

Chapter 1:- CATEGORIES OF COMPUTERS AND COMPUTER LANGUAGE

A. Fill in the Blanks:

1. A Program is a set of instructions, which tells the computer what to do.
2. The development of computer languages can be classified in to Four Categories.
3. Machine language consists of binary numbers, i.e., 0 and 1.
4. High level language uses simple English words and Mathematical operators.
5. Assembly language uses mnemonic codes or symbols.
6. In binary language, 0 means off and 1 means on state.
7. Sunway TaihuLight is the world's fastest super computer.
8. The Handheld computers are also called personal Digital assistants (PDAs).
9. An Embedded system has a computer hardware with software, embedded in to a larger device.
10. A Language processor translates a high level language program in to machine language.

B. State True or False:

1. Machine language is the only language that a computer understands. (T)
2. Assembly language is regarded as the first generation language. (F)
3. Each programming language has its own specific rules. (T)
4. A compiler converts a high level language program in to machine language, line by line. (F)
5. The High level language program has to be converted in to the machine language by the translator programs. (T)
6. Programing is the process of writing specific instructions in a computer language. (T)
7. Machine language uses mnemonic codes. (F)
8. Embedded systems are equipped with touch screens. (F)
9. A Game Console can also be connected to a television or a computer. (T)
10. A computer can easily understand a high level language. (F)

C. Application Based Questions:

1. Raman is working in the National Weather Forecasting agency. Which type of a computer is he using to forecast the weather conditions?
 - Super Computers
2. Which type of computers do Indian Railways use to interact with the customers for the booking and cancellation of tickets?
 - Mainframe Computers
3. Sumit is trying his hand at java programming, but he does not know which type of language it is. Help him to solve his query.
 - High level language

D. Multiple Choice Questions:

1. A program written in the assembly language is called Source Program.
a. Assembler b. Source Program c. Object Program
2. An interpreter converts a high level language program in to machine language, line by line.
a. Assembler b. Compiler c. Interpreter
3. The program converted in to machine language by the translator is called Object program.
a. Source Program b. Object Program c. Assembler
4. Laptops usually have 13 to 15 inch screen.
a. 11 to 12 inch b. 13 to 15 inch c. 16 to 18 inch
5. Micro computers are used in homes, schools, shops, offices, banks, etc.
a. Micro computers b. Mini computers c. Super computers

E. Answer the following:

1. What do you mean by Machine language?

Ans: Machine language is the only language a computer can understand. It is expressed in binary form 0 & 1.

2. How is Assembly language different from machine language?

Ans: This language used mnemonics at place of 0 & 1. Example the operational code for add is 0010 in binary language, it can be directly written as 'ADD' in Assembly language.

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

Ans:

- Simple and user friendly
- Machine independent
- Easy to learn

4. Differentiate between an Interpreter and a Compiler.

Ans: Interpreter translates line by line whereas compiler translates the whole program at once.

5. List any three characteristics of the Fourth Generation Language.

Ans: Highly user friendly and independent of any Operating System.

Very high execution speed, designed to reduce the level of programming.

Minimum efforts from the user to obtain any information.

6. Name the types of Micro computers. Explain any one.

Ans: Desktop, Laptop, Palmtops, Tablet computers, smart phones, Game console.

Desktop:- These computers are designed to fit comfortably on top of the desk, desktop comes with several units, such as monitors, CPU, Keyboard and Mouse connected to each other as One single unit.

7. Write difference between Laptop and Tablet.

Ans: Laptop:-

- Have keyboard
- Usually have 13 to 15 inch screen
- Screen can be folded down over the keyboard

Tablet:-

- No Keyboard, have touch screen
- Have 7,8,10 inch screen
- Lighter than laptops

8. Write short note on embedded systems.

Ans: An Embedded system is the one that has a computer hardware with software embedded or implanted in to a larger device.

9. What are handheld devices? Give an example.

Ans: Device that are small in size and can be easily held in the hand are called hand held device. Eg:- Smartpones and game console.