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Operating System Practical

2. // C program to implement SJF CPU Scheduling algorithm

```
#include <stdio.h>
  int main()
{
   int bt [20], p[20], wt[20], tat[20], i, j, n, total=0,
     pos, temp;
  float avg_wt, avg_tat;
  printf("Enter number of process:");
  scanf("%d", &n);
  printf("\nEnter Burst Time:\n");
  for (i=0; i<n; i++)
  {
     printf("p%d:", i+1);
     scanf("%d", &bt[i]);
     p[i] = i+1;
  }
```

Kritika

```
// sorting of burst times
for(i=0; i<n; i++)
{
   pos = i;
   for(j=i+1; j<n; j++)
{
   if (bt[j] < bt[pos])
     pos=j;
}
  temp = bt[i];
  bt[i] = bt[pos];
  bt[pos] = temp;

  temp= p[i];
  p[i]= p[pos];
  p[pos] = temp;
}

   wt[0] =0;

for( i=1; i<n; i++)
{
   wt[i] = 0;
   for(j=0; j<i; j++)
   wt[i] += bt[j];

   total += wt[i];
}
```

Kavitha

```
avg_wt = (float) total/n;
total = 0;
printf("\nProcess\t Burst Time \tWaiting Time\t
        Turnaround Time");
for (i=0; i<n; i++)
{
    tat[i] = bt[i] + wt[i];
    total += tat[i];
    printf("\n%p %d\t\t %d\t\t %d",
            p[i], bt[i], wt[i], tat[i]);
}
avg_tat = (float) total/n;
printf("\nAverage Waiting Time = %f", avg_wt);
printf("\nAverage Turnaround Time = %f\n",
        avg_tat);
return 0;
}
```

Karthik.