長庚大學111學年度第二學期 作業系統實務 第二次小考（總分120）

系級:　　　　　姓名:　　　　　學號:

1. (60%) Considering the disk scheduling, let a disk drive consist of 100 cylinders, from cylinder 0 to cylinder 99. Assume that the read-write head is now at cylinder 20 and moving toward cylinder 99. Now, there are multiple read/write requests (to be served) in the disk I/O queue, and no more request will arrive. The queued requests are at the following cylinders: 7, 14, 16, 21, 29, 58, 74, 92. Please illustrate the scheduling results of (a) the SSTF scheduling, (b) the SCAN scheduling, and (c) the C-LOOK scheduling.

Answer:　SSTF: 21, 16, 14, 7, 29, 58, 74, 92
　　　　　SCAN: 21, 29, 58, 74, 92, (99), 16, 14, 7
　　　　　C-LOOK: 21, 29, 58, 74, 92, 7, 14, 16

2. (60%) Please do the following scheduling with the same conditions of question 1: (a) the FCFS scheduling, (b) the C-SCAN scheduling, and (c) the LOOK scheduling.

Answer:　FCFS: 7, 14, 16, 21, 29, 58, 74, 92
　　　　　C-SCAN: 21, 29, 58, 74, 92, (99), (0), 7, 14, 16
　　　　　LOOK: 21, 29, 58, 74, 92, 16, 14, 7