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CS 224 Lab 6 Preliminary Work



Section: 2
Barkın Saday
21902967

Question 1:

No.	Cache Size KB	N way cache	Word Size (no. of bits)	Block Size (no. of words)	No. of Sets	Tag Size in bits	Index Size (Set No.) in Bits	Block Offset Size in bits ¹	Byte Offset Size in bits ²	Block Replacement Policy Needed (Yes/No)
1	64	1	32	4	2^{12}	16	12	2	2	No
2	64	2	32	4	2^{11}	17	11	2	2	Yes
3	64	4	32	8	2^9	18	9	3	2	Yes
4	64	Full	32	8	2^0	27	0	3	2	Yes
9	128	1	16	4	2^{14}	15	14	2	1	No
10	128	2	16	4	2^{13}	16	13	2	1	Yes
11	128	4	16	16	2^{11}	17	11	4	0	Yes
12	128	Full	16	16	2^{28}	28	0	4	0	Yes

Question 2:

Instruction	1	2	3	4	5
lw \$t1, 0x24(\$0)	Compulsory Miss	Hit	Hit	Hit	Hit
lw \$t1, 0xAC(\$0)	Compulsory Miss	Hit	Hit	Hit	Hit
lw \$t1, 0xC8(\$0)	Hit	Hit	Hit	Hit	Hit