same resource  
 4) none of the above
28. In paged memory systems, if the page size is increased, then the internal fragmentation generally  
 1) becomes less      2) becomes more  
 3) remains constant  
 4) none of the above
29. 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  
 1) 3      2) 4      3) 5      4) 6
30. In a time-sharing operating system, when the time slot given to process is completed, the process goes from the RUNNING state to the  
 1) BLOCKED state  
 2) READY state      3) SUSPENDED state  
 4) TERMINATED state
31. Semaphores are used to solve the problem of  
 1) race condition  
 2) process synchronization  
 3) process condition  
 4) none of these
32. Dirty bit is used to show the  
 1) page with corrupted data  
 2) wrong page in the memory  
 3) page that is modified after being loaded into cache memory  
 4) page that is less frequently accessed
33. Thrashing  
 1) reduces page I/O  
 2) decreases the degree of multiprogramming  
 3) implies excessive page I/O  
 4) Improves the system performance
34. In which one of the following page replacement policies, Belady's anomaly may occur ?  
 1) FIFO      3) Optimal      3) LRU      4) MRU

35. When an interrupt occurs, an operating system
- ignores the interrupt
  - always changes the state of the interrupted process after processing the interrupt
  - always resumes execution of the interrupted process after processing the interrupt
  - may change the state of the interrupted process to "blocked" and schedule another process

### SELF TEST KEY

01-1	02-3	03-3	04-3	05-3
06-2	07-4	08-1	09-3	10-3
11-1	12-2	13-2	14-3	15-3
16-2	17-1	18-2	19-4	20-2
21-1	22-2	23-3	24-4	25-3
26-1	27-2	28-2	29-2	30-2
31-2	32-3	33-3	34-1	35-4

### PREVIOUS ECET BITS

#### ECET-2009

01. One of the true problems with priority scheduling is
- Aging
  - Decrease in throughput
  - Starvation
  - Content switch overhead
02. On a disk with 8 records per track where a file is stored starting at track 0, record 14 is found on track
- 0
  - 1
  - 2
  - 3
03. Which of the following page replacement algorithm is expensive to implement?
- FIFO
  - LRU
  - LFU
  - aging
04. In round robin scheduling usage of CPU can be less effective if
- Short quantum
  - Long quantum
  - Small queue size
  - Long queue size
05. Given a record size of 120 and block size of 1200, what is the blocking factor?
- 10
  - 15
  - 20
  - 25
06. Threads belonging to the same process share
- Stack
  - Data section
  - Register set
  - Thread ID
07. Most deadlock in operating systems develop because of normal contention of
- Dedicated resource
  - Processors
  - Main memory
  - Device drivers

#### ECET -2010

08. Allocate and free main memory is a type of system call for
- Process control
  - File Management
  - Information Maintenance
  - Device Management
09. Attach or detach remote devices is the following type of system call
- Process control
  - Device Management
  - File Management
  - Communications
10. The fork system call in UNIX
- Creates new process
  - Invokes job scheduler
  - Invokes CPU scheduler
  - Executes new process
11. Mail box provides
- Direct communication for IPC
  - Indirect communication for IPC
  - Process cooperation
  - Process scheduling
12. Disadvantages of the fixed partitioning of memory is
- Internal fragmentation
  - Internal segmentation
  - External monitoring
  - External segmentation
13. Select the method which is not used for free space management
- Linked list
  - Bit vector
  - Counting
  - Inverted list
14. The following algorithm is also called elevator algorithm
- SSTF scheduling
  - SCAN scheduling
  - LOOK scheduling
  - FCFS scheduling
15. The following disk scheduling algorithm performs better for systems that place heavy load on the disc
- C-SCAN
  - SSTF
  - FCFS
  - LOOK
16. Which of the following page replacement algorithms exhibits Belady's anomaly
- FIFO
  - LRU
  - LFU
  - Optimal page Replacement
17. To avoid race condition the number of processes that can be allowed to be simultaneously inside the critical section is
- 0
  - All
  - 1
  - 3

### ECET -2011

18. Which of the following are shared between a parent process and a child process?  
 1) External variables  
 2) Local variables    3) Pointer variables  
 4) Pipes
19. \_\_\_\_\_ removes a deadlock by aborting some processes so that other processes involved in the deadlock can resume their operation  
 1) Deadlock resolution  
 2) Deadlock detection  
 3) Deadlock occurrence  
 4) Deadlock avoidance
20. The sleeping barber problem is an example of  
 1) deadlock            2) starvation  
 3) semaphore        4) live lock
21. Interrupt disabling is not possible in a \_\_\_\_\_  
 1) uniprocessor architecture  
 2) multiprocessor architecture  
 3) multiprogramming architecture  
 4) uniprogramming architecture
22. A user process enters kernel mode by issuing a \_\_\_\_\_ when an exception is generated  
 1) program            2) routine  
 3) handler          4) system call
23. Round Robin is the preemptive version of  
 1) FIFO    2) LCFS    3) SJF    4) FCLS
24. \_\_\_\_\_ are used to keep track of both main and secondary memory  
 1) Process tables    2) File tables  
 3) Memory tables    4) I/O tables
- ECET -2012**
25. What is meant by a Process ?  
 1) A program written in high level language and stored on the disk  
 2) A program is execution  
 3) A job stored in the secondary memory  
 4) A job available in the main memory
26. A computer system cannot boot if the \_\_\_\_\_ is not available on it  
 1) Loader            2) Linker  
 3) Interpreter       4) Operating System
27. What is the use of Job Control Language (JCL) statements ?  
 1) Allocate the CPU to a job  
 2) Read the input from one device to another device
28. 3) Inform the OS, the start and end of a job in a batch  
 4) For managing the memory  
 Which strategy allows the processes that are logically runnable to be temporarily suspended?  
 1) Shortest Job First  
 2) First come First served  
 3) Non-preemptive scheduling  
 4) Round Robin
29. \_\_\_\_\_ algorithm executes the shortest job first that has entered the queue of jobs  
 1) FIFO              2) SJF  
 3) Round Robin      4) LIFO
30. Fragmentation of the file system can be temporarily avoided by  
 1) Thrashing          2) CPU scheduling  
 3) Compaction       4) I/O devices scheduling
31. What is a page fault?  
 1) An error that occurs while a program accesses a page in the memory  
 2) An access to a page that is currently not available in the memory  
 3) A reference to a page of another program  
 4) An error which is page specific
32. Belady's Anomaly is a behaviour of \_\_\_\_\_ page replacement algorithm.  
 1) Optimal           2) LRU  
 3) Circular FIFO   4) FIFO
33. What is the special software used to create a job queue?  
 1) Device driver     2) Spooler  
 3) Linker            4) Loader
34. Which of the following is an advantage of virtual memory?  
 1) Processes can be given priority  
 2) Programs larger than the physical memory size can be run  
 3) Faster access to memory on an average  
 4) Linker can assign addresses independent of where the program will be loaded in physical memory
35. Which of the following is an advantage of memory interleaving  
 1) A large memory is obtained  
 2) A non-volatile memory is obtained  
 3) The cost of the memory is reduced  
 4) Effective speed of the memory is increased

### ECET -2013

36. The LRU algorithm \_\_\_\_\_  
 1) Pages out pages that have been used recently  
 2) Pages out pages that have not been used recently  
 3) Pages out pages that have been least used recently  
 4) Pages out pages that used least in the given
37. Thrashing can be avoided if \_\_\_\_\_  
 1) The pages, belonging to the working set of program, are in the main memory  
 2) The speed of I/O process is increased  
 3) The speed of CPU is increased  
 4) The capacity of memory is decreased
38. In which of storage placement strategies a program is placed in the largest available hole in the memory  
 1) Best fit 2) First fit  
 3) Large fit 4) Worst fit
39. PCB represents for \_\_\_\_\_  
 1) Process Control Block  
 2) Program Control Block  
 3) Process Count Block  
 4) Program Count Block
40. In which of the following memory management technique the problem of internal fragmentation is present  
 1) Segmentation 2) Paging  
 3) Both paging and segmentation  
 4) Neither paging nor segmentation
41. Name of the I/o scheduling algorithm that moves the head in one direction until all requests have been serviced and then reverse.  
 1) FCFS 2) C-SCAN  
 3) SCAN 4) Greedy
42. The cylinder skew problem is concerned with which of the following ?  
 1) Semaphore 2) Thrashing  
 3) Interleaving 4) Deadlock
43. Which of the following is a free space management technique.  
 1) Paging 2) Bitmap  
 3) Segmentation 4) Demand paging
44. Round robin scheduling is essentially the preemptive version of  
 1) FIFO 2) Shortest job first  
 3) Shortest remaining  
 4) Longest time first
45. The mechanism that bring a page into memory only when it is needed is called  
 1) Segmentation 2) Fragmentation  
 3) Demand Paging 4) Page Replacement
46. Which of the following disk scheduling techniques has a drawback of starvation ?  
 1) SCAN 2) SSTF  
 3) FCFS 4) LIFO
47. Virtual memory is \_\_\_\_\_  
 1) An extreme large main memory  
 2) An extreme large secondary memory  
 3) An illusion of extreme large main memory  
 4) An extension of secondary memory
48. The essential content in each entry of a page table is  
 1) Virtual page number  
 2) Page frame number  
 3) Both virtual page number and page frame number  
 4) Access right information
49. Which of the following algorithm is the solution of critical - section problem which contains concurrent processes ?  
 1) SJF algorithm  
 2) Lamport's bakery algorithm  
 3) Leu algorithm  
 4) Banker's algorithm
50. To avoid race conditions, the number of processes may be simultaneously inside their critical section is  
 1) 1 2) 2 3) 16 4) 32

### ECET -2014

51. Which one of the following is not a Real time operating system ?  
 1) VxWorks 2) Windows CE  
 3) RTLinux 4) Palm OS
52. To access the service of operating system, the interface is provided by the  
 1) System calls 2) API  
 3) Library  
 4) Assembly instructions
53. What is a long-term scheduler ?  
 1) It selects which process has to be brought into the ready queue  
 2) It selects which process has to be executed next and allocates CPU  
 3) It selects which process to remove from memory by swapping  
 4) It selects which process has to be brought into the Blocked process

54. Time quantum is defined in  
 1) Shortest job scheduling algorithm  
 2) Round robin scheduling algorithm  
 3) Priority scheduling algorithm  
 4) Multilevel queue scheduling algorithm
55. The strategy of making process that are logically runnable to be temporarily suspended is called :  
 1) Non preemptive scheduling  
 2) Preemptive scheduling  
 3) Shortest job first  
 4) First come first served
56. The most optimal scheduling algorithm is :  
 1) FCFS - First Come First Served  
 2) SJF - Shortest Job First  
 3) RR - Round Robin  
 4) LCFS - Last Come First Serve
57. Consider the following set of processes, the length of the CPU burst time given in milliseconds :  

Process	Burst time
P1	6
P2	8
P3	7
P4	3

 Assuming the above process being scheduled with the SJF scheduling algorithm :  
 1) The waiting time for process P1 is 3ms.  
 2) The waiting time for process P1 is 0ms  
 3) The waiting time for process P1 is 16ms  
 4) The waiting time for process P1 is 9ms
58. Which one of the following is the deadlock avoidance algorithm ?  
 1) Banker's algorithm  
 2) Round - robin algorithm  
 3) Elevator algorithm  
 4) Karn's algorithm
59. In fixed sized partition, the degree of multiprogramming is bounded by \_\_\_\_\_  
 1) The number of partitions  
 2) The CPU utilization  
 3) The memory size      4) BOIS
60. A process refers to 5 pages, A,B,C,D,E, in the order : A,B,C,D,A,B,E,A,B,C,D,E. If the page replacement algorithm is FIFO, the number of page transfers with an empty internal store of 3 frames is :  
 1) 8      2) 10      3) 9      4) 7
61. Consider a disk queue with requests for I/O blocks on cylinders :  
 98, 183, 37, 122, 14, 124, 65, 67  
 Considering FCFS (first cum first served) scheduling, the total number of head movements is, if the disk head is initially at 53 :  
 1) 600    2) 620    3) 630    4) 640
62. On systems where there are multiple operating system, the decision to load a particular one is done by :  
 1) Boot leader      2) Boot strap  
 3) Process control block 4) File control block
63. The scheduler which determines when processes are to be suspended and resumed.  
 1) Short- term scheduler  
 2) Long-term scheduler  
 3) Medium - term scheduler  
 4) Job scheduler
64. Which of the following is not a disk scheduling algorithm.  
 1) SSTF      2) C-SCAN  
 3) SRTF      4) LOOK
65. A running program requests the service from the kernel of the operating system using a \_\_\_\_\_  
 1) System call  
 2) Function call  
 3) Procedure call      4) Remote call

#### AP - ECET - 2015

66. Files of windows operating system are stored in the following folder  
 1) administrative tools    2) program files  
 3) control panel      4) system 32
67. The following is not a process state  
 1) ready  
 2) communicating    3) running    4) blocked
68. A process is  
 1) a subset of associated threads  
 2) a super set of associated threads  
 3) totally independent of threads  
 4) a hardware feature
69. Internal fragmentation results when  
 1) segmented memory management is used  
 2) paged memory management is used  
 3) cache management is used  
 4) RAID disks are used
70. In segmented memory management, the physical address is computed by  
 1) adding base address of a code segment to the offset of the data segment  
 2) adding all logical addresses

3) adding segment offset to the segment base address  
4) accessing free space list

71. Elevator algorithm is used in

- 1) CPU scheduling
- 2) deadlock prevention
- 3) disk interface
- 4) cache management

72. The following is not an operating system service

- 1) program execution
- 2) controlling I/O devices
- 3) user interface
- 4) debugging

73. All modern operating systems are

- 1) multi threading
- 2) open source
- 3) single user
- 4) debugging

74. Configuration information in windows operating

system is located in

- 1) .sys file
- 2) CMOS memory
- 3) track 0 of the hard disk
- 4) the registry

#### TS-ECET - 2015

75. Which of the following scheduling policies is best suitable for time shared operating systems

- 1) first come first serve
- 2) round robin
- 3) Shortest job first
- 4) largest job first

76. A critical section is a part of a program

1) that should run in a certain specified amount of time

2) that avoids deadlocks

3) where shared resources are accessed

4) that is a critical part of the operating system

77. Which among the following is NOT a valid page replacement policy

- 1) least recently used
- 2) first in first out
- 3) optimal page replacement policy
- 4) rarely used

78. A process is a

- 1) program in main memory
- 2) program in secondary memory

- 3) method
- 4) program in execution

79. To avoid race condition, the maximum, the maximum number of processes that may be simultaneously inside the critical section is

- 1) zero
- 2) one
- 3) two
- 4) more than two

80. "External" fragmentation occurs in

- 1) segmentation
- 2) swapping
- 3) pure demand paging
- 4) paging

81. In which of the following page replacement policies Belady's anomaly occurs

- 1) SFU
- 2) LRU
- 3) LFU
- 4) FIFO

82. Which of the following techniques is used for increasing the priority of a waiting process

- 1) revocation
- 2) aging
- 3) relocation
- 4) swapping

83. Using LRU algorithm, find the number of page faults that occur when references to the pages occur in the order 1, 2, 4, 5, 2, 1, 2, 3. Assume that the main memory can accommodate 3 pages and memory already has pages 1 and 2 in it. Page 1 is brought earlier than page 2.

- 1) 2
- 2) 3
- 3) 4
- 4) 5

84. Overlaying is a

- 1) method to increase the size of the main memory
- 2) programming method that allows programs to be larger than the computer's main memory
- 3) a method to increase logical memory
- 4) a method to increase both main memory and logical memory

85. Dirty bit is used to indicate

- 1) page that is rarely accessed
- 2) page with corrupted data
- 3) page with unused data
- 4) page that is modified after being loaded into cache memory

86. Context switching never takes place in

- 1) round robin scheduling
- 2) pre-emptive scheduling
- 3) first come first serve scheduling
- 4) preemptive shortest job first scheduling

87. Thrashing occurs due to

- 1) decrease in degree of multiprogramming
- 2) increase in degree of multiprogramming
- 3) increase in size of virtual memory
- 4) decrease in size of virtual memory

88. Computer system has 6 units of resource type R, which are shared by n competing processes. Each process may need 3 units of resource of type R. What is the maximum value of n for which the system is guaranteed to be deadlock-free

- 1) 1
- 2) 2
- 3) 3
- 4) 4

89. In time sharing operating system, when the time slot given to a process is completed, the process goes from RUNNING state to \_\_\_\_\_ state  
 1) BLOCKED      2) SUSPENDED  
 3) TERMINATED    4) READY
90. Dirty bit is used to show the  
 1) page with corrupted data  
 2) wrong page in the memory  
 3) page that is modified after being loaded into cache memory  
 4) page that is less frequently accessed
91. In which one of the following page replacement policies, belady's anomaly may occur  
 1) FCFS            2) SJF  
 3) round-robin     4) priority
92. If there are 32 segments, each of size 1 kbytes, then the logical address should have  
 1) 13 bits        2) 14 bits  
 3) 15 bits        4) 16 bits
93. Thrashing  
 1) reduces page I/O  
 2) decreases the degree of multiprogramming  
 3) implies excessive performance  
 4) improves the system performance
94. Windows 98 operating system is a  
 1) single user system    2) multi user system  
 3) single tasking system  
 4) multi tasking system
95. In semaphore when the order of processes that are waiting to be removed from the queue is first in first out (FIFO) then it is called \_\_\_\_\_ semaphore  
 1) weak            2) strong  
 3) binary          4) counted
96. Which of the following is a service not supported by the operating system  
 1) protection      2) memory protection  
 3) compilation     4) I/O operation
97. Page fault occurs due to the following  
 1) the page is in main memory  
 2) the page is not in main memory  
 3) one tries to divide a number by 0  
 4) the page is corrupted by application software
98. Let the page fault service time to 10ms in a computer with average memory access time being 20 ns. If one page fault is generated for every  $10^6$  memory accesses, what is the effective access time for te memory  
 1) 21ns    2) 23ns    3) 30ns    4) 35ns

99. An operating system contains 3 user processes each requiring 2 units of resource R. The minimum number of required units of R such that no deadlock will ever occur is  
 1) 4      2) 3      3) 5      4) 6

TS - ECET - 2016

100. The sequence of page addresses generated by a program is 7, 0, 1, 2, 0, 3, 0, 4, 2 and 3. This program is to be executed on a system with main memory size of 3 pages. If first in first out (FIFO) page replacement alogorithm is used, then how many number of page faults occur  
 1) 10      2) 9      3) 11      4) 12
101. An operating system uses shortest remaining time (SRT) process scheduling algorithm. Consider the arrival times and execution times for the following processes
- | process | execution time | arrival time |
|---------|----------------|--------------|
| P1      | 20             | 0            |
| P2      | 25             | 15           |
| P3      | 10             | 30           |
| P4      | 15             | 45           |
- What is the total waiting time for process P2  
 1) 15      2) 5      3) 40      4) 55
102. Consider a system with Logical address space as 256 M words and physcial address space as 512 K words ans physical space as 2K words. Then, find the number of pages  
 1) 128K      2) 120K  
 3) 130K      4) 140K
103. A critical section is a program segment  
 1) which should run in a certain specified amount of time  
 2) which avoids deadlocks  
 3) where shared resources are accessed  
 4) which must be enclosed by a pair of semaphores operation
104. Which of the following memory allocation scheme suffers from external fragmentaton  
 1) paging      2) segmentation  
 3) swapping    4) pure demand paging
105. Consider a job scheduling problem with 4 job J1, J2, J3, J4 and corresponding deadlines (d<sub>1</sub>, d<sub>2</sub>, d<sub>3</sub>, d<sub>4</sub>) = (4, 2, 4, 2). Which of the following is not a feasible schedule without violating any job dead line  
 1) J2, J4, J1, J3      2) J4, J1, J2, J3  
 3) J4, J2, J3, J1      4) J4, J2, J1, J3

106. Which of the following is correct in case of page fault and cache miss  
 1) page fault is hardware fault and cache miss is software fault  
 2) page fault is software fault and cache miss is hardware fault  
 3) page fault and cache miss are same  
 4) page fault generated cache miss
107. Which one of the following CPU scheduling algorithm leads to starvation problem  
 1) FIFO                    2) round robin  
 3) SJF                    4) preemptive
108. To avoid the race condition, how many number of processes that may be simultaneously running in the critical section  
 1) one                    2) two  
 3) three                  4) four
109. The process of switching the CPU to another process requires to save state of the old process and loading new process stat is called as  
 1) process blocking  
 2) context switching  
 3) thrashing              4) polling
110. Which scheduling policy is most suitable for a time-shared operating system  
 1) shortest-job first    2) priority-based  
 3) round-robin  
 4) first-come-first-serve
111. An operating system contains 3 user processes each requiring 2 units of resource R. The minimum number of units of R such that no deadlocks will ever arise is  
 1) 4                      2) 3                    3) 5                    4) 6
112. CPU burst time indicates the time, the process needs the CPU. The following are the set of processes with their respective CPU burst time (in millisconds)
- | processes | CPU-burst time |
|-----------|----------------|
| P1        | 10             |
| P2        | 5              |
| P3        | 5              |
- what is the average waiting time if the process arrived in the following order: P2, P3 & P1  
 1) 5                    2) 4                    3) 20                4) 10
113. Program 'preemption' is  
 1) forced deallocation of the CPU from a program which is executing on the CPU  
 2) release of CPU by the program after completing its task  
 3) forced allotment of CPU by a program to itself  
 4) a program terminating itself due to detection of an error
114. In which of the following page replacement policies balady's anomaly occurs  
 1) FIFO    2) LRU    3) LFU    4) MRU
- AP-ECET - 2017**
115. Which of the following is not service of operating system  
 1) user interface            2) I/O operations  
 3) communications  
 4) provides drivers of applications software
116. Which of the following state is initiated by the process itself  
 1) running    2) ready    3) suspend    4) block
117. A process which has just terminated but has yet to relinquish its resources is called  
 1) running process  
 2) suspended process  
 3) zombie process            4) blocked process
118. System calls are usually invoked by using  
 1) software interrupts    2) polling  
 3) privileged interrupts    4) test editor
119. At a particular time of computation, the value of a counting semaphore is 5. After 10P operations were completed on this semaphore followed by 15V operations, the resulting value of the semaphore is  
 1) 10                    2) 15                    3) 20                    4) 25
120. An operating system contains 5 user processes each requiring 3 units of resource 'R'. The minimum number of units of R such that no deadlock will occur  
 1) 5                    2) 7                    3) 9                    4) hub
121. A system supports 8K pages of 512 bytes each in the virtual address space. Main memory contains 1K frames. The number of bits of logical and physical address  
 1) 19,22                    2) 22,19  
 3) 19, 19                    4) 22, 22
122. Because of a single job could not keep both the CPU and the I/O devices busy which of the following techniques is introduced  
 1) scheduling              2) multithreading  
 3) spooling  
 4) multiprogramming

- 123.** Which of the following is the visible portion of operating system  
 1) deadlock handler  
 2) process scheduler  
 3) file system  
 4) memory management
- 124.** Which of the following disc scheduling algorithm may suffer from belady's  
 1) FIFO                    2) LRU  
 3) MFU                    4) LFU
- 125.** Which of the following approach may be invoked periodically to test for the deadlock  
 1) deadlock avoidance  
 2) deadlock prevention  
 3) deadlock detection  
 4) deadlock ignorance
- 126.** The primary job of operating system is  
 1) manage commands  
 2) manage users  
 3) manage programs  
 4) manage resources

#### **TS - ECET - 2017**

- 127.** For a particular code to be shareable, it should be \_\_\_\_\_  
 1) serially executing code  
 2) reusable code  
 3) reentrant code  
 4) reducible code
- 128.** Dijkstra's bankers algorithm in an operating system solves the problem of \_\_\_\_\_  
 1) deadlock avoidance  
 2) deadlock detection  
 3) mutual exclusion        4) page replacement
- 129.** At a particular time of computation the value of a counting semaphore is 5. Then 20P operations and 18V operations are performed on that semaphore. What is the final value of the semaphore  
 1) 2                    2) 3                    3) -2                    4) -3
- 130.** When the result of a computation depends on the speed and order of execution of processes involved, then it is said to be a \_\_\_\_\_  
 1) deadlock                    2) critical section  
 3) race condition            4) memory leak
- 131.** During context switching which of the following need not be saved  
 1) general purpose registers  
 2) program counter  
 3) stack pointer  
 4) translation-look-aside buffer
- 132.** The root directory of a file system should be placed \_\_\_\_\_  
 1) at a fixed address in main memory  
 2) at a fixed location in the file system
- 133.** Using a larger block size in a file system leads to \_\_\_\_\_  
 1) better disk throughput but poorer disk space utilization  
 2) better disk throughput and better disk space utilization  
 3) poorer disk throughput but better disk space utilization  
 4) poorer disk throughput and poorer disk space utilization
- 134.** In which one of the following replacement algorithms, belady's anomaly may occur  
 1) optimal                    2) LRU  
 3) MFU                            4) FIFO
- 135.** Consider a machine with 64MB physical memory and 32-bit virtual address space. If the page size is 4KB and one page table entry occupies 4-bytes, what is the size of the page table  
 1) 4MB                    2) 8MB                    3) 16MB                    4) 2MB
- 136.** Where does swap space reside  
 1) RAM                            2) ROM  
 3) DISK                            4) cache memory
- 137.** Sector interleaving in a disk is done by \_\_\_\_\_  
 1) the disk manufacturer  
 2) disk controller  
 3) the operating system  
 4) the user
- 138.** Which one of the following methods, for storing free block information, require additional space to be reserved  
 1) bit vector                    2) linked list  
 3) grouping                            4) counting
- 139.** Which of the following disk scheduling algorithm gives the best throughput  
 1) FCFS                            2) SCAN  
 3) LOOK                                    4) SSTF
- 140.** In UNIX traditional scheduling \_\_\_\_\_  
 1) a CPU-bound process is given higher priority than an I/O bound process  
 2) an I/O bound process is given higher priority than a CPU-bound process  
 3) both CPU-bound and I/O-bound processes are given equal priority  
 4) it depends on the current load on the system

#### **AP - ECET - 2018**

- 141.** The processes that are residing in main memory and are ready and waiting to execute are kept on a list called  
 1) job queue                    2) ready queue  
 3) execution queue            4) process queue

142. Processes are executed in the sequence they arrive if \_\_\_\_\_ rule sequences the jobs.  
 1) earliest due date  
 2) slack time remaining  
 3) first come first served 4) critical ratio
143. A system program that combines the separately compiled modules of a program into a form suitable for execution is  
 1) assembler 2) linking loader  
 3) cross compiler 4) load and go
144. In which addressing mode the contents of a register specified in the instruction are first decremented, and then these contents are used as the effective address of the operands  
 1) index addressing 2) indirect addressing  
 3) auto increment 4) auto decrement
145. A deadlock avoidance algorithm dynamically examines the \_\_\_\_\_ to ensure that a circular wait condition can never exist  
 1) resource allocation state  
 2) system storage state  
 3) operating system 4) resources
146. The disadvantage of invoking the detection algorithm for every request is:  
 1) overhead of the detection algorithm due to consumption of memory  
 2) excessive time consumed in the request to be allocated memory  
 3) considerable overhead in computation time  
 4) either deadlock exists or system is in a safe state
147. A ..... on free space management has the advantage that it is relatively easy to find one or a contiguous group of free blocks  
 1) bit table 2) chained free portion  
 3) indexing 4) free block list
148. The memory which allocates space for DOS and application is called \_\_\_\_\_  
 1) expanded memory  
 2) cache memory  
 3) virtual memory  
 4) conventional memory
149. Which of the following statements is false  
 1) you can find deleted files in recycle bin  
 2) you can restore any files in recycle bin if you ever need  
 3) you can increase free space of disk by sending files in recycle bin  
 4) you can right click and choose empty recycle bin to clean it at once
150. Which menu bar selection would you access to open file  
 1) option 2) help  
 3) view 4) tool
151. The primary purpose of an operating system is  
 1) to make the most efficient use of the computer hardware  
 2) to allow people to use the computer  
 3) to keep systems programmers employed  
 4) to make computers easier to use
152. Which of the following is an example of a real time operating system?  
 1) lynx 2) MS DOS  
 3) windows XP 4) RT linux
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153. The number of processes completed per unit time is known as \_\_\_\_\_  
 1) output 2) throughput  
 3) efficiency 4) capacity
154. Which one of the following is a synchronization tool  
 1) thread 2) pipe  
 3) monitor 4) socket
155. Choose the set of algorithms for disk scheduling  
 1) FCFS, LRU, MFU, optimal  
 2) FCFS, SCAN, SSTF, C-Look  
 3) FCFS, SJF, round robin, priority  
 4) SJF, multilevel queue, short-term, second chance
156. A semaphore is a shared integer variable  
 1) that cannot drop below zero  
 2) that cannot be more than zero  
 3) that cannot drop below one  
 4) that cannot be more than one
157. For what purpose is baker's algorithm used  
 1) deadlock ignorance  
 2) deadlock prevention  
 3) deadlock avoidance  
 4) deadlock detection

158. The circular weight condition which can cause a dead-lock can be prevented by defining a/an \_\_\_\_\_ ordering of resource types

- 1) arbitrary      2) random  
3) hexagonal      4) linear

159. \_\_\_\_\_ scheduler determines which programs are admitted to the system for processing

- 1) daisy chaining      2) long-term  
3) DMA      4) I/O

160. The least recently used policy (LRU) replaces the page in memory that has not been referenced for the \_\_\_\_\_ time

- 1) shortest      2) medium  
3) average      4) longest

161. \_\_\_\_\_ devices transfer data in and out as a stream of bytes

- 1) block-oriented      2) stream-oriented  
3) CPU-oriented      4) memroy-oriented

162. A process transfers data to (or from) one buffer while the operating system empties (or fills) the other buffer is called \_\_\_\_\_

- 1) FIFO      2) buffer extension  
3) buffer swapping      4) buffer latency

163. For a disk I/O, the time it takes for the beginning of the sector to reach the head is known as \_\_\_\_\_

- 1) seek time      2) rotational delay  
3) access time      4) through-put

164. The processes that are residing in the main memroy and are waiting to execute are kept on a list called \_\_\_\_\_

- 1) job queue      2) ready queue  
3) wait queue      4) device queue

165. Run time mapping from virtual to physical address is done by \_\_\_\_\_

- 1) CPU      2) compile      3) PCI  
4) memory management unit

166. A local replacement policy chooses only among the \_\_\_\_\_ pages of the process that generate the page fault in selecting a page to replace

- 1) global      2) resident  
3) non-resident      4) abstract

## PREVIOUS ECET BITS KEY

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PUT YOUR FULL EFFORTS  
DON'T WORRY ABOUT RESULTS  
THEY ARE BOUND TO COME  
TO YOU