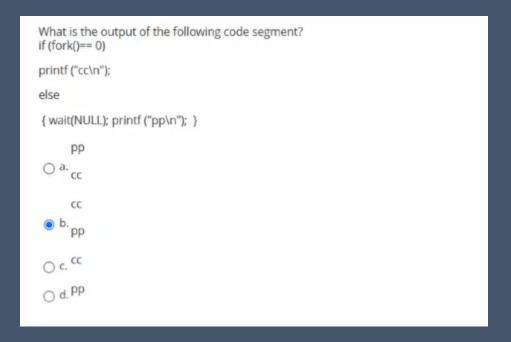
## CH2

ľ	The monolithic structure used in UNIX was easy to implement and maintain.  O True  False
	ogging (Accounting) service provided by the OS to allocate resources to each jobs concurrently.  True False
	Darwin has two different system call types (Mach traps and BSD system calls)  True False
Using re ⊚ True ○ False	
	Many modern operating systems implements loadable kernel modules  True False

System calls are directly accessible by the user program  True  False
Layered approach simplifies debugging, but layers need to be carefully defined.  True False
Program execution is one of the services provided by the OS to the user.  True False
FreeBSD is a single-tasking OS.  True  False
printf() is a system call  True  False

## CH3



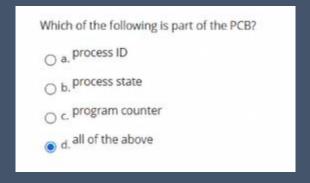
The state transition from waiting to ready happens when a process

- o a. is dispatched by the scheduler
- b. completes an I/O or event handling
- c. is interrupted
- O d. performs an I/O or event handling

<ul> <li>a. stack</li> <li>b. data section</li> <li>c. text section</li> <li>d. heap</li> </ul>
The list of processes waiting for a particular I/O device is called a(n)  a. standby queue  b. interrupt queue  c. device queue  d. ready queue
When a child process is created, which of the following is a possibility?  a. The child process runs concurrently with the parent  b. the child process has a new program loaded into it  c. the child is a duplicate of the parent  d. all of the above

The \_\_\_\_ of a process contains temporary datasuch as function parameters, return addresses, and local variables.

The heap (as a part of a process) contains
o a. temporary data and local variables
○ b. program counter
○ c. the program code
d. dynamically allocated memory during run time
A occurs when the CPU switches from one process to another.  O a. context transfer
<ul><li>b. context switch</li></ul>
○ c. CPU switch
O d. CPU transfer
A process can be terminated due to
o a. normal exit
○ b. fatal error
○ c. killed by its parent
d. all of the above
The state transition from running to waiting happens when a process
○ a. is interrupted
b. performs an I/O or event handling
○ c. completes an I/O or event handling
o d. is dispatched by the scheduler
S 40000 100000 100000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10



## CH4

One-to-one thread mapping is less expensive than many-to-many mapping.



Threads share the same

- o stack
- o registry
- code
- o none of the above

Dat	a parallelism
•	distributes subsets of the data across multicores
0	runs thread with data on a single core.
0	distributes threads across cores
0	distributes different operations among multicores.
Th	read Local storage for each thread is similar to local variables
	True False
De	ferred cancellation terminates the target thread immediately
0	True
•	False
Mov	darn aparating systems aytanded the process concept to allow a process to have
	dern operating systems extended the process concept to allow a process to have
•	multiple threads of execution and thus to perform more than one task at a time.
0	multiple processes executing simultaneously
0	multiple processes inside a process
	none of the above
0	none of the doore

○ False	
Illegal memory access generates synchronous signal.  True False	One of the followings is not a challenge for multicore programming  scalability dividing activities testing and debugging balance

Parallelism means that a system can run more than one task simultaneously

Multiple threads may not run in parallel on multicore system

Many-to-One multithreading model

O Many-to-Many multithreading model

One-to-One multithreading model

One-to-Many multithreading model

## MEMORY MANGMENT CHAPTER

Consider a logical address space of 64 pages, and page size is 1024 mapped onto a physical memory of 32 frames.
How many bits are there in the physical address?
O <sup>5 bits</sup>
O <sup>16 bits</sup>
O <sup>10 bits</sup>
● 15 bits
Which page table tracks all physical pages in memory rather than having a page table for each process and keeping track of all possible logical pages?
One-level page table
Inverted page table
two-level page table
hashed page table
Consider a logical address space of 64 pages, and page size is 1024 mapped onto a physical memory of 32 frames.
How many bits are there in the logical address?
O 15 bits
O 6 bits
O 10 bits
16 bits

allocates the smallest hole that is big enough for a process:	
Best fit	
O First Fit	
O Worst Fit	
O Last Fit	
Swapping is typically supported by mobile systems such as iOS.	
<ul><li>○ True</li><li>⑥ False</li></ul>	
External fragmentation exists when fixed-size memory blocks (frames) are	used.
○ True	
<ul><li>False</li></ul>	

In a system with 32 bit virtual addresses and 4 KB page size, use of one-level page tables for virtual to physical address translation is not practical because of
the large amount of external fragmentation
the large computation overhead in the translation process
the large amount of internal fragmentation
the large memory overhead in maintaining page table
Page size is 1024 bytes and process size is 2050. What is the internal fragmentation?
O 0
O 1026
<ul><li>1022</li></ul>
O <sup>2</sup>
Logical and physical addresses are the same in compile-time and load-time address-binding schemes.
True
O False
A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical ad
A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because
a. It is required by the translation lookaside buffer.
It reduces the memory access time to read or write a memory location.
c. It helps to reduce the size of page table needed to implement the virtual address space of a process.
d. It helps to reduce the number of page faults in page replacement algorithms.