

## Homework 1

**A:** A process can be blocked by Busy Waiting (in this case the process will remain in the **Running** state) or by moving the process into the **Blocked** state.

Compare these two possibilities considering two different environments:

- A **multiprogramming** environment
- A **multiprocessing** environment

Discuss what will be your first choice of blocking the process in each of these environments.

**B:** Give examples of operating Systems that support a Symmetric Multiprocessing environment and operating systems that support an Asymmetric Multiprocessing environment.

**C:** **Distributed vs. Centralized (Parallel)**

**Advantages:** Computation speedup  
Resource sharing  
Reliability  
Communication

**Disadvantages:**  
**Software:** little software exists  
**Networking:** the network can saturate  
**Security:** easy access to secret data

In few lines give your best understanding of each of the above mentioned advantages and disadvantages.

### PART D:

Carefully read the posted **Grading Policy** and the definitions for Plagiarism and Cheating posted on the course webpage under **Academic Integrity**

If you have any questions related to these topics please email me. Otherwise, please enter your name in the following paragraph. At the end of the paragraph sign your name by entering the initials.

I, Yupen Zhang have carefully read and understood the posted *Grading Policy*, and the definitions of Cheating and Plagiarism given in the *Academic Integrity* link. I am aware that any student caught cheating or plagiarizing will automatically receive an F for the course and that other forms of dishonesty will result in similar actions.

YZ

Name Initials