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

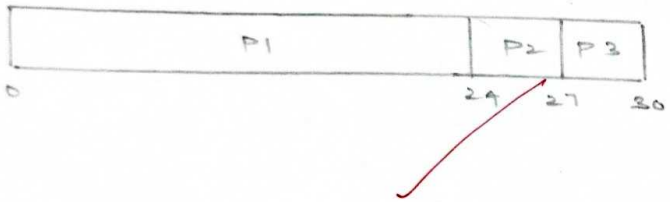
Program Code:

```
#include <stdio.h>
int main()
{
  int n, ar;
 printf(" Enter the no of processes:");
 scanf ("%d", &n);
 int b[n], c[n], ta[n], w[n];
 printf(" Enter the arrival time for all the processes:");
 Scanf (" %d", &ar);
 printf ("Enter the burst times for the processes:");
 for ( int i=0; i<n; i++)
 {
 scanf (" %d", &b[i]);
 }
```

```
for (int i=0; i<n ; i++)
{
  if( i==0)
   {
     c[i]=b[i];
   }
  else
  {
   c[i] = c[i-1]+b[i];
  }
}
for (int i=0 ; i<n ; i++)
{
 ta[i] = c[i] - ar;
}
int sum1 = 0;
for (int i=0; i<n;i++)
{
 sum1 =sum1 + ta[i];
}
int avg=ta =Sum1 /n ;
for (int i=0 ; i<n; i++)
{
 w[i] =ta[i] - b[i];
}
int sum2 = 0 ;
for (int i=0; i<n; i++)
{
  Sum2 =sum2 + w[i] ;
}
```

```
int avg_w = sum2/n;
printf ("Process \t Burst Time \t Waiting Time \t Turn Around Time \n
for (int i = 0; i<n ; i++)
{
 printf ("%d \t", i);
 printf ("%d \t %d \t %d \n", b[i], w[i] ta[i];
}
printf ("The average Waiting Time is : %d \n", avg_w);
printf (" The average Turn Around Time is : %d", avg_ta);
}
```

Gantt chart



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

Output

Process	Burst time	Waiting time	Turnaround time
0	24	0	24
1	3	24	27
2	3	27	30

Result: Hence the FCFS is executed successfully.