

CSE 321 (Operating Systems) for Spring 2025 Semester

Duration: 20 minutes

1. What is the drawback of data journaling? How can we solve this problem? Name the solution 3
2. Write the consequences of the given scenarios while adding a data block in the file system. 4
 - a. Just the inode written to the disk, not the data bitmap and data block
 - b. Just the data bitmap and data block are written to the disk, not the inode

3. Write the operations performed in metadata journaling.

5

4. A file system has inode size = 512B and block size = 4KB. First 3 blocks contain superblock, data bitmap and inode bitmap. Now calculate the address of the inode number 13. The disk is sector addressable and each sector is of 512 B. Find out the sector address of the inode. 8