OS 隨堂測驗 608

1. ( **D** ) Which of the following is a benefit of allowing a program that is only partially in memory to execute?

A) Programs can be written to use more memory than is available in physical memory.

B) CPU utilization and throughput is increased.

C) Less I/O is needed to load or swap each user program into memory.

D) All of the above

2. ( **B** ) 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 system. Using the FIFO replacement algorithm, what is the number of page faults for the given reference string?

A) 14

B) 8

C) 13

D) 10

3. ( **A** ) \_\_\_\_\_\_\_\_ allows the parent and child processes to initially share the same pages, but when either process modifies a page, a copy of the shared page is created.

A) copy-on-write

B) zero-fill-on-demand

C) memory-mapped

D) virtual memory fork

4. ( **D** ) \_\_\_\_\_ is the algorithm implemented on most systems.

A) FIFO

B) Least frequently used

C) Most frequently used

D) LRU

5. ( **D** ) Belay’s anomaly states that \_\_\_\_.

A) giving more memory to a process will improve its performance

B) as the number of allocated frames increases, the page-fault rate may decrease for all page replacement algorithms

C) for some page replacement algorithms, the page-fault rate may decrease as the number of allocated frames increases

D) for some page replacement algorithms, the page-fault rate may increase as the number of allocated frames increases

6. ( **B** ) Optimal page replacement \_\_\_\_.

A) is the page-replacement algorithm most often implemented

B) is used mostly for comparison with other page-replacement schemes

C) can suffer from Belady's anomaly

D) requires that the system keep track of previously used pages

7. \_\_X\_\_In general, virtual memory decreases the degree of multiprogramming in a system.

8. \_\_O\_\_On a system with demand-paging, a process will experience a high page fault rate when the process begins execution.

9. \_\_O\_\_A page fault must be preceded by a TLB miss.

10. Explain the usefulness of a modify bit.

表示這個page被改過，如果這個page被replacement那要寫回硬碟，若沒有就直接扔掉