EXPRIMENT-5:

Construct a scheduling program with C that selects the waiting process with the

highest priority to execute next.

PROGRAM:

#include <stdio.h>

typedef struct {

int pid;

int priority;

int burst\_time;

} Process;

void swap(Process \*p1, Process \*p2) {

Process temp = \*p1;

\*p1 = \*p2;

\*p2 = temp;

}

void sort\_processes(Process \*processes, int n) {

int i, j;

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

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

if (processes[i].priority < processes[j].priority) {

swap(&processes[i], &processes[j]);

}

}

}

}

void schedule\_processes(Process \*processes, int n) {

int i;

sort\_processes(processes, n);

printf("Scheduled processes:\n");

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

printf("Process %d (Priority: %d, Burst time: %d)\n", processes[i].pid, processes[i].priority, processes[i].burst\_time);

}

}

int main() {

int n;

printf("Enter the number of processes: ");

scanf("%d", &n);

Process processes[n];

int i;

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

printf("Enter process %d details:\n", i + 1);

printf("Process ID: ");

scanf("%d", &processes[i].pid);

printf("Priority: ");

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

printf("Burst time: ");

scanf("%d", &processes[i].burst\_time);

}

schedule\_processes(processes, n);

return 0;

}

OUTPUT: