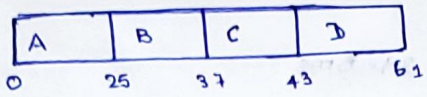
Q1. (a) FIRST COME FIRST SERVE



Average waiting time = 0+25+37+43/4

= 26.25ms.

Average Turnaround time = 25+37+43+61/4

= 41.5ms

(b) SHORTEST JOB FIRST.

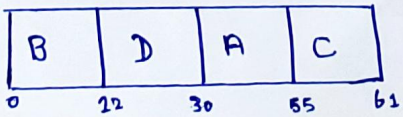
Average waiting time = 0+6+18+36/4

= 15ms.

Average turnaround time = 6+18+36+61/4

= 30.25ms.

(c) PRIORITY SCHEDULING.



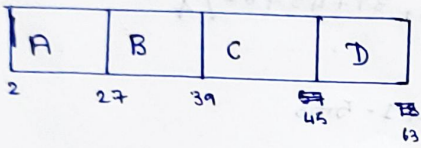
Average waiting time = 0 + 12 + 30 + 55 / 4

= 24.2 ms

Average turnaround time = 12 + 30 + 55 + 61 / 4

= 39.5 ms

02. (a) FIRST COME FIRST SERVE



A	2	25
B	12	12
C	18	6
D	21	18

Average waiting time = (0+2) + (27-12) + (39-18) + (45-21) / 4

= 0 + 25 + 37 + 43 / 4

= 26.25 ms

Average Turnaround Time = 25 + 37 + 43 + 61 / 4

= 41.5 ms

(c) ROUND ROBIN

(D) PRIORITY

Average wait time = 0+12+30+55/4

= 24.2ms

Average turnaround time = 12+30+55+61/4

= 39.5ms

03. Given : $S = 1$ unit

Inefficiency = $(6/23) \times 100\%$

Efficiency = $(1-6/23) \times 100\%$

Average wait time = 0+7+0+2+14/5

= 4.6ms

04.

$P_4 = 0-0 \Rightarrow 0$

$P_1 = 3-2 \Rightarrow 1$

$P_2 = 9-5 \Rightarrow 4$

$P_5 = 11-9 \Rightarrow 2$

$P_3 = 15-1 \Rightarrow 14$

Average waiting time = 0+1+4+7+14/5

= 5.2ms

05.

$P_4 = 0 - 0 \Rightarrow 0$

$P_1 = (3-2)+6 \Rightarrow 7$

$P_2 = 5 - 5 \Rightarrow 0$

$P_5 = (4-4)+2 \Rightarrow 0$

$P_3 = (15-1) \Rightarrow 14$

Average wait time $= 0+7+0+2+14/5$

$= 4.6 ms$