Consider the following FSM:

| Current <br> State | Input | Next <br> State |
| :---: | :---: | :---: |
| ST1 | 0 | ST2 |
| ST1 | 1 | ST3 |
| ST2 | 0 | ST2 |
| ST2 | 1 | ST1 |
| ST3 | 0 | ST3 |
| ST3 | 1 | ST1 |


(Note: Diagram and state transition table should represent the same FSM.)

How many P-Terms and Total wired-or crosspoints does the PLA implementation of this FSM require for each of the state encodings suggested below?

|  | $(\mathrm{a})$ | (b) | (c) | (d) |
| ---: | :---: | :---: | :---: | :---: |
| ST1 | 01 | 001 | 00 | 11 |
| ST2 | 10 | 010 | 01 | 10 |
| ST3 | 11 | 100 | 10 | 00 |
| Pterms |  |  |  |  |
| Crosspoints |  |  |  |  |

