CODE:

#include <stdio.h>

int main()

{

int n, i, j, temp;

int burst[20], priority[20], pid[20];

int wait[20], tat[20], ct[20];

float avg\_wt = 0, avg\_tat = 0;

printf("Enter number of processes: ");

scanf("%d", &n);

printf("Enter burst time and priority for each process:\n");

for (i = 0; i < n; i++) {

printf("P%d - Burst Time: ", i + 1);

scanf("%d", &burst[i]);

printf("P%d - Priority: ", i + 1);

scanf("%d", &priority[i]);

pid[i] = i + 1;

}

for (i = 0; i < n - 1; i++)

{

for (j = i + 1; j < n; j++)

{

if (priority[i] < priority[j])

{

temp = burst[i];

burst[i] = burst[j];

burst[j] = temp;

temp = priority[i];

priority[i] = priority[j];

priority[j] = temp;

temp = pid[i];

pid[i] = pid[j];

pid[j] = temp;

}

}

}

wait[0] = 0;

ct[0] = burst[0];

tat[0] = ct[0];

for (i = 1; i < n; i++)

{

wait[i] = ct[i - 1];

ct[i] = wait[i] + burst[i];

tat[i] = ct[i];

}

for (i = 0; i < n; i++)

{

avg\_wt += wait[i];

avg\_tat += tat[i];

}

avg\_wt /= n;

avg\_tat /= n;

printf("\nProcess\tBurst\tPriority\tWait\tTAT\tCT\n");

for (i = 0; i < n; i++)

{

printf("P%d\t%d\t%d\t\t%d\t%d\t%d\n", pid[i], burst[i], priority[i], wait[i], tat[i], ct[i]);

}

printf("\nAverage Waiting Time = %.2f", avg\_wt);

printf("\nAverage Turnaround Time = %.2f\n", avg\_tat);

return 0;

}

SCREENSHOTS:

