

Which of the following allows speculative execution?  
direct mapped cache

\_\_\_\_\_ is the number of bits read out of or written into memory at a time.  
Unit of transfer

Which of the following factors determines the effectiveness of the cache?  
hit rate

\_\_\_\_\_ is a permanent physical defect such that the memory cell or cells affected cannot reliably store data but become stuck at 0 or 1 or switch erratically between 0 and 1.  
HARD FAILURE

Hard errors can be caused by the following EXCEPT.  
alpha particles

\_\_\_\_\_ automatically retains a copy of some of the recently used words from the  
DRAM  
cache memory

\_\_\_\_\_ logical operation yields true (binary value 1) if and only if both of its operands are true  
AND

External memory consists of the following peripheral storage devices EXCEPT  
register

\_\_\_\_\_ is a random, nondestructive event that alters the contents of one or more memory cells without damaging the memory  
SOFT ERROR

Which of the following is faster to access?  
Cache memory