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Operating System

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Roll no - 2023017

Ques 2 Code

```
#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 num of process:");
```

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

```
printf("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; i++)
```

```
{
```

```
pos = i;
```

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

```
{
```

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

```
pos = j;
```

```
}
```

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

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

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

Ranulpha

```
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];
}

avg-wt = (float) total / n;
total = 0;

printf("n process t burst time t waiting time turn around time");
for (i = 0; i < n; i++)
{
    tat[i] = bt[i] + wt[i];
    total += tat[i];
    printf("n p %d\t %d\t %d\t %d\t %d", p[i], bt[i], wt[i], tat[i]);
}

avg-tat = (float) total / n;
printf("n Average waiting time = %f", avg-wt);
printf("n Average Turnaround time = %f", avg-tat);
}
```

F:\ppr.c - [Executing] - Dev-C++ 5.11

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Project

F:\ppr.exe

```
Enter number of process:4
Enter Burst Time:np1:10
p2:2
p3:1
p4:4
nProcesst   Burst Time   tWaiting TimeTurnaround Timenp3tt   1tt   0ttt1np2tt   2tt   1ttt3np4tt   4tt   3ttt7np1tt
10tt   7ttt17nnAverage Waiting Time=2.750000nAverage Turnaround Time=7.000000n
-----
Process exited after 33.58 seconds with return value 34
Press any key to continue . . .
```

61

62

```
printf("nAverage Turnaround Time=%fn",avg_tat);
```