

Computer Operating Systems

Problem#1

Define the concept of a process. Define the concept of a process control block. List the contents of a process control block. Define ready queue. Explain the principle of a multilevel feedback queue. Explain process aging.

Problem #2

Explain the need for page replacement in a page-based virtual memory organization. Differentiate not-recently-used (NRU) and least recently used (LRU) page replacement algorithms. Describe second chance and state which of the two LRU or NRU the second change page replacement algorithm approximates.

Problem#3

Define fragmentation. Differentiate between external and internal fragmentation. From which fragmentation do segment-based and page-based memory allocation suffer? Explain.