

Student Name:

## **CSCI U511 – Operating Systems**

### **Homework-1, Weight: 50 points**

**Due on Tuesday, September 3, 2019 at the beginning of the lecture (Hard Copy)**

*Note:* You need to include your calculation and details to receive full credit!

**Q1. [10 points]** How would you design a system to run an entire operating systems as an application on top of another operating systems?

**Q2. [10 points]** How should operating system support communication between applications? Explain your reasoning.

**Q3. [10 points]** Distinguish between the client–server and peer-to-peer models of distributed systems.

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**Q4. [10 points]** What is the difference between a process and a program? What hardware enables the operating systems to efficiently implement the process abstraction?

**Q5. [10 points]** Explain the steps that an operating system goes through when the CPU receives an interrupt.