Fully Associative Cache 25/03/25, 4:20 PM

Replacement Policies

Write Policies

● Write ○ Write

Back Through

Write WriteOn Around

Allocate —

Cache Size 3

(power of 2)

Memory

2

Size (power of

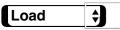
2)

Offset Bits

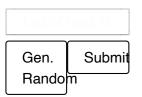
2



Instruction



(in hex)#



Information

The cycle has been completed. Please submit

another



Statistics

Hit 29% Rate Miss : Rate

FULLY ASSOCIATIVE CACHE

◆ Instruction Breakdown

000000111	00
9 bit	2 bit

SE Memory Block

B. 7 W. 0	B. 7 W. 1	B. 7 W. 2	B. 7 W. 3
B. 8 W. 0	B. 8 W. 1	B. 8 W. 2	B. 8 W. 3
B. 9 W. 0	B. 9 W. 1	B. 9 W. 2	B. 9 W. 3
B. A W. 0	B. A W. 1	B. A W. 2	B. A W. 3
B. B W. 0	B. B W. 1	B. B W. 2	B. B W. 3
B. C W. 0	B. C W. 1	B. C W. 2	B. C W. 3

Example Cache Table

Index	Valid	Tag	Data (Hex)	Dirty Bit
0	1	000101101	BLOCK 2D WORD 0 - 3	0
1	1	000010110	BLOCK 16 WORD 0 - 3	0
2	1	000011001	BLOCK 19 WORD 0 - 3	0
3	1	000001000	BLOCK 8 WORD 0 - 3	0
4	1	00000011	BLOCK 3 WORD 0 - 3	0
5	1	000000111	BLOCK 7 WORD 0 - 3	0
6	1	000010000	BLOCK 10 WORD 0 - 3	0
7	1	000100011	BLOCK 23 WORD 0 - 3	0

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71% List of Previous

Instructions:

- Load 10 [Miss]
- Load C [Miss]
- Load 64 [Miss]
- Load 20 [Miss]
- Load 4C [Miss]
- Load 18 [Miss]
- Load 64
- [Hit]
 Load 20
- [Hit]
 Load 40
- [Miss]
 Load 8C
 [Miss]
- Load B4