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Course - BCA 5A

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Subject - operating system Practical Mid Back

```
Q2 → #include <stdio.h>
int main()
{
    int bt[20], p[20], wt[20], tat[20], i, j, n, total = 0, pos, temp;
    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++)
        {
```

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```

{
    if (b+ [i] < b+ [pos])
        pos = i;
}

```

```

temp = b+ [i];
b+ [i] = b+ [pos];
b+ [pos] = temp;

```

```

temp = p [i];
p [i] = p [pos];
p [pos] = temp;
}

```

• wt [0] = 0; // waiting time for first process will be zero

```

for (i = 1; i < n; i++)

```

```

{

```

```

    wt [i] = 0;

```

```

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

```

```

        wt [i] += b+ [j];

```

```

    total += wt [i];

```

```

}

```

```

avg_wt = (float) total / n; // average waiting time

```

```

total = 0;

```

```

printf ("\\n Process \\t Burst Time \\t waiting time \\t Turn around time");
for (i = 0; i < n; i++)

```

```

{

```

```

    tat [i] = b+ [i] + wt [i]; // calculate turn around time
    total += tat [i];

```

```

    printf ("\\n p \\t b \\t w \\t t \\t", ...

```

total

```
---= , p[i], bt[i], wt[i], tat[i]);  
}
```

```
avg-tat = (float) total/n; //average turn around time  
printf("\n\nAverage Waiting Time = %.6", avg-wt);  
printf("\n\nAverage Turnaround Time = %.6\n", avg-tat);  
}
```

utsav



C:\Users\user\Documents\SJF2.exe

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

-----  
Process exited after 6.528 seconds with return value 0

Press any key to continue . . .

```
30
31     temp=p[i];
32     p[i]=p[pos];
33     p[pos]=temp;
34 }
35
36 wt[0]=0;           //waiting time for first process will be zero
37
```