3. What advantages do isolated systems have over distributed systems?

2. What advantages do distributed systems have over isolated systems?

1. What is the difference between a distributed system and a parallel system?

**Distributed systems**

**Final Exam covers:**

- 50% of the exam is on the rest of the course
- 50% of the exam is on I/O systems and distributed systems

**Today: Review**
3. What is job migration? When would you use it?

2. What is computation migration? When would you use it?

1. What is data migration? When would you use it?

**Distributed sharing**

7. What is a network protocol stack?

6. What are packets?

5. What are the expected communication costs for the different network topologies?

4. How do node failures affect the different network topologies?

3. What are common network topologies? Which are most suitable to WAN?

2. What is a WAN?

1. What is a LAN?
4. What is a cache?
3. What does it mean to say that a distributed file system has a single (global) namespace?
2. What are location independent names?
1. What are location transparent names?

Remote Procedure Call

Distributed File Systems

6. What are the advantages and disadvantages of write-back and write-through caches?
5. What are the disadvantages?
4. What are the advantages of using a cache in a distributed file system?
Advantages and disadvantages:

13. What is transfer time?
12. What is rotational latency?
11. What is seek time?
10. What are I/O buffers used for?
9. What are I/O caches used for? How do they affect reading and writing to I/O devices?
8. How does the OS communicate with I/O devices?
7. How do the OS communicate with I/O devices?
6. Page replacement algorithms: FIFO, MIN, LRU, Second Chance. For each understand
5. What is a page fault? How does the OS know it needs to take one and what does the
4. What is a TLB? How is one used?
3. What does the OS store in the page table?
2. What is pageing? Why do we use it?
1. What is virtual memory and why do we use it?

Highlights of Memory and I/O Management

10. After detecting deadlock, what options are conceivable for recovering from deadlock?
9. What is the difference between deadlock detection and deadlock prevention?
8. What are the four necessary conditions for deadlock to occur?
7. What is busy waiting?
6. What is a monitor? What is a condition variable?
5. What is a semaphore? What are the three things a semaphore can be used for?
4. What is CPUBound, CPUBound, Round Robin, SJF, and Multilevel Feedback Queue algorithms?
3. What are FCFS, Round Robin, SJF, and Multilevel Feedback Queue algorithms?
2. What is context switch, a process and a thread?
1. What is a context switch? What happens during a context switch? What causes a

Highlights of Process Management
system, such as Unix, Ncsh, Windows NT.

You will be asked detailed questions about any specific operating system.

You will not be asked to read or write Java code.

Changes in one part of the OS might impact another.

You should have a good sense of how the pieces fit together and how