

Q. Explain the role of PCB.

→ ① When a process is created by the OS, it creates a data structure to store the information of that process. This is known as Process Control Block (PCB).

② PCBs are stored in specially reserved memory for the operating system known as kernel space.

③ Information associated with each process :-

(a) Process state

(b) Program counter

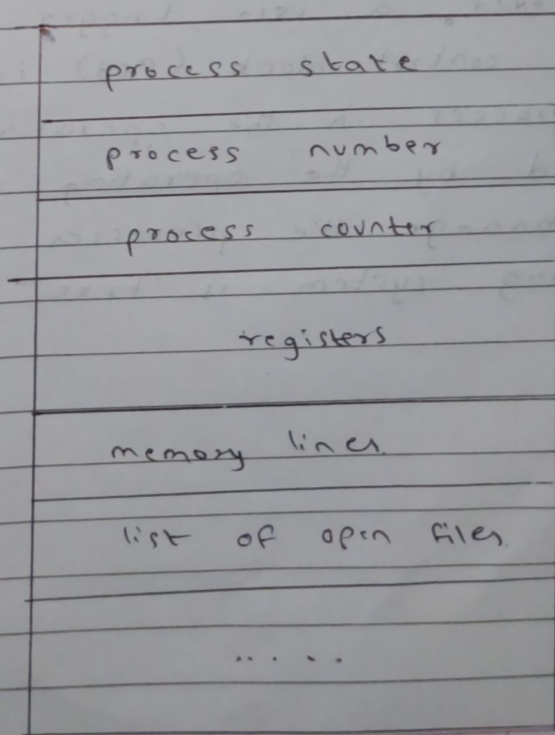
(c) CPU registers

(d) CPU scheduling information

(e) Memory-management information

(f) Accounting information

(g) I/O status information



④ It's the job of the operating system to assign a CPU to a process as the process doesn't need a CPU all the time.

⑤ The role of the process control block arises as an identification card for each process.

⑥ The Operating system doesn't know which process is which, until OS refers through the PCB of every process.

⑦ Whenever a user triggers a process, a process control block (PCB) is created for that process in the operating system which is used by the operating system to execute and manage the processes when the operating system is ~~free~~ free.