**OPERATING SYSTEM - CS23431**

**EXP 6(C)**

**PRIORITY SCHEDULING**

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**PROGRAM:**

#include <stdio.h>

int main() {

int n; printf("Enter Number of Processes: "); scanf("%d", &n);

int pid[n], b[n], p[n];  
for (int i = 0; i < n; i++) {  
 printf("Enter processid Burst Time and Priority Value for Process %d: ", i + 1);  
 scanf("%d %d %d", &pid[i], &b[i], &p[i]);  
}  
  
for (int i = 0; i < n; i++) {  
 int max\_priority = p[i];  
 int max\_index = i;  
 int swapped = 0;  
  
 for (int j = i + 1; j < n; j++) {  
 if (p[j] < max\_priority) {  
 max\_priority = p[j];  
 max\_index = j;  
 swapped = 1;  
 }  
 }  
  
 if (swapped) {  
 int temp = p[i];  
 p[i] = p[max\_index];  
 p[max\_index] = temp;  
  
 temp = b[i];  
 b[i] = b[max\_index];  
 b[max\_index] = temp;  
  
   
 temp = pid[i];  
 pid[i] = pid[max\_index];  
 pid[max\_index] = temp;  
 }  
}  
  
  
int wait\_time = 0, totalwt = 0, totalturn = 0;  
printf("P\_ID\tBT\tWT\tTAT\n");  
for (int i = 0; i < n; i++) {  
 int tat = wait\_time + b[i];  
 printf("%d\t%d\t%d\t%d\n", pid[i], b[i], wait\_time, tat);  
 totalwt += wait\_time;  
 totalturn += tat;  
 wait\_time += b[i];  
}  
  
  
printf("Average waiting time is %d\n", totalwt / n);  
printf("Average turn around time is %d\n", totalturn / n);  
  
return 0;

}

**OUTPUT:**

