

EVERSHINE

VISION_{of} Computer

6



Written by:

Mamta Kakkar

B.Com, Diploma in Computer Language

Edited by:

Rajat Soni

B.Tech (Computer Science)

EvershineTM ESP Publishers

Soni House, WZ-348, Nangal Raya, New Delhi-110046

Ph-011-28111758, 28113958, 28112353

E-mail-evershinepub@gmail.com

VISION^{of} Computer

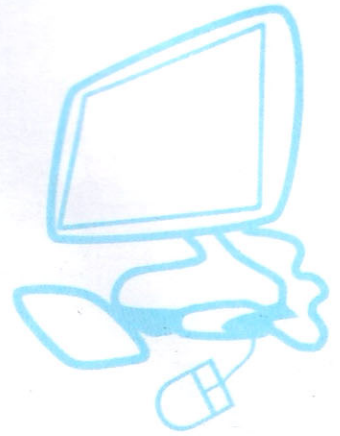
Published by:

Evershine Publishers

Soni House, WZ-348, Nangal Raya, New Delhi-110046

Ph-011-28111758, 28113958, 28112353

E-mail-evershinepub@gmail.com



All rights reserved. No part of the work may be reproduced, stored in retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without the prior written permission of the publishers.

Preface

Dear Reader,

In the current world, it's almost impossible to imagine that someone can live without computers. Computers have become an electronic device of almost everyday use for individuals of every age. And today, the parents and teachers also think that learning computer is just as important to a student's future success as math, science, history and English. So, we need the book that can help the students learn computer in an easy manner.

'**Vision of Computer**' is a series of eight books for class I to VIII. The series covers the latest syllabus and guidelines and each and every topic that is essential for the children's knowledge. The language used is very simple and easy to understand. The main focus of the series lies on the teacher/facilitator to optimise the use of this book to result in efficient teaching and effective learning.

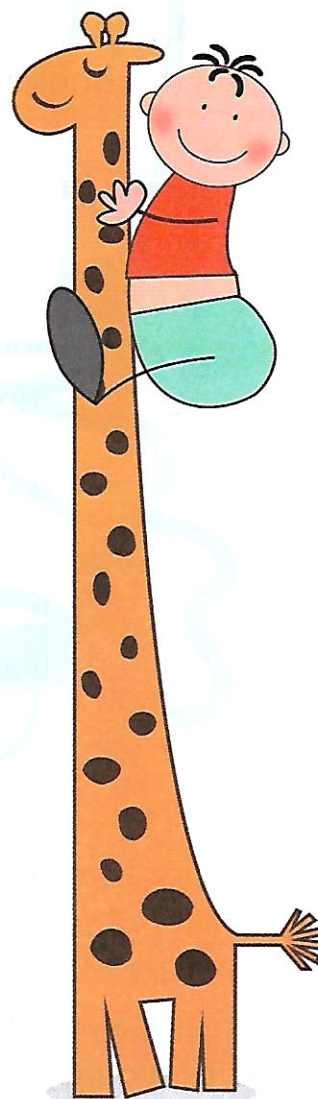
The special features include

- | | |
|-------------------------|---|
| Learning Points | – The topics taught in the chapter. |
| Do Yourself | – Some activities/tasks related to chapter that motivate the student to do the tasks himself/herself. |
| Extra Point | – It contains some extra knowledge related to the chapter. |
| Quick Recap | – It is the backup of the chapter with main points learnt in the chapter. |
| Performance Time | – It includes different exercises to check the learning power of the students. |
| Learn With Fun | – It includes the activities that are helpful in enhancing the knowledge of students without stressing their brain. |

We hope the series would prove very beneficial to all the readers. And also your suggestions would be accepted for the betterment of the series.

Contents

1. Classification of Computer and Programming Language	5
2. Number System and Other Programming Languages	11
3. Mail Merge in Microsoft Word 2007	21
4. Tables and Charts in PowerPoint	32
5. Introduction to Microsoft Excel	45
6. More with Microsoft Excel	55
7. Introduction to QBasic	67
8. More about Internet	82
9. Surfing Internet	97
10. Computer Viruses	107
Nero Burning Rom	113
Projects for Ample Practice	118
Group Discussion	122
National Cyber Olympiad	123
Model Test Paper-I	125
Model Test Paper-II	127





Classification of Computer and Programming Language

Learning Points

1. Classification of Computers
2. Programming Languages
3. Low Level Language
4. High Level Language



Hello friends! Welcome to the new class .Till now you have studied very well about the specific features of computer .Now we will study about different types of computer and the languages used by the computer . Read all the concepts carefully.

Initially, the computers were very big and spacious and there were many limitation or drawbacks also in working with them. But gradually, the size of computer has been minimized and the drawbacks also have been removed. Now there are different types of computers having different features.

Computers can be classified on the basis of their.

- Size
- Technology and
- Purpose

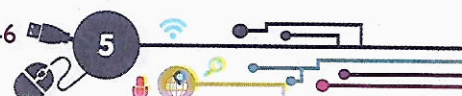
CLASSIFICATION OF COMPUTERS

- Micro computers.
- Mainframe computers.
- Mini computers.
- Super computers.

Let us study about these in detail.

Micro Computers

The micro computers are, generally, called personal computers. These computers depend on CPU





on a single chip known as microprocessor. Micro computers are designed to be used by the individuals. They are basically portable and occupy very less space. They are mainly used in offices and homes. They are least expensive. They can also run on rechargeable batteries (except desktop).

Examples of Micro Computers.

Desktop computer - It is a personal or micro-mini computers. It fits on a desk.

Laptop Computer - It is a portable computer with an integrated screen and key board. It is smaller than a desktop computer.

Palmtop Computer / Notebook- It is a hand sized computer. Palmtop have no keyboard but the sreen serves both as an input and output device.

Smart Phones / PDA'S - These are small handheld computers with limited hardware.

Programmable Calculator - They are small handhelds, but specialized in mathematical work .

Game Consoles - These are fixed computers specialized for entertainment purposes.

Embedded Computers - Like In-car computers built into a car for entertainment, navigation , washing machines, watches, ATM machines.

Mainframe Computers

A mainframe computer is a high-performance computer used for large-scale computing purposes that require greater availability and security than a smaller-scale machine can offer. These computers are used primarily by large organizations for critical applications, bulk data processing such as census, industry and consumer statistics, enterprise resource planning and consumer statistics, enterprise resource planning and transaction processing. They are also used as ATM (Automated teller machine) to interact with bank accounts .

Examples of Mainframe computers.

Hitachi's Z800, VAX 8842, Fujitsu's ICLVME.





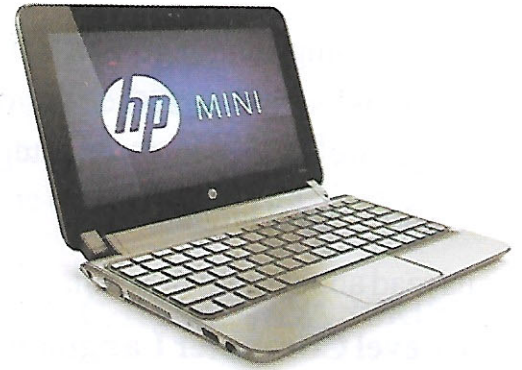
Mini computers

A mini computer is a type of computer that possesses most of the features and capabilities of a large computer but is smaller in physical size. Mini computers are mainly used as mid-range servers, where they can operate mid-size software applications and support numerous users simultaneously.

A mini computer may also be called a mid range computer.

Example of mini computer –

PDP 11, IBM and Hewlett Packard.



Super Computers

A super computer is a computer with a high-level computational capacity compared with great speed and memory. This kind of computer can do jobs faster than any other computer of its generation. These computers are used for weather forecasting, code breaking, genetic analysis and other jobs that need many calculations. The chief difference between a super computer and a mainframe is that a super computer channels all its power into executing a few programs as fast as possible, whereas a mainframe uses its power to execute many programs concurrently.



Examples of super computers–

India's PARAM, IBM .Blue Gene/PK computer .



Extra Point

Earlier mainframes were provided with cooling pipes through which cold water was passed to cool the system.

Do Yourself



In which devices are the microprocessor chips used?





PROGRAMMING LANGUAGE

A programming language is a computer language that is used by the programmers to develop applications, scripts or other set of instructions for a computer to execute. The programming languages are divided into two categories.

- Low level languages
- High level languages

Let us read about them in detail.

Low Level Computer Language

Low level language is a programming language that deals with a computer's hardware components and constraints.

There are two types of low level programming Language.

- Machine language (First Generation Language)
- Assembly language (Second Generation Language)

Machine Language – Machine language is a programming language that can be directly understood by a computer without interpretation. It is also referred to machine code or object code, which is represented inside the computer by a string of binary digits (bits) 0 and 1.

Assembly Language – Assembly language was developed to overcome the inconveniences that were faced in the machine language. It is an important language in which operation codes and operands are given in the form of alphanumeric symbols instead of 0's and 1's. These alphanumeric symbols are known as mnemonic codes and have maximum upto 5 letters combination, for example – ADD for addition and SUB for subtraction. The instructions of the assembly language are converted to machine codes by language translator to be executed by the computer.



Extra Point

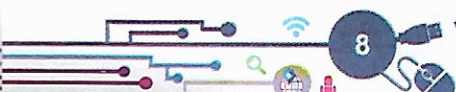
Assembly language is helpful to programmers when speed is required and when they need to perform an operation that cannot be done in high-level languages.

High Level Computer Language

High level languages have further three categories .

Third Generation Language - A third generation language is a grouping of programming languages that introduced significant improvements to second generation languages to make this language more programmer friendly. This language gives formats close to English language. Commonly known third generation languages are Fortran, Basic, Pascal, and C,C+ etc.

Fourth Generation Languages – A fourth generation language is a grouping of programming





language that attempts to get closer to human language, form of thinking and conceptualization. These languages are designed to reduce the overall time , effort and cost software development.

Fifth Generation Languages – Fifth generation programming language is programming language based around solving problems using constraints given to the program, rather than using an algorithm written by a programmer. It is designed to make the computer solve a given problem without the programmer.

Some other programming languages are BASIC, VISUAL BASIC, C, HTML, JAVA SCRIPT and FORTRAN. We study about these languages in detail in the next chapter.



Do Yourself

Search from the internet about these programming languages and share information in the class.

Quick Recap

- Computers can be classified on the basis of their size, technology and purpose.
- Desktop computers are examples of micro computers.
- There are two types of languages – Low level language and high level languages.
- Machine language uses a string of binary digits i.e. 0 and 1.
- High level language have three generations i.e. third generation language, fourth generation languages and fifth generation language

Performance Time

A. Tick (✓) the correct answer.

1. Microprocessor is a _____.

a) Single chip

☐

b) Transistor

☐

c) Value

☐

2. The small sized computer is _____.

a) Laptop

☐

b) Desktop

☐

c) Palmtop

☐

3. Which mnemonic code is used for subtraction?

a) SUB

☐

b) ADD

☐

c) MUL

☐

B. Write True or False .

1. The smart phone is a microprocessor.



2. Tablets are a type of laptop with touch screen.
3. Micro computers are least expensive.
4. Super computers are used for weather forecasting.
5. Third generation programming language is a problem solving language without the programmer.

C. Answer the following questions .

1. Which type of computer run on rechargeable batteries?

2. Write at least two main features of micro computers?

3. What is the difference between mainframe computers and super computers?

4. Write the full form of ATM. Which type of computer does it use?

5. Why is fourth generation language better than third generation language?



1. We know that there are programmers who create the programs for the computer. Search names of some famous programmers and write about them here. Also find out the programs that they have created.
2. What will you do if you cannot understand any topic taught by your teacher? What does the computer do when it does not understand what you type? Connect the answer and give your view points here.