SIR PADAMPAT SINGHANIA UNIVERSITY

Home Assignment

Programme/Branch: B. Tech/CSE/CTIS | Semester: IV

Subject: Operating System | Subject Code: CS- 2013/CT-257

Last Date of the submission: 24/03/2020

Assignment 2

Qeustion 1. For the processes listed in table draw the chart illustrating their execution time using the Priority Scheduling. The larger priority number has higher priority.

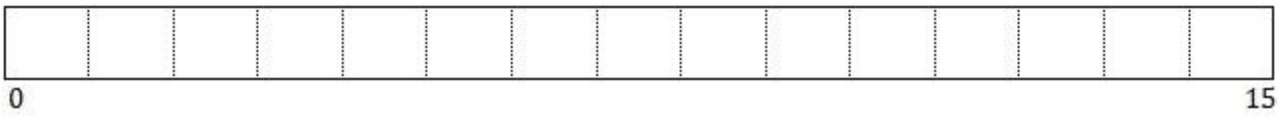
A. Preemptive
B. Non preemptive

Table 1: Process Scheduling Data

Process	Arrival Time	Burst Time/ Processing Time	Priority
A	0.000	4	3
B	1.001	3	4
C	2.001	3	6
D	3.001	5	5

Solution

A. Preemptive



EXPLANATION :

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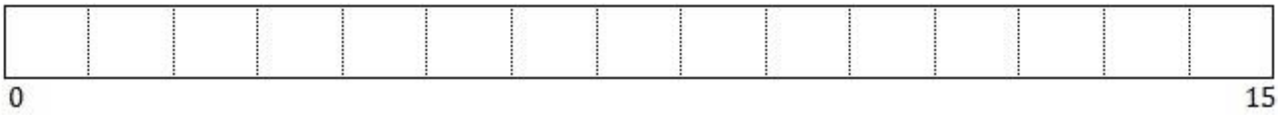
B. Non preemptive



EXPLANATION

Qeustion 2. For the process listed in Table 1, calculate the turnaround time of each process and also calculates average turnaround time using.

A. Preemptive
B. Non preemptive

(Hint: Turnaround time is computed by subtracting the time the process entered in the system from the time it terminated)

Solution

A. Preemptive Priority Scheduling

Tat (A) = ( ) – ( ) = ( )
Tat (B) = ( ) – ( ) = ( )
Tat (C) = ( ) – ( ) = ( )
Tat (D) = ( ) – ( ) = ( )

B. Non Preemptive Priority Scheduling

Tat (A) = ( ) – ( ) = ( )
Tat (B) = ( ) – ( ) = ( )
Tat (C) = ( ) – ( ) = ( )
Tat (D) = ( ) – ( ) = ( )

Qeustion 3. For the process listed in Table 1, calculate the waiting time of each process and also calculates average waiting time using.

A. Preemptive
B. Non preemptive

(Hint: Waiting time is computed by subtracting the Processing time(Burst Time)from its Turnaround time)

Solution

A. Preemptive Priority Scheduling

W (A) = ( ) – ( ) = ( )
W (B) = ( ) – ( ) = ( )
W (C) = ( ) – ( ) = ( )
W (D) = ( ) – ( ) = ( )

C. Non Preemptive Priority Scheduling

W (A) = ( ) – ( ) = ( )
W (B) = ( ) – ( ) = ( )
W (C) = ( ) – ( ) = ( )
W (D) = ( ) – ( ) = ( )

Summary

	P	Arri. Time	Burst Tim	Exe. Time	Turnaround Time	Wait. Time	Average Tat Time	Avg Wait Time
Preemptive	**A**	0.000	4					
	B	1.001	3					
	C	2.001	3					
	D	3.001	5					
Non Preemptive	**A**	0.000	4					
	B	1.001	3					
	C	2.001	3					
	D	3.001	5					