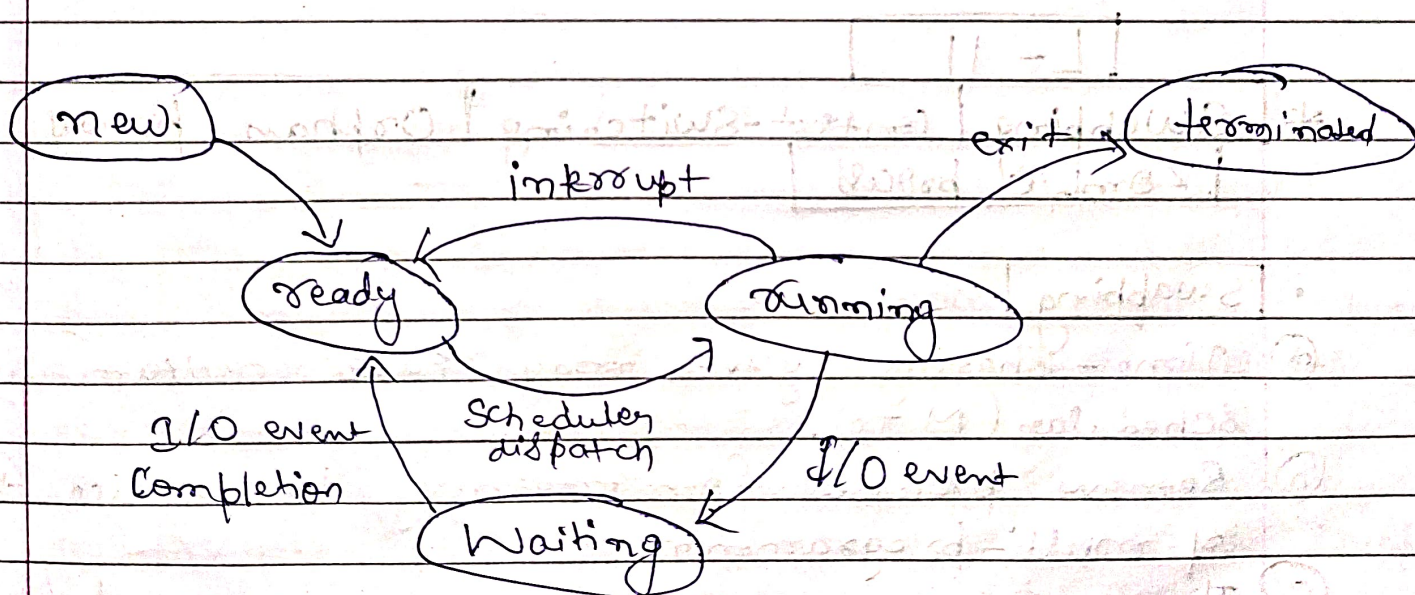\* **Process states | Process Queues**

**①** **Process states** :– As process executes, it changes state. Various types of process state are given below :–

**ⓐ** New :– OS is picked the program and convert it into process. OR any process is being created.

**ⓑ** Run :– Instructions are being executed and CPU is allocated.

**ⓒ** Waiting :– Waiting for I/O

**ⓓ** Ready :– The process is in memory, Waiting to run.

**ⓔ** Terminated :– The process has finished execution. PcB entry removed from the process table.

Process-states Diagram

- **Process Queues:**

(a) **Job Queue:-**
  (i) Processes in new state.
  (ii) Present in secondary memory.
  (iii) Job Schedular (Long-term schedular (LTS)) picks process from the pool and loads them into memory for execution.

(b) **Ready Queue:-**
  (i) Processes in ready state.
  (ii) Present in main memory.
  (iii) CPU Schedular (Short-term schedular (STS)) picks process from ready queue and dispatch it to CPU.

(c) **Wait Queue:-** Processes in wait state.

- **Degree of multi-programming** :- The no. of processes in the memory. LTS controls degree of multi-programming.