**关于测试单周期CPU的简单方法**

**（特别说明：本表每个同学都必须建立，检查实验时，必须提供！）**

1、测试程序段

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **地址** | **汇编程序** | **指令代码** | | | | | |
| **op（6）** | **rs(5)** | **rt(5)** | **rd(5)/immediate (16)** | **16进制数代码** | |
| **0x00000000** | addi $1,$0,8 | **001000** | **00000** | **00001** | **0000 0000 0000 1000** | **=** | 2001 0008 |
| **0x00000004** | ori $2,$0,2 | **001101** | **00000** | **00010** | **0000 0000 0000 0010** | **=** | 3402 0002 |
| **0x00000008** | add $3,$2,$1 | **000000** | **00010** | **00001** | **00011 00000 100000** | **=** | 0041 1820 |
| **0x0000000C** | sub $5,$3,$2 | **000000** | **00011** | **00010** | **00101 00000 100011** | **=** | 0062 2823 |
| **0x00000010** | and $4,$5,$2 | **000000** | **00101** | **00010** | **00100 00000 100100** | **=** | 00A2 2024 |
| **0x00000014** | or $8,$4,$2 | **000000** | **00100** | **00010** | **01000 00000 100101** | **=** | 0082 4025 |
| **0x00000018** | sll $8,$8,1 | **000000** | **00000** | **01000** | **01000 00001 000000** | **=** | 0008 4040 |
| **0x0000001C** | **bne $8,$1,-2 (≠,转18)** | **000101** | **01000** | **00001** | **1111 1111 1111 1110** | **=** | 1501 FFFE |
| **0x00000020** | slt $6,$2,$1 | **000000** | **00010** | **00001** | **00110 00000 101010** | **=** | 0041 302A |
| **0x00000024** | slt $7,$6,$0 | **000000** | **00110** | **00000** | **00111 00000 101010** | **=** | 00C0 382A |
| **0x00000028** | addi $7,$7,8 | **001000** | **00111** | **00111** | **0000 0000 0000 1000** | **=** | 20E7 0008 |
| **0x0000002C** | **beq $7,$1,-2 (=,转28)** | **000100** | **00111** | **00001** | **1111 1111 1111 1110** | **=** | 10E1 FFFE |
| **0x00000030** | sw $2,4($1) | **101011** | **00001** | **00010** | **0000 0000 0000 0100** | **=** | AC22 0004 |
| **0x00000034** | lw $9,4($1) | **100011** | **00001** | **01001** | **0000 0000 0000 0100** | **=** | 8C29 0004 |
| **0x00000038** | **bgtz $9,1 (>0,转40)** | **000111** | **01001** | **00000** | **0000 0000 0000 0001** | **=** | 1D20 0001 |
| **0x0000003C** | **halt** | **111111** | **00000** | **00000** | **0000 0000 0000 0000** | **=** | FC00 0000 |
| **0x00000040** | **addi $9,$0,-1** | **001000** | **00000** | **01001** | **1111 1111 1111 1111** | **=** | 2009 FFFF |
| **0x00000044** | **j 0x00000038** | **000010** | **00000** | **00000** | **0000 0000 0000 1110** | **=** | 0800 000E |
| **0x00000048** |  |  |  |  |  |  |  |
| **0x0000004C** |  |  |  |  |  |  |  |