

Your name:

# **CSE 30341 Operating Systems: Module 1 Exam**

## **OPEN BOOK, OPEN NOTES, CLOSED ELECTRONIC SEARCHES**

### **INDIVIDUAL EFFORT**

**There are 6 True or False questions. Give your answer with a short justification. Answers without justification will get no credit. All questions carry equal weight**

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1. It is possible to achieve higher performance on a uni-processor machine by writing an application as a multi-threaded program.
2. Client programs request service from server programs. Large server programs are often constructed using threads. Using a new thread to reply to different requests is always efficient.
3. "Threads in the same process share text, data, open files, signals and other resources. Each thread has its own execution context and stack.". However, it is possible for one thread to read and modify the execution stack of another thread that is running in the same process.
4. Modular kernel provides additional services using dynamically loadable modules. These modules can catastrophically change the kernel functionality
5. On a single machine, threads provide better performance for CPU bound jobs rather than IO bound jobs (for your information - CPU bound jobs spend more time computing rather than performing IO operations).
6. On a multi processor machine, a single-threaded application that uses asynchronous IO can provide about the same levels of performance as a multithreaded application that uses synchronous IO.