

Ceng 328 - Quiz 4

Solve all questions.

For Thursday & Firiday sections

1. (1.75 pts) 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. (1.75 pts) In systems that support virtual memory, -----
 - A) virtual memory is separated from logical memory.
 - B) virtual memory is separated from physical memory.
 - C) physical memory is separated from secondary storage.
 - D) physical memory is separated from logical memory.

3. (1.75 pts) 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

4. (1.75 pts) 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

Choose only one question.

5. (8 pts) Explain the sequence of events that happens when a page-fault occurs.

6. (8 pts) How is the effective access time computed for a demand-paged memory system?