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Section - A

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Course - BSC IT

Sem - 2

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02.) #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], #[10];
    printf("Enter the name 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])
            {
                temp = at[i];
                at[i] = at[j];
                at[j] = temp;
                temp = et[i];
```

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et[i] = et[j];
et[j] = temp;
strcpy(t, pn[i]);
strcpy(pn[i], pn[j]);
strcpy(pn[j], t);
}
}
for(i=0; i<n; i++)
{
    if(i==0)
        st[i] = at[i];
    else
        st[i] = ft[i-1];
        wt[i] = st[i] - at[i];
        ft[i] = st[i] + et[i];
        ta[i] = ft[i] - at[i];

        totwt += wt[i];
        totta += ta[i];
}
awt = (float) totwt / n;
ata = (float) totta / n;
printf("\n Pname | arrival time | execution time | waiting time | tatime");
for(i=0; i<n; i++)
    printf("\n %5s | %5d | %5d | %5d | %5d", pn[i], at[i],
        et[i], wt[i], ta[i]);
printf("Avg. waiting time is : 0.2 %f", awt);
printf("Avg. turnaround time is : 0.2 %f", ata);
getch();
}

```