

State professional educational institution
«Vorkuta polytechnical school»

WHAT IS A COMPUTER?



Ознакомьтесь с терминами текста:

intricate [ˈɪntrɪkɪt] — сложный, запутанный

electronic circuit [ələktˈrɒnɪk ˈsɜːkɪt] — электронная цепь (схема)

to operate switches [ɒpəˈreɪt ˈswɪtʃɪz] — приводить в действие переключатели

to store numbers [ˈstɔː ˈnʌmbəz] — запоминать числа

to manipulate [məˈnɪpjuleɪt] — управлять; обращаться; преобразовывать

to input / to feed in — вводить (информацию)

to turn on = to switch on — включать

to turn off = to switch off — выключать

to process data [prəʊˈses ˈdeɪtə] — обрабатывать данные

to supply [səˈplaɪ] — подавать, вводить; снабжать, обеспечивать

addition [əˈdɪʃn] — сложение

subtraction [sʌbˈtrækʃn] — вычитание

division [dɪˈvɪʒn] — деление

multiplication [ˌmʌltɪplɪˈkeɪʃn] — умножение

exponentiation [ˈɛkspəˌnensɪˈeɪʃn] — возведение в степень

user [ˈjuːzə] — пользователь

input device [ˈɪnput dɪˈvaɪs] — устройство ввода

disk drive [ˈdɪsk ˈdraɪv] — дисковое запоминающее устройство, дисковод

tape drive [ˈteɪp ˈdraɪv] — запоминающее устройство на магнитной ленте

cathode-ray tube [ˈkæθəd reɪ ˈtjuːb] — электронно-лучевая трубка

to make decisions — принимать решения

instantaneously [ˌɪnstənˈteɪnjəʃ] — мгновенно, немедленно

1. Прочитайте текст 2 и скажите, что такое компьютер и каковы его основные функции.

WHAT IS A COMPUTER?

A computer is a machine with an intricate network of electronic circuits that operate switches or magnetize tiny metal cores. The switches, like the cores, are capable of being in one or two possible states, that is, on or off; magnetized or demagnetized. The machine is capable of storing and manipulating numbers, letters, and characters (symbols).

The basic idea of a computer is that we can make the machine do what we want by inputting signals that turn certain switches on and turn others off, or magnetize or do not magnetize the cores.

The basic job of computers is processing of information. For this reason computers can be defined as devices which accept information in the form of instructions, called a program, and characters, called data, perform mathematical and / or logical operations on the information, and then supply results of these operations. The program, or part of it, which tells the computers what to do, and the data, which provide the information needed to solve the problem, are kept inside the computer in a place called memory.

It is considered that computers have many remarkable powers. However, most computers, whether large or small, have three basic capabilities. First, computers have circuits for performing arithmetic operations, such as: addition, subtraction, division, multiplication, and exponentiation.

Second, computers have a means of communicating with the user. After all, if we couldn't feed information in and get results back, these machines wouldn't be of much use. Some of the most common methods of inputting information are to use terminals, diskettes, disks, and magnetic tapes. The computer's input device (a disk drive or tape drive) reads the information into the computer. For outputting information two common devices used are: a printer, printing the new information on paper, and a cathoderay-tube display, which shows the results on a TV-like screen.

Third, computers have circuits which can make decisions. The kinds of decisions which computer circuits can make are not of the type: “Who would win the war between two countries?” or “Who is the richest person in the world?” Unfortunately, the computer can only decide three things, namely: Is one number less than another? Are two numbers equal? And, is one number greater than another?

A computer can solve a series of problems and make thousands of logical decisions without becoming tired. It can find the solution to a problem in a fraction of the time it takes a human being to do the job.

A computer can replace people in dull, routine tasks, but it works according to the instructions given to it. There are times when a computer seems to operate like a mechanical “brain,” but its achievements are limited by the minds of human beings. A computer cannot do anything unless a person tells it what to do and gives it the necessary information; but because electric pulses can move at the speed of light, a computer can carry out great numbers of arithmetic-logical operations almost instantaneously. A person can do the same, but in many cases that person would be dead long before the job was finished.

2. Ответьте на вопросы, используя информацию текста.

1. What is a computer?
2. What are the two possible states of the switches?
3. What are the main functions of a computer?
4. In what way can we make the computer do what we want?
5. What is the basic task of a computer?
6. In what form does a computer accept information?
7. What is a program?
8. What are data?
9. What is memory?
10. What three basic capabilities have computers?
11. What are the ways of inputting information into the computer?
12. What is the function of an input device?
13. What devices are used for outputting information?
14. What decisions can the computer make?
15. What are the computer’s achievements limited by?

3. Найдите в тексте 2 английские эквиваленты следующих слов и словосочетаний.

Сложная сеть электронных цепей; управлять (приводить в действие) переключателями; возможные состояния; хранить (запоминать) числа; обрабатывать символы; посредством ввода сигналов; включать; выключать; размагничивать сердечники; обработка информации; информация в виде команд; символы, называемые данными; выполнять математические операции; выдавать результаты; обеспечивать необходимую информацию; иметь замечательные возможности; основные свойства; сложение, вычитание, деление, умножение; возведение в степень; средства для общения с пользователем; устройство ввода; дисковод; считывать информацию; вывод информации; катодно-лучевая трубка; принимать решения; выполнять тысячи логических операций; без устали; находить решение задачи; значительно меньший промежуток времени; человек; нудная рутинная работа; в соответствии с введенной программой; вырабатывать свои суждения; возможности ограничены программой, заложенной в него человеком; дать требуемую информацию; электрические импульсы; со скоростью света; мгновенно производить огромное количество математических операций; человеку может не хватить всей жизни, чтобы закончить работу.

4. Составьте пары или группы близких по значению слов из перечня слов, приведенных ниже. Например: A. to perform, to exercise, to carry out; B. a man, a person, a human being.

Verbs: to turn on, to provide, to type, to accept, to help, to learn, to observe, to call, to tell, to keep, to feed, to solve, to relate, to switch off, to communicate, to receive, to supply, to switch on, to assist, to print, to study, to input, to turn off, to decide, to store, to say, to name, to watch.

Nouns: work, machine, fundamentals, display, application, capabilities, job, storage, screen, state, basics, use, concept, specialist, journal,

character, memory, idea, expert, magazine, position, symbol, command, data, solution, device, instruction, powers, information, decision.

Adjectives: basic, tiny, common, small, main, significant, routine, general, remarkable, uninterested, intricate, important, wonderful, complex, little.

Adverbs: rapidly, probably, instantaneously, in a moment, quickly, perhaps.

5. Выберите вариант, который лучше всего выражает главную идею текста.

- a) Computers are devices that accept information in the form of instructions.
- b) The switches are usually in one of two states: magnetized or demagnetized.
- c) Computers are remarkable devices serving for processing and storage the information and for solving problems.

6. Вставьте необходимые слова вместо пропусков.

1. Information is given into the computer in the form of ____ .
a) ideas; b) characters; c) rules
2. The basic function of a computer is ____ information.
a) to switch; b) to keep; c) to process
3. The data needed for solving problems are kept in the ____ .
a) memory; b) input device; c) output device
4. Inputting information into the computer is realized by means of ____ .
a) printer; b) letters; c) diskettes
5. A computer can carry out arithmetic-logical operations ____ .
a) quickly; b) instantaneously; c) during some minutes

6. Computers have become_____ in homes, offices, research institutes.
a) commonwealth; b) commonplace; c) common room
7. Space_____ uses computers widely.
a) information; b) production; c) exploration
8. Computers are used for image_____.
a) processing; b) operating; c) producing
9. Computers help in _____ of economy.
a) environment; b) management; c) government
10. Air traffic control depends on computer-_____ information.
a) generated; b) instructed; c) combined.

7. Подберите к терминам, данным в левой колонке, определения, представленные справа.

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| 1. Computer | a) a machine by which information is received from the computer |
| 2. Data | b) an electronic machine that processes data under the control of a stored program |
| 3. Input device | c) a device capable of storing and manipulating numbers, letters and characters |
| 4. Memory | d) a disk drive reading the information into the computer |
| 5. Output device | e) information given in the form of characters |