C Program for Round Robin:

```
#include<stdio.h>

int main()
{

  int count,j,n,time,remain,flag=0,time_quantum;
  int wait_time=0,turnaround_time=0,at[10],bt[10],rt[10];
  printf("Enter Total Process:\t ");
  scanf("%d",&n);
  remain=n;
  for(count=0;count<n;count++)
  {
    printf("Enter Arrival Time and Burst Time for Process
Process Number %d :",count+1);
    scanf("%d",&at[count]);
    scanf("%d",&bt[count]);
    rt[count]=bt[count];
  }
  printf("Enter Time Quantum:\t");
  scanf("%d",&time_quantum);
  printf("\n\nProcess\t|Turnaround Time|Waiting Time\n\n");
  for(time=0,count=0;remain!=0;)
  {
    if(rt[count]<=time_quantum && rt[count]>0)
    {
      time+=rt[count];
      rt[count]=0;
      flag=1;
    }
    else if(rt[count]>0)
    {
      rt[count]-=time_quantum;
      time+=time_quantum;
    }
    if(rt[count]==0 && flag==1)
    {
      remain--;
      printf("P[%d]\t|\t%d\t|\t%d\n",count+1,time-
at[count],time-at[count]-bt[count]);
      wait_time+=time-at[count]-bt[count];
      turnaround_time+=time-at[count];
      flag=0;
    }
    if(count==n-1)
      count=0;
```

```
    else if(at[count+1]<=time)
      count++;
    else
      count=0;
  }
  printf("\nAverage Waiting Time= %f\n",wait_time*1.0/n);
  printf("Avg Turnaround Time = %f",turnaround_time*1.0/n);

  return 0;
}
```

Output (With Arrival Time 0):

```
Enter Total Process:     4

Enter Arrival Time and Burst Time for Process Process Number 1 :
0
9

Enter Arrival Time and Burst Time for Process Process Number 2 :
0
5

Enter Arrival Time and Burst Time for Process Process Number 3 :
0
3

Enter Arrival Time and Burst Time for Process Process Number 4 :
0
4

Enter Time Quantum:     5




Process |Turnaround Time|Waiting Time



P[2]    |       10      |       5

P[3]    |       13      |       10

P[4]    |       17      |       13

P[1]    |       21      |       12



Average Waiting Time= 10.000000

Avg Turnaround Time = 15.250000
```

Output (With different Arrival Time0:

```
Enter Total Process:     4


Enter Arrival Time and Burst Time for Process Process Number 1 :
0
9

Enter Arrival Time and Burst Time for Process Process Number 2 :
1
5

Enter Arrival Time and Burst Time for Process Process Number 3 :
2
3

Enter Arrival Time and Burst Time for Process Process Number 4 :
3
4

Enter Time Quantum:     5



Process |Turnaround Time|Waiting Time


P[2]    |       9       |       4

P[3]    |       11      |       8

P[4]    |       14      |       10

P[1]    |       21      |       12


Average Waiting Time= 8.500000

Avg Turnaround Time = 13.750000
```

```
Enter Total Process:     6

Enter Arrival Time and Burst Time for Process Process Number 1 :0

5

Enter Arrival Time and Burst Time for Process Process Number 2 :1

6

Enter Arrival Time and Burst Time for Process Process Number 3 :2

3

Enter Arrival Time and Burst Time for Process Process Number 4 :3

1

Enter Arrival Time and Burst Time for Process Process Number 5 :4

5

Enter Arrival Time and Burst Time for Process Process Number 6 :6

4

Enter Time Quantum:     4



Process |Turnaround Time|Waiting Time


P[3]    |       9       |       6

P[4]    |       9       |       8

P[6]    |       14      |       10

P[1]    |       21      |       16

P[2]    |       22      |       16

P[5]    |       20      |       15


Average Waiting Time= 11.833333

Avg Turnaround Time = 15.833333
```