Question7 B: write a program in c to sort 9 processes for execution in FCFS

Solution 7B

A.

```
#include <stdio.h>

struct Process {
    int pid;       // Process ID
    int burstTime;  // Burst time (execution time)
};

void sortProcessesByBurstTime(struct Process processes[], int n) {
    struct Process temp;
    for (int i = 0; i < n - 1; i++) {
        for (int j = i + 1; j < n; j++) {
            if (processes[i].burstTime > processes[j].burstTime) {
                temp = processes[i];
                processes[i] = processes[j];
                processes[j] = temp;
            }
        }
    }
}

void displayProcesses(struct Process processes[], int n) {
    printf("\nProcesses sorted by Burst Time (FCFS order):\n");
    printf("PID\tBurst Time\n");
    for (int i = 0; i < n; i++) {
        printf("P%d\t%d\n", processes[i].pid, processes[i].burstTime);
    }
}
```

```
int main() {
    int n = 9; // Number of processes
    struct Process processes[9];

    // Input for each process: burst time
    printf("Enter burst time for 9 processes (all arriving at time 0):\n");
    for (int i = 0; i < n; i++) {
        processes[i].pid = i + 1; // Process IDs are 1 to 9
        printf("Process P%d Burst Time: ", i + 1);
        scanf("%d", &processes[i].burstTime);
    }

    // Sort processes by burst time
    sortProcessesByBurstTime(processes, n);

    // Display sorted processes
    displayProcesses(processes, n);

    return 0;
}
```