**RISC-V Program**

Problem statement: Create an array in data memory starting at base address “0”. The array will hold 10 integer values [1,2,3,4,5,6,7,8,9,10]. Following instructions are stored in the instruction memory. Please execute the following program. Please ensure that your timing graph should show the following values, PC, Instruction, regfile, alu and data memory

addi x31, x0, FFFFFFFF…F

addi x29, x0, x0

addi x28 x0 10

Loop: ld x5, 0 (x29)

xor x5, x5, x31

sd x5, 0 (x29)

addi x29, x29, 8

addi x28 x28 -1

BNE x28, $zero, Loop

Exit