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Subject: Operating System

Date:

Q2 #include <stdio.h>

int main()

{
int bt[20], p[20], wt[20], tat[20], i, j, total = 0;

int pos, temp, n;

float avg-wt, avg-tat;

printf("Enter number of process: ");

scanf("%d", &n);

printf("\nEnter 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];
}

```

```

avg_wt = (float) total / n;
total = 0;

```

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printf("\nProcess\t BurstTime \t WaitingTime\n\t TurnaroundTime");

```

```

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

```

```

    tat[i] = bt[i] + wt[i];
    total += tat[i];

```

```

    printf("\n p%d\t\t %d\t\t %d\t\t\n\t %d", p[i], bt[i], wt[i], tat[i]);
}

```

```

avg_tat = (float) total / n;

```

```

printf("\n Average WaitingTime = %f", avg_wt);

```

```

printf("\n Average TurnaroundTime = %f", avg_tat);
}

```

```
input
Enter number of process:4
Enter Burst Time:
p1:10
p2:2
p3:1
p4:4
Process      Burst Time      Waiting Time      Turnaround Time
p3           1              0                1
p2           2              1                3
p4           4              3                7
p1          10              7               17
Average Waiting Time=2.750000
Average Turnaround Time=7.000000

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