**Assignment on RISC-V**

1. Write down the RISC-V assembly code to add ‘b’, ‘c’ and store in ‘a’.
2. Write down the RISC-V assembly code to subtract ‘c’ from ‘b’ and store in ‘a’.
3. Write down the RISC-V assembly code to implement a=b+c-d.
4. Translate the following high-level code into RISC-V assembly language. Assume variables a-h are held in registers s0-s7.

a= b - c;

d=(e+f) - (g+h);

1. Translate the following I-type assembly instruction into machine language.

add x18, x19, x20

sub x5, x6, x7

1. Translate the following I-type assembly instruction into machine language.

s11 x23, x5, x9

xor x24, x25, x26

add x28, x20, x21

1. Translate the following I-type assembly instruction into machine language.

lw x28, −36(x20)

1. Translate the following I-type assembly instruction into machine language.

addi x8, x9, x12

addi x18, x6, -14

lw x7, -6(x19)

lb x20, ox1F (x20)

s11i x18, x23, 5

sari x6, x7, 29

1. Translate the following S-type assembly instruction into machine language.

sw x7, -6(x19)

sh x20, 23(x5)

sb x30, 0x2D(x0)

1. Translate the following B-type assembly instruction into machine language.

beq x8, x30, 16

bne x24, x25, L1

1. Translate the following U-type assembly instruction into machine language.

lui x21, 0x8CDEF

1. Translate the following J-type assembly instruction into machine language.

jal x1, 0xA67F8