

Name: _____

14

Part of the Linux Kernel Synchronization API
Tear off this page, but return it with your exam.

```
void spin_lock (spinlock_t* lock);
void spin_lock_irq (spinlock_t* lock);
void spin_lock_irqsave (spinlock_t* lock, unsigned long& flags);

void spin_unlock (spinlock_t* lock);
void spin_unlock_irq (spinlock_t* lock);
void spin_unlock_irqrestore (spinlock_t* lock, unsigned long flags);

void down (struct semaphore* sem);
void up (struct semaphore* sem);

void read_lock (rwlock_t* rw);
void read_lock_irq (rwlock_t* rw);
void read_lock_irqsave (rwlock_t* rw, unsigned long& flags);

void readunlock (rwlock_t* rw);
void readunlock_irq (rwlock_t* rw);
void readunlock_irqrestore (rwlock_t* rw, unsigned long flags);

void write_lock (rwlock_t* rw);
void write_lock_irq (rwlock_t* rw);
void write_lock_irqsave (rwlock_t* rw, unsigned long& flags);

void write_unlock (rwlock_t* rw);
void write_unlock_irq (rwlock_t* rw);
void write_unlock_irqrestore (rwlock_t* rw, unsigned long flags);

void down_read (struct rw_semaphore* sem);
void down_write (struct rw_semaphore* sem);
void up_read (struct rw_semaphore* sem);
void up_write (struct rw_semaphore* sem);
```