1. (10)Consider the operation system, implementing time sharing scheduling, and running on the segmentation hardware with demand paging. When a process P1 used up its time quantum, the operation system will change the CPU from P1 to a new process P2. What happen if P2 tries to access a page that was not brought in memory? How does the operation system solve the problem?

2. (10)What is the concept of "Copy-on-Write"? Why we need it?

3. (10)What are dynamic loading and dynamic linking? How can the operating system provide these?

4. (10) What is the master boot record? How can a bootstrap program work with the master boot record?

5. (10) What are the difference between the synchronous I/O and the asynchronous I/O.

6. (10)Please describe the procedure of an interrupt-driven I/O cycle.

7. (10)What are the differences between the SCAN disk scheduling, C- SCAN disk scheduling, and LOOK disk scheduling?

8. (10) What are the difference between the conventional operating system, the network operating system, and the distributed operating system?

9. (10) How can we provide the Free-Space Management in the disk?

10. (10) What is spinlock? How can it work?