# Flashcards

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**Q1. What are the key aspects of process management?**

A1. Creating and deleting processes, suspending and resuming processes, providing mechanisms for process communication, synchronization, and deadlock handling.

**Q2. How are processes identified and managed?**

A2. Via a process identifier (pid).

**Q3. What are the resource sharing options between a parent and child process?**

A3. Sharing all resources, sharing a subset of resources, or sharing no resources.

**Q4. What are the execution options for parent and child processes?**

A4. Concurrent execution or the parent waiting for children to terminate.

**Q5. How does a process terminate?**

A5. By executing its last statement and calling the exit() system call.

**Q6. How can a parent process terminate a child process?**

A6. Using the abort() system call if the child exceeds resources, its task is no longer needed, or the parent is exiting and the OS doesn't allow the child to continue.

**Q7. What is cascading termination?**

A7. If a process terminates, all its children, grandchildren, etc., must also terminate.

**Q8. How does a parent process wait for a child process to terminate?**

A8. Using the wait() system call, which returns the child's status and pid.

**Q9. What is a zombie process?**

A9. A child process whose parent has terminated without invoking wait().

**Q10. What is an orphan process?**

A10. A process whose parent has terminated without invoking wait().

**Q11. What happens during a context switch?**

A11. The system saves the old process's state and loads the new process's saved state.

**Q12. Where is the context of a process represented?**

A12. In the Process Control Block (PCB).

**Q13. What is multitasking in mobile systems like?**

A13. Some allow only one process to run at a time, others allow multiple background processes with limitations.

**Q14. Why did Google Chrome adopt a multi-process architecture?**

A14. To prevent a single website crash from affecting the entire browser.

**Q15. What are the three types of processes in Google Chrome?**

A15. Browser process, renderer process, and plug-in process.

**Q16. What are independent processes?**

A16. Processes that cannot affect or be affected by the execution of other processes.

**Q17. What are cooperating processes?**

A17. Processes that can affect or be affected by other processes, often sharing data.

**Q18. What are the two models of inter-process communication (IPC)?**

A18. Message passing and shared memory.

**Q19. What is shared memory in IPC?**

A19. An area of memory shared among communicating processes, managed by the user processes.

**Q20. What is message passing in IPC?**

A20. A mechanism for processes to communicate and synchronize using send and receive operations.