CMSC 313 Spring 2024
Quiz 5

Full Name _____ Student ID _____

Questions on this quiz are either short response or true or false. Please print your answers clearly. If you show your work and your answer is wrong, you may have an opportunity of partial credit.

Question 1. You are given the following x86-64 assembly code:

```
section .data
        arr db 1,2,3,4     ;0x0000 0000 address
        stop db 0,0,0,0    ;0x0000 0004 address

section .text
        global main
main:
        mov rcx, 0
loop:
        mov al, BYTE [arr+rcx]
        inc rcx
        add BYTE [arr+rcx], al
        cmp cl, BYTE [arr+1]
        jl loop
```

a. (32 pts) After running the program, what are the values stored at address 0x0000 0000 through 0x0000 0007? You can display values in hex or decimal. You must specify your base.

address	value
0x0000 0000	
0x0000 0001	
0x0000 0002	
0x0000 0003	
0x0000 0004	
0x0000 0005	
0x0000 0006	
0x0000 0007	

b. (6 pts) What are the final values of the registers RAX and RCX?

c. (2 pts) Can this program seg-fault? Yes or No.