Preemptive
us
Non Freemptive

FCFS (F1F0)

Sclection Jrn

Type

CPU Bound

LIO Bound

Process

- Indeases;

 but process monopolizing

 is prevented in preemptive
- > Most jair in real
- in Os though.
- -> Process with max waiting time is alloted.
- -> max [w]
- -> Non-preemptive
- -) Sevice Time ~ CPU Buset Time
- Most time executing
 on CPU On IIO

 t

 CPU-Bound IIOBound

Chat

Hormalised Transpound
time - Relative delay

Tr/Ts 11 not

possible a Arrivaliservice

Is Service time

is not greater than

Transpound time

Problems

- -> Process with low service time & high waiting suffer
- Processes

 Ly I/O will be

 woiting; soon blowd

 for I/O operation

 Ly the crossered is

 Blocked, crosseries

 ielle

Pradice Ouestion

A	Ð	3
B	•	ی
C	3	2
D	٩	S
E	12	S

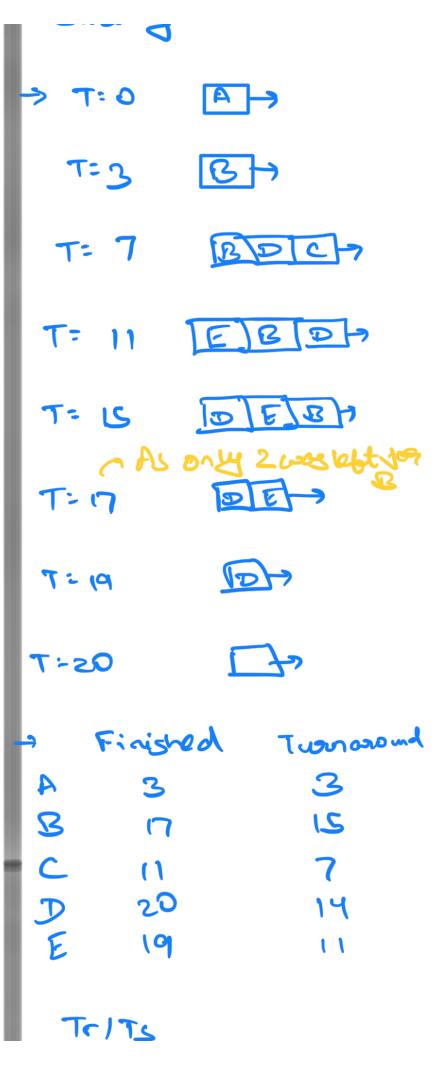
Round Robin

- TCFS is not the best approach in it's pure form
- 7 FCFS with priority
 queue is an option,
 Arrival Finish

ALLINO	Hinsh
0	3
1	8
3	10
9	21
12	20

TAT	TELTS	
3	1	
7	7/5	। ५
7	712	2.5
6	615	1-2
8	815	1. P

- The CIR based preemption to prevent short process sylposing
- > Also known as time



Problems with Round Robin

They short

It short move
quickly

more overhead

If your long

hong process
gets more time

so perceases

to FCFS

Ideal Time Quantum

time required your a typical process

crecution

Relative treatment

JOT CPO & IIO

Bound processes

In IIO in Block;

CPU would use

entire timequatum

& returns to ready

would have

poor performance

-> Auxillory queue

Gr Higher prior: ty

to IIO bound process

Sent in blocked

> Non preemptive
> Short Process jumps
ahead of long
Process

Virtual Round Robin

Shortest
Process Next
On
Shortest Tob

First

SPF

- 9 Better than round ೯೮೮
- Problems with > Estimate required processing time don each process
 - > For botch; programmer can estimate the value foor time
 - 7 For interactive, as recto Lours and

? Stoerotion of longer processes

Summary: Preemptive us Non Preamptive
(p) Bound us IIO Bound
Scheduling Streetergies - FCPS - Arabiery

- Short proc & IIO bound suffer
Round robin - Every proc for a

time quantum - Problems - Quantum

Can't be very Short as very long

- IIO suffer relatively - Deganerates

40 FCPS - Virtual round robin
Priority queue of blocked I/O
SPF - Estimate in intervalive - Longerousesion