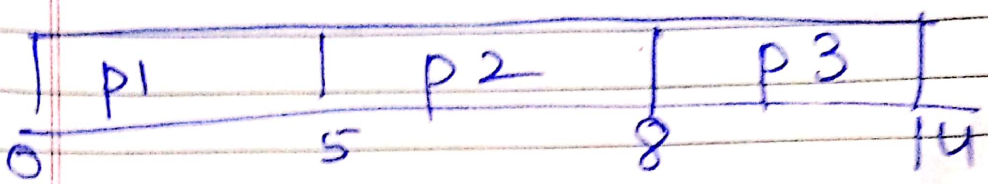
OS Assignment 2

Part E

1) Solution 1

Gant chart.



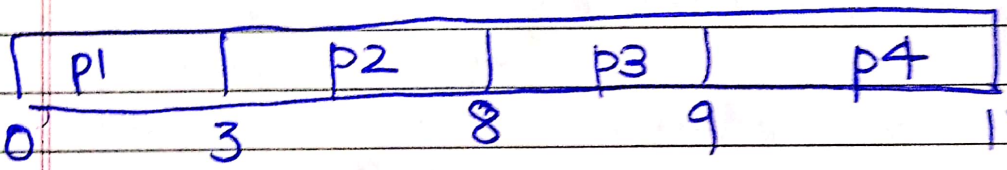
p1 = 0.
p2: 5 - 1 = 4.
p3: 14 - 2 = 12

Average Waiting time.

(0 + 4 + 12)/3 = 16/3 ≅ 5.33

2) Solution 2

Gantt chart.



p1. completion time = 3,
Turnaround time = 3 - 0 = 3.

p2: completion time = 8 Turn around time = 8 - 1 = 7.

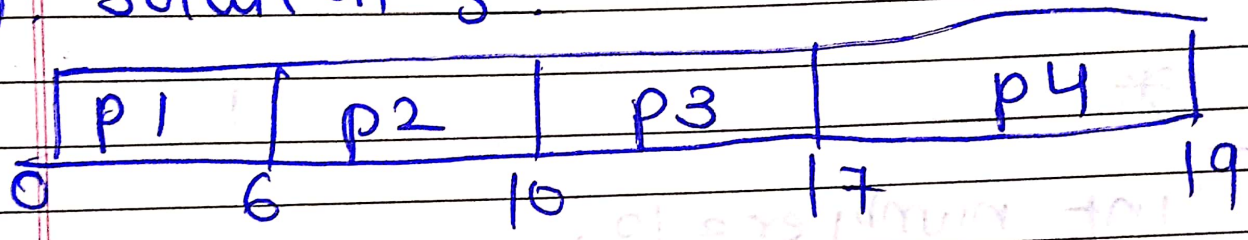
p3: completion Time = 9, Turn around time = 9 - 2 = 7.

P4: completion time = 13, Turnaround time = 13 - 3 = 10.

Calculating Average turn around time =

(3 + 7 + 7 + 10) / 4 = 27 / 4 = 6.75

3) Solution 3.



P1 : waiting time = 0.

~~P2 : W 10 - 2 = 8.~~

P2 : 6 - 1 = 5.

P3 : 10 - 2 = 8.

P4 : 17 - 3 = 14

Average waiting time.

(0 + 5 + 8 + 14) / 4

= 27 / 4 = 6.75

4) Solution 4.

P1	P2	P3	P4	P1	P2	P3	P4
0	2	4	6	8	10	15	17	20

P1: Turnaround time = 20 - 0 = 20.

P2: 15 - 1 = 14.

P3: 17 - 2 = 15.

P4: 20 - 3 = 17.

Average turnaround time.

(20+14+15+17)/4 = 66/4 = 16.5.

5) ~~Init~~ Solution 5.

1. Initial State: Variable x with value of 5.
2. Fork call: Create a child process. copy of parent.
3. Incrementing x: Both the parent and child module. Each with value of 5. Increment both value by 1.
4. Final Value: parent process x become 6, child process x become 6.