**Lab1**

**True Table**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Trạng thái hiện tại | | | Trạng thái kế tiếp | | | FF D | | |
| Q2 | Q1 | Q0 | Q2+ | Q1+ | Q0+ | D2 | D1 | D0 |
| 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

D2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Q1Q0  Q2 | 00 | 01 | 11 | 10 |
| 0 | 1 | 1 |  | 1 |
| 1 | 1 |  |  | 1 |

D2 = Q0’ + Q2’Q1’

D1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Q1Q0  Q2 | 00 | 01 | 11 | 10 |
| 0 | 1 | 1 |  | 1 |
| 1 | 1 | 1 | 1 |  |

D1 = Q1’ + Q2’Q0’ + Q2Q0 = Q1’ + (Q2 ⊕ Q0)’

D0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Q1Q0  Q2 | 00 | 01 | 11 | 10 |
| 0 |  |  |  | 1 |
| 1 | 1 |  | 1 |  |

D0 = Q2Q1’Q0’ + Q2Q1Q0 + Q2’Q1Q0’ = Q2(Q1⊕Q0)’ + Q2’Q1Q0’

**Loading Asynchronous True Table**

|  |  |  |  |
| --- | --- | --- | --- |
| en | value[k] | clr[k] | preset[k] |
| 0 | x | x | x |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 |

clr[k] = en\*value[k]’

preset[k] = en\*value[k]