**Problems Based on Memory Organization**

1) What is true about memory unit?

A. A memory unit is the collection of storage units or devices together.  
B. The memory unit stores the binary information in the form of bits.  
C. Both A and B  
D. None of the above

2) In how many categories memory/storage is classified?

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

3) When power is switched off which memory loses its data?

A. Non-Volatile Memory  
B. Volatile Memory  
C. Both A and B  
D. None of the above

4) Auxiliary memory access time is generally \_\_\_\_\_\_\_\_ times that of the main memory

A. 10  
B. 100  
C. 1000  
D. 10000

5) What is the formula for Hit Ratio?

A. Hit/(Hit + Miss)  
B. Miss/(Hit + Miss)  
C. (Hit + Miss)/Miss  
D. (Hit + Miss)/Hit

6) Which of the following is correct example for Auxiliary Memory?

A. Magnetic disks  
B. Tapes  
C. Flash memory.  
D. Both A and B

7) The fastest data access is provided using \_\_\_\_\_\_\_

A. Cache  
B. DRAM's  
C. SRAM's  
D. Registers

8) Which of the following is correct refreshed rate for DRAM?

A. 10~1000 ms  
B. 10~50 ms  
C. 10~100 ms  
D. 10~500 ms

9) Which of the following is true?

A. To overcome the slow operating speeds of the secondary memory we make use of faster flash drives.  
B. If we use the flash drives instead of the harddisks, then the secondary storage can go above primary memory in the hierarchy.  
C. In the memory hierarchy, as the speed of operation increases the memory size also increases.  
D. Both A and C

10) Cache memory is the onboard storage.  
a) True  
b) False

11) Which of the following is the fastest means of memory access for CPU?  
a) Registers  
b) Cache  
c) Main memory  
d) Virtual Memory

1. Size of the \_\_\_\_\_\_\_\_ memory mainly depends on the size of the address bus.  
   a) Main  
   b) Virtual  
   c) Secondary  
   d) Cache
2. Which of the following is independent of the address bus?  
   a) Secondary memory  
   b) Main memory  
   c) Onboard memory  
   d) Cache memory
3. What is the location of the internal registers of CPU?  
   a) Internal  
   b) On-chip  
   c) External  
   d) Motherboard
4. If M denotes the number of memory locations and N denotes the word size, then an expression that denotes the storage capacity is \_\_\_\_\_\_\_\_\_\_\_\_\_\_  
   a) M\*N  
   b) M+N  
   c) 2M+N  
   d) 2M-N
5. How many addresses are required for 25x40 RAM video?
6. 1024
7. 1000
8. 1920
9. 1500
10. Four memory chips of size 16x4 size have their address bases connected. The system will be of size
11. 16x16
12. 64X64
13. 32x16
14. 256x1
15. A microprocessor has a data bus with 64 lines and an address bus with 32 lines. The maximum number of bits that can be stored in the memory is
16. 232x32
17. 232x64
18. 264x32
19. 264x64