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Course — BSc IT
Section — A
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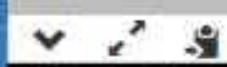
Paper Name — Operating System
Paper Code — PBI202

Q2.
```
#include<stdio.h>
int main()
{
int bt[20], p[20], wt[20], tat[20], i, j, n, total=0, pos, temp;
float avgwt, avgtat;
printf("Enter number of process : ");
scanf("%d", &n);
printf("\nEnter Process 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;
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];
}
avgwt = (float)total/n;
total = 0;
printf("\nProcess\t\tBurst Time\tWaiting Time\tTurnaround Time");
for (i=0; i<n; i++)
{
    tat[i] = bt[i]+wt[i];
    total += tat[i];
    printf("\nP[%d]\t\t%d\t\t%d\t\t%d", p[i], bt[i], wt[i], tat[i]);
}
avgtat = (float)total/n;
printf("\n\nAverage Waiting Time = %.2f", avgwt);
printf("\nAverage Turnaround Time = %.2f\n", avgtat);
}
```




```
Enter number of process:4

Enter Process Burst Time
P[1]:10
P[2]:2
P[3]:1
P[4]:4

Process         Burst Time      Waiting Time    Turnaround Time
P[3]            1               0               1
P[2]            2               1               3
P[4]            4               3               7
P[1]            10              7               17

Average Waiting Time=2.75
Average Turnaround Time=7.00


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