What happens when 'LDA s' is run?	What happens when 'STA s' is run?
What happens when 'ADD s' is run?	What happens when 'SUB s' is run?
What happens when 'JMP s' is run?	What happens when 'JGE s' is run?
What happens when 'JNE s' is run?	What three steps occur during the fetch phase?

$$[s] = ACC$$

$$ACC = [s]$$

2

$$ACC -= [s]$$

$$ACC += [s]$$

$$4$$
 3

if
$$ACC_{\dot{c}} = 0$$
 then $PC = s$ $PC = s$

$$6$$
 5

- 1. Use PC as address to read memif ACC != 0 then PC = s
- 2. Save result of read in CPU
- 3. Increment PCI read

1

What control signals do all registers need?	What control signal does a multiplexer need?
What control signals does the memory need?	Which 3 signals control the ALU? 12
What is a process?	What is the address space?
What is a thread?	$What \ is \ multi-threading?$

A	signal	to	select	an	input

An enable signal

10

9

add, $sub \ \mathcal{E} \ byp$

Ren (read enable) and Wen (write enable)

12

11

All memory locations the process can use.

 $A\ program\ in\ execution,\ the\ thread\ +\ address\ space.$

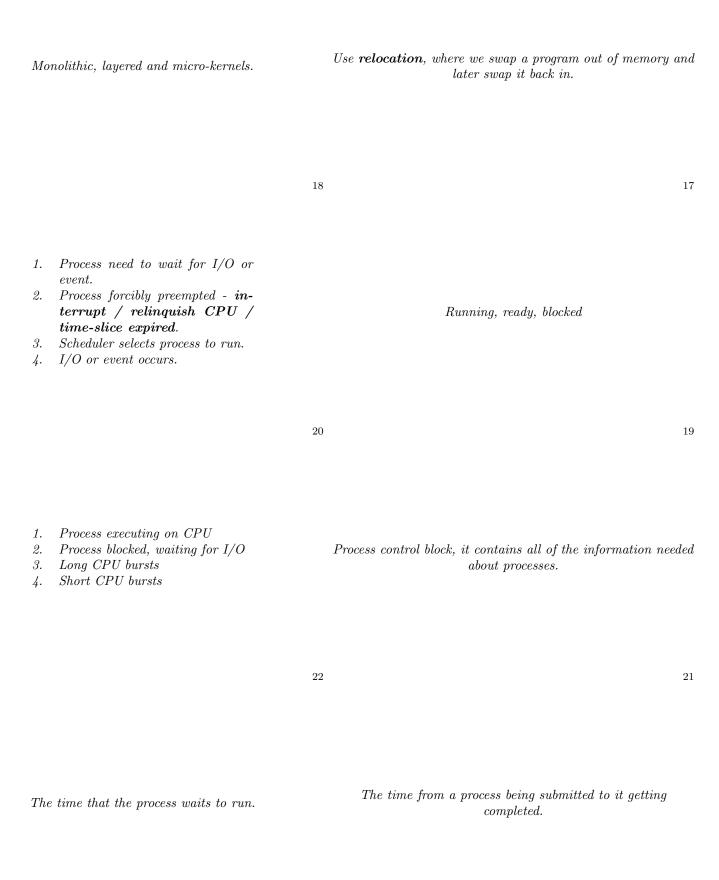
14

13

 ${\it This is where we have multiple threads within the same process}$

 $A\ sequence\ of\ instructions\ that\ are\ obeyed.$

How do we make programs think they have sole use of memory?	What are the three different approaches to engineering an OS?
What are the three process states?	In the diagram, what is happening at each stage?
What is a PCB table?	In scheduling, what do the following mean? 1. CPU burst 2. I/O burst 3. CPU bound 4. I/O bound
What is a processes turnaround time?	What is a processes waiting time?



Briefly explain the first come first served scheduling algorithm.	What is meant by pre-emptive scheduling?
25	26
What is meant by non-pre-emptive scheduling?	What is the fixed time amount called in non-pre-emptive processing?
Briefly explain the shortest remaining time first scheduling algorithm.	What is process starvation?
In scheduling, what are static priorities?	In scheduling, what are dynamic priorities?
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