

1.
 - False
 - True
 - True
 - True

False

Notes

– Hard link is a directory entry. Not inode.

- False
- False

True

Notes

– Moe didn't see the word 'never result'

- False
- Omitted. Topic not covered in class

2. Omitted. Question not in scope of test

3. Omitted. Question not in scope of test

4. a)
 - 5
 - 36
 - 2
 - 3

Correct Solution

- 5
 - 37 (36 inode and data blocks + 1 indirect block)
 - 2
 - 3
- b)
- the number of links in `emptydir` would change from 1 to 2
 - `emptydir`'s data block would add directory entry for `bdir`
 - `bdir` would have 1 data block of size 4 KiB
 - `bdir` would have link count of 2
 - `bdir`'s size field in inode is 4096
 - `bdir`'s data block would be ticked as allocated in data bitmap
 - `bdir`'s inode would be ticked as allocated in inode bitmap

- c)
- Data block (bdir)
 - Is done first so there won't be inconsistency when crash occurs
 - Inode bitmap (bdir)
 - Inode (emptydir)
 - Are done so multiple inodes won't be pointing to where the inode of bdir is
 - They minimize damage done to existing file system
 - Data bitmap (bdir)
 - Inode (bdir)
 - Are done so multiple inodes won't be pointing the same data block

Correct Solution

- Data block (bdir)
 - Is done first so there won't be inconsistency when crash occurs
- Inode bitmap (bdir) + Data bitmap (bdir)
- Inode (emptydir)
- Inode (bdir)
 - Are done so multiple file paths won't be pointing to where the inode of bdir is
 - They minimize damage done to existing file system

5. a) An interrupt is raised, and a program will fail