

CSE 321 : LAB ASSIGNMENT

Job Scheduling Algorithms

- Consider that, there is one computer to do 5 printing jobs A, B, C, D, E. The estimated printing times of 10, 6, 2, 4 and 8 minutes respectively. Their (externally determined) priorities were 3, 5, 2, 1 and 4, respectively with 5 being the highest priority. Arrival times of the jobs are 0, 3, 5, 1, 4 respectively.

Write a program for the following scheduling algorithms to determine the end times of each job. Ignore type switching overhead. All jobs are CPU bound.

- a) Round Robin (Preemptive multiprogramming. Each job gets its fair share of CPU).
- b) Priority (Each job runs to completion without being preempted).
- c) First Come First Served (Processes run to completion in the order of arrival).
- d) Shortest Job First (Each job runs to completion without being preempted).

Input:

/*Job(Title,Burst Time,Priority,Arrival Time)*/

Task1(A,10,3,0)

Task2(B,6,5,12)

Task3(C,2,2,5)

Task4(D,4,1,1)

Task5(E,8,4,4)

Output:

Round Robin:

D:8

C:18

E:26

A:28

B:30

Priority Scheduling:

A:10

E:18

B:24

C:26

D:30

FCFS:

A:10

B:14

C:22

D:24

E:30

SJF:

A:10

C:12

D:16

B:22

E:30