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Mid-1

ID NO: 2020-1-60-052

Course Title:- Operating systems

course code: CSE-325

section no: 1

Roll no: 17

Ans to Que-3

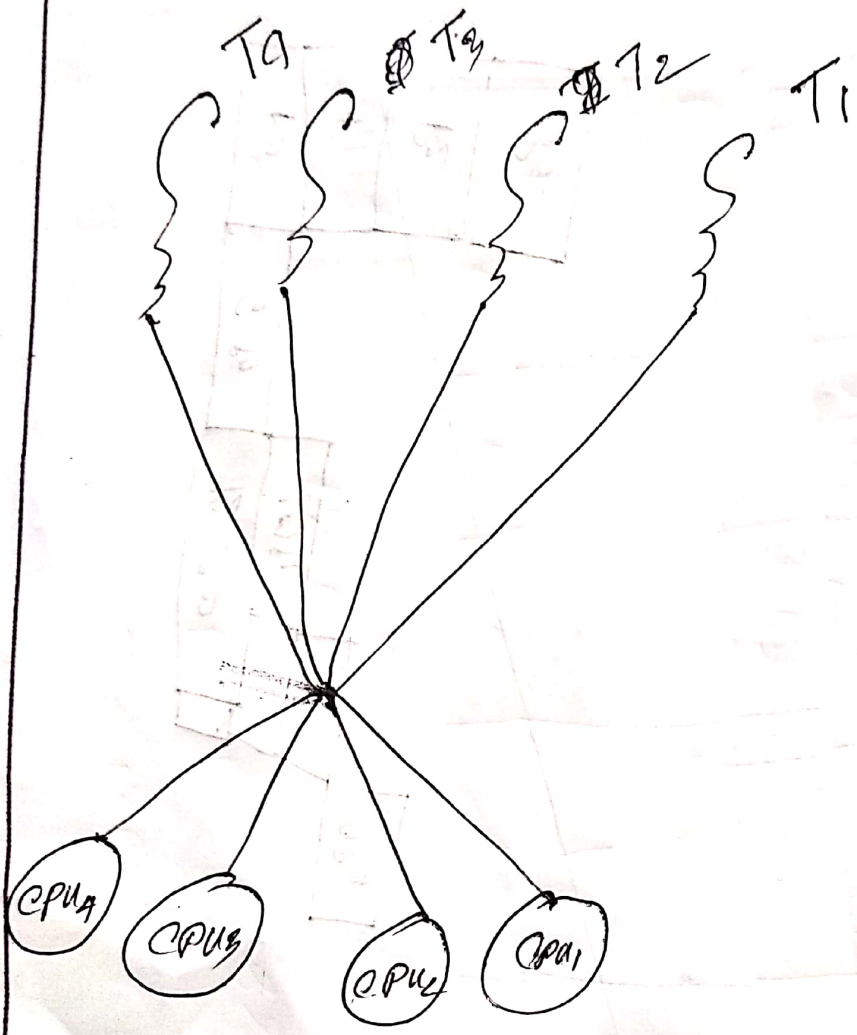
Out put: Hello
world
Hello
world

In this code we call three fork()
system call. Here if (pid > 0) then
it will be the parent process
and execute the if block also

execute the pid1 = fork()
system call, after
executing pid1, if
the value of pid1 is 0
then it will be child process
and it will be execute
the else if (pid1==0)
block in this block it
will execute the pid2=fork()
system call and also
print "world", else block
if the process value is
-1 it will be failed child
termination.

Roll = 17

Ans to the Que No. 6



(i) Multiplexing many user-level threads to a smaller or equal number of kernel threads

The number of kernel threads may be specific

Roll=17

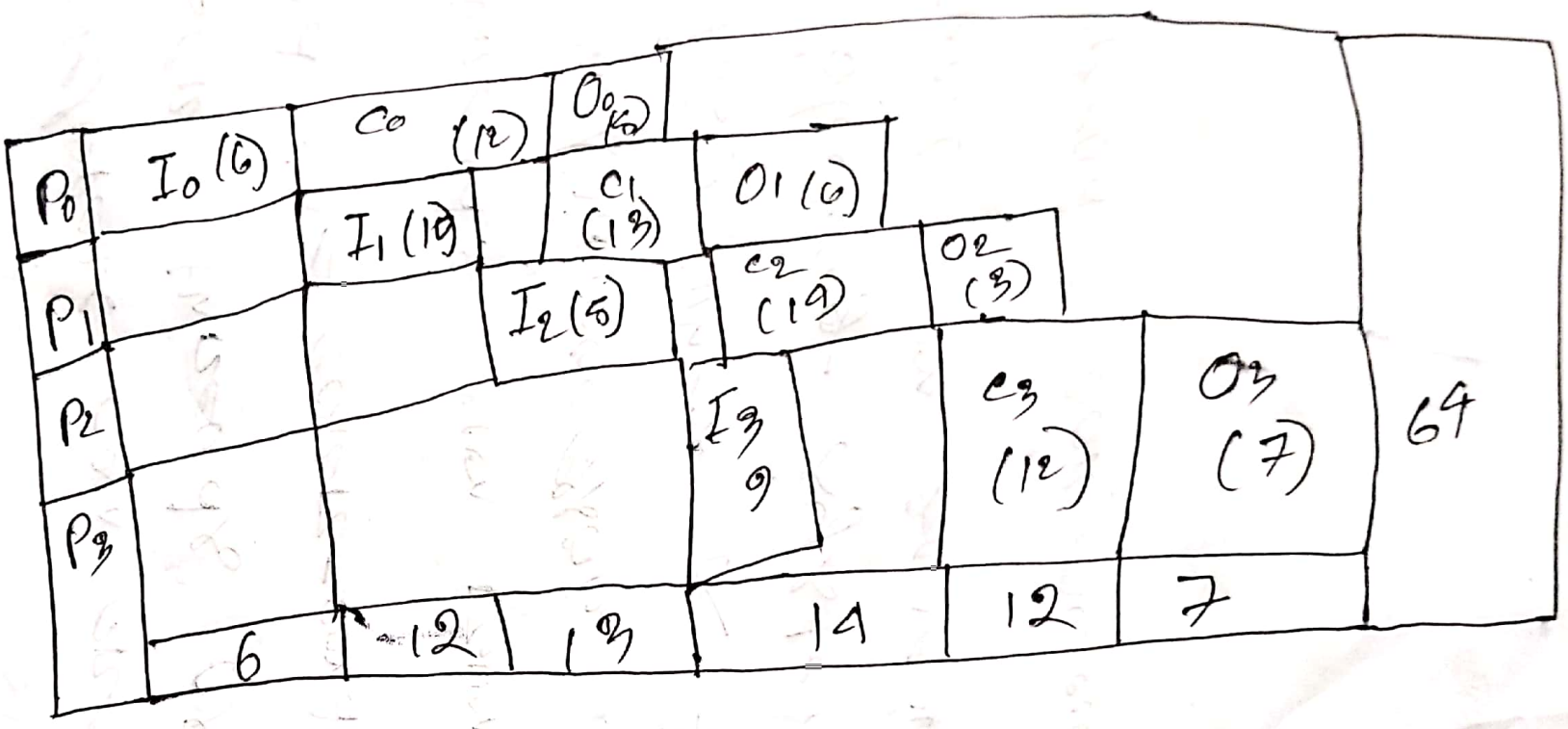
to either a particular application or a particular machine.

- Developers can create as many user threads as necessary, and the corresponding kernel threads can run in parallel on a multiprocessor.
- Also when a thread performs a blocking system call, the kernel can schedule another thread for execution.

Roll - 17

Ans to the Que No. 2

(a)



Here,

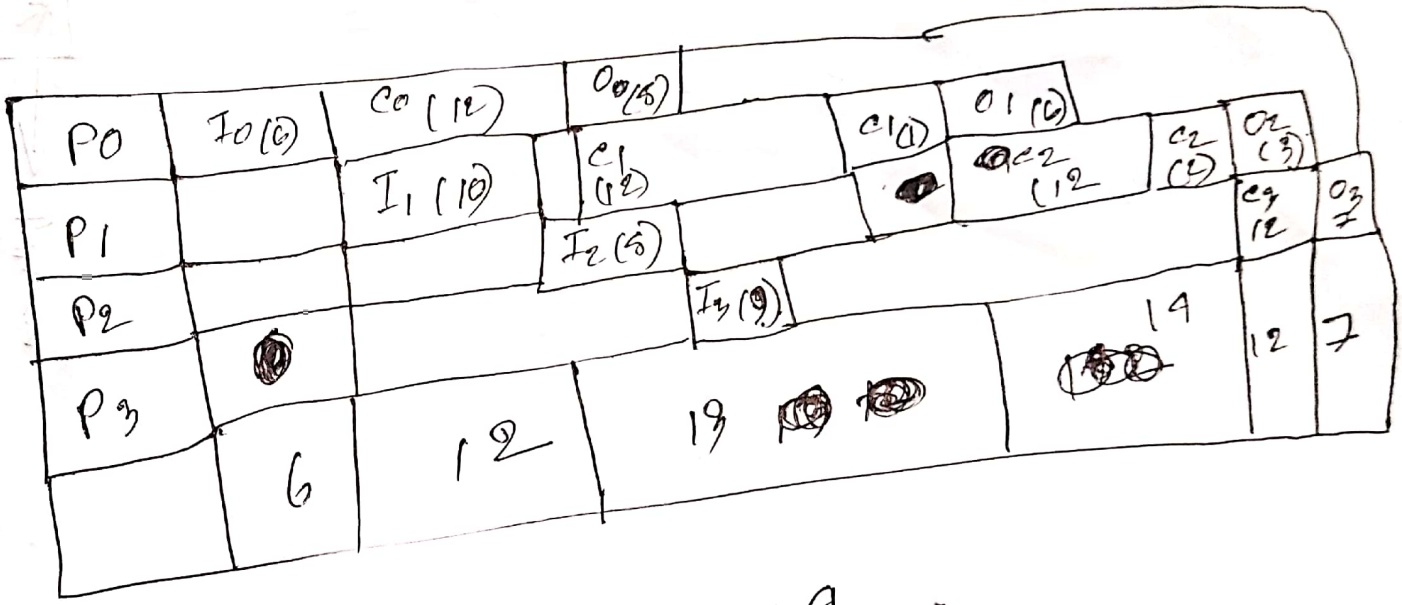
P = process | C = computation

I = input | O = output

Roll = 17

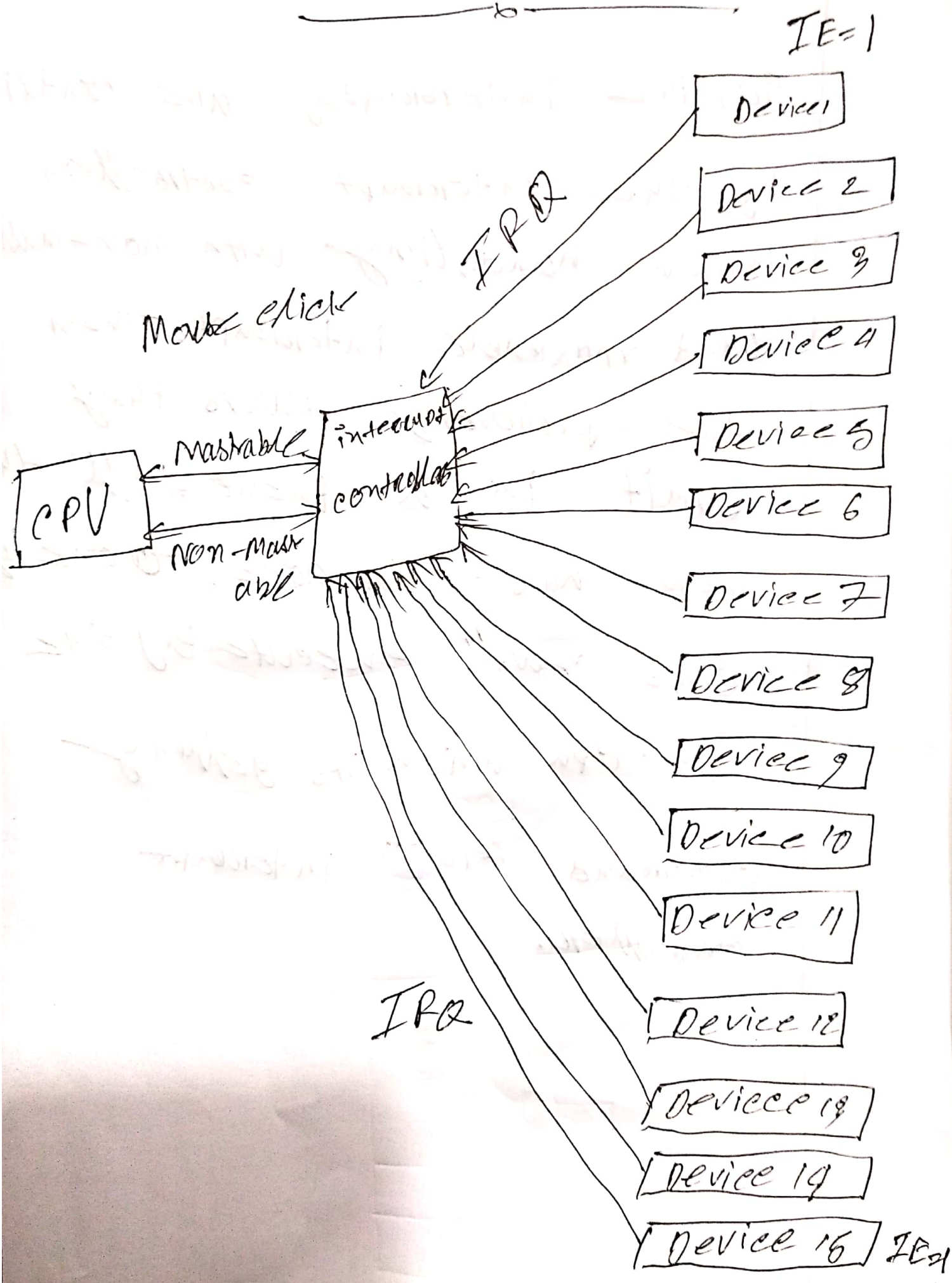
(b)

Time slice = 12



Total = 69

Ans to the Que No. 1



Roll = 17

So, the interrupts are handling by the interrupt controller which handeling with non-maskable and maskable interrupt. Then the priority basis they wait in a queue till the work has to be done. Once by one it will execute by the cpu. Cpu which is getting command from interrupt controller.

Roll = 17

Ans to the Que No. 4

Each process may be one of the following state

New → The process is being created

Running → Instructions are being executed.

Waiting → The process is waiting for some event to occur (such as an I/O completion or reception of a signal).

Ready → The process is waiting to be assigned to a processor.

Terminated → The process has finished execution.