

Sample Final Exam Questions

Put all answers in the boxes. Nothing you write outside of the boxes will be counted. Did you bring an eraser? Print your name in the upper right hand corner of this page. Use the notation of *The Little Book of Semaphores*. For example:

```
x = Semaphore(1)
x.wait()
x.signal()
```

Your other code can look like Python, C or pseudo-code.

1. We want the threads A and B to print "HelloWorld" in the correct order. Initialize any data in the initialization box, and add any necessary code to the boxes for each thread.

Initialization

Thread A

```
print("Hello")
```

Thread B

```
print("World")
```

2. We want the threads A and B to print "ABCDEF" in alphabetical order. Initialize any data in the initialization box, and add any necessary code to the boxes for each thread.

Initialization

Thread A

```
mychars = "ACE"
```

```
for i = 0 to 2:
```

```
    print(mychars[i])
```

Thread B

```
mychars = "BDF"
```

```
for i = 0 to 2:
```

```
    print(mychars[i])
```