3.1(2)

3.2(2)

3.6(5)

3.8(4)

3.10(4)

3.12(4)

3.14（1）

3.14（6）

3.20（4）

3.20（5）

3.21（1）

3.21（4）

3.21（8）

3.1(2)

真值表

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | F |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 |

逻辑函数

3.2(2)

真值表

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x1 | x2 | y1 | y2 | F1 | F2 | F3 |
| 0 | 0 | 0 | 0 | x | 1 | x |
| 0 | 0 | 0 | 1 | x | x | 1 |
| 0 | 0 | 1 | 0 | x | x | 1 |
| 0 | 0 | 1 | 1 | x | x | 1 |
| 0 | 1 | 0 | 0 | 1 | x | x |
| 0 | 1 | 0 | 1 | x | 1 | x |
| 0 | 1 | 1 | 0 | x | x | 1 |
| 0 | 1 | 1 | 1 | x | x | 1 |
| 1 | 0 | 0 | 0 | 1 | x | x |
| 1 | 0 | 0 | 1 | 1 | x | x |
| 1 | 0 | 1 | 0 | x | 1 | x |
| 1 | 0 | 1 | 1 | x | x | 1 |
| 1 | 1 | 0 | 0 | 1 | x | x |
| 1 | 1 | 0 | 1 | 1 | x | x |
| 1 | 1 | 1 | 0 | 1 | x | x |
| 1 | 1 | 1 | 1 | x | 1 | x |

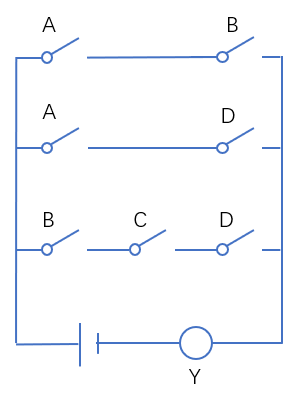
3.6(5)

题目

展开

吸收律

开关电路：



3.8(4)

反演律 右边=

反演律 右边=

互补率（）,右边左边

3.10(4)

3.12(4)

真值表

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| A | B | C | D | F | M |
| 0 | 0 | 0 | 0 | 0 | M0 |
| 0 | 0 | 0 | 1 | 0 | M1 |
| 0 | 0 | 1 | 0 | 1 | M2 |
| 0 | 0 | 1 | 1 | 1 | M3 |
| 0 | 1 | 0 | 0 | 1 | M4 |
| 0 | 1 | 0 | 1 | 0 | M5 |
| 0 | 1 | 1 | 0 | 1 | M6 |
| 0 | 1 | 1 | 1 | 1 | M7 |
| 1 | 0 | 0 | 0 | 0 | M8 |
| 1 | 0 | 0 | 1 | 0 | M9 |
| 1 | 0 | 1 | 0 | 0 | M10 |
| 1 | 0 | 1 | 1 | 1 | M11 |
| 1 | 1 | 0 | 0 | 1 | M12 |
| 1 | 1 | 0 | 1 | 0 | M13 |
| 1 | 1 | 1 | 0 | 1 | M14 |
| 1 | 1 | 1 | 1 | 1 | M15 |

真值为0的项，得最大项表达式

3.14做卡诺图

（1）

卡诺图为：

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **00** | **01** | **11** | **10** |
| **0**  BC  A | **0** | **1** | **0** | **0** |
| **1** | **1** | **1** | **0** | **0** |

3.14（6）

卡诺图为：

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AB  CD | **00** | **01** | **11** | **10** |
| **00** | **1** | **1** | **X** | **1** |
| **01** | **0** | **0** | **0** | **0** |
| **11** | **1** | **1** | **x** | **x** |
| **10** | **0** | **0** | **1** | **1** |

3.20公式法化简

（4）

包含律

所以

卡诺图为：

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AB  CD | **00** | **01** | **11** | **10** |
| **00** |  | **1** | **1** | **1** |
| **01** |  |  | **1** | **1** |
| **11** | **1** |  |  |  |
| **10** | **1** | **1** | **1** | **1** |

（5）

前两项相乘

配项

再乘第三项

3.21 卡诺图化简

（1）

卡诺图为

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AB  CD | **00** | **01** | **11** | **10** |
| **00** | **1** | **1** | **1** | **1** |
| **01** | **1** | **1** | **1** | **1** |
| **11** |  | **1** | **1** | **1** |
| **10** |  | **1** |  |  |

(4)

前两项相乘

再乘第三项

再乘第四项

卡诺图为

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AB  CD | **00** | **01** | **11** | **10** |
| **00** |  |  | **1** | **1** |
| **01** |  |  | **1** | **1** |
| **11** | **1** | **1** | **1** | **1** |
| **10** |  |  |  |  |

(8)

卡诺图为

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AB  CD | **00** | **01** | **11** | **10** |
| **00** | **0** | **x** | **1** | **0** |
| **01** | **x** | **0** | **0** | **1** |
| **11** | **x** | **1** | **x** | **1** |
| **10** | **x** | **0** | **1** | **0** |