STUDY MATERIAL: CLASS 5TH :

SUBJECT: COMPUTER   CHAPTER NO:1 generations of computer

The generation of computer means the gap between the development of the computer in terms of the technologies.

A microprocessor is an electronic component that is used by a computer to do its work. It is a central processing unit on a single integrated circuit chip containing millions of very small components including transistors, resistors, and diodes that work together.
 There are five generations of computer.

S.No	Generation & Description
1	**First Generation** The period of first generation: 1946-1958. Vacuum tube based.
2	**Second Generation** The period of second generation: 1959-1964. Transistor based.
3	**Third Generation** The period of third generation: 1965-1970. Integrated Circuit based.
4	**Fourth Generation** The period of fourth generation: 1971-1980. VLSI microprocessor based.
5	**Fifth Generation** The period of fifth generation: 1980-onwards. And are based on Artificial Intelligence

Artificial intelligence (AI) is the ability of a machine or a computer program to think and learn. The concept of AI is based on the idea of building machines capable of thinking, acting, and learning like humans.

Difference between First and Second Generation		
	First Generation	Second Generation
1.	Vacuum tubes were used as internal components.	Transistors were used as internal component.
2.	The size was very big.	THE Size was smaller than first generation computer.
3.	They were low speed computer	They were 10 times faster than first generation computer.
4.	Main memory was in the form of magnetic drum.	Main memory was in the form RAM and ROM.
5.	Punched card and magnetic tape was used.	Magnetic tape was used.
6.	Machine language was used.	Assembly language was used.

STUDY MATERIAL: CLASS 5TH :

SUBJECT: COMPUTER   CHAPTER NO:2 COMPUTER LANGUAGES

A **computer *program*** is a set of instructions written by a **computer *programmer*** to control the computer's activity.
The computer program provides the interface through which the user instructs the computer to perform specific tasks.

A computer language is a special language understood by the computers.
A programming language has words, symbols and rules of grammar (known as the **syntax** of the language).

A machine language is a language directly understood by a computer without any translation. A machine language is also called first generation language.
Machine languages are machine dependent. They are not portable to other computers.

The first *high-level languages* were developed in the 1950s. High-level languages use English-like vocabularies that are considerably easier to use than either machine

language or assembly language. Programs written using a high-level language can often be used on different types of computers with few modifications.

- **Compiler:** Compilers are used to convert high level languages (like C, C++) into machine code .

- **INTERPRETER:**

The basic purpose of interpreter is same as that of complier. In compiler, the program is translated completely and directly executable version is generated. Whereas interpreter translates each instruction, executes it and then the next instruction is translated and this goes on until end of the program Ends.

- **Assembler** is a computer program which is used to translate program written in Assembly Language in to machine language.

- **TICK THE CORRECT ANSWER:**
1. Computer language 2. Machine language   3. Assembly language
4. Machine language   5. LOGO
- **FILL IN THE BLANKS:**
1. Program   2, Machine   3. An Assembler   4. Compiler and Interpreter