LAB : 02

Q : 03

```
#include<stdio.h>
#include<conio.h>
main()
{
   int bt[20], wt[20], tat[20], i, n;
   float wtavg, tatavg;
//    clrscr();
   printf("\nEnter the number of processes -- ");
   scanf("%d", &n);
   for(i=0; i<n; i++)
   {
      printf("\nEnter Burst Time for Process %d -- ", i);
      scanf("%d", &bt[i]);
   }
   wt[0] = wtavg = 0;
   tat[0] = tatavg = bt[0];
   for(i=1; i<n; i++)
   {
      wt[i] = wt[i-1] + bt[i-1];
      tat[i] = tat[i-1] + bt[i];
      wtavg = wtavg + wt[i];
      tatavg = tatavg + tat[i];
   }
   printf("\t PROCESS \tBURST TIME \t WAITING TIME\t TURNAROUND TIME\n");
   for(i=0; i<n; i++)
```

```
    printf("\n\t P%d \t\t %d \t\t %d \t\t %d", i, bt[i], wt[i], tat[i]);
  printf("\nAverage Waiting Time -- %f", wtavg/n);
  printf("\nAverage Turnaround Time -- %f", tatavg/n);
  getch();
}
```

```
Enter the number of processes -- 4

Enter Burst Time for Process 0 -- 3

Enter Burst Time for Process 1 -- 1

Enter Burst Time for Process 2 -- 0

Enter Burst Time for Process 3 -- 4
        PROCESS         BURST TIME       WAITING TIME    TURNAROUND TIME

        P0               3               0               3
        P1               1               3               4
        P2               0               4               4
        P3               4               4               8
Average Waiting Time -- 2.750000
Average Turnaround Time -- 4.750000
```

Q : 04

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

main() {
  int p[20], bt[20], wt[20], tat[20], i, k, n, temp;
  float wtavg, tatavg;

//   clrscr();
  printf("\nEnter the number of processes -- ");
```

```
  scanf("%d", &n);

  for(i = 0; i < n; i++) {
    p[i] = i;
    printf("Enter Burst Time for Process %d -- ", i);
    scanf("%d", &bt[i]);
  }

  for(i = 0; i < n; i++) {
    for(k = i + 1; k < n; k++) {
      if(bt[i] > bt[k]) {
        temp = bt[i];
        bt[i] = bt[k];
        bt[k] = temp;
        temp = p[i];
        p[i] = p[k];
        p[k] = temp;
      }
    }
  }

  wt[0] = wtavg = 0;
  tat[0] = tatavg = bt[0];
  for(i = 1; i < n; i++) {
    wt[i] = wt[i - 1] + bt[i - 1];
    tat[i] = tat[i - 1] + bt[i];
    wtavg = wtavg + wt[i];
    tatavg = tatavg + tat[i];
  }
```

```
    printf("\n\tPROCESS\tBURST TIME\tWAITING TIME\tTURNAROUND TIME");
    for(i = 0; i < n; i++) {
        printf("\n\tP%d\t\t%d\t\t%d\t\t%d", p[i], bt[i], wt[i], tat[i]);
    }

    printf("\nAverage Waiting Time -- %f", wtavg / n);
    printf("\nAverage Turnaround Time -- %f", tatavg / n);

    getch();
}
```

```
Enter the number of processes -- 4
Enter Burst Time for Process 0 -- 3
Enter Burst Time for Process 1 -- 1
Enter Burst Time for Process 2 -- 0
Enter Burst Time for Process 3 -- 4

        PROCESS BURST TIME      WAITING TIME    TURNAROUND TIME
        P2              0               0               0
        P1              1               0               1
        P0              3               1               4
        P3              4               4               8
Average Waiting Time -- 1.250000
Average Turnaround Time -- 3.250000
```