

PARAGON CONVENT SCHOOL

SECTOR 24 B CHANDIGARH

CLASS - 6

CHAPTER 1 – COMPUTERS LANGUAGES

RECAP

1. The process of writing programs in a computer language is known as programming.
2. Machine Language is expressed in binary form, i.e. 0s and 1s where 0 means 'off' state and 1 means 'on' state.
3. Assembly Language uses mnemonic codes or symbols in place of 0s and 1s.
4. Third generation Languages are simple, user-friendly and machine – independent.
5. Fourth generation languages are similar to human languages.
6. Fifth generation languages are used to develop programs for the field of Artificial Intelligence and Artificial Neural Networks.
7. The Translator programs are used to convert high – level language programs into low-level language programs.
8. An Assembler is a program that is used to convert mnemonic codes into their machine language equivalents.
9. An Interpreter translates line by line, whereas a compiler translates the whole program at once.

Q A. Fill in the blanks:-

1. A Program is a set of instructions that tell the computer what to do.
2. The development of computer languages can be classified into five generations.
3. Machine language consists of binary numbers, i.e. 0 and 1.
4. An assembler is a program that is used to convert mnemonic codes into their machine language equivalents.
5. High – level language uses simple English words and mathematical operators.

Q B. State True or False.

1. Machine language is the only language that a computer understands. True
2. High- level language program has to be converted into machine language by translator programs. True
3. A compiler converts a high – level language program into machine language, line by line. False
4. Programming is the process of writing programs in a computer language. True
5. Machine language uses mnemonic codes. False

Q C. Multiple Choice questions:-

1. A program written in a high-level language is called \_\_\_\_\_.  
a) Assembler                      b) **Source**                      c) Object
2. An \_\_\_\_\_ converts a high- level language program into machine language, line by line.

- a) Assembler                      b) Compiler                      c) **Interpreter**

3. The program converted into machine language by the translator is called an \_\_\_\_\_ program.

- a) Source                              b) **Object**                              c) Assembler

4. C, C++, Java are some of the very popular examples of \_\_\_\_\_ languages.

- a) Machine                              b) **High-level**                              c) low-level

Q D. Answer the following questions:-

Q 1. What do you mean by machine language?

Ans. Machine language is expressed in binary form i.e. 0 and 1, where 0 means 'off' state and 1 means 'on' state. It is the only language that a computer understands.

Q 2. How is assembly language different from machine language?

Ans.

Machine Language	Assembly Language
1. Uses binary codes to depict operators and data.	1. Uses mnemonic codes or symbols instead of binary numbers.
2. Machine – dependent.	2. Machine – dependent.
3. The only language directly understood by a computer.	3. Has to be converted into machine language by translator program (Assembler)

Q 3. What are the features of a High level language?

Ans. Features of High – level languages:-

- i) Uses English words and Mathematical operators.
- ii) Machine – independent
- iii) Has to be converted into Machine language by translator programs (Interpreters and Compilers).

Q 4. Differentiate between an interpreter and compiler.

Ans. Interpreter:-

1. An Interpreter translates a program written in high-level language into a low-level language program line by line, executes an instruction and then repeats the procedure for the remaining instructions. If any errors are found, they are to be removed immediately.
2. As the converted form is not stored anywhere, so it has to be generated at the time of the execution of a program.
3. The Interpreters are preferred by beginners as they are slow in their execution speed.

Compiler:-

1. A compiler is a translator program, which is used to convert a high- level language program into machine language.
2. It translates the whole program at once.
3. It generates the object code for the program along with the list of errors.
4. The execution speed of a compiler is faster as compared to interpreter.

Q 5. List any three characteristics of the fourth generation language.

Ans. The three characteristics of fourth generation language are:

1. Machine – Independent.
2. Minimal user skills required to obtain results.
3. Application development tool.