

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.