Recitation 11 Practice Solution- Computer Organization, Spring 2013

For each byte sequence listed, determine the Y86 instruction sequences it encodes. If there is some invalid byte in the sequence, show the instruction sequence up to that point and indicate where the invalid value occurs. For each sequence, we show that the starting address, then a colon, and then the byte sequence.

1) 0x300: 50340800000010f0b01f

Sol: 0x300: 503408000000 | mrmovl 8(%esp), %ebx

0x306: 10 | nop

0x307: f0 | .byte 0xf0 #invalid instruction code

0x308: b01f | popl %ecx

2) 0x400: 6167730004000000

Sol: 0x400: | loop:

0x400: 6267 | andl %esi, %edi

0x402: 7200040000 | jl loop 0x407: 00 | halt