

C Program for Preemptive SJF:

```
#include <stdio.h>

int main()
{
    int arr_time[10],burst_time[10],temp[10];

    int i,smallest,count=0,time1,limit;

    double wait_time=0,turn_arnd_time=0,end;

    float avg_wt,avg_trnd;

    printf("\n Enter the total Process");

    scanf("%d",&limit);

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

        printf("\n Enter Arrival Time");

        scanf("%d",&arr_time[i]);

        printf("\n Enter Burst Time");

        scanf("%d",&burst_time[i]);

        temp[i]=burst_time[i];

    }

    burst_time[9]=9999;

    for(time1=0;count!=limit;time1++){

        smallest=9;

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

            if(arr_time[i]<=time1&& burst_time[i]<burst_time[smallest]&& burst_time[i]>0){

                smallest=i;

            }

        }

    }

}
```

```

}

burst_time[smallest]--;

if(burst_time[smallest]==0)

end=time1+1;

wait_time=wait_time+end-arr_time[smallest]-temp[smallest];

turn_arnd_time=turn_arnd_time+end-arr_time[smallest];


}

}

avg_wt=wait_time/limit;

avg_trnd=turn_arnd_time/limit;

printf(" Average Waiting Time:-%f",avg_wt);

printf(" \nAverage TurnAround Time:-%f",avg_trnd);

return 0;

}

```

Output:

```

Enter the total Process5

Enter Arrival Time:2

Enter Burst Time:6

Enter Arrival Time:5

Enter Burst Time:2

Enter Arrival Time:1

Enter Burst Time:8

Enter Arrival Time:0

```

Enter Burst Time:3

Enter Arrival Time4

Enter Burst Time4

Average Waiting Time:-4.600000

Average TurnAround Time:-9.200000