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## MID-TERM PRACTICAL

### Operating System

Q2 :- SJF process sch.

→ #include <stdio.h>

#include <conio.h>

#include <string.h>

void main()

{

int et[20], at[10], n, i, j, temp, st[10], ft[10],  
wt[10], ta[10];

int totwt = 0, totta = 0;

float awt, ata;

char pn[10][10], t[10];

printf("Enter the number of process : ");  
scanf("%d", &n);

for(i=0; i<n; i++)

{ printf ("Enter process name , arrival time &  
execution time : ");

scanf ("%s %d %d", pn[i], &at[i], &et[i]);

for(i=0; i<n; i++)

for(j=0; j<n; j++)

{

if (et[i] < et[j])

{

$\text{temp} = \text{at}[i];$  $\text{at}[i] = \text{at}[j];$  $\text{at}[j] = \text{temp};$  $\text{temp} = \text{ct}[i];$  $\text{ct}[i] = \text{ct}[j];$  $\text{ct}[j] = \text{temp};$  $\text{strcpy}(t, pn[i]);$  $\text{strcpy}(pn[i], pn[j]);$  $\text{strcpy}(pn[j], t);$ 

{

{

 $\text{for } (i=0; i < n; i++)$ 

else

 $\text{if } (i == 0)$  $s[i] = \text{at}[i];$  $s[i] = ft[i-1];$  $wt[i] = s[i] - at[i];$  $ft[i] = s[i] + ct[i];$  $ta[i] = ft[i] - at[i];$  $twt = wt[i];$  $tatta = ta[i];$ 

{

 $awt = (\text{float}) twt / n;$  $ata = (\text{float}) tatta / n;$  $\text{printf} (" \backslash n \text{Pname } \& \text{ arrival time } \& \text{ execution time}$   
 $\& \text{ waiting time } \& \text{ tattime } ");$

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

```
printf ("In %s \t %.5d \t \t %.5d \t \t %.5d  
 \t \t %.5d , pn[i] , at[i] , et[i]  
 w[i] , ta[i]);
```

```
printf ("In Average waiting time is : %f , awt);
```

```
printf ("In Average Turnaround time is : %f , ata);
```

```
getch();
```

```
}
```

~~Tushar Kirti~~

Enter the number of process:4

Enter process name, arrival time& execution time:p1

0

10

Enter process name, arrival time& execution time:p2

0

2

Enter process name, arrival time& execution time:p3

0

1

Enter process name, arrival time& execution time:p4

0

4

Pname	arrivaltime	execuitiontime	waitingtime	tatime
p3	0	1	0	1
p2	0	2	1	3
p4	0	4	3	7
p1	0	10	7	17

Average waiting time is:0.22.750000

Average turnaroundtime is:0.27.000000