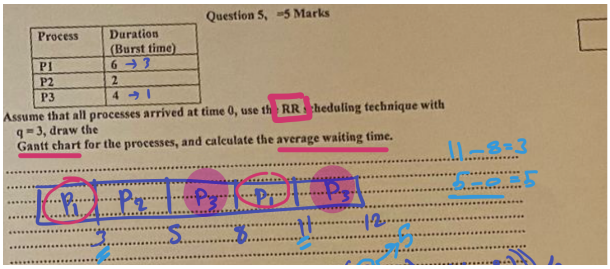
Question 5, =5 Marks

Process	Duration (Burst time)
P1	6 → 3
P2	2
P3	4 → 1

Assume that all processes arrived at time 0, use the RR scheduling technique with q = 3, draw the Gantt chart for the processes, and calculate the average waiting time.



بالضبط

Indirect Communication

Direct Communication

- Processes must name each other explicitly:

حال اذكري الفرق بينهم

Process State

- As a process executes, it changes state
  - **new**: The process is being created
  - **running**: Instructions are being executed
  - **waiting**: The process is waiting for some event to occur
  - **ready**: The process is waiting to be assigned to a processor {Memory}
  - **terminated**: The process has finished execution (Passive/program}

Solution to Critical-Section Problem

1. **Mutual Exclusion** - If process P_i is executing in its critical section, then no other processes can be executing in their critical sections
2. **Progress** - If no process is executing in its critical section and there exist some processes that wish to enter their critical section, then the selection of the processes that will enter the critical section next cannot be postponed indefinitely
3. **Bounded Waiting** - A bound must exist on the number of times that other processes are allowed to enter their critical sections after a process has made a request to enter its critical section and before that request is granted

فراغ

- Mostly accessed by programs via a high-level **Application Program Interface (API)** rather than direct system call use

- "The one program running at all times on the computer" is the **kernel**. Everything else is either a system program (ships with the

- Advantages of process cooperation
  - Information sharing
  - Computation speed-up
  - Modularity
  - Convenience

بس واحد

- الخيارات نماذج
- الصح والخطأ واضح ونماذج
- الفراغات مكرر نماذج بس كتبت الجديد
- والمقالي كتبت لكم كل اللي جاء