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Course :- BSc IT

Section :- '2B'.

Paper :- Operating System practical

Paper code :- PBI-202

Q.2 :- Each process P1 P2 P3 P4 with arrival time & cpu time respectively (0,10) (0,2), (0,1) (0,4). - - - - - waiting time.

Sol :-

```
#include<stdio.h>
int main()
{
    int ~~arrival~~ at[10], bt[10], temp[10];
    int i, smallest, count=0, time, limit;
    double wt=0, tat=0, end;
    float awt, atat;
    printf("\n Enter the Total number of process:\t");
    scanf("%d", &limit);
    printf("\n Enter Detail of %d process\n", limit);
    for(i=0; i<limit; i++)
    {
        printf("\n Enter arrival time:\t");
        scanf("%d", &at[i]);
        printf("\n Enter burst time:\t");
        scanf("%d", &~~burst~~ bt[i]);
        temp[i] = bt[i];
    }
```

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```
bt[9] = 9999;
for(time = 0; count != limit; time++)
{
    smallest = 9;
    for(i=0; i< limit; i++)
    {
        if(at[i]<=time && bt[i] < bt[smallest] &&
          bt[i] >0)
        {
            smallest = i;
        }
    }
    bt[smallest]--;
    if(bt[smallest]==0)
    {
        count++;
        end = time+1;
        wt = wt + end - at[smallest] - temp[smallest];
        tat = tat + end - at[smallest];
    }
}
awt = wt / limit;
atat = tat / limit;
printf("\n\nAverage waiting time:\t%.1f\n", awt);
printf("\n Average turnaround time:\t%.1f\n", atat);
return 0;
}
```

Ratna

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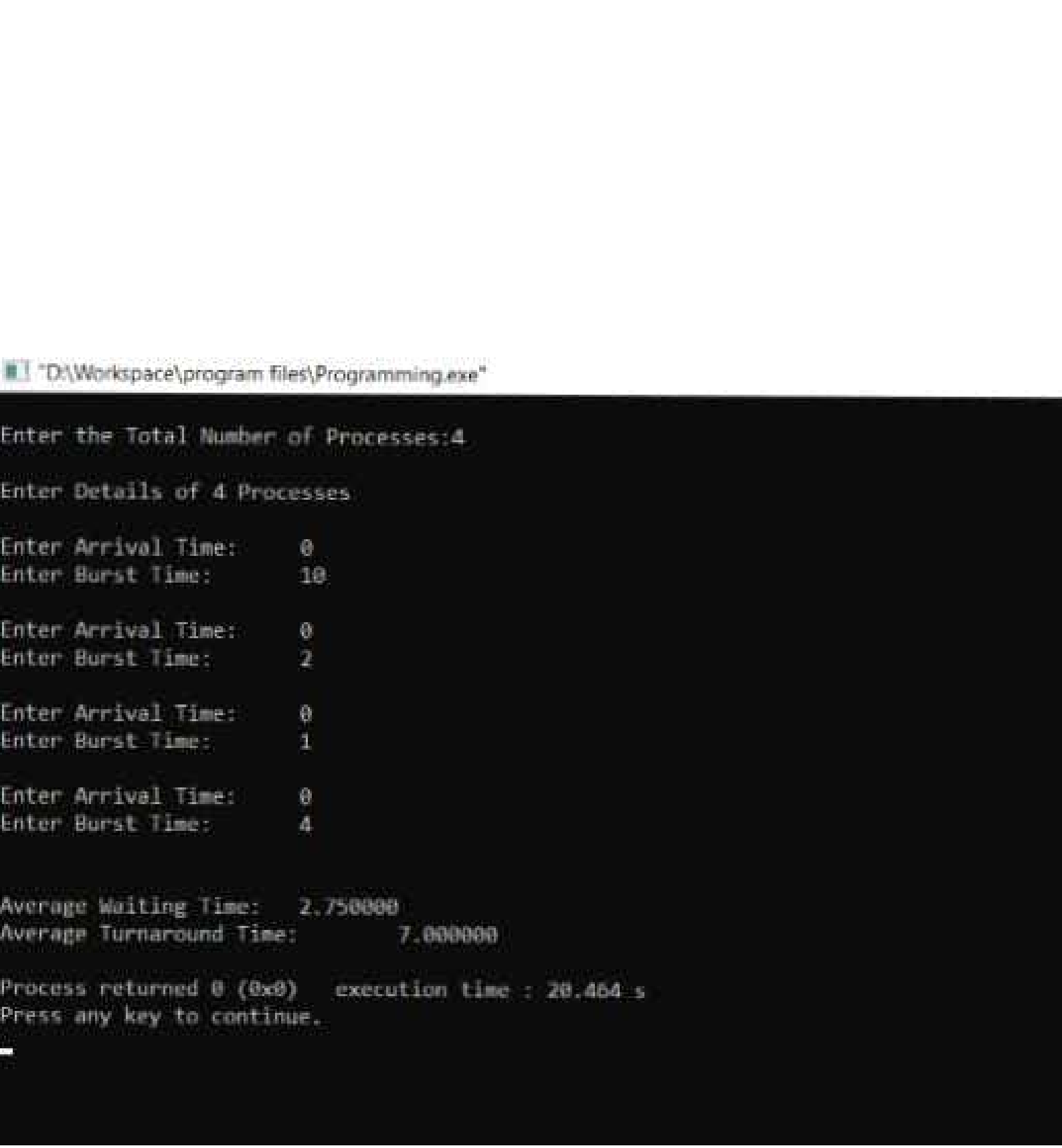
"D:\Workspace\program files\Programming.exe"
Enter the Total Number of Processes:4
Enter Details of 4 Processes
Enter Arrival Time: 0
Enter Burst Time: 10
Enter Arrival Time: 0
Enter Burst Time: 2
Enter Arrival Time: 0
Enter Burst Time: 1
Enter Arrival Time: 0
Enter Burst Time: 4
Average Waiting Time: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