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Objectives

- ▶ To learn about the limitations of computers.
- ▶ To study and discuss the fundamental uses of computers.
- ▶ To study about the developments of computers.
- ▶ Learn about the generations of computers.

Course Outline

In continuation of earlier study about the introduction of computer , characteristics (strength) of computer, we are able to learn about the following points:

- ▶ Computer Limitations.
- ▶ Use of Computers
- ▶ Generation of Computer

Computer Limitations

- ▶ A computer does have the following limitations:
 - **No Self Intelligence:** Today, a computer is able to do a work which is impossible for man. Computers are used to do risky and dangerous work and where sharp actually is needed. But it does not have any intelligence of its own. It works according to the instruction only
 - **No Decision-Making power:** Computer cannot take any decision of its own. It does only those tasks which are already instructed to it.
 - **Emotionless:** Computers are emotionless. They do not have emotion, like dislike feelings. They are simply machines which work as per the instruction given to them.

- ▶ **No learning power:** Computer has no learning power. Once you give instructions to a computer how to perform a task, the very task is cannot perform if you do not give it any instructions for the next time. For example, when you are taught how to solve a problem and if same type of problem is given you to solve, then you can do it.
- ▶ **Curtail human Capabilities:** Although computers are great help to human beings, it is commonly felt that we people have become so dependent on calculator that we cannot make very simple calculation without calculator. Sometimes, find it difficult to instantly speak out even that telephone number which they use every now and then as they have got the habit of using them by retrieving the storage.

Use of Computers

With technology continuously evolving and intertwining into everyday life, people are using computers for more and more simple tasks. This is possible thanks in no small part to the continued efforts of computer manufacturers as well as software designers to simplify computing so that anyone can sit down, power on the machine and jump right in.

- ▶ **Communication:** Thanks to computers and the Internet, the world has gotten much smaller in recent years. Many people use their computers to keep in touch with friends and family using instant messenger programs as well as email. A growing communication tool is social networking, with sites like Whatsapp, Facebook and Twitter becoming incredibly popular.

- ▶ **Games:** PCs have long served as recreational devices with hundreds of games available each year. Gaming on a PC can be an expensive hobby, with video cards ranging in price from INR 3,000 to more than 20,000 and fully equipped gaming PCs costing in excess of INR 75,000 in many cases. For all the top-tier AAA titles, there are other games that users can find both pre-installed on PCs as well as online.
- ▶ **Entertainment:** Almost all computers come with CD or DVD disk drives, which allow you to use the computer as a CD player or DVD player. Some computers are also capable, with the proper hardware, of viewing and recording television onto the machine's hard drives. With an Internet connection, users have a nearly limitless of videos and music available online as well.

- ▶ **Work:** Almost every working environment uses computers in one capacity or another. Office buildings use computers to keep track of everything from pay wages to hours logged, retail stores use computers as cash registers and industries such as construction and architecture use computers to help design buildings.

Generation of Computer

Generation in computer talk is a step in technology. It provides a framework for the growth of computer industry. There are totally five computer generations known till today. Below we describe each generation along with its identifying characteristics. Although there is a certain amount of overlap between different generations, the approximate period shown against each are normally accepted. There are Five Generations of Computer given below:

- First Generation (1942-1955)
- Second Generation (1955-1964)
- Third Generation (1964-1975)
- Fourth Generation (1975-1989)
- Fifth Generation (1989-Present)

Generation of Computer

- ▶ **First Generation (1942-1955)** : In the first generation vacuum tubes are used. This generation are known as machine generation where everything is expressed in 0's and 1's called binary form of notation.
- ▶ **Second Generation (1955-1964)** : In the second generation transistors are used. Mnemonic code or symbols are used at the place of binary form.
- ▶ **Third Generation (1964-1975)** : In this generation computers Integrated Circuit called ICs are used.
- ▶ **Fourth Generation (1975-1989)** : In fourth generation computers VLSI microprocessors are used.
- ▶ **Fifth Generation (1989-Present)** : In fifth generation computers ULSI microprocessors are used. Superconductors and artificial intelligence are also used at broad level.

Related Questions:

1. Describe the computer limitations.
2. Explain the use of computer.
3. Explain the generation of computer in brief.

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