17/03/24

EXPERIMENT 5 (E)
SRTF CPU SCHEDULING

AIM
To implement Shortest Remaining Time First Scheduling.

ALGORITHM
STEP 0: START
STEP 1: Declare variables n, at, bt, ct, wt, temp, tat, p, smallest, count=0 time
STEP 2: Set avgwt=0 and avgtt=0, end=0
STEP 3: Input number of process as n
STEP 4: Set i=0
STEP 5: Scan each arival time and burst time from user
STEP 6: Set temp[i]=bt[i]
STEP 7: Increment i
STEP 8: Repeat STEPS 5-7 until i<n
STEP 9: Set time=0 & i=0
STEP 10: If [at[i]<=time] and bt[i] < bt[smallest] and bt[i]>0 then set smallest=i
STEP 11: Increment i
STEP 12: Repeat STEPS 10 & 11 until i<n.
STEP 13: Decrement bt[smallest]
STEP 14: If bt[smallest]=0, then
i) Increment count.

ii) end = time + 1
iii) ct[smallest] = end
iv) wt[smallest] = end - at[smallest] - temp[smallest]
v) tat[smallest] = end - at[smallest]

STEP 15: Increment time
STEP 16: Repeat STEPS 10-16 until count not equal to n
STEP 17: Print the table of process, arrival time, Burst time, Complete Time, TurnAround Time, waiting Time
STEP 18: Set i=0 and repeat the STEPS till 20 until i<n
STEP 19: Print each process and related items
STEP 20: Avgtt += tat[i] & Avgwt += wt[i] and increment i
STEP 21: Print Average TurnAround Time
STEP 22: Print Average waiting Time
STEP 23: Print Gantt chart
STEP 24: END