2.1.

The process of translating a program written in a High-level Language into an executable file is that the program would be translated into assembly language by the Compiler which would then be given to the Assembler to be translated into machine code object files and after that is given to the Linker to combine the libraries that are needed as well as the machine code object files that were translated together into an executable file for the computer to run.

The system program the operating system uses to load an executable file to memory and run it is the loader.

2.2.

**[label:] operation [operand1 [, operand2 [, operand3]]] [ # [comment]]**

1. Labels: A symbol string associated with a specific memory address

2. Operations:

a. Assembler directives

b. Machine instruction

3. Operands:

a. Register names (i.e. $0, $29, named: $a0, 0($t0)),  
b. Immediate value Numeric expression  
c. Address label (instruction or data, i.e. Loop2:, myVal:)

4. Comments: Text string from # symbol to end of line which is ignored by assembler.