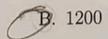
Multiple	Choice	(5	points	each)
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- 1. Increasing the RAM of a computer typically improves performance because _____.
 - A. virtual memory increases
 - B. larger RAMs are faster
 - C.) fewer page faults occur
 - D. fewer segmentation faults occur
- 2. On media that uses constant linear velocity, the _____.
 - A. disk's rotation speed increases as the head moves towards the middle of the disk from either side
 - B. disk's rotation speed remains constant
 - C. density of bits decreases from the inner tracks to the outer tracks
 - (D) density of bits per track is uniform
- With segmentation, a logical address consists of ______.
 - A. segment number and offset
 - B. segment name and offset
 - C. segment number and page number
 - D. segment table and segment number
- 4. Which of the following data structures is appropriate for placing into its own segment?
 - A. heap
 - B. kernel code and data
 - C. user code and data
 - D) all of the above
- 5. Assume the value of the base and limit registers are 1200 and 350 respectively. Which of the following addresses is legal?
 - A. 355





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C. 1551

D. all of the above

- 6. Which of the following statements are true with respect to hashed page tables?
 - B. The virtual address is used to hash into the hash table.
 - CA common approach for handling address spaces larger than 32 bits.
- D. Hash table collisions do not occur because of the importance of paging.
- 7. Which of the following is a benefit of allowing a program that is only partially in memory A. Programs can be written to use more memory than is available in physical
 - B. CPU utilization and throughput is increased.
 - DAll of the above
- C. Less I/O is needed to load or swap each user program into memory.
- 8. Suppose we have the following page accesses: 1 2 3 4 2 3 4 1 2 1 1 3 1 4 and that there are three frames within our sustant Heinstein I DII randoomant algorithm what is the are three frames within our system. Using the LRU replacement algorithm, what is the
- are three frames within our system. Using the LRU replacement algorithm, what is the

 A. 14

 B. 8

 C. 13

 C. 13

 A. 14

 C. 13

 A. 14

 C. 13

 C. 13

 C. 13

 A. 14

 C. 13

 C. 14

 C. 15

 C. 15

 C. 15

 C. 15

 C. 16

 C. 17

 C. 18

 C 9. What size segment will be allocated for a 39 KB request on a system using the Buddy
- D. None of the above
- 10. Which of the following is the simplest method for implementing a directory?
 - D. nonlinear list
- Which of the following statements is false?

- A. Virtual memory implements the translation of a program's address space into physical memory address space.
- B. Virtual memory allows each program to exceed the size of the primary memory.
- C. Virtual memory increases the degree of multiprogramming
- D. Virtual memory reduces the context switching overhead.
- 12. DMA controllers
 - A. do not utilize an additional, special purpose, processor
 - B. are a nonstandard component in PCs of today
 - C. can steal memory access cycles from the main CPU
 - D. can access main memory at the same time as the main CPU
- 13. Consider a disk queue holding requests to the following cylinders in the listed order: 116, 22, 3, 11, 75, 185, 100, 87. Using the SCAN scheduling algorithm, what is the order that the requests are serviced, assuming the disk head is at cylinder 88 and moving upward through the cylinders?
 - A. 116 22 3 11 75 185 100 87
 - B. 100 116 185 87 75 22 11 3
 - C. 87 75 100 116 185 22 11 3
 - D. 100 116 185 3 11 22 75 87
- 14. Which of the following disk head scheduling algorithms does not take into account the current position of the disk head?
 - A FCFS
 - B. SSTF
 - C. SCAN
 - D. LOOK
- 15. Which of the following is not considered a classification of users in connection with each file?

ns

- A. owner
- B. current user
- © group
 - D. world
- 16. Which of the following allocation madisk block using direct access?
 - A. linked allocation

s needed to get

e next page...

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B. indexed allocation C. hashed allocation

D.) contiguous allocation

	D.) contiguous allocation
	17. A disk with free blocks 0,1,5,9,15 would be represented with what bit map?
	A. 0011101111110
	B. 1100010001000001
	C. 0100010001000001
	(D) 1100010001000000
	18. Which algorithm is considered reasonable for managing a buffer cache?
	A. least-recently-used (LRU)
	B. first-in-first-out (FIFO)
	V C most-recently-used
	D least-frequently-used (LFU)
x 8	 True or False (2 points each) 19. True/False In general, LOOK disk head scheduling will involve less movement of the disk heads than SCAN disk head scheduling. 20. True/False A relative path name begins at the root. 21. True/False Inverted page tables require each process to have its own page table. 22. True/False Linked allocation suffers from external fragmentation. 23. True/False Indexed allocation may require substantial overhead for its index block.

- 1.c fewer page faults 2.d - density of bits per track is uniform 3.a - segment number and offset 4.d - all of the above 5.b - 12006.c - a common approach for handling addres larger than 32 bits 7.d - all of the above 8.c - 89.c - 64kb
- 10.c hashtable 11.d - virtual memory reduces the context s overhead 12.a - do not utilize an additional, specia
- purpose, processor 13.b - 100- 116- 185-87-75-22-11-3 14.a - FCFS 15.b - current user
- 16.d contigous allocation 17.b - 1100010001000001 (1 means free 0 mea
- allocated)
- 18.d Least-frequently-used (LFU)
- 19.t
- 20.f 21.f
- 22.f 23.f