

16 Scheduling and context switch – Part 2 —Answers

Answers

Work through these after trying the questions yourself.

16.1 Which ready process runs next, and for how long.

16.2 A fixed time slice.

16.3 To the back of the ready queue.

16.4 The running process's state (registers, program counter, etc.).

16.5 Process control block.

16.6 During a context switch the CPU only saves one process's state and loads another's—it runs none of the actual programs. That time does no useful work for any program, so it is overhead, even though it is needed to share the CPU.

16.7 A very short slice switches often, so a large share of the time is lost to context-switch overhead. A very long slice cuts that overhead but makes other processes wait a long time for their turn, so the system feels unresponsive. A middle value balances the two.