c) Average waiting time = $\frac{\text{Total waiting time}}{\text{Number of process}}$

d) Average Turn around time = $\frac{\text{Total Turn around time}}{\text{Number of process}}$ Print the results in an order.

Step 10: Stop

Source code:-

```
#include <stdio.h>
main()
{
    int p[20], bt[20], pri[20], wt[20], tat[20];
    i, k, n, temp; float wtavg, tatavg;
    clrscr();
```

```c
printf("Enter the number of processes");
scanf("%d", &n);
for(i=0; i<n; i++)
{
    p[i]=i;
}
printf("Enter the Burst Time & priority of process id
        ");
    scanf("%d %d", &bt[i], &pri[i]);
}
for(i=0; i<n; i++)
for(k=i+1; k<n; k++)
        if(pri[i] > pri[k])
        {
                temp = p[i];
        p[i] = p[k];
        p[k] = temp;
            temp = pri[i];
            pri[i] = pri[k];
            pri[k] = temp;
        }
```

```c
wtavg = wt[0] = 0; tatavg = tat[0] - bt[0];
for ( i=1; i<n; i++)
{
    wt[i] = wt[i-1] + bt[i-1];
    tat[i] = tat[i-1] + bt[i];
    wtavg = wtavg + wt[i];
    tatavg = tatavg + tat[i];
}

printf ( "\n process \t \t priority \t Burst
    Time \t waiting Time \t Turn around
    time ");
for ( i=0; i<n; i++)
printf ( "\n %d \t \t %d \t \t %d \t \t %d \t \t
    %d ", p[i], pri[i], bt[i], wt[i],
    tat[i] );

printf ( " average Turnaround Time is %f"
    tatavg / n );

getch ();
```

chart ?
B 6/10
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Out Put

process	priority	Waiting Time	Turn around Time
1	1	1	1
1	5	0	6
4	2	1	6
0	3	10	6	16
2	4	2	16	18
3	5	1	8	19

```
Enter the Burst Time & Priority of Process 2 --- 3
4
Enter the Burst Time & Priority of Process 3 --- 5
6
Enter the Burst Time & Priority of Process 4 --- 7
11
Enter the Burst Time & Priority of Process 5 --- 3
4
Enter the Burst Time & Priority of Process 6 --- 7
7
Enter the Burst Time & Priority of Process 7 --- 7
7
Enter the Burst Time & Priority of Process 8 --- 8
8
Enter the Burst Time & Priority of Process 9 --- 8
7
```

PROCESS	PRIORITY	BURST TIME	WAITING TIME	TURNAROUND TIME
1	2	9	0	9
2	4	3	9	12
5	4	3	12	15
3	6	5	15	20
6	7	7	20	27
7	7	7	27	34
9	7	8	34	42
8	8	8	42	50
0	8	9	50	59
4	11	7	59	66

```
Average Waiting Time is --- 26.799999
Average Turnaround Time is --- 33.400002

...Program finished with exit code 0
Press ENTER to exit console.
```