|  |  |
| --- | --- |
| **CSID #1** |  |
| **CSID #2** |  |

**Part 1: 1a**

Place the letters CO, CI, or CT into each box indicating if the corresponding bit number is part of the cache block offset (CO), the cache set index (CI), or the cache tag (CT).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Part 1: 1b**

For each row, fill in the cache set index, cache tag, and value with a hexadecimal number. In the Hit column, place an H if the address produces a hit and M if the address produces a miss.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Operation | Address | Cache Set Index | Tag | Hit | Value |
| Read | 0x0117 |  |  |  |  |
| Read | 0x64C2 |  |  |  |  |
| Read | 0x7BFE |  |  |  |  |
| Read | 0x0110 |  |  |  |  |

**Part 3:**

For each scenario, enter the miss rate as a percentage and then explain why the miss rate is what it is.

|  |  |  |
| --- | --- | --- |
| Scenario | Miss Rate | Explanation |
| A | % |  |
| B | % |  |
| C | % |  |
| D | % |  |

**Part 4:**

Enter your log entries in this table.

|  |  |  |  |
| --- | --- | --- | --- |
| Log # | Average elapsed time | Time relative to baseline | Explanation |
| 1 |  | 1 | Fill in your baseline results in this row. |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |
| 9 |  |  |  |
| 10 |  |  |  |
| 11 |  |  |  |
| 12 |  |  |  |
| 13 |  |  |  |
| 14 |  |  |  |
| 15 |  |  |  |
| 16 |  |  |  |
| 17 |  |  |  |
| 18 |  |  |  |
| 19 |  |  |  |
| 20 |  |  |  |
| 21 |  |  |  |