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Course:- BSC. IT

Section:- 2 'A'

Paper:- operating system practical

Paper code:- PB1-202

Q-2 Each process P_1, P_2, P_3, P_4 with arrival time and c/pu time ----- and average waiting time.

Sol:- #include <stdio.h>

int main()

{

int 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 Details 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", &bt[i]);

temp[i] = bt[i];

}

bt[9] = 9999;

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

Date:- 22/6/2021

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```

{
    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[atSmallest];
        tat = tat + end - at[Smallest];
    }
}
awt = wt / limit;
atat = tat / limit;
printf("\n\n Average waiting Time: \t %.1f\n", awt);
printf("Average Turnaround Time: \t %.1f\n", atat);
return 0;
}

```

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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.