

# Handwritten Assignment 2

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October 31, 2017

1. (a) A

(b) C, D

(c) A, B, C, D

(d) A, B

(e) clock/response time

2.

i-list					inode
dir block( <b>root</b> )		home			inode
dir block( <b>home</b> )		user			inode
dir block( <b>user</b> )		alice.txt			
data block					inode
.....					direct_pointers
data block					
block ptr					singly_indirect
data block					
.....					doubly_indirect
data block					
block ptr					
block ptr					
.....					
block ptr					
data block					
.....					
data block					

Answer: 4 inodes, 1286 disk blocks

- (a) We need 4 inodes. One is for **root**, another is for **home**, still another is for **user**, and the other is for **alice.txt**.
- (b) Due to  $5242880/4096 + 3 = 1283$ , we need 1280 disk blocks to store the content of `alice.txt` and another 3 disk blocks to store block ptr. Although there are 1 block ptr in a singly-indirect pointer and 3 block ptr in a doubly-indirect pointer. However, we only need 2 block ptr in a doubly-indirect pointer. Then, we need 3 disk blocks to store dir blocks. That is, we need  $1283 + 3 = 1286$  disk blocks in total.