**实验六 四人表决器的设计**

**一、实验数据记录**

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| --- | --- | --- | --- | --- |
| **实验名称** | **实验六 四人表决器的设计** | | | |
| **器件** |  | | | |
| 1. **实验任务（1）：四人表决器的设计**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **真值表、卡诺图、表达式：**  **真值表：**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **A** | **B** | **C** | **D** | **F** | | **0** | **0** | **0** | **0** | **0** | | **0** | **0** | **0** | **1** | **0** | | **0** | **0** | **1** | **0** | **0** | | **0** | **0** | **1** | **1** | **0** | | **0** | **1** | **0** | **0** | **0** | | **0** | **1** | **0** | **1** | **0** | | **0** | **1** | **1** | **0** | **0** | | **0** | **1** | **1** | **1** | **1** | | **1** | **0** | **0** | **0** | **0** | | **1** | **0** | **0** | **1** | **0** | | **1** | **0** | **1** | **0** | **0** | | **1** | **0** | **1** | **1** | **1** | | **1** | **1** | **0** | **0** | **0** | | **1** | **1** | **0** | **1** | **1** | | **1** | **1** | **1** | **0** | **1** | | **1** | **1** | **1** | **1** | **1** |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **CBA** | **GN** |  |  |  |  |  |  |  |  | **Y** | **判断：Y=D？** | | **000** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **0** |  | | **001** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** |  | | **010** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **0** |  | | **011** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** |  | | **100** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **0** |  | | **101** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** |  | | **110** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **0** |  | | **111** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** |  | |  | **1** |  |  |  |  |  |  |  | **0** | **0** |  |   **卡诺图：**  **AB**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **C** | **00** | **01** | **11** | **10** | | **0** |  |  |  |  | | **1** |  |  |  |  |   **以D为记图变量：**  **AB**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **CD** | **00** | **01** | **11** | **10** | | **00** | **0** | **0** | **0** | **0** | | **01** | **0** | **0** | **1** | **0** | | **11** | **0** | **1** | **1** | **1** | | **10** | **0** | **0** | **1** | **0** |   **对该卡诺图进行降维，得：**  **AB**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **C** | **00** | **01** | **11** | **10** | | **0** | **0** | **0** | **D** | **0** | | **1** | **0** | **D** | **1** | **D** |   **易知：** | | **电路及波形仿真结果：（请分析结果现象）**  **电路图：**  **波形仿真截图：** | | | | | |
|  | | | | |
| **故障记录（记录实验过程中的故障现象及解决方案）** | | | | |
| **实验成绩** | |  | **指导老师签字** |  |