

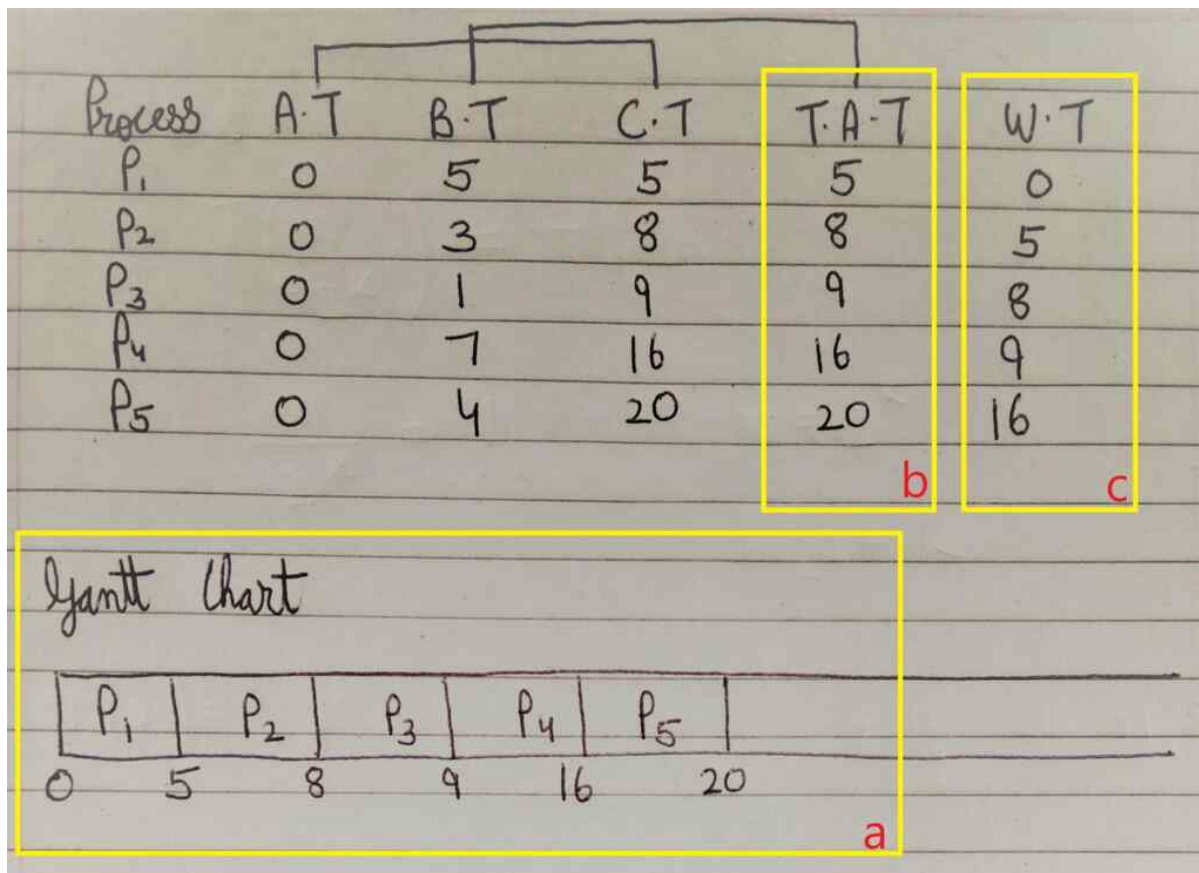
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Answer

Answer a & b & c :

Explanation : Here we have to solve the question using **FCFS** and it's **criteria** is **Arrival time** and **mode** is **non-preemptive** (i.e we cannot remove the process before it is executed completely).

- Here we have to serve all the process as first come first serve based on arrival time.



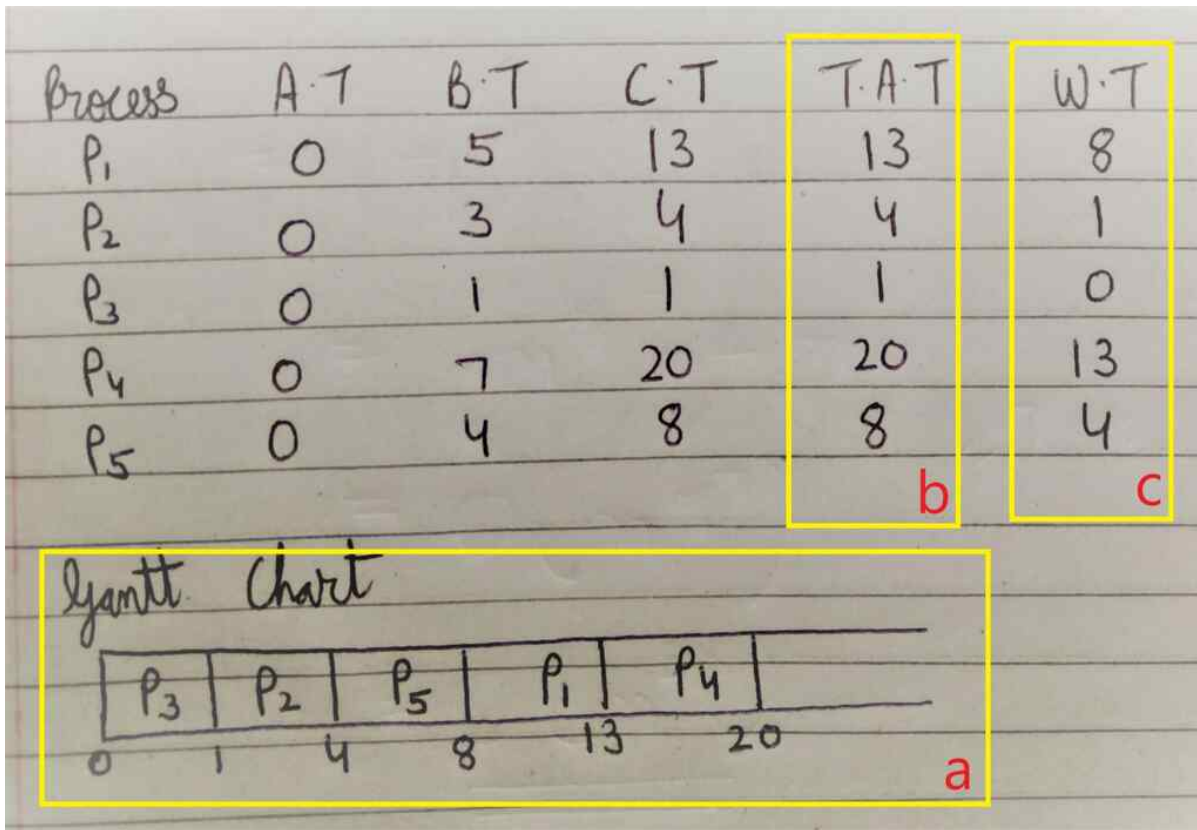
Note:

Turn around time (i.e TAT) = Completion time (i.e C.T) - Arrival time (A.T)

Waiting time (i.e W.T) = T.A.T - Burst time (i.e B.T)

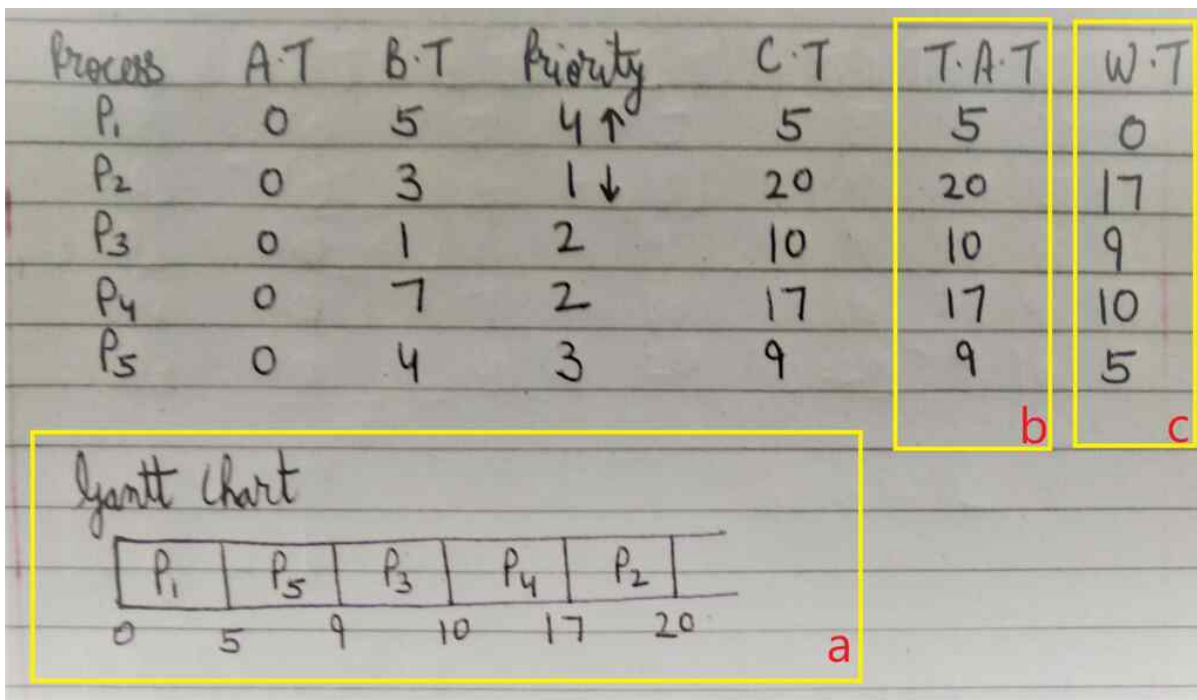
Explanation : Here we have to solve the question using **Shortest Job First** and it's **criteria** is **Burst time** and **mode** is **non-preemptive** (i.e we cannot remove the process before it is executed completely).

- Here we have to serve all the process as shortest job first based on burst time.



Explanation : Here we have to solve the question using **Non-Preemptive Priority** and it's **criteria** is **Priority & Arrival time** and **mode** is **non-preemptive** (i.e we cannot remove the process before it is executed completely).

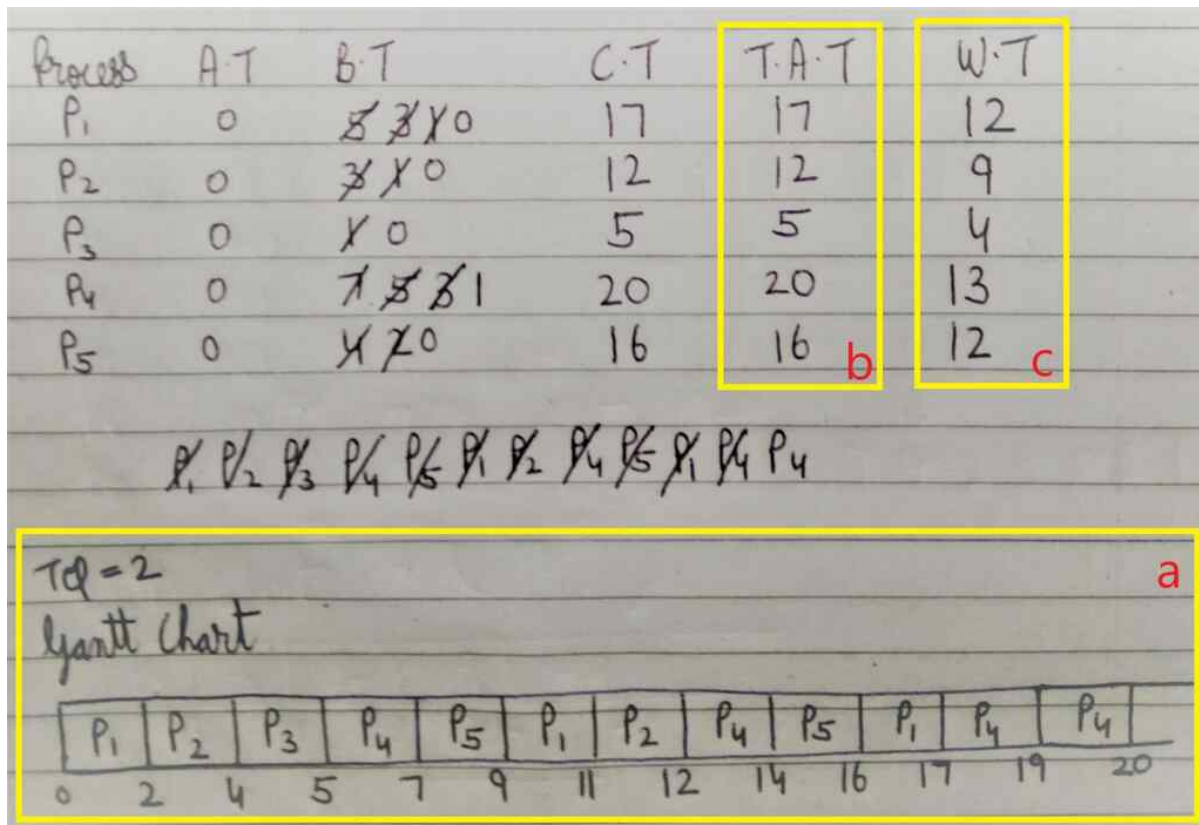
- Here we have to serve all the process based on priority based on arrival time.



Explanation : Here we have to solve the question using **Round Robin** and it's **criteria** is **time quantum & Arrival time** and **mode** is **preemptive** (i.e we can remove the process before it is executed completely).

-In this question the **TQ = 2**

So we will serve each process for the specific tq and will add the process in the queue as they arrive and will execute the process till it's burst time reaches to zero.



Answer d: SJF is having minimum average waiting time from all the above.

SJF < FCFS < Non-Priority < RR

-SJF average waiting time:

$$\text{Average W.T} = \frac{8+1+0+13+4}{5} = \frac{26}{5} = \underline{\underline{5.2}}$$

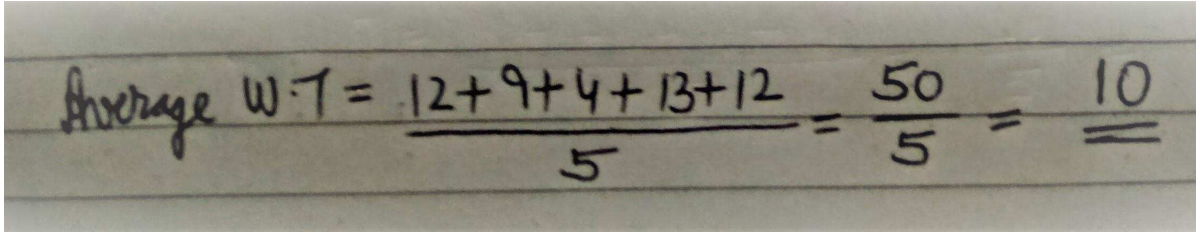
-FCFS average waiting time:

$$\text{Average W.T} = \frac{0+5+8+9+16}{5} = \frac{38}{5} = \underline{\underline{7.6}}$$

-Non-Priority average waiting time:

$$\text{Average W.T} = \frac{0+17+9+10+5}{5} = \frac{41}{5} = \underline{\underline{8.2}}$$

-Round Robin average waiting time:



A handwritten calculation on lined paper showing the formula for average waiting time in a Round Robin scheduling algorithm. The formula is: Average W.T = (12 + 9 + 4 + 13 + 12) / 5 = 50 / 5 = 10. The final result, 10, is underlined twice.

$$\text{Average W.T} = \frac{12 + 9 + 4 + 13 + 12}{5} = \frac{50}{5} = \underline{\underline{10}}$$

#Note If need any help then ping me in the comments I will be glad to help you out ^_^ and If you liked the answer and explanation then please give a **thumbs up** I really need a +ve feedback at the moment.

Likes: 1

Dislikes: 0
