Ex. No.6a) FIRST COME FIRST SERVE

Program code:

```c
#include <stdio.h>

int main() {
    int n, i;
    int bt[20], wt[20], tat[20];
    float avg_wt = 0, avg_tat = 0;

    printf("Enter the number of processes: ");
    scanf("%d", &n);

    printf("Enter the burst time for each process:\n");
    for (i = 0; i < n; i++) {
        printf("P[%d]: ", i + 1);
        scanf("%d", &bt[i]);
    }

    // Waiting time for first process is 0
    wt[0] = 0;

    // Calculate waiting time for each process
    for (i = 1; i < n; i++) {
        wt[i] = bt[i - 1] + wt[i - 1];
    }

    // Calculate turnaround time for each process
    for (i = 0; i < n; i++) {
        tat[i] = bt[i] + wt[i];
        avg_wt += wt[i];
        avg_tat += tat[i];
    }

    avg_wt /= n;
    avg_tat /= n;

    // Display result
    printf("\nProcess\tBurst Time\tWaiting Time\tTurnaround Time\n");
    for (i = 0; i < n; i++) {
        printf("P[%d]\t%d\t\t%d\t\t%d\n", i + 1, bt[i], wt[i], tat[i]);
    }

    printf("\nAverage Waiting Time: %.2f", avg_wt);
    printf("\nAverage Turnaround Time: %.2f\n", avg_tat);

    return 0;
}
```

Output:

```
Enter the number of processes: 3
Enter the burst time for each process:
P[1]: 5
P[2]: 3
P[3]: 8

Process Burst Time      Waiting Time    Turnaround Time
P[1]    5               0               5
P[2]    3               5               8
P[3]    8               8               16

Average Waiting Time: 4.33
Average Turnaround Time: 9.67
```