

# Mid 1

Name: Munem Shahbiaz

ID: 2020-1-60-156

course title: Operating system

course code: CSE 325

section: 01

Roll no: 27

Ans to the Q no 2

(a)

$P_0$	$I_0$ 6	$C_0$ 12	$O_0$ 5						
$P_1$		$I_1$ 10	$C_1$ 13	$O_1$ 6					
$P_2$			$I_2$ 5	$C_2$ 14	$O_2$ 3				
$P_3$			$I_3$ 9		$C_3$ 12	$O_3$ 7			
	6	12	13	14	12	7	64		

Here,

$P$  = process

$I$  = Input

$C$  = computation

$O$  = Output



2020-1-60-156

2

27

(b)

$P_0$	$I_0$ 6	$C_0$ 12	$O_0$ 5				
$P_1$		$I_1$ 10	$C_1$ 12	$O_1$ 1	$C_2$ 12	$O_2$ 3	
$P_2$			$I_2$ 5		$C_3$ 12	$O_3$ 7	
$P_3$			$I_3$ 9				
	6	12	13	14	12	7	64

Here,

 $P = \text{Process}$  $I = \text{Input}$  $C = \text{Computation}$  $O = \text{Output}$

Ans to the Q no 3

~~Output of the code is:~~

parent of pid will print

"Hello" as  $pid > 0$ . ~~not~~

pid 1 will print "Hello" again.

child of pid1 will print

"World" and pid2 will print

"World" again. At last child of

pid will print "EWU"

So the output of the code is:

Hello

Hello

World

World

EWU

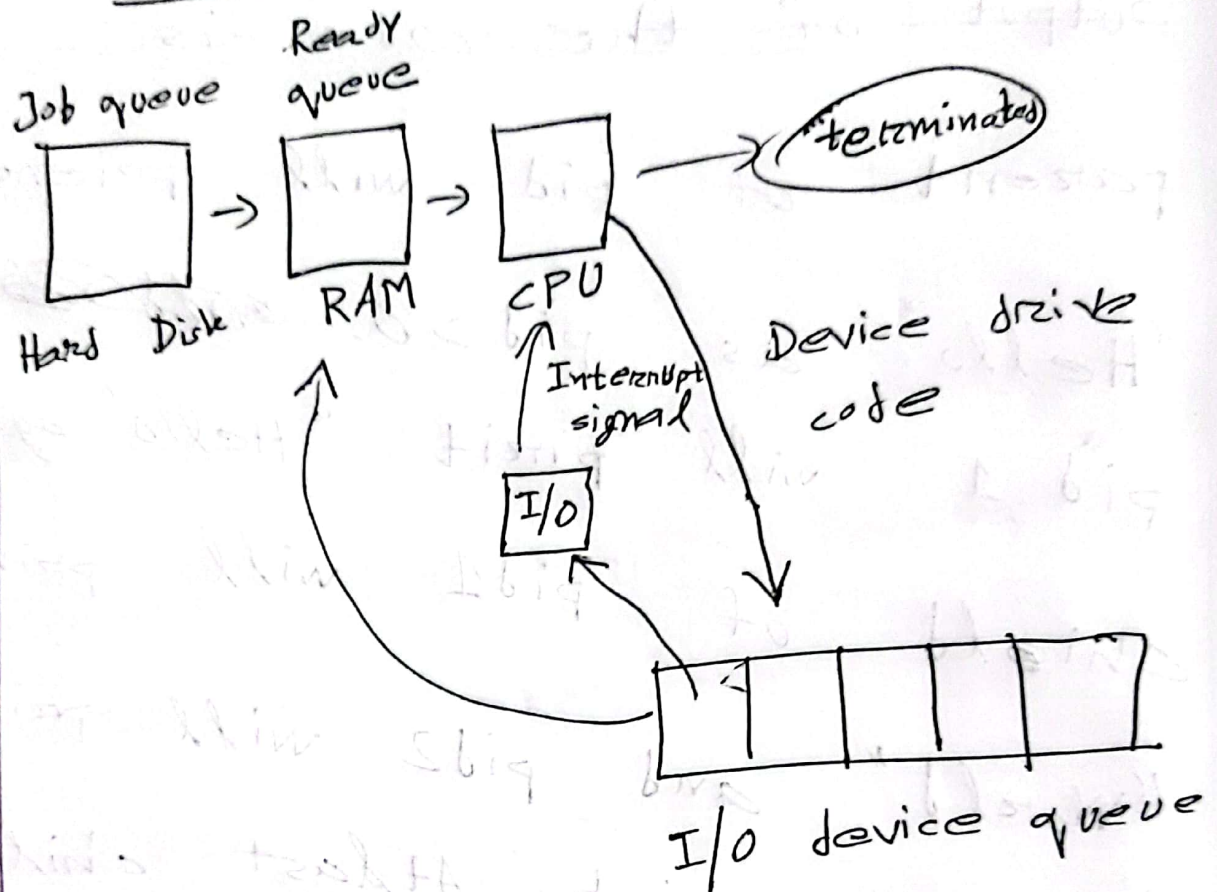


2020-1-60-156

4

27

Ans to the Q no 1



At first all the process are in Hard disk. Job ~~to~~ scheduler will send some selected files to RAM. Then CPU ~~to~~ scheduler will send one by one process to CPU.

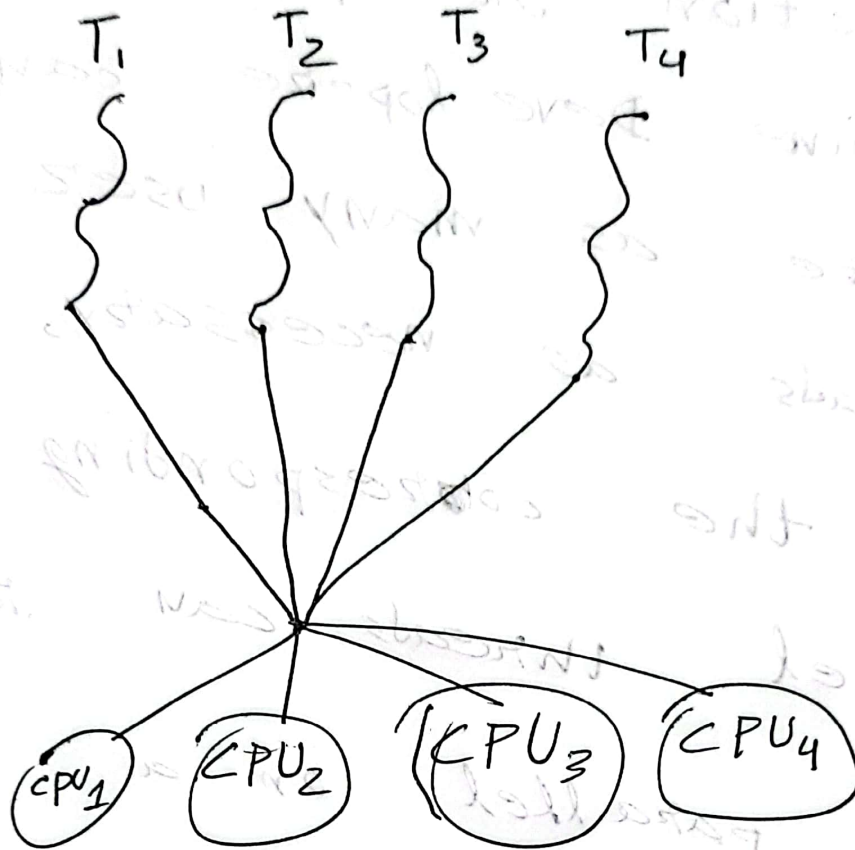
if any process face interrupt for I/O or any other reason device driver code will send it to I/O device queue, and the next process will go to CPU, otherwise the process will be terminated by exit. According to queue priority process will take input. After taking input interrupt signal to CPU. Then CPU will save state to process control block. After that process 1 will go to ready queue from I/O device queue. ~~It~~ It will continue like above until all the process are terminated.



Ans to the Q no 9

It is a input bound process. Here the process needs to take input many times. For taking input the device driver code sends to process to I/O device queue. From there process take input according to priority. After taking int input the process go to ready queue. Then it again goes to CPU and after computation it terminated by exit.

Ans to the Q no 5



Multiplex many user-level threads to a smaller or equal number of kernel threads.

The ~~numb~~ number of kernel threads may be specific to threads



either a particular application or particular machine. Developers can create as many user threads as necessary, and the corresponding kernel threads can run in parallel on a multi processor.

Also when a thread performs a blocking system call, the kernel can schedule another thread for execution.