10/10

CSCI-21 Quiz #5 Name Ismael Cortez

Please use pencil and erase mistakes. No books, notes or electronic devices. 10 points

Some useful instructions: `and andi or ori sll srl sra`

Write a complete MIPS program that sets a `1` bit into the low-order position of $t0, then, using only bits directly derived from that single bit, sets the pattern `0x96969696` into $t1. You may explain your thinking in comments to the right of each assembly mnemonic; but otherwise add no comments.

Ox 96 = 1001 0110

ok -

```
    .text
    .globl main

main:
        ori  $t0, $0, 0x01          # $t0 = 0001
        sll  $t1, $t0, 3            # $t1 = 1000
        or   $t1, $t0, $t1          # $t1 = 1001
        sll  $t2, $t0, 1            # $t2 = 0010
        or   $t0, $t0, $t2          # $t0 = 0011
        sll  $t0, $t0, 1            # $t0 = 0110
        sll  $t1, $t1, 4            # $t1 = 1001 0000
        or   $t1, $t0, $t1          # $t1 = 1001 0110
        sll  $t0, $t1, 8            # $t0 = 0x9600
        or   $t1, $t0, $t1          # $t1 = 0x9696
        sll  $t0, $t1, 16           # $t0 = 0x96960000
        or   $t1, $t0, $t1          # $t1 = 0x96969696
```