**Assignment 1**

* $s1=-127, $s2=-1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sau khi chạy | $s1 | $s2 | $s3 | $t1 |
|  | 0xffffff81 | 0xffffffff | 0xffffff80 | 0x0000007e |

* $s1=127, $s2=-1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sau lệnh | $s1 | $s2 | $s3 | $t1 |
| 1 | 0x0000007f | 0xffffffff | 0x0000007e | 0xffffff80 |

* $s1=127, $s2=1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sau lệnh | $s1 | $s2 | $s3 | $t1 |
| 1 | 0x0000007f | 0x00000001 | 0x00000080 | 0x0000007e |

**Assignment 2**

.text

li $s0, 0x12345678

andi $t0, $s0, 0xff000000 #Extract MSB of $s0

andi $t1, $s0, 0xffffff00 #Clear LSB of $s0

ori $t2, $s0, 0xf0    #Set LSB of $s0 (bits 7 to 0 are set to 1)

andi $t3, $s0,0x00000000 #Clear $s0

**Assignment 3**

|  |  |
| --- | --- |
|  | convert |
| abs $s0,$s1 # |$s1| | sra $1,$s1,0x0000001f  xor $s0,$at,$s1  subu $s0,$s0,$at |
| move  $s0,$s1  #$s0 <= $s1 | addu $s0,$s1,$zero |
| not   $s0,$s0 | nor $s0,$s0,$zero |
| ble $s1,$s2,L  addi $t8, $zero, 1  L:  addi $t9, $zero, 1 | slt $t0,$s1,$s2  bne $t0,$zero,L  addi $t8, $zero, 1  L:  addi $t9, $zero, 1 |

**Assignment 4**

li $t0,0

addu s3,$s1,$s2

xor $t1,$s3,$s1

bltz $t1, Overflow

j Exit

Overflow:

li $t0,1

Exit:

**Assignment 5**

li $s0,2 #x

li $t0,5 #n

li $s1,0 #i=0

loop:

mul $s0,$s0,2 #x = x\*2

addi $s1,$s1,1 #i = i+1

bne $s1,$t0,loop #lặp tiếp nếu i khác n