

3 parts

Part 1 MC - 17 questions - 1 point

Part 2 Short Answer - more room required than needed - not asking to write essays. Define something, describe difference similarities, output of this code, `fork()`

Part 3 Long Answer - 4 of them -

Q1) How many different output? What are the possible outputs

Q2) if you run this multiple times, it will output this, under certain times it will output this  
Given execution sequence, how will it output something else?

Multithreaded program\*\*\*\*\*

Q3) This program uses 2 threads and in normal circumstances it does this, they both do something different, under normal ones this happens, and under other circumstances something else will happen.

Q4) fill in the blank for coding, Semaphores, Mutexes, Spinlocks.... Gives us a table on the back page

Regarding actual questions:

MC Questions:

(Each question separated by comma, approx.)

Something to do with kernel mode,

micro kernel,

thread model CPU pipeline,

PCB data structure,

whats shared by threads vs processes,

system calls (which one does the following?),

whats part of kernel whats not?,

what does the following system call do? Opposed to which sys call does this?,

something about atomic operations,

generally familiar with all of the functions we have covered,

what is the third argument for this function?,

Binary semaphore,

counting semaphore,

mutex,

condition variables,

process state,

monitors, signal question?

Short Answer:

Reentrant functions, what are they used for , kernel user mode,

Interrupt vs trap,

Name of first process that is created??????? And its process ID-> `init()` pID = 1

Virtual Machines, pcb, states of processes, lots of states,  
Context switch, race condition  
Race Conditions

Mutual exclusion,  
write a bash command ,  
write bash command number 2.  
Writing bash commands (assignment 2)

Output of code which contains fork.

CPU utilization.

Not so much from lec 1 and 2