EXPERIMENT 5 (C)
SHORTEST JOB FIRST (SJF)

AIM
Implement a CPU scheduling program
- shortest Job First (SJF)

ALGORITHM
STEP 0: START

STEP 1: Variables are declared,
n to store number of processes
wt.avg & tt.avg to store the
average waiting time & average
turnaround time. Arrays
p[20] to store process numbers,
wt[20] to store waiting times
for each process, bt[20] to
store burst times, tt[20] to
store turnaround times for
each process. A temporary
variable `temp' is also declared.

STEP 2: user is prompted to enter
the number of processes (n).
Burst times for each process
are input and stored in the
bt[] array.

STEP 3: Implement a Bubble sort to
sort processes based on their
burst time in ascending order.

STEP 4: Initialize the waiting time to 0. $WT[0] = 0$

STEP 5: use a loop to calculate waiting time for each process $WT[i] = bt[i-1] + WT[i-1]$

STEP 6: use a loop to calculate turn around time for each process $tt[i] = WT[i] + bt[i]$

STEP 7: Print a table displaying the process number, burst time, waiting time and turn around time for each process

STEP 8: calculate the average waiting time & average turn around time & print it.

STEP 9: Print the gantt chart, showing the execution order of process over time.

STEP 10: END

RESULT

Experiment executed successfully and output obtained.