Ex. No.: 6a)
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FIRST COME FIRST SERVE

Aim:

To implement First-come First- serve (FCFS) scheduling technique

Algorithm:

1. Get the number of processes from the user.
2. Read the process name and burst time.
3. Calculate the total process time.
4. Calculate the total waiting time and total turnaround time for each process 5. Display the process name & burst time for each process. 6. Display the total waiting time, average waiting time, turnaround time

Program Code:

```c
#include <stdio.h>
int main() {

    int n;
    printf("Number of processes : ");
    scanf("%d", &n);
    int bt[n];
    printf("burst time : ");
    for (int i=0; i<n; i++) {
        scanf("%d", &bt[i]);
    }
    int ct[n];
    printf("completion time : \n");
```

35

```c
int c = 0;
for (int i = 0; i < n; i++) {
    c += bt[i];
    ct[i] = c;
    printf("%d \n", ct[i]);
}
int tt[n], wt[n];
printf("turn around time : \n");
for (int i = 0; i < n; i++) {
    tt[i] = ct[i];
    printf("%d \n", tt[i]);
}
printf("waiting time : \n");
for (int i = 0; i < n; i++) {
    wt[i] = tt[i] - bt[i];
    printf("%d \n", wt[i]);
}
int avg_wt = 0, avg_tt = 0;
for (int i = 0; i < n; i++) {
    avg_wt += wt[i];
    avg_tt += tt[i];
}
avg_wt = avg_wt / n;
avg_tt = avg_tt / n;
printf("Average waiting time : %d \n", avg_wt);
printf("Average turn around time: %d \n", avg_tt);
}
```

36

3

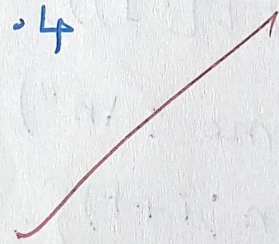| Process	Burst time	Turn Around	Waiting time
P₁	6	6	0
P₂	2	8	6
P₃	8	16	8
P₄	3	19	16
P₅	4	23	19

Avg Waiting time : 9.8

Avg TAT : 14.4

Sample Output:
Enter the number of process:
3
Enter the burst time of the processes:
24 3 3

Process	Burst Time	Waiting Time	Turn Around Time
0	24	0	24
1	3	24	27
2	3	27	30

Average waiting time is: 17.0
Average Turn around Time is: 19.0

Number of processes : 5
burst time : 6 2 8 3 4

Result:

Thus the First Come First serve algorithm has been executed.

37