

Ex.No:6a FCFS (FIRST COME FIRST SERVE) CPU SCHEDULING

AIM:

To write a program to implement the FCFS (First Come First Serve) CPU scheduling
Algorithm

ALGORITHM:

1. START the program
2. Get the number of processors
3. Get the Burst time of each processors
4. Calculation of Turn Around Time and Waiting Time
 - a) $\text{tot_TAT} = \text{tot_TAT} + \text{pre_TAT}$
 - b) $\text{avg_TAT} = \text{tot_TAT} / \text{num_of_proc}$
 - c) $\text{tot_WT} = \text{tot_WT} + \text{pre_WT} + \text{PRE_BT}$
 - d) $\text{avg_WT} = \text{tot_WT} / \text{num_of_proc}$
5. Display the result
6. STOP the program

PROGRAM: (FCFS Scheduling)

```
#include<stdio.h>
#include<conio.h>
int p[30],bt[30],tot_tat=0,wt[30],n,tot_wt=0,tat[30],FCFS_wt=0,FCFS_tat=0;
float awt,avg_tat,avg_wt;
void main()
{
    int i;
    clrscr();
    printf("\nEnter the no.of processes \n");
    scanf("%d",&n);
    printf("Enter burst time for each process\n");
```

```
for(i=0;i<n;i++)
{
    scanf("%d",&bt[i]);
    p[i] = i;
}
printf("\n FCFS Algorithm \n");
WT_TAT(&FCFS_tat,&FCFS_wt);
printf("\n\nTotal Turn around Time:%d",FCFS_tat);
printf("\n\nAverage Turn around Time :%d ", FCFS_tat/n);
printf("\nTotal Waiting Time:%d",FCFS_wt);
printf("\nTotal avg. Waiting Time:%d",FCFS_wt/n);
getch();
}
int WT_TAT(int *a, int *b)
```

```

{
    int i;
    for(i=0;i<n;i++)
    {
        if(i==0)
            tat[i] = bt[i];
        else
            tat[i] = tat[i-1] + bt[i];
        tot_tat=tot_tat+tat[i];
    }
    *a = tot_tat;
    wt[0]=0;
    for(i=1;i<n;i++)
    {
        wt[i]=wt[i-1]+bt[i-1];
        tot_wt = tot_wt+wt[i];
    }
    *b = tot_wt;
    printf("\nPROCESS\t\tBURST  TIME\tTURN AROUND TIME\tWAITING TIME");
    for(i=0; i<n; i++)
        printf("\nprocess[%d]\t\t%d\t\t%d\t\t%d",p[i],bt[i],tat[i],wt[i]);
    return 0;
}

```

OUTPUT: (FCFS Scheduling Algorithm)

RESULT: Thus the program to implement the FCFS (First Come First Serve) CPU scheduling Algorithm was written, executed and the output was verified successfully.