**实验二 布尔定理的测试及摩根定理的应用**

**一、实验数据记录**

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| **实验名称** | **实验二 布尔定理的测试及摩根定理的应用** | | | |
| **器件** | **与门、非门** | | | |
| 1. **实验任务（1）：布尔定理测试****（必做）**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **左右两边等式真值表：**  **（A+B）（A+C）的真值表：**   |  |  |  |  | | --- | --- | --- | --- | | **A** | **B** | **C** | **F1** | | **0** | **0** | **0** | **0** | | **0** | **0** | **1** | **0** | | **0** | **1** | **0** | **0** | | **0** | **1** | **1** | **1** | | **1** | **0** | **0** | **1** | | **1** | **0** | **1** | **1** | | **1**  **1** | **1**  **1** | **0**  **1** | **1**  **1** |   **A+BC的真值表：**   |  |  |  |  | | --- | --- | --- | --- | | **A** | **B** | **C** | **F1** | | **0** | **0** | **0** | **0** | | **0** | **0** | **1** | **0** | | **0** | **1** | **0** | **0** | | **0** | **1** | **1** | **1** | | **1** | **0** | **0** | **1** | | **1** | **0** | **1** | **1** | | **1**  **1** | **1**  **1** | **0**  **1** | **1**  **1** | | | **电路图及波形仿真结果**  **电路图：**    **波形仿真结果：** | | | | | |
| 1. **实验任务（2）：利用与非门实现逻辑表达式****。（必做）**   **请写出真值表，表达式变化过程及结果，截图电路及波形仿真结果。**  **表达式：**    **电路图：**    **真值表：**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **A** | **B** | **C** | **D** | **F** | | **0** | **0** | **0** | **0** | **0** | | **0** | **0** | **0** | **1** | **1** | | **0** | **0** | **1** | **0** | **1** | | **0** | **0** | **1** | **1** | **1** | | **0** | **1** | **0** | **0** | **0** | | **0** | **1** | **0** | **1** | **0** | | **0** | **1** | **1** | **0** | **1** | | **0** | **1** | **1** | **1** | **0** | | **1** | **0** | **0** | **0** | **0** | | **1** | **0** | **0** | **1** | **1** | | **1** | **0** | **1** | **0** | **1** | | **1** | **0** | **1** | **1** | **1** | | **1** | **1** | **0** | **0** | **0** | | **1** | **1** | **0** | **1** | **0** | | **1** | **1** | **1** | **0** | **1** | | **1** | **1** | **1** | **1** | **1** |   **波形仿真结果：** | | | | |
| 1. **实验任务（3）：利用或非门实现****。（选做）**   **请写出表达式变化过程及结果，截图电路及波形仿真结果。**  **表达式变化过程：**      **电路图：**    **波形仿真结果：**    **真值表：**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **A** | **B** | **C** | **D** | **F** | | **0** | **0** | **0** | **0** | **0** | | **0** | **0** | **0** | **1** | **1** | | **0** | **0** | **1** | **0** | **1** | | **0** | **0** | **1** | **1** | **1** | | **0** | **1** | **0** | **0** | **0** | | **0** | **1** | **0** | **1** | **0** | | **0** | **1** | **1** | **0** | **1** | | **0** | **1** | **1** | **1** | **0** | | **1** | **0** | **0** | **0** | **0** | | **1** | **0** | **0** | **1** | **1** | | **1** | **0** | **1** | **0** | **1** | | **1** | **0** | **1** | **1** | **1** | | **1** | **1** | **0** | **0** | **0** | | **1** | **1** | **0** | **1** | **0** | | **1** | **1** | **1** | **0** | **1** | | **1** | **1** | **1** | **1** | **1** | | | | | |
| **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** |  |