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Sub: PBI 202 Operating System

Q-2:-

Code :-

```
#include <stdio.h>
int main()
{
```

```
int arrival_time[10], burst_time[10],
temp[10];
```

```
int i, smallest, count = 0, time, limit;
double wait_time = 0, turnaround_time = 0, end;
float average_waiting_time,
```

```
average_turnaround_time;
printf("\nEnter the Total Number of Processes: t");
```

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

```
printf("\nEnter Details of %d Processes", limit);
```

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

```
{ printf("\nEnter Arrival Time: t");
```

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

```
printf("\nEnter Burst Time: t");
```

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

```
temp[i] = burst_time[i];
```

```
}
```

```
burst_time[9] = 9999;
```

```
for (time = 0; count != limit; time++)
```

```
{ smallest = 9;
```

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

```
}
```

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```
if (arrival - time[i] <= time &&
burst - time[i] < burst - time[smallest] && bursttime[i] > 0)
{
    smallest = i;
}
}
burst - time[smallest] -;
if (burst - time[smallest] == 0)
{
    count ++;
    end = time + 1;
    wait - time = wait - time + end - arrival - time[smallest]
    - temp[smallest];
    turnaround - time
= turnaround - time + end - arrival - time[smallest];
}
}
average - waiting - time = wait - time / limit;
average - turnaround - time = turnaround - time / limit;
printf("nnAverage Waiting Time: t%lf\n", average - turnaround - time);
return 0;
}
```

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```

Enter the Total Number of Processes:4
Enter Details of 4 Processes
Enter Arrival Time: 0
Enter Burst Time: 10
Enter Arrival Time: 0
Enter Burst Time: 2
Enter Arrival Time: 0
Enter Burst Time: 1
Enter Arrival Time: 0
Enter Burst Time: 4
Average Waiting Time: 2.750000
Average Turnaround Time: 7.000000
Process returned 0 (0x0) execution time : 20.464 s
Press any key to continue.

```

Enter Details of 4 Processes

```
Enter Arrival Time: 0
Enter Burst Time: 10
```

```
Enter Arrival Time: 0
Enter Burst Time: 2
```

```
Enter Arrival Time: 0
Enter Burst Time: 1
```

```
Enter Arrival Time: 0
Enter Burst Time: 4
```

Average Waiting Time: 2.750000

```
Average Waiting Time: 2.750000
Average Turnaround Time: 7.000000
```

Average turnaround time: 7.000000

Process returned 0 (0x0) execution time : 20.464 s

```
Process returned 0 (0x0)   execution time : 20.464 s
Press any key to continue.
```