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Exp:6c **PRIORITY SCHEDULING**

Aim:

To implement priority scheduling technique

CODE:

```
#include<stdio.h>
int main(){
  int n;
  printf("Enter the number of processes: ");
  scanf("%d",&n);
  int process[n], burst_time[n],priority[n], waiting_time[n], turn_around_time[n];
  float  total_waiting_time=0,total_turn_around_time=0;
  printf("\nEnter the burst time with priority: \n");
  for(int i=0;i<n;i++){
    process[i]=i;
    printf("\nEnter burst_time[%d] with priority[%d]: \n",i+1,i+1);
    scanf("%d %d",&burst_time[i],&priority[i]);
  }
//sorting burst time
  for(int i=0;i<n;i++)
    for(int j=0;j<n-1;j++)
      if(priority[j]>priority[j+1])//swapping
      {
         burst_time[j]=burst_time[j]-burst_time[j+1];
         process[j]=process[j]-process[j+1];
         priority[j]=priority[j]-priority[j+1];

         burst_time[j+1]=burst_time[j+1]+burst_time[j];
         process[j+1]=process[j+1]+process[j];
         priority[j+1]=priority[j+1]+priority[j];

         burst_time[j]=burst_time[j+1]-burst_time[j];
         process[j]=process[j+1]-process[j];
         priority[j]=priority[j+1]-priority[j];
      }



//finding waiting time
  waiting_time[0]=0;
  for(int i=1;i<n;i++)
   waiting_time[i]=waiting_time[i-1]+burst_time[i-1];
```

```
//finding turnaround time
  for(int i=0;i<n;i++){
   turn_around_time[i]=burst_time[i]+waiting_time[i];
   total_turn_around_time+=turn_around_time[i];
   total_waiting_time+=waiting_time[i];
  }

  printf("\nprocess   burst_time  waiting_time  turn_around_time\n");
 for(int i=0;i<n;i++){
  printf("  %d         %d           %d              %d\n", process[i],burst_time[i], waiting_time[i],turn_around_time[i]);
  }
//printf("%d %d",total_waiting_time/n,(total_turn_around_time/n));
  printf("\nAverage waiting time : %.2f\n",(total_waiting_time/n));
  printf("\nAverage turn around time : %.2f\n",(total_turn_around_time/n));
}
```

OUTPUT:

```
[cse36@localhost ~]$ cc 6c_priority.c
[cse36@localhost ~]$ ./a.out
Enter the number of processes: 4

Enter the burst time with priority:

Enter burst_time[1] with priority[1]:
6
3

Enter burst_time[2] with priority[2]:
2
2

Enter burst_time[3] with priority[3]:
14
1

Enter burst_time[4] with priority[4]:
6
4

process   burst_time  waiting_time  turn_around_time
  2         14            0              14
  1         2            14              16
  0         6            16              22
  3         6            22              28

Average waiting time : 13.00

Average turn around time : 20.00
```