Assignment 5

The due date for submitting this assignment has passed. Due on 2019-03-06, 23:59 IST.
As per our records you have not submitted this assignment.

1) Which of the following statements is/are correct for memory systems?
   a. Memory stores both instructions and data.
   b. Every memory location has a unique address.
   c. A memory is said to be byte addressable if every byte of data has a different address.
   d. All of these.

   □ a.
   □ b.
   □ c.
   □ d.

   No, the answer is incorrect.
   Score: 0
   Accepted Answers: d.

2) The memory size for $n$ address lines and $m$ data lines is given as:
   a. $2^m \times n$
   b. $m \times n^2$
   c. $2^n \times m$
   d. $n \times m^2$

   □ a.
   □ b.
   □ c.
   □ d.

   No, the answer is incorrect.
   Score: 0
   Accepted Answers: d.
Which of the following statements is/are correct?

a. When power is off, a volatile memory will still retain its stored data.
b. A read-only memory has its data stored temporarily.
c. A random-access memory is used as secondary memory.
d. None of these.

No, the answer is incorrect.
Score: 0
Accepted Answers: 
d.  

4) Which of the following statement is false with regards to cache?

a. Cache increases the performance of a memory system.
b. Cache is slower than main memory.
c. Cache is smaller in size than the main memory.
d. All of these.

No, the answer is incorrect.
Score: 0
Accepted Answers: 
b.  

5) Which of the following statements is not true in regards to virtual memory?

a. The main objective for using virtual memory is to increase the effective capacity of the memory system.
b. Size of the program can be as large as the size of the secondary memory.
c. Program and data are stored in the secondary memory.
d. None of these.

No, the answer is incorrect.
Score: 0
Accepted Answers: 
d.  

6) For a 2K x 16 memory system that uses a decoder to select a word, the total number of external connections to the memory system (including address, data, control, and port signals) will be at least ________.
No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
(Type: Numeric) 31

7) Which of the following statement is false in regards to SRAM operation?
   a. The word line of a cell is activated in order to read the content of the cell.  
   b. To write 1, the bit line \( b^+ \) is set with 1 and the bit line \( b^- \) is set with 0.  
   c. To write 1, the bit line \( b^- \) is set with 1 and the bit line \( b^+ \) is set with 0.  
   d. To write 0, the bit line \( b^- \) is set with 1 and the bit line \( b^+ \) is set with 0.  
   
   a.  
   b.  
   c.  
   d.  

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
b.

8) Which of the following is/are true for Dynamic RAM (DRAM)?  
   a. It is slower than Static RAM (SRAM).  
   b. Packing density is higher than Static RAM (SRAM).  
   c. It is faster than Static RAM (SRAM).  
   d. It requires data refreshing.  

   a.  
   b.  
   c.  
   d.  

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
a.  
   b.  
   d.  

9) Assume that a 2G x 1 DRAM memory cell array is organized as 2M rows and 1K columns. The number of address bits required to select a row and a column will be:
   a. 20 and 10  
   b. 40 and 10  
   c. 21 and 10  
   d. None of the above  

   a.  
   b.  
   c.  
   d.  

No, the answer is incorrect.  
Score: 0
Which of the following is false for memory interleaving?

a. The higher order address lines are connected to address lines of memory chips.
b. Consecutive memory addresses are mapped to consecutive memory modules.
c. Permits faster data transfer for word-aligned data.
d. None of these.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.