

Table 1:- Configuration Table

	S.No	L1 i (KiB)	L1 d (KiB)	L2 (MiB)	L1 i Assoc	L1 d Assoc	L2 Assoc
C1	1	8	16	2	2	2	4
	2	16	32	2	2	2	4
C2	1	32	64	2	2	2	4
	2	64	128	2	2	2	4
C3	1	128	256	4	2	2	4
	2	256	512	4	2	2	4
C4	1	8	16	2	4	4	8
	2	16	32	2	4	4	8
C5	1	32	64	4	4	4	8
	2	64	128	4	4	4	8
C6	1	128	256	8	4	4	8
	2	256	512	8	4	4	8

Table 2:- Benchmark Table

Benchmark no.	Name
B1	parest
B2	povray
B3	namd
B4	omnetpp
B5	xalancbmk
B6	blender
B7	sjeng
B8	leela
B9	cactus
B10	lbm

Table 3:- Experiment Table

Experiment no.	Questions
E1	<p>a) Count the no.of hits and misses of the L1-I cache between “ T1 ” and “ T2 ” using fast forward with “ F ” instructions with maximum instructions “ M ”, where T1 represents the start time of the clock cycle and T2 represents the end time of the clock cycle.</p> <p>b) Print hits per set and hits per way in the L1-I cache.</p>
E2	<p>a) Count the no.of hits and misses of the L1-D cache between “ T1 ” and “ T2 ” using fast forward with “ F ” instructions with maximum instructions “ M ”, where T1 represents the start time of the clock cycle and T2 represents the end time of the clock cycle.</p> <p>b) List the top 5 frequently accessed sets in the L1-D cache.</p>
E3	<p>a) Count the no.of hits and misses of the L1-I and L1-D cache between “ T1 ” and “ T2 ” using fast forward with “ F ” instructions with maximum instructions “ M ”, where T1 represents the start time of the clock cycle and T2 represents the end time of the clock cycle.</p> <p>b) List the no.of evictions per set in the L1-I and L1-D cache.</p>

Consider the number of CPUs is 1 and the memory size is 8GB for all experiments.

Group no.	Configuration	Benchmarks	Experiment no.	Parameters
1	C2	B2, B3	E2	F = 1000000 T1 = 3000000 T2 = 3250000 Max Insts = 10000000
2	C5	B7, B8	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
3	C3	B1, B6	E3	F = 1000000 T1 = 5000000 T2 = 5500000 Max Insts = 10000000
4	C6	B4, B5	E2	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
5	C1	B9, B10	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
6	C4	B7, B8	E3	F = 1000000 T1 = 6000000 T2 = 7000000 Max Insts = 10000000
7	C3	B2, B9	E1	F = 1000000 T1 = 3250000 T2 = 3500000 Max Insts = 10000000
8	C5	B3, B7	E2	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000

9	C2	B5, B6	E3	F = 1000000 T1 = 6000000 T2 = 7000000 Max Insts = 10000000
10	C1	B8, B10	E2	F = 1000000 T1 = 6000000 T2 = 7000000 Max Insts = 10000000
11	C6	B1, B7	E3	F = 1000000 T1 = 5500000 T2 = 6000000 Max Insts = 10000000
12	C4	B4, B9	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
13	C5	B2, B6	E3	F = 1000000 T1 = 3500000 T2 = 3750000 Max Insts = 10000000
14	C1	B3, B9	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
15	C3	B5, B7	E2	F = 1000000 T1 = 7000000 T2 = 8000000 Max Insts = 10000000
16	C2	B1, B4	E1	F = 1000000 T1 = 6000000 T2 = 6500000 Max Insts = 10000000
17	C6	B8, B10	E2	F = 1000000 T1 = 7000000 T2 = 8000000 Max Insts = 10000000

18	C4	B6, B7	E3	F = 1000000 T1 = 7000000 T2 = 8000000 Max Insts = 10000000
19	C5	B3, B10	E1	F = 1000000 T1 = 8000000 T2 = 9000000 Max Insts = 10000000
20	C1	B2, B5	E3	F = 1000000 T1 = 3750000 T2 = 4000000 Max Insts = 10000000
21	C3	B7, B8	E2	F = 1000000 T1 = 8000000 T2 = 9000000 Max Insts = 10000000
22	C6	B4, B6	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
23	C2	B9, B10	E3	F = 1000000 T1 = 9000000 T2 = 10000000 Max Insts = 10000000
24	C4	B1, B7	E2	F = 1000000 T1 = 6500000 T2 = 7000000 Max Insts = 10000000
25	C5	B2, B10	E1	F = 1000000 T1 = 4000000 T2 = 4250000 Max Insts = 10000000
26	C3	B3, B5	E3	F = 1000000 T1 = 8000000 T2 = 9000000 Max Insts = 10000000

27	C6	B7, B9	E2	F = 1000000 T1 = 9000000 T2 = 10000000 Max Insts = 10000000
28	C1	B4, B9	E1	F = 1000000 T1 = 6000000 T2 = 7000000 Max Insts = 10000000
29	C2	B6, B10	E3	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
30	C4	B1, B8	E2	F = 1000000 T1 = 7000000 T2 = 7500000 Max Insts = 10000000
31	C2	B2, B3	E2	F = 1000000 T1 = 3000000 T2 = 3250000 Max Insts = 10000000
32	C5	B7, B8	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
33	C3	B1, B6	E3	F = 1000000 T1 = 5000000 T2 = 5500000 Max Insts = 10000000
34	C6	B4, B5	E2	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
35	C1	B9, B10	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000

36	C4	B7, B8	E3	F = 1000000 T1 = 6000000 T2 = 7000000 Max Insts = 10000000
37	C3	B2, B9	E1	F = 1000000 T1 = 3250000 T2 = 3500000 Max Insts = 10000000
38	C5	B3, B7	E2	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
39	C2	B5, B6	E3	F = 1000000 T1 = 6000000 T2 = 7000000 Max Insts = 10000000
40	C1	B8, B10	E2	F = 1000000 T1 = 6000000 T2 = 7000000 Max Insts = 10000000
41	C6	B1, B7	E3	F = 1000000 T1 = 5500000 T2 = 6000000 Max Insts = 10000000
42	C4	B4, B9	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
43	C5	B2, B6	E3	F = 1000000 T1 = 3500000 T2 = 3750000 Max Insts = 10000000
44	C1	B3, B9	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000

45	C3	B5, B7	E2	F = 1000000 T1 = 7000000 T2 = 8000000 Max Insts = 10000000
46	C2	B1, B4	E1	F = 1000000 T1 = 6000000 T2 = 6500000 Max Insts = 10000000
47	C6	B8, B10	E2	F = 1000000 T1 = 7000000 T2 = 8000000 Max Insts = 10000000
48	C4	B6, B7	E3	F = 1000000 T1 = 7000000 T2 = 8000000 Max Insts = 10000000
49	C5	B3, B10	E1	F = 1000000 T1 = 8000000 T2 = 9000000 Max Insts = 10000000
50	C1	B2, B5	E3	F = 1000000 T1 = 3750000 T2 = 4000000 Max Insts = 10000000
51	C3	B7, B8	E2	F = 1000000 T1 = 8000000 T2 = 9000000 Max Insts = 10000000
52	C6	B4, B6	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
53	C2	B9, B10	E3	F = 1000000 T1 = 9000000 T2 = 10000000 Max Insts = 10000000

54	C4	B1, B7	E2	F = 1000000 T1 = 6500000 T2 = 7000000 Max Insts = 10000000
55	C5	B2, B10	E1	F = 1000000 T1 = 4000000 T2 = 4250000 Max Insts = 10000000
56	C3	B3, B5	E3	F = 1000000 T1 = 8000000 T2 = 9000000 Max Insts = 10000000
57	C6	B7, B9	E2	F = 1000000 T1 = 9000000 T2 = 10000000 Max Insts = 10000000
58	C1	B4, B9	E1	F = 1000000 T1 = 6000000 T2 = 7000000 Max Insts = 10000000
59	C2	B6, B10	E3	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
60	C4	B1, B8	E2	F = 1000000 T1 = 7000000 T2 = 7500000 Max Insts = 10000000
61	C5	B2, B10	E1	F = 1000000 T1 = 4000000 T2 = 4250000 Max Insts = 10000000
62	C3	B3, B5	E3	F = 1000000 T1 = 8000000 T2 = 9000000 Max Insts = 10000000

63	C6	B7, B9	E2	F = 1000000 T1 = 9000000 T2 = 10000000 Max Insts = 10000000
64	C1	B4, B9	E1	F = 1000000 T1 = 6000000 T2 = 7000000 Max Insts = 10000000
65	C2	B6, B10	E3	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
66	C4	B1, B8	E2	F = 1000000 T1 = 7000000 T2 = 7500000 Max Insts = 10000000
67	C2	B2, B3	E2	F = 1000000 T1 = 3000000 T2 = 3250000 Max Insts = 10000000
68	C5	B7, B8	E1	F = 1000000 T1 = 5000000 T2 = 6000000 Max Insts = 10000000
69	C3	B1, B6	E3	F = 1000000 T1 = 5000000 T2 = 5500000 Max Insts = 10000000
70	C5	B3, B10	E1	F = 1000000 T1 = 8000000 T2 = 9000000 Max Insts = 10000000