CS23431 - OPERATING SYSTEM

EXP 6(D) - ROUND ROBIN CHEDULING

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PROGRAM:

```
#include <stdio.h>

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

    int p[n], a[n], bt[n], temptbt[n], slot;
    printf("Enter process ID, arrival time, burst time for each process:\n");

    for (int i = 0; i < n; i++) {
        scanf("%d %d %d", &p[i], &a[i], &bt[i]);
        temptbt[i] = bt[i];
    }

    printf("Enter quantum time slot: ");
    scanf("%d", &slot);

    int totalwt = 0, totalturn = 0, totaltime = 0; int i = 0,
    count = 0, completed = 0;

    printf("P_ID\tBT\tTAT\tWT\n");
    while (completed != n) {
        if (temptbt[i] <= slot && temptbt[i] > 0) {
            totaltime += temptbt[i];
            temptbt[i] = 0;
            count = 1;
        }
        else if (temptbt[i] > 0) {
            totaltime += slot;
            temptbt[i] -= slot;
        }
```

```
        if (temptbt[i] == 0 && count == 1) {
            completed++;
            int tat = totaltime - a[i];
            int wt  = totaltime - a[i] - bt[i];

            printf("%d\t%d\t%d\t%d\n", p[i], bt[i], tat, wt);

            totalwt += wt;
            totalturn += tat;
            count = 0;
        }

        if (i == n - 1) i = 0;
        else
            i++;
    }
    printf("Average waiting time is %d\n", totalwt / n);
    printf("Average turn around time is %d\n", totalturn / n);

    return 0;
}
```

OUTPUT: