Assume the following trace for the ticket lock for a 3-processor system and fill the following table with constraints as given. Use the MSI protocol

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Steps | next\_ ticket | now\_ serving | my\_ticket | | | State  (next\_ticket) | | | State  (now\_serving) | | | Comments |
| P1 | P2 | P3 | P1 | P2 | P3 | P1 | P2 | P3 |
| Initially | 0 | 0 | 0 | 0 | 0 | I | I | I | I | I | I | All initialized to zero |
| P1: fetch & inc |  |  |  |  |  |  |  |  |  |  |  |  |
| P2: fetch & inc |  |  |  |  |  |  |  |  |  |  |  |  |
| P1: now\_serving++ |  |  |  |  |  |  |  |  |  |  |  |  |
| P3: fetch & inc |  |  |  |  |  |  |  |  |  |  |  |  |
| P2: now\_serving++ |  |  |  |  |  |  |  |  |  |  |  |  |
| P3: now\_serving++ |  |  |  |  |  |  |  |  |  |  |  |  |