Experiment No # 08
Experiment Name # Priority Scheduling Algorithm.

Priority Scheduling:
In priority scheduling algorithm each process has a priority associated with it and as each process hits the queue, it is stored in based on its priority so that process with higher priority are dealt with first. It should be noted that equal priority processes are scheduled in FCFS order.

Code:
```
#include<stdio.h>
int main()
{
   int bt[20],p[20],wt[20],tat[20],pr[20],i,j,n,total=0,pos,temp,avg_wt,avg_tat;
   printf("Enter Total Number of Process:");
   scanf("%d",&n);
   printf("\nEnter Burst Time and Priority\n");
   for(i=0;i<n;i++)
   {
      printf("Burst Time for process %d is : ",i+1);
      scanf("%d",&bt[i]);
      printf("Priority for process %d is : ",i+1);
      scanf("%d",&pr[i]);
      p[i]=i+1;
   }
   for(i=0;i<n;i++)
   {
      pos=i;
      for(j=i+1;j<n;j++)
      {
         if(pr[j]<pr[pos])
            pos=j;
      }
      temp=pr[i];
      pr[i]=pr[pos];
      pr[pos]=temp;
      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];
    }
    avg_wt=total/n;
    total=0;
    printf("\nProcess\t    Burst Time    \tWaiting Time\tTurnaround Time");
    for(i=0;i<n;i++)
    {
        tat[i]=bt[i]+wt[i];
        total+=tat[i];
        printf("\nP[%d]\t\t  %d\t\t    %d\t\t\t%d",p[i],bt[i],wt[i],tat[i]);
    }
    avg_tat=total/n;
    printf("\nAverage Waiting Time=%d",avg_wt);
    printf("\nAverage Turnaround Time=%d\n",avg_tat);

    return 0;
}
```

Output: