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**Experiment No.:** 6

Construct a C program to implement pre-emptive priority scheduling algorithm.

### ****AIM****

The aim of this program is to implement **Preemptive Priority Scheduling** in C, where the CPU always selects the waiting process with the highest priority, and preempts the currently running process if needed.

### ****ALGORITHM****

Start the program.

Read the number of processes, their burst times, arrival times, and priorities.

At each unit of CPU time, check all processes that have arrived.

Select the process with the **highest priority** (larger number or smaller number depending on convention).

Execute the selected process for 1 time unit (preemptive step).

Reduce its remaining burst time.

If a process completes (remaining burst time = 0), record its completion, turnaround, and waiting times.

Repeat steps 3–7 until all processes are finished.

Compute and display average waiting time and turnaround time.

End the program.

PROGRAM AND OUTPUT:

