

Question 1: Some RISC-V Favorites Consider the following RISC-V assembly instructions:

- A. `sub x1,x0,x1`
- B. `xori x1,x1,-1`
- C. `sw x0,(x1)`
- D. `srai x1,x1,31`
- E. `and x1,x1,1`

1.1. Which of the given instructions loads -1 into x1 if it is a negative number and 0 otherwise?

- A
- B
- C
- D
- E
- None of the above

1.2. Which of the given instructions complements every bit of x1?

- A
- B
- C
- D
- E
- None of the above

1.3. Which of the given instructions does not have a destination operand?

- A
- B
- C
- D
- E
- None of the above

1.4. Which of the given instructions loads 1 into x1 if contains a odd value and 0 if it is even?

- A
- B
- C
- D
- E
- None of the above

Question 2: Memory Practice Consider the following RISC-V assembly snippet

```

1  A: .word    5 90 100 40 11
2
3  lw  x15, 0(x14)
4  addi x16, x14, 8
5  lw  x17, 4(x16)
6  sw  x17, 4(x14)
7  lw  x18, -4(x16)
8
    
```

If the address of A is 0x00003000, what is the value of registers 14-18 after the program is run?