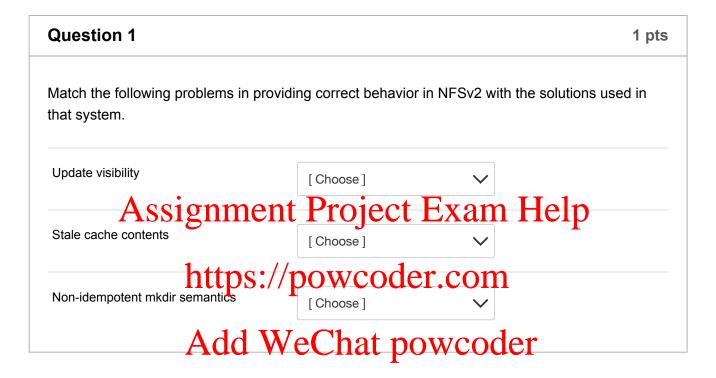
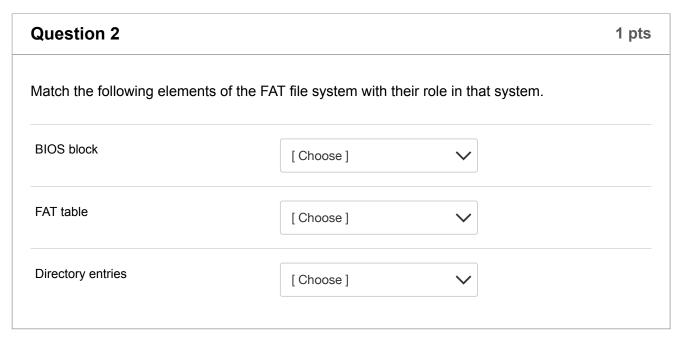
Sample final exam

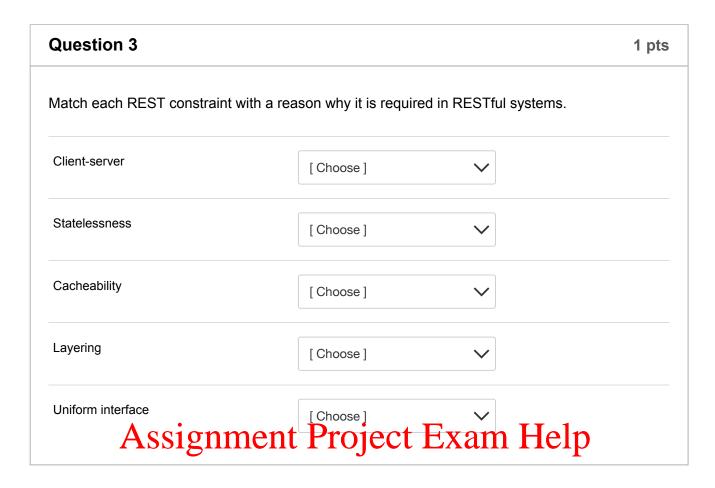
Started: Jun 5 at 9:18am

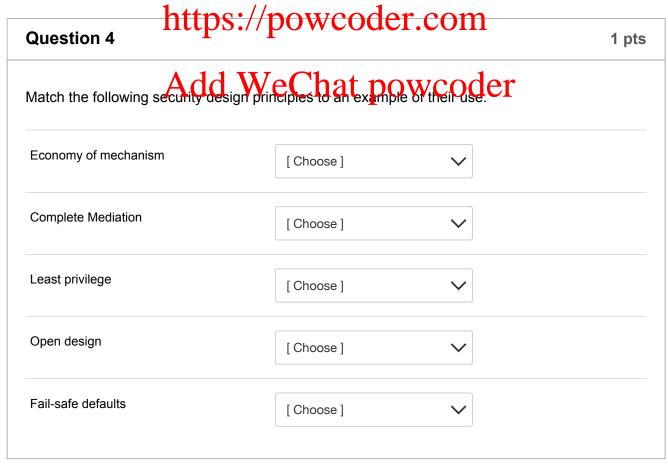
Quiz Instructions

The following is a sample final exam for CS 111, intended to help you study for the actual final. It is shorter than the real final, but contains similar kinds of questions. You are not required to take this practice exam, and doing so will not affect your grade.









Question 5			1 pt
Vhich of the following genera ollowing kinds of synchroniza	I synchronization solutions is motion bugs?	ost suitable for dealing with the	
Atomicity-violation bugs	[Choose]	~	
Order-violation bugs	[Choose]	~	
Deadlock	[Choose]	~	
Livelock	[Choose]	~	
Assignn	nent Project E	Exam Help	
Question 6	s://powcoder	com	1 pt
Which of the following are adv	vantages of a kernel-supported to the contract of the contract	thread approach vs. user-mode	
Thread blocking on system ca	lls does not reduce parallelism for ke	ernel threads	
Kernel threads provide better	support for intra-process parallelism		
☐ Kernel supported threads can	make use of a single shared stack p	per process	

Question 7	1 pts
What are the benefits of lazy writes (write buffering)?	
☐ More efficient scheduling of writes.	
Avoid performing some writes to the storage devices entirely.	

☐ Eliminate writes that are identical to the data on the disk	
Question 8	1 pt
Which of the following are effective means of reducing resource contention?	
identify the conflicting computations, and avoid running them at the same time	
☐ Divide resources into sub-pools, each with its own lock	
reduce the number of updates to a shared data structure	
use a smaller number of more global locks to reduce the number of locking operations Accionn Droicet Even Holo	
Reduce the issignment Project Exam Help	
increase the number of threads (and processors to run them) $https://powcoder.com$	
Question 9 Add WeChat powcoder	1 pt
Which of the following statements are true of cryptographic hashes?	
☐ They are a form of public key cryptography	
☐ It should be hard to deduce characteristics of the plaintext based on the hash	
☐ The algorithm used is typically secret	
☐ The algorithm used is typically secret☐ Two similar plaintexts should hash to entirely different values	
☐ Two similar plaintexts should hash to entirely different values	

☐ Better reliability in the face of system crashes

Question 10 1 pts

Which of the following are valid observations about Deadlock Detection and Health Monitoring	ng?
☐ Heart Beat detection cannot determine if a component is working correctly.	
☐ Health monitoring cannot detect formal deadlocks.	
☐ Deadlock detection demands that we be able to identify all participating resources.	
☐ Either can be done from outside of the involved applications.	
☐ Both are invoked only when we have reason to believe the system may be in trouble.	
Question 11	1 pts
The best definition of "livelock" is:	
O The necessary lock i grandable Project Exam Help	
O Continuing to execute while holding a locked resource	
Failing to achieve a safe resource allocation state	
O Deadlock has been avoided, but not prevented	
o not blocked, but unable to make progress on the power of the power o	
Question 12	1 pts
Which of the following problems are likely to be encountered if one uses direct page mappin implement an FTL?	g to
☐ High performance penalties for garbage collection	
☐ Severe write amplification	
☐ Severe read amplification	
☐ High performance cost on writes	
☐ Poor wear leveling	

Question 13	1 pts
Which of the following statements are true of DMA?	
☐ It can only be performed when the CPU is not using the memory bus	
☐ It permits devices to obtain data in RAM without going through the CPU	
☐ Devices can always seize the bus to perform DMA	
☐ It is controlled by a scheduler that determines who uses the bus at any given moment	
☐ It is most efficient for small data transfers	
☐ It can only be used when the CPU is idle	
Question Assignment Project Exam Help	1 pts
Which of the following are benefits of dynamic allocation of a resource to multiple parties opposed to static allocation of process of the resource of the res	, as
☐ Dynamic allocation is simpler and cheaper than static allocation	
☐ Dynamic allocation is likely to achieve better utilization of the resource	
☐ Dynamic allocation can better adjust to different needs among the parties	
Dynamic allocation provides more predictable performance	
Question 15	1 pts
Which of the following actions typically occur when you create a file?	
☐ The file's existence is reliably written to persistent media	
☐ The initial data is written into the file	

A file descrip	tor is chosen and filled in		
☐ A name is w	itten into a directory		
Question 10	S		1 pts
	llowing significant perfo e Berkeley Fast File Sy	ormance issues in prior Unix file system stem team?	ns were identified
☐ The difficulty	of allocating contiguous or	nearly contiguous blocks.	
☐ Evolving disk	technology that made it in	npossible to identify cylinder boundaries.	
☐ Improving the	e interface to the file syster	m	
☐ Time spen	eeking between I-nodes d	irecloses and files 4	Ieln .
	ssignmen	i Project Exam r	
	ad motion overhead due to	rec <mark>pies and files t Exam F</mark> a small block size.	СТР
☐ High disk/he	ad motion overhead due to		
☐ High disk/he	of optimizing file head mot	a small block size.	ectories.
☐ High disk/he	of optimizing file head mot	a small block size.	ectories.
☐ High disk/he☐ The difficulty☐ The difficulty☐ Question 1	of optimizing file head motion overhead due to	a small block size.	ectories.
☐ High disk/he☐ The difficulty☐ ☐ The difficulty☐ ☐ Which is the beautiful in the beautifu	of optimizing file head motion Add W est description of Java s	e a small block size. The processes the perate in multiple direction of the perate in multiple direct	ectories. 1 pts
☐ High disk/he☐ The difficulty☐ ☐ The difficulty☐ ☐ Question 1.2 ☐ Which is the be☐ ☐ Java synchro	Add W est description of Java sonized methods enforce mu	a small block size. The for processes the perate in multiple direction of the control of the co	ectories. 1 pts
☐ High disk/he☐ The difficulty☐ ☐ The difficulty☐ ☐ Question 1.2 ☐ Which is the be☐ ☐ Java synchred☐ ☐ while a thread method for the first or the first of the f	ad motion overhead due to of optimizing file head motion. Add W est description of Java so onized methods enforce must dexecute an object's syntat object.	The small block size. The formes of the perate in multiple direction of the perate in multiple direction. The perate in multiple direction of the power of the perate in multiple direction. The perate in multiple direction of the perate in multiple direction of the perate in multiple direction. The perate in multiple direction of the perate in multiple	ectories. 1 pts
☐ High disk/he☐ The difficulty☐ The difficulty☐ The difficulty☐ Question 1.7 Which is the be☐ ☐ Java synchred☐ ☐ while a thread method for the object is ☐ ☐ the object is ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	ad motion overhead due to of optimizing file head motion. Add W est description of Java so onized methods enforce must dexecute an object's syntat object.	The for processes that experate in multiple direction of the power of	ectories. 1 pts

1 pts

Question 18

☐ The caller doesn't block, but receives a signal from the OS when the creation is complete

Which of the following are true observations about spinning?	
☐ it may delay the availability of the required resource	
it is usually a bad choice on a single core processor	
it is usually a bad choice on a multi-core processor	
☐ waiting lists can eliminate spinning, and they can be implemented without locks	
if many processes contend for the resource, yielding is the correct choice, rather than spinning	
☐ it ensures prompt response when the resource becomes available	
Question 19	1 pts
Which of the ollowing statements are true from lead to computing Help It exposes virtual resources to its users Cloud services are designed to handle texible degrees of load gracefully All data access in a cloud environment is remote They do not fit in well with horizontally scalable systems Public cloud services are typically co-located with their clients	
Question 20	1 pts
What problem do condition variables solve?	
coordinating cooperating parallel processes	
Odefining the conditions under which a computation should continue	
awaiting the completion of asynchronous events	
○ Shared resource allocation	

Quiz saved at 9:19am

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