PROGRAM:

```
#include<stdio.h>
#include<conio.h>
struct fcfs{
    int pid;
    int btime;
    int wtime;
    int ttime;
} p[10];
void main()
{
    int i,n;
    int totwtime=0;
    int totttime=0;
    printf("\nFCFS scheduling ");
    printf("\nenter the no of processes:");
    scanf("%d",&n);
    for(i=0;i<n;i++)
{
    p[i].pid=i+1;
    printf("burst time of process %d:",p[i].pid);
    scanf("%d",&p[i].btime);
}
    p[0].wtime=0;
    p[0].ttime=p[0].btime;
    for(i=1;i<n;i++)
    {
        p[i].wtime=p[i-1].wtime+p[i-1].btime;
        p[i].ttime=p[i].wtime+p[i].btime;
        totttime+=p[i].ttime;
        totwtime+=p[i].wtime;
    }

    printf("\nTotal waiting time: %d\n", totwtime);
    printf("Average waiting time: %d\n", totwtime/ n);
    printf("Total turnaround time: %d\n", totttime);
    printf("Average turnaround time: %d\n", totttime / n);
 getch();
}
```

OUTPUT:

```
FCFS scheduling
enter the no of processes:3
burst time of process 1:24
burst time of process 2:3
burst time of process 3:3

Total waiting time: 51
Average waiting time: 17
Total turnaround time: 57
Average turnaround time: 19
```

PROGRAM:

```
#include <stdio.h>
#include <conio.h>

struct sjf {
    int pid;
    int btime;
    int wtime;
    int ttime;
} p[10];

void main() {
   int i, j, n;
   int totwtime = 0;
   int totttime = 0;
   struct sjf temp;

 printf("SJF Scheduling\n");
 printf("Enter the number of processes: ");
 scanf("%d", &n);
 for(i = 0; i < n; i++) {
 printf("Enter the process ID: ");
 scanf("%d", &p[i].pid);
 printf("Enter the burst time: ");
 scanf("%d", &p[i].btime);
  }

  for(i = 0; i < n - 1; i++) {
  for(j = i + 1; j < n; j++) {
  if(p[i].btime > p[j].btime) {
  temp = p[i];
  p[i] = p[j];
  p[j] = temp;
  }
  }
  }
 p[0].wtime = 0;
 p[0].ttime = p[0].btime;
 totttime += p[0].ttime;

 for(i = 1; i < n; i++) {
 p[i].wtime = p[i - 1].wtime + p[i - 1].btime;
 p[i].ttime = p[i].wtime + p[i].btime;
 totwtime += p[i].wtime;
 totttime += p[i].ttime;
 }

 printf("\nTotal waiting time: %d\n", totwtime);
 printf("Average waiting time: %.2f\n", (float)totwtime / n);
 printf("Total turnaround time: %d\n", totttime);
 printf("Average turnaround time: %.2f\n", (float)totttime / n);
getch();
}
```

OUTPUT:

```
SJF Scheduling
Enter the number of processes: 4
Enter the process ID: 1
Enter the burst time: 6
Enter the process ID: 2
Enter the burst time: 8
Enter the process ID: 3
Enter the burst time: 7
Enter the process ID: 4
Enter the burst time: 3

Total waiting time: 28
Average waiting time: 7.00
Total turnaround time: 52
Average turnaround time: 13.00
```