

1. **Aging is [01D01]**
 - 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**
2. **In a paged segmented scheme of memory management ,the segment table itself must have a page table because [01D02]**
 - 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's description base register points to a page table
3. **Virtual memory is [01M01]**
 - a. an extremely large main memory
 - b. an extremely large secondary memory
 - c. an illusion of an extremely large memory**
 - d. a type of memory used in super computers
4. **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 [01M02]**
 - a. LRU
 - b. FIFO**
 - c. LFU
 - d. round robin
5. **An address generated by memory unit is _____ address [01M03]**
 - a. logical
 - b. zero**
 - c. physical
 - d. false
6. **The first fit ,best fit and the worst fit algorithm can be used for [01S01]**
 - a. contiguous allocation of memory**
 - b. linked allocation of memory
 - c. indexed allocation of memory
 - d. hash allocation
7. **Which of the following page replacement algorithm suffers form belady's anomaly? [01S02]**
 - a. optimal replacement
 - b. LRU
 - c. FIFO**
 - d. FIFO & LRU
8. **Memory management unit is _____ [01S03]**
 - a. software
 - b. hardware**
 - c. firmware
 - d. can't say
9. **The run time mapping from virtual to physical address is done by ___ [01S04]**
 - a. compiler
 - b. OS
 - c. CPU
 - d. memory management unit**
10. **An address generated by CPU is known as _____ address [01S05]**
 - a. logical**
 - b. zero
 - c. physical
 - d. true
11. **Overlay is [02D01]**
 - a. a part of an OS
 - b. a single memory location
 - c. overloading the system with many user files
 - d. a single contiguous memory that is used in olden days for running large programs by swapping**
12. **Some computer systems support dual mode operation - the user mode and the super visor mode. These refers to the modes [02D02]**
 - a. by which user programs handle their data
 - b. in which the processor and the associated hardware operate**

- c. by which the OS executes user programs
- d. of memory access

- 13. Spatial locality refers to the problem that once a location referenced [02M01]**
- a. it will not be referenced again
 - b. it will be referenced again
 - c. a near by location will be referenced soon**
 - d. a near by location will not be referenced soon
- 14. Let physical address =14346 base = 4000 then logical address is _ _ _ _ _ [02M02]**
- a. 0
 - b. 18346
 - c. 28346
 - d. 346**
- 15. The maximum value for logical address=y base register value=x What is the maximumvalue for physical address? [02M03]**
- a. x+y**
 - b. x-y
 - c. x*y
 - d. x/y
- 16. Page fault occurs when [02S01]**
- a. The page is corrupted by application software
 - b. The page is in main memory
 - c. The page is not in main memory**
 - d. One tries to divide a number by 0
- 17. The size of virtual memory depends on [02S02]**
- a. the size of the address bus**
 - b. the size of the data bus
 - c. the size of the main memory
 - d. the size of secondary memory
- 18. _ _ _ _ _ algorithm searches the list of holes and allocate the first memory area that is large enough [02S03]**
- a. first fit**
 - b. best fit
 - c. worst fit
 - d. zero fit
- 19. _ _ _ _ algorithm fits process into the hole that is large enough to hold the process and closest in size to the requirements of that process [02S04]**
- a. first fit
 - b. best fit**
 - c. worst fit
 - d. zero fit
- 20. _ _ _ _ _ algorithm fits the process into the largest available hole [02S05]**
- a. first fit
 - b. best fit
 - c. worst fit**
 - d. zero fit
- 21. Which of the following is an example of a SPOOLED device [03D01]**
- 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 enter the output data
- 22. _ _ _ _ _ page replacement algorithm is based on the argument that the page with the smallest count was probably just brought in and has yet to be used. [03D02]**
- a. FIFO
 - b. LRU
 - c. LFU
 - d. MFU**
- 23. In partitioned memory allocation scheme [03M01]**
- a. the best fit algorithm is always better than the first fit alghthm
 - b. the first fit algorithm is always better than the best fit alghthm
 - c. The superiority of the first fit and best fit algorithms depend on the sequence of memory requests**
 - d. The superiority of the first fit and best fit alghthms does not depend on the sequenceof memory requests
- 24. To implement LRU _ _ _ _ _ data structure is used. [03M02]**
- a. queue
 - b. tree
 - c. stack**

d. list

25. Virtual memory is commonly implemented by _____ [03M03]
 a. demand paging
 b. loading
 c. linking
 d. routing
26. A process refers to 5 pages A,B,C,D,E in the following order A,B,C,D,A,B,E,A,B,C,D,E. if the page replacement algorithm is FIFO, the number of Page transfer with an empty internal store of 3 frames is _____ [03S01]
 a. 9
 b. 8
 c. 10
 d. 7
27. _____ is a technique to solve the problems of internal fragmentation [03S02]
 a. swapping
 b. segmentation
 c. loading
 d. paging
28. A process is _____ if it is spending more time paging than executing. [03S03]
 a. routing
 b. filtering
 c. locked
 d. thrashing
29. Replace the page that has not been used for the longest period of time.This is _____ [03S04]
 a. FIFO
 b. LRU
 c. optimal alghm
 d. LFU
30. _____ page replacement algorithm requires that the page with the smallest count be replaced. [03S05]
 a. FIFO
 b. LRU
 c. LFU
 d. MFU
31. Which of the following is true. [04D01]
 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
32. Determine the number of page faults when references to pages occur in the following order 1,2,4,5,2,1,2,4. Assume that the main memory can accommodate 3 pages and the main memory already has the pages 1 and 2 with page 1 having been brought earlier than page 2(LRU algorithm is used.) [04M01]
 a. 3
 b. 5
 c. 4
 d. 7
33. Dirty bit is used to show the [04M02]
 a. page with corrupted data
 b. the wrong page in the memory
 c. page that is less frequently accessed
 d. page that is modified after being loaded into cache memory
34. 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 [04M03]
 a. special support from hardware is essential
 b. special support from OS is essential
 c. special support from hardware and OS is essential
 d. user programs can implement dynamic loading without any special support form hardware and OS
35. The page replacement policy that sometimes leads to more page faults when the siz e of the memory is increased is [04S01]
 a. FIFO
 b. LRU
 c. no such policy exicts
 d. SJF
36. In paged memory system if the page is increased then the internal fragmentation generally [04S02]
 a. becomes less
 b. becomes more
 c. remains constant

d. can't say

37. When total memory space is available to satisfy the requirement of the process is not contiguous it is called _____ fragmentation [04S03]

- a. external
- b. internal
- c. max
- d. min

38. When the space with in the block is unused by the process residing in that block it is called _____ fragmentation [04S04]

- a. external
- b. internal
- c. maximum
- d. minimum

39. _____ is a technique to solve the problems of external fragmentation [04S05]

- a. swapping
- b. segmentation
- c. loading
- d. paging

40.

process priority	P1	P2	P3	P4	P5
arrival time(in ms)	0	0	2	5	10
CPU time needed (in ms)	10	5	3	20	2
priority	5	2	1	4	3

In the CPU scheduling policy is SJF the average waiting time will be _____ (with pre emption) [05D01]

- a. 12.8 ms
- b. 6.8 ms
- c. 5.6ms
- d. 9 ms

41.

process priority	P1	P2	P3	P4	P5
arrival time(in ms)	0	0	2	5	10
CPU time needed (in ms)	10	5	3	20	2
priority	5	2	1	4	3

In the CPU scheduling policy is priority scheduling the average waiting time will be _____ (with out pre emption) [05D02]

- a. 12.8 ms
- b. 6.8 ms
- c. 10.8ms
- d. 9 ms

42.

process priority	P1	P2	P3	P4	P5
arrival time(in ms)	0	0	2	5	10
CPU time needed (in ms)	10	5	3	20	2
priority	5	2	1	4	3

In the CPU scheduling policy is FCFS the average waiting time will be _____ [05M01]

- a. 12.8 ms
- b. 8 ms
- c. 16ms
- d. 9 ms

43.

process priority	P1	P2	P3	P4	P5
arrival time(in ms)	0	0	2	5	10
CPU time needed (in ms)	10	5	3	20	2
priority	5	2	1	4	3

In the CPU scheduling policy is SJF the average waiting time will be _____ (with out pre emption) [05M02]

- a. 12.8 ms
- b. 6.8 ms
- c. 16ms
- d. 9 ms

44.

process priority	P1	P2	P3	P4	P5
arrival time(in ms)	0	0	2	5	10
CPU time needed (in ms)	10	5	3	20	2
priority	5	2	1	4	3

In the CPU scheduling policy is priority scheduling the average waiting time will be _____ (with pre emption) [05M03]

- a. 12.8 ms

- b. **7.6 ms**
- c. 16ms
- d. 9 ms

45. **Pre-emptive scheduling is the strategy of temporarily suspending a running process [05S01]**
- a. **before the CPU time slice expires**
 - b. to allow starving process to run
 - c. when it requests I/O
 - d. after the CPU time slice expires
46. **Which of the following scheduling algorithms gives minimum average waiting time [05S02]**
- a. FCFS
 - b. **SJF**
 - c. round robin
 - d. priority
47. **Which of the following is well suited for a time shared OS? [05S03]**
- a. SJF
 - b. **round robin**
 - c. FCFS
 - d. elevator
48. **CPU utilization may range from ___ to _____ percent [05S04]**
- a. **0,100**
 - b. 0 ,90
 - c. 0,99
 - d. 0,80
49. **The number of processes that are completed per unit time is called as _____ [05S05]**
- a. response time
 - b. waiting time
 - c. turnaround time
 - d. **throughput**
50. _____ scheduler is also called as CPU scheduler [06D01]
- a. **short term**
 - b. medium term
 - c. long term
 - d. thread
51. _____ scheduler is also called as JOB scheduler [06D02]
- a. short term
 - b. medium term
 - c. **long term**
 - d. thread
52. **In round robin CPU scheduling as the time quantum is increased the average turn around time [06M01]**
- a. increases
 - b. decreases
 - c. remains constant
 - d. **varies irregularly**
53. **In which of the following scheduling policies does context switching never take place [06M02]**
- a. round robin
 - b. SJF
 - c. pre-emptive
 - d. **FCFS**
54. **The amount of time processor takes to start responding is _____ [06M03]**
- a. **response time**
 - b. waiting time
 - c. turnaround time
 - d. throughput
55. **The interval from the time of submission of a process to the time of completion is the _____ [06S01]**
- a. response time
 - b. waiting time
 - c. **turnaround time**
 - d. throughput
56. **The amount of time that a process spends waiting in the ready queue is the _____ [06S02]**
- a. response time
 - b. **waiting time**
 - c. turnaround time
 - d. throughput
57. _____ scheduler allocates CPU to a process [06S03]

- a. short term
- b. medium term
- c. long term
- d. thread

58. _____ scheduler performs swapping process [06S04]

- a. short term
- b. medium term**
- c. long term
- d. thread

59. _____ scheduler determines which jobs are brought into memory for processing. [06S05]

- a. short term
- b. medium term
- c. long term**
- d. thread

60. Which of the following has third priority [07D01]

- a. TRAP
- b. RST 7.5
- c. RST6.5**
- d. RST5.5

61. Which of the following has fourth priority [07D02]

- a. TRAP
- b. RST 7.5
- c. RST6.5
- d. RST5.5**

62. Which of the following has second priority [07M01]

- a. TRAP
- b. RST 7.5**
- c. RST6.5
- d. RST5.5

63. The data transfer mode of terminal is _____ [07M02]

- a. character**
- b. block
- c. latency
- d. seek

64. The access method of modem is _____ [07M03]

- a. latency
- b. seek
- c. sequential**
- d. random

65. Which of the following is not maskable [07S01]

- a. RST7.5
- b. RST 6.5
- c. RST 5.5
- d. TRAP**

66. Which of the following has highest priority [07S02]

- a. TRAP**
- b. RST 7.5
- c. RST6.5
- d. RST5.5

67. Which of the following has least priority [07S03]

- a. INTR**
- b. RST 7.5
- c. RST6.5
- d. RST5.5

68. The data transfer mode of disk is _____ [07S04]

- a. character
- b. block**
- c. latency
- d. seek

69. The access method of CD-ROM is _____ [07S05]

- a. latency
- b. seek
- c. sequential
- d. random**

70. Which of the following is write only [08D01]
 a. CD-ROM
b. graphics controller
 c. disk
 d. keyboard
71. Which of the following is read & write [08D02]
 a. CD-ROM
 b. graphics controller
c. disk
 d. keyboard
72. CD-ROM is _____ [08M01]
a. read only
 b. write only
 c. read & write
 d. neither read nor write
73. graphics controller is _____ [08M02]
 a. read only
b. write only
 c. read & write
 d. neither read nor write
74. Which of the following is read only [08M03]
a. CD-ROM
 b. graphics controller
 c. disk
 d. keyboard
75. The transfer schedule of tape is _____ [08S01]
a. synchronous
 b. asynchronous
 c. sequential
 d. random
76. The transfer schedule of keyboard is _____ [08S02]
 a. synchronous
b. asynchronous
 c. sequential
 d. random
77. A tape is _____ [08S03]
 a. sharable always
 b. sharable sometimes
c. dedicated
 d. can't say
78. A keyboard is _____ [08S04]
a. sharable always
 b. sharable sometimes
 c. dedicated
 d. can't say
79. disk is _____ [08S05]
 a. read only
 b. write only
c. read & write
 d. neither read nor write
80. In a paged memory system the page hit ratio is 0.35. The time required to access a page in secondary memory is equal to 100ns. The time required to access a page in primary memory is 10ns. The average time required to access a page is [09D01]
 a. 3.0ns
 b. 68.0ns
 c. 78.5 ns
d. 68.5ns
81. A spool is a _____ that holds output for a device such as printer, that can not accept internal data streams [09D02]
a. Buffer
 b. port
 c. bus
 d. network device
82. In a multiprogramming environment [09M01]
 a. the processor executes more than one process at a time

- b. the programs are developed by more than one person
- c. more than one process is resident in memory**
- d. a single user can execute many programs in the same time

- 83. The hardware mechanism that enables a device to notify the CPU is called _____ [09M02]**
- a. Port
 - b. bus
 - c. controller
 - d. Interrupt**
- 84. _____ is a memory area that stores data while the calls are transferred between two devices or between a device and an application [09M03]**
- a. bus
 - b. port
 - c. controller
 - d. Buffer**
- 85. _____ is an example for storage device [09S01]**
- a. modem
 - b. network card
 - c. tape**
 - d. mouse
- 86. _____ is an example for transmission device. [09S02]**
- a. disk
 - b. tape
 - c. mouse
 - d. modem**
- 87. Which of the following is not an example for human interface device [09S03]**
- a. network card**
 - b. screen
 - c. keyboard
 - d. mouse
- 88. Pick the odd man out [09S04]**
- a. screen
 - b. modem**
 - c. keyboard
 - d. mouse
- 89. Which of the following is fastest [09S05]**
- a. primary memory
 - b. disk
 - c. cache**
 - d. tape
- 90. A certain moving arm disk storage with one head has following specification number of tracks /recording surface =200 disk rotation speed =2400 rpm track storage capacity = 62500 bits The average latency time is _____ [10D01]**
- a. 2.5 s**
 - b. 2.9s
 - c. 3.1 s
 - d. 3.6 s
- 91. A certain moving arm disk storage with one head has following specification number of tracks /recording surface =200 disk rotation speed =2400 rpm track storage capacity = 62500 bits The transfer rate will be _____ [10D02]**
- a. 2.5 m bits/s**
 - b. 2.9 m bits/s
 - c. 3.1 m bits/s
 - d. 3.6 m bits/s
- 92. A stream is a _____ connection between a device driver and a user level process. [10M01]**
- a. half duplex
 - b. full duplex**
 - c. 0.25 duplex
 - d. 0.75 duplex
- 93. Pick the odd man out [10M02]**
- a. bus
 - b. device controller
 - c. device
 - d. device driver**

94. The kernel module that controls a device is a _____ [10M03]
 a. bus
 b. device controller
 c. device
 d. **device driver**
95. Sector interleaving in disks is done by [10S01]
 a. the disk manufacturer
 b. the disk controller
 c. **the OS**
 d. programmer
96. Access time is the highest in the case of [10S02]
 a. floppy disk
 b. cache
 c. swapping devices
 d. **magnetic disks**
97. A system call is a function called by an application to invoke a _____ service. [10S03]
 a. compiler
 b. Interpreter
 c. **kernel**
 d. assembler
98. Which of the following is not related to the basic hardware elements involved in I/O [10S04]
 a. **Kernel**
 b. buses
 c. device controllers
 d. devices
99. Which of the following is not related to the kernels I/O subsystem service [10S05]
 a. **Interpretation**
 b. spooling
 c. buffering
 d. I/o scheduling
100. A disk queue with requests for I/O to blocks on cylinders. 98, 183, 37, 122, 14, 124, 65, 67 in that order. If the disk is initially at cylinder 53. The total head movement is _____ cylinders(SSTF) [11D01]
 a. 230
 b. 233
 c. 237
 d. **236**
101. A disk queue with requests for I/O to blocks on cylinders. 98, 183, 37, 122, 14, 124, 65, 67 in that order. If the disk is initially at cylinder 53. The total head movement is _____ cylinders(SCAN) [11D02]
 a. 230
 b. 233
 c. 237
 d. **236**
102. A disk queue with requests for I/O to blocks on cylinders. 98, 183, 37, 122, 14, 124, 65, 67 in that order. If the disk is initially at cylinder 53. The total head movement is _____ cylinders(FCFS) [11M01]
 a. 620
 b. 630
 c. **640**
 d. 639
103. A disk queue with requests for I/O to blocks on cylinders. 98, 183, 37, 122, 14, 124, 65, 67 in that order. If the disk is initially at cylinder 53. In SSTF _____ cylinder is served first [11M02]
 a. **98**
 b. 183
 c. 37
 d. 122
104. A disk queue with requests for I/O to blocks on cylinders. 98, 183, 37, 122, 14, 124, 65, 67 in that order. If the disk is initially at cylinder 53. In SCAN scheduling _____ cylinder is served first [11M03]
 a. 98
 b. 183
 c. **37**
 d. 122
105. Disk scheduling involves deciding [11S01]
 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 length of the files

106. _____ is the total number of bytes transferred divided by the total time between the first request for service and completion of the last transfer. [11S02]
- bandwidth**
 - seek time
 - latency
 - rotational latency
107. The simplest form of disk scheduling is _____ [11S03]
- FCFS**
 - SSTF
 - SCAN
 - C-SCAN
108. In disk scheduling SSTF stands for _____ [11S04]
- shortest seek time first**
 - shortest scan time first
 - shortest schedule time first
 - shortest search time first
109. In disk scheduling _____ algorithm is called elevator algorithm [11S05]
- FCFS
 - SSTF
 - SCAN**
 - C-SCAN
110. "In UNIX file name translation is done in the file system name space" is _____ [12D01]
- always true**
 - always false
 - some times true some times false
 - can't say
111. "In MS-DOS file name translation is done in a separate device name space" is _____ [12D02]
- always true**
 - always false
 - some times true some times false
 - can't say
112. Before a disk can store data it must be divided into sectors that the disk controller can read /write. This process is called _____ formatting [12M01]
- low level
 - physical
 - low level or physical**
 - logical
113. _____ formatting fills the disk with a special data structure for each sector [12M02]
- low level
 - physical
 - low level or physical**
 - logical
114. Creation of a file system is known as _____ formatting [12M03]
- low level
 - physical
 - low level or physical
 - logical**
115. Which of the following is single user OS [12S01]
- MS-DOS**
 - UNIX
 - LINUX
 - OS/2
116. Which of the following is secondary storage device [12S02]
- register
 - cache
 - disk**
 - main memory
117. Before a disk can store data it must be divided into _____ that the disk controller can read /write [12S03]
- track
 - sector**
 - surface
 - cylinder
118. _____ is a process that holds kernel from disk to main memory [12S04]
- blocking

- b. **Booting**
- c. Bootstrapping
- d. Interpreting

119. **C-SCAN** stands for _____ [12S05]
- a. **circular scan**
 - b. cycle scan
 - c. cache scan
 - d. cube scan
120. The extension **exe** indicates _____ file type. [13D01]
- a. Text
 - b. executable
 - c. **word processor**
 - d. batch
121. The extension **ps** indicates _____ file type. [13D02]
- a. **print or view**
 - b. executable
 - c. object
 - d. batch
122. The extension **sh** indicates _____ file type. [13M01]
- a. Text
 - b. **batch**
 - c. object
 - d. class
123. The extension **bin** indicates _____ file type. [13M02]
- a. Text
 - b. **executable**
 - c. object
 - d. batch
124. The extension **zip** indicates _____ file type. [13M03]
- a. library
 - b. executable
 - c. object
 - d. **archive**
125. The extension **doc** indicates _____ file type. [13S01]
- a. **Text**
 - b. executable
 - c. object
 - d. batch
126. **FAT** stands for _____ [13S02]
- a. File allocation tree
 - b. **File allocation table**
 - c. File access technique
 - d. File access table
127. The contents of **RAM** disk are totally _____ controlled [13S03]
- a. OS
 - b. compiler
 - c. interpreter
 - d. **user**
128. The contents of **disk cache** are totally _____ controlled [13S04]
- a. **OS**
 - b. compiler
 - c. interpreter
 - d. user
129. Which of the following is not a user type for files [13S05]
- a. owner
 - b. Group
 - c. Universe
 - d. **route**
130. **Disaster recovery** [14D01]
- a. is needed by every installation
 - b. is never needed
 - c. **varies in degree between installations**
 - d. requires off site computer for immediate use
131. **Wild card specifiers** [14D02]

- a. **provide an easy way of finding groups of related files**
- b. are only used when printing the contents of files
- c. can be used when writing a file
- d. allow several files to be read simultaneously

132. An incremental backup [14M01]

- a. uses more tapes
- b. should be done each month
- c. **saves only files that have recently changed**
- d. saves all files

133. Back up should be done [14M02]

- a. daily for most installations
- b. weekly for most installations
- c. as several images copies , followed by an incremental
- d. **as several incrementals , followed by an image copy**

134. The allocation map [14M03]

- a. is used to store program data
- b. **specifies which blocks are used by which file**
- c. is updated by application programs
- d. allow programs to erase files

135. The most efficient data set organization is _ _ _ _ _ [14S01]

- a. a sequential file
- b. an ISAM file
- c. **variable depending upon the usage of the data set**
- d. a partitioned data set

136. File record length [14S02]

- a. should always be fixed
- b. should always be variable
- c. **depends upon the size of the file**
- d. should be chosen to match the data character

137. Which types of file organization are supported by magnetic tapes [14S03]

- a. random files
- b. **contiguous sequential file**
- c. indexed sequential file
- d. random & sequential file

138. A file is [14S04]

- a. not an abstract data type
- b. not a logical storage unit
- c. **file is usually non volatile**
- d. file is usually volatile

139. Number of minimal set of required file operations are [14S05]

- a. two
- b. four
- c. five
- d. **six**

140. Which structure prohibits the sharing of files and directories [15D01]

- a. **tree structure**
- b. one level directory
- c. two level
- d. three level

141. The file structure that redefines its first record at a base of zero uses the term [15D02]

- a. dynamic reallocation
- b. key fielding
- c. **relative organization**
- d. hashing

142. Disadvantage of single level directory is [15M01]

- a. **the confusion of files names between users**
- b. the confusion of files data
- c. the confusion of both file names & file data
- d. the confusion of neither file name nor file data

143. Solution of name collision problem is [15M02]

- a. single level directory
- b. **two level directory**
- c. tree structure
- d. three level directory

144. Path's name are [15M03]
- absolute path
 - relative path
 - absolute path & relative path**
 - neither absolute nor relative path
145. How many common file type are there [15S01]
- one**
 - six
 - five
 - two
146. System supports how many types of files [15S02]
- one
 - two**
 - three
 - four
147. The simplest directory structure is [15S03]
- single level directory**
 - two level directory
 - tree structure directory
 - three level directory
148. There are no cycle in which type of directory [15S04]
- General graph directory
 - Acyclic graph directory**
 - One level directory
 - Two level directory
149. A file sometimes called a [15S05]
- collection of input data
 - program
 - temporary place to store data
 - data set**
150. Let N = surfaces, C =cylinders , K =sectors per track. Then the total number of sectors on a disk = _____
_ [16D01]
- $N+C-K$
 - $N+K-C$
 - $N/K-C$
 - $N*K*C$**
151. Let N = surfaces, C =cylinders, K =sectors per track .Then $N*K*C$ represents total number of _____ on
a disk [16D02]
- tracks
 - cylinders
 - sectors**
 - surfaces
152. The intersection of _____ with a _____ is called a track. [16M01]
- surface, cylinder
 - sector, cylinder
 - cylinder, surface**
 - surface, sector
153. _____ is the time for disk to rotate to the start of the desired sector [16M02]
- track time
 - seek time
 - latency time**
 - surface time
154. Information needed to fetch a particular sector on a multiplatter disk is _____ [16M03]
- surface & cylinder numbers
 - surface & sector numbers
 - cylinder number only
 - surface, cylinder & sector numbers**
155. _____ is the collection of sectors all on same circumference on a a single surface. [16S01]
- track**
 - cylinder
 - structure
 - RAM
156. _____ is the collection of tracks of same radius on a multiplatter disk. [16S02]
- sector
 - cylinder**

- c. structure
- d. RAM

157. **Seek Time** is the time for read/write head to find the desired _ _ _ _ _ [16S03]
- a. track
 - b. cylinder**
 - c. sector
 - d. surface
158. **Latency Time** is the time for disk to rotate to the start of the desired _ _ _ _ _ [16S04]
- a. track
 - b. cylinder
 - c. sector**
 - d. surface
159. _ _ _ _ _ is the time for read/write head to find the desired cylinder [16S05]
- a. track time
 - b. seek time**
 - c. latency time
 - d. surface time
160. **Pick the odd man out** [17D01]
- a. memory segment
 - b. tape drive
 - c. CPU
 - d. semaphore**
161. **Pick the odd man out** [17D02]
- a. files
 - b. programs
 - c. semaphores
 - d. memory segment**
162. **Fence register** is used for [17M01]
- a. CPU protection
 - b. memory protection**
 - c. file protection
 - d. I/O protection
163. **The columns of access matrix (related to protection)** represents _ _ _ [17M02]
- a. domains
 - b. objects**
 - c. access rights
 - d. 0's and 1's
164. **Each entry in access matrix (related to protection)** consists of _ _ _ _ _ [17M03]
- a. domains
 - b. objects
 - c. access rights**
 - d. 0's and 1's
165. **Which of the following is a service not supported by the OS** [17S01]
- a. protection
 - b. accounting
 - c. compilation**
 - d. I/O operation
166. **Memory protection is normally done by** [17S02]
- a. the processor and the associated hardware**
 - b. the OS
 - c. the compiler
 - d. the user program
167. **Which of the following is an example for hardware object** [17S03]
- a. file
 - b. semaphore
 - c. tape drive**
 - d. programs
168. **Which of the following is an example for software object** [17S04]
- a. memory segment
 - b. semaphore**
 - c. tape drive
 - d. disk
169. **The rows of access matrix (related to protection)** represents _ _ _ _ _ [17S05]
- a. domains**

- b. objects
- c. access rights
- d. 0's and 1's

170. The security of a system can be improved by _____ [18D01]

- a. **threat monitoring**
- b. audit log
- c. threat monitoring & audit log
- d. neither threat monitoring nor audit log

171. Audit log can not be used to _____ [18D02]

- a. determine how the problem occurred
- b. determine when the problem occurred
- c. what amount of damage was done
- d. **find the name of the owner**

172. Consider the following access matrix

	F1	F2	F3	printer
D1	R		R	
D2				print
D3		R	execute	
D4	R/W		R / W	

When a process executes in domain D1 it can read Files _____ [18M01]

- a. F1 only
- b. F2, F3
- c. F3 only
- d. **F1,F3**

173. Consider the following access matrix

	F1	F2	F3	printer
D1	R		R	
D2				print
D3		R	execute	
D4	R/W		R / W	

When a process executes in domain D1 it can read Files _____ [18M02]

- a. F1 only
- b. F2, F3
- c. F3 only
- d. **F1,F3**

174. Protection against computer viruses is _____ [18M03]

- a. prevention
- b. purchasing unopened software from vendors
- c. practice of safe computing
- d. **avoiding free or pirated copies from public sources**

175. Memory protection is useful in a [18S01]

- a. single user system
- b. non-multiprogramming system
- c. non multitasking system
- d. **multi programming system**

176. Consider the following access matrix

	F1	F2	F3	printer
D1	R		R	
D2				print
D3		R	execute	
D4	R/W		R / W	

The printer can be accessed only by a process executing In domain _____ [18S02]

- a. D1
- b. **D2**
- c. D3
- d. D4

177. NT classifies [18S03]

- a. container objects
- b. container and non container objects
- c. **non container objects**
- d. neither container nor non container objects

178. Lowest Level of security system is [18S04]

- a. A
- b. B
- c. C
- d. D

179. An audit log _____ [18S05]
- a. simply records the time
 - b. records user
 - c. type of all access to an object
 - d. **records time, user & access to an object**
180. The most common approach to authenticating a user identity is _____ [19D01]
- a. **user passwords**
 - b. user log in
 - c. hardware device
 - d. user log in & hardware device
181. A major security problem for OS is _____ [19D02]
- a. **authentication problem**
 - b. physical problem
 - c. human problem
 - d. physical & human problem
182. Trojan Horse _____ [19M01]
- a. **A code segment that misuses its file is called Trojan horse**
 - b. good for file accessing
 - c. Trojan horse does not misuses its file
 - d. misuses its file and good for file accessing
183. Program threats are _____ [19M02]
- a. Trojan horse
 - b. trap doors
 - c. **Trojan horse & trap doors**
 - d. neither Trojan horse nor trap doors
184. In one time password _____ [19M03]
- a. **the password is different in each instance**
 - b. the password is same in each instance
 - c. some times different and some times same
 - d. can't say
185. Which of the following is not true regarding viruses [19S01]
- a. another form of computer attack is virus
 - b. virus are designed to spread into other programs and can wreak havoc in a system
 - c. it modifying or destroying files and causing system crashes
 - d. **viruses are beneficial for program**
186. Boot strap or vector is called [19S02]
- a. **grappling hook program**
 - b. main program
 - c. secondary program
 - d. primary storage
187. Two programs of worm are _____ [19S03]
- a. grappling hook program
 - b. main program
 - c. **grappling hook & main programs**
 - d. neither grappling hook nor main pgm
188. Worm was made up _____ [19S04]
- a. one program
 - b. **two programs**
 - c. three programs
 - d. four programs
189. Trap door _____ [19S05]
- a. could be included in a compiler
 - b. pose a difficult problem because to detect them
 - c. **could be included in a compiler & pose a difficult problem to detect them**
 - d. could not be included in a compiler
190. Applications [20D01]
- a. can not run on multiple processors
 - b. immediately run on multiple processors
 - c. **must usually be re compiled to use multiple processors**
 - d. can always be made efficient on multiple processors

- 191. Link encryption [20D02]**
- is more secure than end to end encryption
 - is less secure than end to end encryption**
 - can not be used in a large network
 - is used only to detect errors
- 192. Resources are managed _____ [20M01]**
- with each processor equally
 - by only one processor
 - by sophisticated locking mechanisms**
 - more easily with multiple processors
- 193. Multiple processor configurations [20M02]**
- are more efficient than scalar configurations
 - are less efficient than scalar configurations
 - work equally well on all applications
 - are very efficient, but only on some applications**
- 194. Trojan horse programs [20M03]**
- are legitimate programs that allow unauthorized access**
 - are hacker programs that do not show up on the system
 - really do not usually work
 - usually are immediately discovered
- 195. Malicious access are _____ [20S01]**
- unauthorized reading of data**
 - authorized modification of data
 - authorized destruction of data
 - authorized reading of data
- 196. Security violation due to _____ [20S02]**
- malicious
 - accidental
 - malicious & accidental**
 - neither malicious nor accidental
- 197. Contents of the access matrix entries requires [20S03]**
- copy
 - columns
 - control
 - copy ,columns & control**
- 198. Domain of protection is _____ [20S04]**
- process
 - objects
 - process & objects**
 - neither process nor objects
- 199. The most common systems security method is [20S05]**
- passwords**
 - keycard systems
 - man trap
 - keycard systems & man trap