Question 1. (Read Appendix A)

(a) What are the advantages of High Level Language Programming over Assembly Language Programming? List as many points as possible.
(b) What are the advantages of Assembly Language Programming over High Level Language Programming? List as many points as possible

Question 2. Write an assembly language program for MIPS corresponding to the following statement:

if g > h then k:= g else k:=h

Assume that initially g, h, k are stored in memory addresses 32, 36, 40 respectively.

Question 3. Write down the machine language (i.e. binary) versions of the following MIPS instructions:

(a) lw $t3, 36($s1)
(b) sub $t1, $s2, $s5
(c) beq $s1, $s2, 256 (assume that the current value of the PC = 200)
(d) sw $s2, 16($s1)

Question 4. Write one or more MIPS assembly language instructions to

(a) Store a constant 8 into a register $t0.
(b) Copy the content of a register $s4 into another register $t0
(c) Multiply the content of a register by a constant 5. (Don’t use the Multiply instruction for this part)
(d) Load a word, whose address is the sum of two registers $s1, $s2, into $t0.

Question 5. Translate the following binaries into the assembly language instructions of MIPS:

(a) 00000001 00000000 10100000 00100010
(b) 00100001 00110000 00000000 11111111