

Name - Abhay Sumon

University Rollno - 2023011

Course - Bsc-IT 2B.

Q2.

```
#include <stdio.h>
```

```
int main ()
```

```
{
```

```
int bt [20], p[20], wt [20], tat[20], i, j, n, total = 0, pos, temp;
```

```
float avg-wt, avg-tat;
```

```
printf ("Enter number of processes: ");
```

```
scanf ("%d", &n);
```

```
printf ("\n Enter Burst Time: \n");
```

```
for (i = 0; i < n; i++)
```

```
{
```

```
printf ("p%d: ", i+1);
```

```
scanf ("%d", &bt[i]);
```

```
p[i] = i+1;
```

```
}
```

```
for (i = 0; i < n; j++)
```

```
{
```

```
if (bt[j] < bt[pos])
```

```
pos = j;
```

```
}
```

```
temp = bt[i];
```

```
bt[i] = bt[pos];
```

```
bt[pos] = temp;
```

```
temp = p[i];
```

```
P[i] = p[pos];
```

```
P[pos] = temp;
```

```
}
```

```
wt[0] = 0;
```

```
for (i = 1; i < n; i++)
```

```
{
```

```
    wt[i] = 0;
```

```
    for (j = 0; j < i; j++)
```

```
        wt[i] += bt[j];
```

```
    Total += wt[i];
```

```
Total += wt[i];
```

```
}
```

```
avg_wt = (float) Total / n;
```

```
Total = 0;
```

```
printf("\n Process\t Burst Time\t Waiting Time\t Turnaround Time");
```

```
for (i = 0; i < n; i++)
```

```
{
```

```
    tat[i] = bt[i] + wt[i];
```

```
    Total += tat[i];
```

```
    printf("P%d\t\t\t %d\t\t\t %d\t\t\t %d", P[i], bt[i], wt[i], tat[i]);
```

```
}
```

```
avg_tat = (float) Total / n;
```

```
printf("\n\n Average waiting Time = %f", avg_wt);
```

```
printf("\n\n Average Turnaround Time = %f\n", avg_tat);
```

```
}
```

Enter number of process:4

Enter Burst Time:

p1:10

p2:2

p3:1

p4:4

Process	Burst Time	Waiting Time	Turnaround Time
p3	1	0	1
p2	2	1	3
p4	4	3	7
p1	10	7	17

Average Waiting Time=2.750000

Average Turnaround Time=7.000000

Process returned 0 (0x0) execution time : 19.949 s

Press any key to continue.

-