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COURSE: CSC 310(COMPUTER ARCHITECTURE and ORGANISATION).

**Question**  
Make Comparative analysis of Assembly language, Machine Language and High level langauges respectively.

**Solution.**

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| ASSEMBLY LANGUAGE | MACHINE LANGUAGE | HIGH LEVEL LANGUAGE |
| A low level programming language in which each statement produces exactly one Machine instructions | Binary based language are used for representing Computer programs that the Computer can execute directly | Understandable and portable language in which each statement accomplish substantial tasks |
| Assembler converts to machine  language | Directly understood by a computer | Compiler (or interpreter) converts to machine language |
| translate source program written in assembly code to machine code object programs. | it translates a program written in high-level language into its machine language equivalent | it translates a high-level language one statement at a time and carries out the execution of the statement before proceeding to the next statement. |
| Not standard (Le. different machine language for every type of machine | Not standard (Le. different machine language for every type of machine | Standard (I.e. programs are independent of the machine on which they will be executed) |
| Combines algebraic language (Is symbolic names are used to represent operations, registers & memory locations | Collection of binary numbers | expressions & symbols taken from English language |
| Example  MOV AX.A ADD AX 4 MOV A.AX | Example  10100001 0000000000000000 00000101 00000100 00000000 10100011 0000000000000000 | Example  A=A++ |