Operating Systems Hw5 B103040009 71=33

1. A hard link is a directory entry that points directly to a file's i-node (if in Timx).

A Symbolic link is a small file that contains the name of a file.

Hard link's advantage: more efficient than symbolic links.

Symbolic link's advantage: Symbolic link can point to files in a different location (e.g. disks) without having to create a copy of the file.

2. Blocks are not dose to each other:

5ms + (10ms + 0.02ms) = 15.02 ms 15.02ms ×100 = 1502 ms

Blocks are close to each other: D/x2 ms + (10 ms + 0.02 ms) = 1.002 ms 1.002 x 100 = 1002 ms

(b) OPT replacement 3. (a) LRU replacement: # of Srame # of page Lault # of Srame # of page Lault
1 20 1 20 1 15 3 11 4 8 5 9 6 9 3 15

4.		Contignous	Linked	Indexed
	a.	<u>ک</u>		
	Ь.	[0]	52	
	c.	1	3	
	d.	198	l	D
	e.	38	52	D

'i' page size = 2¹² => offset 12 bits
2²⁰ 1 page (20 bit page number)

The dynamic address translation is done by the hw, while the SW concentrates on page IlO.