

МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ
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Иностранный язык

методические указания
по организации самостоятельной работы
по дисциплине «Иностранный язык» для студентов I-II курсов
направления подготовки 09.03.03. «Прикладная информатика»

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Методические указания содержат профессионально ориентированные тексты на английском языке, предназначенные для ознакомления и усвоения профессиональной лексики самостоятельно или под руководством преподавателя, краткий грамматический справочник, позволяющий студентам выполнять упражнения по грамматике, правильно и точнее осуществлять перевод предложений из текстов и упражнений данных методических указаний, краткий словарь наиболее употребительных профессиональных терминов. Методические указания предназначены для студентов очной формы обучения.

Рекомендовано Методическим советом НФ НИТУ «МИСиС»

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Введение

Целью методических указаний является ознакомление и усвоение профессиональной лексики английского языка студентами очного отделения 1-2 курсов, направления 09.03.03. «Прикладная информатика». Знание профессионально ориентированной лексики позволит студентам успешно переводить общие и профессиональные тексты, владеть основными коммуникативными моделями, обеспечивающими профессиональное и бытовое общение. Методические указания составлены в соответствии с требованиями программы обучения иностранному языку студентов неязыковых специальностей, предполагающей профессионально ориентированную направленность учебного процесса.

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UNIT ONE COMPUTER BASICS

Lesson one WHAT IS A COMPUTER?

Ex. 1. Copy and memorize the following words and phrases.

1. **amount** – количество

*We are overloaded by the **amount** of information flooding into our lives.*

2. **device** – устройство, прибор

*You use the word 'gadget' when you think **the device** is very "clever".*

3. **memory** – память _____ п., запоминающее устройство

*The data are stored in the computer's **memory**.*

4. **s p e c i f i c / particular** – конкретный

*Mr Howarth gave us very **specific** instructions. Many students focus on a particular area to gain deeper knowledge in a **specific** discipline.*

5. **t o d i s p l a y** – отображать (на экране), выводить на экран

*The notebook window is where you can enter and **display** data.*

6. **to hold (programs and data)** – удерживать; хранить (программы и данные)

*How much information can a computer **hold**?*

7. **to process / to handle / to manipulate** – обрабатывать (информацию, данные)

*The new network will **process** data more speedily.*

*If you **handle** and store information about people – for example, about patients – you are legally obliged [обязаны] to protect that information.*

*A computer is an electronic device that **manipulates** information, or "data".*

8. **to require** – требовать

*The whole system **requires** enormous amounts of energy.*

requirement – требование; **to meet requirements** – отвечать требованиям

*The new computer system will **meet** all our **requirements**.*

9. **to store** – запоминать, хранить, сохранять

*To **store** more data and programs when the power is off, most computers use magnetic hard discs.*

10. **to let / to allow / to enable** – позволять, разрешать, обеспечивать

*The game **lets** you create everything – from music, to your original games.*

*Mobile phones **allow** users to make calls, take photos, play games, send texts (SMS) and images (MMS) and access the Internet.*

*What component of Windows 7 **enables** the computer to support more than one language?*

Ex. 2. Translate the following sentences into Russian.

1. Large **amounts** of information can be **stored** on a single CD-ROM.

2. Chip makers want to shrink [уменьшать] their chips to meet the **requirements** of faster electronic **devices** and computers.

3. It will take a week for your application to be **processed**.

4. Bluetooth technology **enables** wireless communication between **devices** such as laptop computers, mobile phones and PDAs.

5. Some computers use wireless communication **devices**. They send data through the air using a small antenna.
6. The Internet **holds** a huge **amount** of information on any topic one could think of. With a simple search, you can get access to knowledge about almost any subject.
7. Most robots are computer-controlled **devices** with many parts.
8. Computers use programs to analyze large **amounts** of information quickly.
9. The network card [сетевой адаптер] **allows** your computer to connect to a network of other computers, printers, and even modems.
10. Many TVs include applications that **let** you access various types of online content.
11. If you want a state-of-the-art (modern) computer capable of **handling** most software, plan on spending about \$1,000 or even more.
12. Students are being **allowed** to bring their own laptops, readers, tablets or other devices to class.

Ex. 3. Replace the Russian words with their English equivalents.

1. Some artificial intelligence programs are called expert systems. In these systems, information from experts in a (*конкретный*) field is stored in a computer's memory.
2. When you're on vacation, try to limit the (*количество*) of information you take in.
3. Tablet computers don't (*требовать*) a keyboard or mouse.
4. To (*сохранять*) more data and programs when the power is off, most computers use magnetic discs.
5. Flash (*память*) is a type of semiconductor chip used to (*сохранять*) data in computers and electronic (*устройства*).
6. Helpful (*устройства*) (*позволяют*) you to share data between different computers.
7. The video card (*требовать*) to run multimedia applications.
8. Computers (*сохранять*) and (*отображать на экране*) data.
9. The screen will (*отображать на экране*) the username in the top right-hand corner.
10. MP3 (*позволяют*) music to be copied from the Internet, organized, and stored in a computer's memory.

Ex. 4. Choose the right alternative to complete the sentence.

1. I pressed 'return' and an error message was ____.
a) loaded b) displayed c) connected
2. Various mechanical ____ are used for the space station.
a) networks b) drivers c) devices
3. Trojan horse ____ a hacker to access private information when he/she wishes.
a) allows b) connects c) includes
4. The Internet is a place where massive ____ of information and are being generated.
a) amounts b) digits c) numbers
5. Early computers did not ____ the program in the computer's memory.

- a) store b) allow c) use
6. The job will ___ you to use all your skills to the maximum.
a) process b) display c) require
7. Network devices ___ people send data from one computer to another and connect to the Internet.
a) display b) let c) load
8. If you tried to ___ 1024×768 on an old monitor, you may not see anything at all.
a) display b) download c) access
9. The Internet ___ computers all around the world to link up to each other.
a) connects b) allows c) processes
10. Devices such as a ___ help you to operate your system.
a) crocodile b) cheetah c) mouse

Ex. 5. Answer the questions using the correct alternative. Translate the sentences.

1. What do you call the board with buttons marked with letters or numbers that are pressed to put information into a computer or other machine? (*mouse, keyboard, hardware*)
2. What do you call a small object connected to a computer by a wire, which you move with your hand to give instructions to the computer? (*screen, network, mouse*)
3. What do you call the part of a television or computer where the picture or information appears? (*screen, speaker, keyboard*)
4. What do you call the part of a radio, sound system etc where the sound comes out? (*mouse, speaker, disk drive*)
5. What do you call physical components of a computer? (*software, hardware, memory*)
6. What do you call the sets of programs that tell a computer how to do a particular job? (*network, hardware, software*)
7. What do you call devices that are used to enter information and instructions into a computer? (*hardware, output devices, input devices*)
8. What do you call devices that are used to see or hear the results of the computer's data processing? (*screen, keyboard, output devices*)
9. What do you call the physical device that is used to store information in a computer? (*hardware, storage device, speaker*)
10. What do you call the machine or tool that does a special job? (*book, device, software*)

Ex. 6. Match the English terms (A) with their Russian equivalents (B).

A B

1. application software a) сеть
2. central processing unit b) электронная таблица
3. hard drive c) команда
4. instruction d) аппаратное обеспечение ('железо')
5. network e) программное обеспечение

6. operating system f) прикладное программное обеспечение
7. spreadsheet g) конкретный
8. word processor h) жесткий диск
9. software i) текстовый процессор
10. hardware j) операционная система
11. particular k) центральный процессор

Ex. 7. Translate the sentences into Russian.

1. A **spreadsheet** is a computer program that is used, for example, when doing financial or project planning. You enter data in rows and columns and the program calculates costs, etc. from it.
2. The **spreadsheet** application is second only to **word processing** in terms of popularity.
3. The **instruction** is a piece of information that tells a computer to perform a **particular** operation.
4. A **spreadsheet** is an interactive computer application program for organization and analysis of information in tabular form.
5. Old alchemists believed that everything was composed of water, air, earth, or fire. Computer scientists, looking much like alchemists but without funny hats, believe that all computers are composed of two parts - **hardware** and **software**.
6. Windows XP, Macintosh OS X and Linux are **operating systems**.
7. Do you use computer **networks**? If so, how do you connect to the **networks** you use?
8. You can use a computer to handle spreadsheets, as well as to make presentations, to play games, and more.
9. Anything you buy for your computer can be classified as either **hardware** or **software**.
10. **Hardware** is any part of your computer that has a physical structure, such as the computer monitor or **keyboard**.
11. Some examples of application **software** are web browsers, games, and **word processors** such as Microsoft Word.
12. There are different terms used to describe the **amount** of **memory** on a computer **hard drive** – byte, kilobyte, megabyte, gigabyte, and terabytes.

Ex. 8. Insert missing words and translate the sentences into Russian.

1. A **h**** d****** is a part of a computer that reads data on a hard disk.
2. **O***** s******* is the set of programs that controls the way a computer works and runs other programs.
3. The **C**** (central processing unit) is the most important integrated circuit (microchip) on the computer's motherboard.
4. **S******* tells the hardware what to do.
5. A program is a set of **i******* that tells the computer what to do with data.
6. A **s******* consists of columns and rows.
7. **W*** p******* is computer **s******* that you use for writing letters and other documents. Most reports are produced on a word processor.
8. All computers have the same basic **h*******.

9. A***** s***** is also known as an app.

10. The use of computer h***** and s***** in education and training dates to the early 1940s.

Ex. 9. Have you ever used a computer? Sure!

Then you know what the following computer terms mean:

- keyboard
- button
- mouse
- printer
- screen
- menu
- memory
- to click
- (to) load
- keyboard

Ex. 10. Translate the sentences into Russian.

1. Click on the printer icon with the *mouse*.
2. Press these two keys to switch between documents on the *screen*.
3. How much *memory* does the program require?
4. Please verify (\approx make sure) that there is sufficient memory available before *loading* the program.
5. Click with the right mouse *button* to bring up a new menu.
6. Choose '*printer*' from the *menu* and click with the right *mouse button*.
7. Select the text you want to format by holding down the left *button* on your *mouse*.
8. Move the cursor to the blank area of the computer *screen*.
9. You make a pull-down *menu* appear on the computer screen by *clicking* on a special word with a mouse.
10. Select PRINT from the main *menu*.
11. You can *load* your file into Word later.
12. It was a *keyboarding* error.
13. *Uploading* is the process of transferring data from a computer to a central server; *downloading* is the opposite.
14. Most computers have a full, typewriter-size *keyboard* connected to the system unit with a cable. Some computers, laptops, and tablets have a built-in *keyboard*. Some computers, such as palmtops and game consoles, have no *keyboards*. If a computer lacks a *keyboard*, you generally communicate with the computer in some other way. For palmtops, you use a stylus (or your finger) to enter information. For game consoles, you use a gamepad or high-tech joystick for input.

Ex. 11. Put a general and special questions.

1. To modern computer users, the mouse is nothing more than a part of computer hardware: how else could you click icons, scroll through menus and move cursors? But computer users in 1968 found the mouse revolutionary because no one had ever heard of those things back then.

2. Most industrial robots are used in factories. Some robots load, move, and unload materials.
3. People can load images from a digital camera or a cell phone onto a computer.
4. The iPad has a touch-sensitive screen.
5. This program loads quickly because it is relatively compact.

Ex. 12A. Feel the difference between the two sentences.

Active Voice Passive Voice

The database system **processes** and **stores** information. – Система базы данных *обрабатывает и сохраняет* информацию.

Information **is processed** and **stored by** the database system. – Информация *обрабатывается и сохраняется* системой базы данных.

Bill Gates and Paul Allen **founded** the Microsoft Corporation. – Билл Гейтс и Пол Аллен *основали* корпорацию Майкрософт.

The Microsoft Corporation **was founded by** Bill Gates and Paul Allen. – Корпорация Майкрософт *была основана* Биллом Гейтсом и Полом Алленом.

The software **will install** an icon on your desktop. – Программа *установит* иконку на рабочий стол.

An icon **will be installed** on your desktop (*by* the software). – Иконка *будет установлена* на рабочий стол (программой).

The software **can detect** more than 500 different viruses. – Программа *может обнаружить* более 500 различных вирусов.

Over 500 different viruses **can be detected by** the software. – Более 500 различных вирусов *могут быть обнаружены* программой.

Ex. 12B. Continue the table of ex.12A. Write the sentences in Active on the left and the sentences in Passive on the right. Translate them into Russian.

1. Video transmitted from the ground will be displayed on computers aboard the shuttle.
2. Some computers use wireless communication devices.
3. In the 1890s Guglielmo Marconi invented the wireless telegraph, or radio.
4. Passenger trains carry people; freight trains carry goods.
5. Traditional cameras use film to record images. Other cameras, called digital cameras, use computer chips.
6. Today computers control the fuel system, engine, and many other parts of a car.
7. A computer system requires both hardware and software.
8. In 1971 electronic mail, or e-mail, was invented as a way to send a message from one computer to another.
9. You should enter this data into the spreadsheet for processing.
10. Pythagoras is best remembered for creating a theorem about right triangles.
11. Satellite communication technology is used for cell phones, television, radio, GPS systems, and more.
12. The digital camera can take the pictures that can be sent over the Internet to other families and friends far away.
13. The science-fiction robots that look exactly like humans are known as androids.
14. Most industrial robots are used in factories.

15. You will be allowed unlimited access to the files.

Ex. 13. Use Passive instead of Active.

Model: Alexander Graham Bell invented the telephone in 1876. →
The telephone was invented *by* Alexander Graham Bell in 1876.

1. We store information as bits.
2. The operating system controls the different parts of the computer.
3. In earlier days, people made products by hand.
4. The network will provide all computer services to your home.
5. You can download an image directly from a digital camera.
6. Telephone wires, television cables, fiber-optic cables, and satellites connect computers around the world to the Internet.
7. In 1803 the British engineer Richard Trevithick planned and built a locomotive that ran on steam power.
8. Satellites can send and receive signals for radio and TV stations and send photos to the Earth.
9. Computers control automobile engines, DVD players, and cell phones.
10. Supercomputers can make over a trillion calculations per second.

Ex. 14. Use Active instead of Passive.

Model: a) All Macs are made *by* one company, Apple Inc. →
One company, Apple Inc. makes all Macs.

a) We will be shown how to load the software. (*Our programmer*) →
Our programmer will show us how to load the software.

1. Robots are especially useful because they can do things that could be dangerous for people. For example, they can be sent deep underwater or into space. (*Specialists*)
2. Information on the Web is arranged in sites or pages. (*You*)
3. Trains can be divided into two types: passenger and freight. (*We*)
4. Computer programs can be used for playing games, making medical decisions, and translating languages. (*People*)
5. At the end of this book, you will be asked to build a motorized robotic machine. (*The author*)
6. A computer system is made of different components. (*They*)
7. Only the black cartridge is used when you print in black.
8. Banking, stock market [фондовая биржа] transactions, and credit card purchases (to purchase ≈ to buy) are monitored by communication systems.
9. Some robots can be “taught” to do a job. (*Robotists*)
10. Anti-virus programs must be updated frequently to protect against new attacks. (*Every computer user*)

Ex. 15. Make sure you pronounce the following words and phrases correctly:

working with information, also called data, a huge network of linked computers, from all over the world, both hardware and software, the same basic hardware, central processing unit, microprocessor, permanently, other types of hardware, data or commands, the results produced by the computer, operating system, application software, instructions for doing specific tasks, word processing, spreadsheet.

Read the text and translate it, using a dictionary, if necessary.

What is a Computer?

A computer is a device for working with information. The information can be numbers, words, pictures, movies, or sounds. Computer information is also called data. Computers can process huge amounts of data very quickly. They also store and display data. People use computers every day at work, at school, and at home. Computers are used in factories to control how things are made and in offices to keep records. People also use computers for sending mail, writing reports, shopping, banking, listening to music, and playing games. The Internet, which is a huge network of linked computers, provides information from all over the world.

A computer system requires both hardware and software. Hardware is the computer's physical parts. Software is the programs, or instructions, that tell the hardware what to do. All computers have the same basic hardware. The microprocessor is the computer's "brain". It is also called the CPU, or central processing unit. The microprocessor handles all the information that goes into and comes out of the computer. The memory is hardware that holds programs and data while the microprocessor is using it. The programs and data are kept permanently [постоянно] on hardware called storage devices. Most computers have a storage device called a hard drive. Input and output devices are other types of hardware. Input devices let the user enter data or commands into the computer. Input devices include the keyboard and the mouse. Output devices let the user see or hear the results produced by the computer. Output devices include the monitor (or screen), printer, and speakers. Computer software is divided into two basic types – system software and application software. System software controls how the different parts of hardware work together. Application software gives the computer instructions for doing specific tasks, such as word processing or playing games.

Ex. 16. Answer the following questions to the text.

1. What is a computer?
2. What information can a computer process?
3. What does a computer do with data?
4. Where do people use computers?
5. What is the Internet?
6. What is hardware?
7. What is software?
8. What is the computer's 'brain'?
9. What information does the CPU handle?
10. Where are programs and data permanently held?
11. In what way do data or commands enter the computer?
12. What output devices do you know?
13. What are the two basic types of computer software?
14. What system controls the simultaneous work of different hardware parts?
15. What software gives the computer instructions for doing specific tasks?
16. What specific tasks are mentioned in the text?

Ex. 17. Match the halves of the given sentences together.

A B

1. Computer information is also called ... a) email.
2. Computers are used in offices ... b) the CPU.
3. People use computers for sending ... c) holds programs and data.
4. The Internet provides information ... d) to keep records.
5. Instructions tell the hardware ... e) the keyboard and the mouse.
6. The microprocessor is also called ... f) from all over the world.
7. The memory is hardware that ... g) data.
8. Computers have a storage device called ... h) examples of application software.
9. Input devices include ... i) a hard drive.
10. Word processing or playing games are ... j) what to do.

Lesson two ARE YOU A COMPUTER GURU?

Ex. 1. Copy and memorize the following words and phrases.

1. **a b i l i t y** – способность, возможность

*Will computers overtake humans in intellectual **ability**?*

2. **access** – доступ; **to (have) access** – иметь доступ; **to get access** – получить доступ *Internet **access** is usually sold by Internet Service Providers (ISPs).*

*You need a password **to get access** to the computer system.*

3. **advance** – успех, прогресс, достижение; **advanced** – передовой, современный *Every technological **advance** has its advantages and disadvantages (pluses and minuses). More **advanced** systems have screen resolutions of 1024 x 1024 or greater.*

4. **d i g i t** – цифра; **d i g i t a l** – цифровой

*A **digit** is a written symbol for any of the ten numbers from 0 to 9.*

5. **s o u r c e** – источник

*They get their money from various **sources**.*

6. **to add** – прибавлять; складывать

*Do you want to **add** your name to the list? **Add** 7 and 5 to make 12.*

7. **to benefit from smth** . – пользоваться преимуществами чего-либо

*In what way do people **benefit from** using personal computers in their everyday life?*

8. **t o c r e a t e** – создавать

*We learned how to **create** and register a new web page.*

9. **t o e d i t** – редактировать

*Anyone with access to your disk can print or **edit** your documents.*

10. **t o f o r g e t** – забывать

*Write down the address before you **forget** it.*

11. **t o h i g h l i g h t** – выделять

*Click the left mouse button twice to **highlight** the program.*

12. **to mean** – значить, означать; иметь в виду

*The red light **means** 'Stop'. Sorry, I didn't **mean** to frighten you.*

13. **means** – средство; **by means of smth.** – посредством чего-либо

*For most people, the car is still their main **means** of transport.*

*Gamers control characters [персонажу] on the screen **by means of** a joystick.*

14. **to paste (to insert)** – вставлять (данные в документ)

*Cut and **paste** the picture into a new file.*

*Position the cursor where you want to **insert** a word.*

15. **to replace** – заменять; **replacement** – замена

*Teachers will never be **replaced** by computers in the classroom.*

*Our old printer is badly in need of **replacement**.*

16. **to save** – сохранять

Save the document before closing.

17. **to switch / to turn** – переключать

Switch the freezer to 'defrost'.

to switch on / to turn on – включать

*He **switched on** the radio to listen to the news. I **turned on** my computer to check my mail.*

to switch off / to turn off – выключать

*Always **switch off** your computer when you've finished.*

*Don't forget to **turn off** the computer when you finish editing your essay.*

18. **to underline** – подчеркивать

*All the mistakes have been **underlined** in red ink.*

Ex. 2. Translate the following sentences into Russian.

1. Wi-Fi allows you to **access** your network and the Internet from anywhere within a range of a few hundred feet from a base station.

2. Over time, computer scientists were able to (could) build **advanced** computing technology into devices that fit in a person's hand.

3. A computer is an electronic device that manipulates information. It has the **ability** to store, retrieve, and process data.

4. Material about recent research **has been added** to this new edition.

5. I **forgot** that there's a speed limit here.

6. **Highlighting** is typically done by pointing to the object with the mouse and clicking the left mouse button.

7. If you want to know what a word **means**, look up in a dictionary. Examples help show what a word **means**.

8. Information can be **cut** and **pasted** from one window to another.

9. These batteries must be tested on a regular basis and, in most cases, should be **replaced** at least once each year.

10. He had marked the sentences in pencil and **underlined** the words that he did not understand so that he could look them up.

11. Via Rail Canada was the first North American transportation service to offer Wi-Fi to its passengers in early 2006 and was one of the first in the world to do so. Wi-Fi is also available to travelers in all classes of service who may **benefit from** complimentary Wi-Fi service in many Quebec City-Windsor corridor stations.

12. Around 3000 B.C., the Egyptians **created** a device for computing the Nile's

flood. Archaeologists call it the Nilometer.

13. Fire has been used for thousands of years, but it was not until the invention of the match in the 1800s that people had a portable, safe, and easy **source** of fire.

Ex. 3. Replace the Russian words with their English equivalents.

1. The software makes it easy to (*создавать*) colorful graphs.
2. Technical (*достижения*) have influenced almost every Olympic sport.
3. The number 57306 contains five (*цифра*).
4. Did you (*сохранять*) the changes that you have made?
5. Computers are used in education for a variety of purposes. Students (*пользоваться преимуществами*) from using them as tools and resources for gathering information.
6. (*Цифровой*) cameras usually store pictures on a memory card.
7. Your local library will be a useful (*источник*) of information.
8. His bike is his only (*средство*) of transport.
9. If you (*включать*) a light or other electrical device, you make it start working by operating a switch. If you (*выключать*) a light or other electrical device, you stop it working by operating a switch.
10. You can (*редактировать*) a new document while you are typing it; or you can (*редактировать*) an existing document that is already saved on the disk.

Ex. 4. Translate the words and phrases using their dictionary definitions.

Desktop the main area on a computer where you can find the icons that represent programs *font* a set of letters of a particular size and style, used for printing books, newspapers etc on a computer screen *keyword* a word that you type into a computer so that it will search for that word on the Internet *link (hyperlink)* a word or picture in a website or computer document that will take you to another page or document if you click on it *search engine* a computer program that searches the Internet for information, especially by looking for documents containing a particular word or group of words

Ex. 5. Translate the following sentences into Russian.

1. I want to change the **font size** of all the text, to make it smaller. Is there any way to change the **font size** in the text?
2. In March 2005, *Google, Inc.* released a popular **search engine**, the first official version of its free software for finding information stored on computer hard drives.
3. Before you continue to create the **links**, you must save your file into the directory that will permanently store it.
4. Most modern **desktop** computers have separate screens and keyboards.
5. You can find the site by entering the **keyword** 'railway'.

Ex. 6. Do you know what 'Internet connection' means? Read the text below. You are not to translate it word-by-word: just grasp its main idea.

As technology grows, so does our need for bigger, better and faster Internet connections. Over the years the way to present content via the Web has also changed drastically. Today, Flash animations, online gaming, HD video, mobile applications are standards. There are many Internet connections. Here are just a few:

- *An analog Internet connection* is both economical and slow. Using a modem connected to your PC, users connect to the Internet when the computer dials a phone number (which is provided by your ISP) and connects to the network. Typical dial-up connection speeds range from 2400 bps to 56 Kbps. Today, analog has been widely replaced by broadband (Cable and DSL).
- *Cable Internet Connection*. Cable speeds range from 512 Kbps to 20 Mbps.
- *Wireless Internet Connections* is one of the newest Internet connection types. Wireless Internet provides an always-on connection which can be accessed from anywhere.
- *Internet over Satellite* allows a user to access the Internet via a satellite that orbits the earth. Typical Internet over satellite connection speeds (standard IP services) average around 492 Kbps up to 512 Kbps.

Ex. 7. What part of a computer does the text tell about?

It is the main part of a personal computer. It includes the microprocessor, main memory, bus, and ports, but does not include the keyboard or monitor, or any peripheral devices. Sometimes it is called a main unit.

Ex. 8. What is the difference between useful and useless or powerful and powerless? Right you are! They are antonyms, words that mean the opposite of another word. Translate the following words into Russian:

useless, useful, powerful, powerless, speechless, beautiful, colorful, colorless, odorless (gas), eventful (day), limitless, painful, endless.

Ex. 9. Translate the sentences. Focus on the modal verbs can, may, must, should.

1. Many mobile phones **can** do a lot of things a computer can do, such as browsing the Internet or playing games.
2. A computer is an electronic device that **can** calculate, store, and process data.
3. What's the first thing you **should** do before cleaning your computer?
4. To connect to the Internet, you **must** have a modem.
5. You **should** update your anti-virus program regularly.
6. If you want to buy a computer, you **should** follow these five simple steps: decide what you want the computer to do; find the software that will get you the result you want; find the hardware to run your software; shop for service and support; buy that computer!
7. You **must** use Microsoft Windows and Internet Explorer version 5 or above in order to view our site properly.
8. Passengers **must** not smoke until the lights have been switched off.
9. In my opinion, the government **should** invest more money in education.
10. **Could** you hear what I was saying?
11. **May** I borrow your cell phone?
12. Correcting a small mistake **may** help you to avoid making a bigger one.

Ex. 10. Feel the difference between these sentences:

- Many people **install** a telephone in the hall.
 - The phone company **is installing** fiber here since the mid-2010s.
- Several petrol stations **have already installed** the video cameras.

Classify the following sentences as a) Simple, b) Continuous, c) Perfect.

1. Susan installed a video camera on a tree nearby to watch over the kiosk and observe what the children were doing.
2. My computer's having problems with reading and writing CDs.
3. Since 1960s, the Internet has changed to meet the requirements of its users.
4. When you use a telephone, a computer, or a video camera, you are controlling both the input and output of the system.
5. An alarm system tells you someone has entered a protected store or home.
6. Helen speaks Spanish and Russian.
7. This section tests your mathematical skills.
8. The devices have been tested very carefully and are considered safe.
9. Robots are replacing workers around the world in both manufacturing and service industries.
10. In the 1960s, coal was replaced with cheap and plentiful oil, and new production methods were introduced.
11. You never know. Things change all the time.
12. When you withdraw cash from an ATM or use a calculator, you're using a type of computer.
13. I'm looking for Simon. - Have you seen him?
14. Standard washing machines use about 40 gallons of water.
15. In modern cars, an odometer shows how far the car has traveled.
16. The launch of the space shuttle Columbia in 1981 was watched by millions. This was the first spacecraft that could be reused.
17. Paper was invented in China some 2,000 years ago, but its invention was actually kept a secret for 700 years.

Ex. 11. Put the italicized verbs into the required tense form. Translate the sentences into Russian.

When a computer *to turn on* it *to search* for instructions in its memory. These instructions *to tell* the computer how to start up. Usually, a special program called the operating system *to be* the software that *to make* the computer work. It *to tell* the user (or other machines) to input data and commands, *to report* the results of these commands and other operations, *to store* and *to manage* data, and *to control* the software and hardware actions. The operating system *to load* the program in the computer's memory and *to run* the program.

Ex. 12. You've come to a computer room to practice English. Unfortunately all computers are occupied because second-year students are having their lesson. Every student is engaged in his/her learning activity. Put the verbs into the required tense form to describe the situation. Explain using the Continuous tense.

Olga *to listen to* some English text. Anton *to look for* something in his bag. Lena *to copy* active vocabulary from the textbook. Pavel *to try* to insert the pen-drive into the slot of the system unit. Vera *to repeat* Grammar rules. Alex *to write* an individual Grammar test. Sasha and Julia *to chat* about their plans for the weekend. Vica and Masha *to play* some computer game. Sergey *to sit* at the window and *to sleep* peacefully. Peter *to surf* the Net and *to view* the latest sports news. Dan *to down-*

load a new wallpaper on the desktop. Nick *to show* his new smartphone to Vica and Masha. Oleg *to watch* a cartoon featuring Mickey Mouse. Our English teacher *to water* flowers. So, everybody is so busssyyyy! :))

Transform the text into the Past tense. Start with: Yesterday I wanted to practice English in the computer class. Unfortunately all computers were occupied...

Ex. 13. Have you ever done these things? Make up your own questions using the following alternatives. Let your fellow students answer them. Explain using the Perfect tense.

- a) sent and received emails
- b) chatted in real time
- c) booked a flight online
- d) used your credit or debit card to pay for something over the Internet
- e) had a virus on your computer
- f) downloaded a photo from a site
- g) connected to the Internet over a wireless connection
- h) set up a wireless network in your own home or office
- i) bought anything on an auction site like eBay
- j) programmed a computer to control a motor-powered machine

Ex. 14. In the dialogue below you will see some phrases which may be of interest to you. Copy them and make up sentences of your own.

By the way ... Кстати (Между прочим) ... Oh, by the way, Ann called while you were out.

Frankly speaking ... Откровенно говоря ... Frankly speaking, I am not as good at computers as you are.

In this case ... В этом случае ... In this case, one more copy of the document should be made.

Keep in touch. Будь на связи. Nice talking to you. Keep in touch.

Let's (go) ... Давай (пойдем) ... Let's go somewhere different tonight!

Let's start by introducing ourselves.

Never mind. Ничего, неважно, не беда.

I'm so sorry! I've broken your glasses.

– Oh, never mind.

Right you are! Ты прав! The process of loading is the next step, isn't it? – Right you are!

Sure! Конечно! Can you drive me to work tomorrow? – Sure.

Unfortunately ... К сожалению ... Unfortunately, my scanner isn't working at the moment.

What about ...? Как насчет ...? What about a cup of tea?

What about meeting tomorrow morning?

Ex. 15. Read the dialogue between Max and Ann and translate it into Russian.

M.: Hi, Ann!

A.: Hi, Max!

M.: Haven't seen you for ages! You look wonderful!

A.: Thanks! I haven't seen you since we left school. What's the news?

M.: Well, I am a student now. I entered Samara State University of Transport to become a programmer or an IT-specialist.

A.: Really? I know that you have always been a computer fan. You helped everybody in the class with the computer.

M.: Yes, computers are both my hobby and future profession. How are you getting on? Where do you study? Are you still fond of painting?

A.: Yes, my dream was to become a professional artist. Let me introduce myself – I am a first-year student of Moscow Art School.

M.: Great! Was the competition strong?

A.: Of course. A lot of young people want to become students of this famous higher school. I have passed the entrance exams successfully and now I live in Moscow. It is my short visit to Samara. In a few days I'm leaving for Moscow. By the way, do you keep in touch with our classmates?

M.: Sure. Some of them live in other places, but we communicate via the Internet – by email, by Skype, etc.

A.: You are lucky. You are a computer guru. You know how to use the Internet, Skype, and all that mystical stuff...

M.: You're kidding! Mystical? There is nothing mystical about using a computer, having access to the Internet or emailing messages. These days every kid has a computer, an iPad, a mobile phone or a smartphone.

A.: Ya, every kid ... but not me. You may be laughing, but ...

M.: What? Do you mean that you have no computer?

A.: On the contrary! My parents gave me a computer as a birthday present. They say it is very powerful and sophisticated. Unfortunately, they are very busy people and have no time to teach me how to use this technological wonder.

M.: Don't worry! I can give you a hand.

A.: Do you mean you can help me with the computer? Super! I promise – I will be the most hardworking student and I will follow all your recommendations.

M.:OK, it's a deal. What about meeting tomorrow morning, say, at 10 am. Is it convenient to you? You live next door to me, don't you?

A.: Right. My house is over there. 10 o'clock will be good. Don't forget - my flat is on the third floor.

O n t h e n e x t d a y

M.: Morning!

A.: Morning! Thanks for coming. What about a cup of tea or coffee?

M.: Thanks, a bit later. Well, where is your technological wonder?

A.: Let's go to the father's study. Here it is.

M.: Wow! A pretty good stuff.

A.: Yes, it is beautiful ...

M.: Beautiful! You are talking like a blonde! Don't forget that you belong to the computer age. You should benefit from its advances. Sorry, I'm talking like a professor ...

A.: Never mind. I am ready to start our lesson. What shall I do?

M.: First of all, you must switch on the system unit. Push this button.

A.: I see the keyboard, I see the screen, but where is this main memory? I don't see it.

M.: It is inside the computer. Actually, it is the device to store information.

A.: I see. What's next?

M.: The next step is loading. The computer begins to load the operating system ...

A.: So far I understand everything. But let's do some practice. For example, I want to write a letter to my friend in Moscow. Frankly speaking, my handwriting is terrible. So, I want to type it. How can I use the computer?

M.: Nothing can be easier! You should create a text document...

A.: Where? In the computer?

M.: On the desktop. Look! You press the right mouse – there are several options.

A.: I should click on 'create a Microsoft Office document'. Am I right?

M.: Great! You are really a smart girl. Click on this option. Now you see a blank field...

A.: ... and using the keyboard I can type anything I like.

M.: Right. But first of all you should choose the font and the font size. Let's take Times New Roman.

A.: OK, and I can begin typing the text.

M.: Right. After that don't forget to save it. Click on this icon.

A.: Oh, I've made a mistake. I want to cross out this passage. What should I do?

M.: You should highlight this part of the text, using the left mouse...

A.: ... and then press 'delete'. And if I want to add a photo to my letter....

M.: In this case you should copy it, for example, from the desktop and then paste (or insert) it into your letter.

A.: Great. And to print the letter I should click on the 'print' icon.

M.: Right you are! So, you know how to use your computer for writing letters and other documents.

A.: But I am sure that my electronic assistant can do much more useful work. I mean the Internet, email, etc... Can you teach me?

M.: Why not? For example, you must write an essay on ...

A.: William Shakespeare, a great British playwright.

M.: Of course, you may go to a library and spend a lot of time waiting for the books, then reading them, then writing out important phrases or even paragraphs

A.: You want to say that I can save time using the Internet?

M.: Sure! You have Internet connection. Now double-click on the icon *Google* with the left mouse.

A.: *Google*? What a strange word! What does it mean?

M.: To find information on the Internet, you need the special software. It is called a search engine. There are various search engines such as *Google*, *Rambler*, *Yandex*, etc.

A.: I heard these words. I see a small window open on the desktop. Shall I type something in?

M.: Now type in a keyword on this line, then press Enter and wait a bit.

A.: O.K. Let's type in 'Shakespeare'... The list of sources is practically limitless! Which one should I choose?

M.: To save your time, start with the upper line. So, the text is opening. It will take some time because the article is long.

A.: And why are some words underlined?

M.: These words are called hyperlinks or simply links. They show that there is more information about the subject in another document. If you click on this word, the Web automatically connects your computer to a new document or web site.

A.: Great! I was looking for this material for a long time. Finally I have found it. Can I print it? But it is too long. Actually I need only these two pages.

M.: In this case you should highlight this part of the text and click on the icon 'print'.

A.: And if I want to cross something out or add something ...

M.: You mean you want to edit it?

A.: Yes. Just a second – I know what I should do. I copy the highlighted text, open a new Word document and paste these two pages. Am I right?

M.: Sure! Then you may do with this text whatever you like.

A.: ... and then print it.

M.: You are a quick learner!

A.: Thanks! Let's have a coffee break. Then you will teach me to use email, Skype and other Internet things!

Ex. 16. Search the text for the English equivalents of the Russian phrases:

- Я не видел тебя целую вечность. • Как поживаешь?
- Я успешно сдал вступительные экзамены. • Тебе везет.
- Шутишь! • Совсем наоборот!
- Я могу помочь тебе. • Я буду добросовестной ученицей.
- Ты живешь рядом со мной, не так ли? • Хорошо, договорились.
- Хорошая вещица! • Что мне (надо) делать?
- Почему бы и нет? • Какое странное слово!
- Ты быстро учишься! • Давай устроим перерыв на обед.

Ex. 17. Divide the dialogue into parts. Learn the dialogue by heart and give a performance in class.

UNIT TWO

APPLICATIONS OF COMPUTERS IN VARIOUS FIELDS

Ex. 1. Copy and memorize the following words and phrases.

1. **a c t u a l l y** – фактически, на самом деле, в действительности

*Computers **actually** work with ones or zeros. In a computer language we call it a binary code.*

2. **a v a i l a b l e** – доступный; имеющийся в распоряжении, наличный

*Many of the arcade games also became **available** for play at home.*

*There are plenty of jobs **available** in the area.*

3. **t o c a l c u l a t e / t o c o m p u t e** – вычислять, рассчитывать

*The program can **calculate** the number of words that will fit in the space available.*

*Final results had not yet been **computed**.*

4. **.c a l c u l a t i o n / c o m p u t a t i o n** – вычисление, расчет

*By some **calculations**, the population will reach 8 million soon.*

*Even today, children spend 90 percent of their math time on these **computations**.*

4. **c o m p l i c a t e d** – сложный

*The human brain is an incredibly **complicated** organ.*

5. **c o n t e n t** – содержание

***Content** is information made available by a website or other electronic medium.*

6. **e x p e n s i v e** – дорогой **c h e a p** – дешевый

*Why are Apple computers more **expensive** than other computers?*

*I bought the **cheapest** computer I could find.*

7. **f i e l d / a r e a** – поле, область, сфера деятельности

*We talked to professionals in various **fields**.*

*Computers are so popular that you can find their applications in almost every **area**.*

8. **a i m / p u r p o s e** – цель

*The **aim** of the research is to find new food sources.*

*The machinery is so complicated that it cannot be used for any other **purpose**.*

9. **t o a p p l y / t o u s e** – использовать, пользоваться, применять

*These ideas are often difficult **to apply** in practice.*

*Drop-down menus make the program very easy **to use**.*

10. **t o b r o w s e** – просматривать (информацию в Интернете)

***To browse** means to search for information on the Internet.*

11. **t o e m b e d** – встраивать

***To embed** means to incorporate (a text) within the body of a file or document.*

12. **t o e m p l o y** – использовать; нанимать на работу

e m p l o y e r – работодатель **e m p l o y e e** – служащий

*One team focused on how best to **employ** technology; the other, how best to **em-
ploy** people. An **employee** is a person who is paid to work for an organization or
for another person. He had been sent to Rome by his **employer**.*

13. **t o i n c l u d e** – включать

Service is **included** in the bill.

14. **t o o l** – инструмент

One can classify **tools** according to their basic functions.

Ex. 2. Translate the following sentences into Russian.

1. **Actually**, on second thoughts, I don't think I want to go out tonight.
2. The Massachusetts Institute of Technology has said that it is making its learning materials freely **available** on the Internet.
3. Addition, subtraction, multiplication and division are all the processes of **computing**.
4. You must use your knowledge and **apply** it to the information **content**.
5. At *Ebuyer.com* you have access to a wide range of **cheap** laptops, LCD monitors, televisions, hard drives and much more.
6. The most **expensive** mobile phone in the world – costing more than 500,000 dollars – was made in Austria. The phone has sections of pure gold and 2,950 blue diamonds **embedded** into the cover.
7. One company said that up to half of their employees spent over an hour's work time a day **browsing** the web.
8. The navigation system **employs** Global Positioning System satellites and regional map software to help guide drivers to unfamiliar addresses.
9. **Employers** and **employees** need to have some system for communicating their views and requirements to each other.
10. To the Egyptians, math was a practical **tool** used for conducting business, building houses, etc.
11. Once all the necessary **calculations** have been made the experiment can begin.
12. Portable computers are **available** for people on the go or anyone who wants a smaller computer than the traditional desktop model.
13. *The Nine Chapters on Mathematical Procedures* is the most famous ancient Chinese mathematical text. It contains 246 math problems. Many of the problems in *The Nine Chapters* required **complicated** calculations with fractions.
14. A typical computer contains numerous types of memory including RAM, ROM, virtual, cache and various long-term storage devices. Each type of computer memory serves a specific function and **purpose**.

Ex. 3. Answer the following questions, using the information given in brackets.

1. What is currently available from the above address? (*a new booklet "Guidance for Students with Special Needs"*)
2. What is the simplest way to calculate percentages? (*to divide the amount given by the total amount, and then multiplying the answer by 100*)
3. What will be discussed later in Section 20.2? (*this particular situation*)
4. What is important? (*the ability to coordinate several activities and to quickly analyze specific problem*).
5. What is their primary purpose? (*to speed up browsing*)
6. What is our main aim? (*to help promote a competitive and efficient labor market*)

7. What is the purpose of the computer? (*to perform calculations, store and process information*)
8. What is being applied to almost every industrial process? (*new technology*)
9. What is an employee? (*an individual who works part-time or full-time and has his/her rights and duties*)
10. What is the Internet? (*an effective tool for advertising*)
11. The Mayan calendars were complicated. What were they based on? (*movements of the Sun, the Moon, and the planet Venus*)
12. What did the Maya calculate? (*the date the world had been created - August 11,3113 B.C., by our modern calendar*)

Ex. 4. Replace the Russian words with their English equivalents.

1. (*На самом деле*), I had nothing to do with that incident.
2. This special price (*включать*) post and packing and is only (*доступный*) until the end of August.
3. It was too (*сложно*) coping with a system of security locks for three doors.
4. If the first (*расчет*) is wrong, we make a second better.
5. My flight to Reno was really (*дешевый*).
6. The lights were (*дорогой*) to install.
7. Mr Howarth gave us very (*конкретный*) instructions.
8. Keith has a degree in computer science and engineering, but cannot find a job in this (*сфера*).
9. Many critics question whether the test serves any useful (*цель*).
10. Some companies (*нанимать на работу*) people to do this job on a full-time basis.
11. There is room service and air conditioning. Price (*включать*) dinner, bed and breakfast.
12. A/An (*встроенный*) file is any type of multimedia file that you might insert, or embed into the Web page. This includes files like graphics and sound files.

Ex. 5. Choose the best alternative to complete the sentences.

1. The information on this Web site is ___ only to authorized users.
a) possible b) available c) comfortable
2. Velocity is ___ by dividing the distance traveled by the time used to move across the distance.
a) calculated b) processed c) produced
3. According to recent calculations, China has surpassed the USA in terms of number of Internet users.
a) requirements b) operations c) calculations
4. It's ___ to phone after six o'clock.
a) cheaper b) more cheap c) chipper
5. The principal ___ of the project is to provide an answer to this question.
a) main b) aim c) name
6. ___ the Net one afternoon, I came across Tom's homepage.
a) Browsing b) Walking c) Finding
7. More than 3,000 local workers are ___ in the tourism industry.

- a) used b) worked c) employed
8. ____, I'm not from France - I'm from Switzerland.
- a) Usually b) Actually c) Mainly
9. The graphics are brilliant. It's just a shame the ____ is so poor.
- a) content b) context c) test
10. Read more about the specific ____ of study you're interested in.
- a) region b) field c) part
11. The Greeks founded the city of Alexandria in Egypt. It became a center for ____ and science.
- a) computer b) calculator c) computing

Ex. 6. Unscramble strange words and translate the sentences.

1. The case became more and more licatecompd.
2. Organization and expertise were abavaille for the financing of increasingly complatedic business.
3. This type of calculatio would take several hours without a computer.
4. If you would like more information about our echap Android Tablets, please call us today on 0121 202 0022.
5. Tell your boss that you have already done some research but have some questions about a parulatier eara.
6. Here is a more cispetic example.
7. Kelly is eplmoyed as a mechanic.
8. The specifications inludce a number of new modules which we are currently developing.
9. This special offer price iluncdes post and packing and is only ablvailae until the end of Ausugt.
10. Years ago, adults seud ensixpeve, high-powered computers at work and bought low-end (cheap) machines for the kids.
11. Mathematics (or simply Math) is used in every aear of science, medicine, bnesusis, construction, and manufacturing.
12. Ancient peoples performed very effective cutatioompns without smartphones or even pocket carculatos.

Ex. 7. Feel the difference: convenient vs. comfortable, various vs. different.

1. Mail-order catalogs are a **convenient** way to shop.
2. The meeting is to start at three o'clock. Is this time **convenient** for you?
3. Algebra offers its basic concepts as a most **convenient** means for expressing, mathematically, certain specific ideas.
4. Many businesses employ video conferencing as a **convenient** means of holding meetings.
5. At the moment I am sitting in a very **comfortable** chair bought for me by my family some years ago.
6. Economy hotels offer clean, **comfortable** rooms without costly extras like restaurants and room service.
7. Sit down and make yourself **comfortable**.
8. The keyboard is available in **various** colors.

9. There are **various** ways to answer your question.
10. There are **various** gadgets available in this trade center.
11. I looked up this computer term in **different** books and dictionaries, but couldn't find any definition.
12. They were from **different** worlds, totally **different** cultures, but they were brought together by fate.

Ex. 8. Note that the word application may have different meanings:

- a) применение, использование, сфера (область) применения;
- b) прикладная программа.

Translate the sentences into Russian.

1. A computer has a wide range of applications for businesses.
2. Students will learn how to use word-processing and spreadsheet applications.
3. The possible applications of this invention are limitless.
4. Microphones are designed in various styles and sizes according to the particular application.
5. We received training on a number of spreadsheet and database applications.
6. The research has many practical applications.
7. This principle has no application to the present case.
8. Students learned the practical application of the theory they had learned in class.
9. The database application is a computer program whose primary purpose is entering and retrieving information from a computer-managed database. Early examples of database applications were accounting systems and airline reservations systems.
10. The mobile application (or mobile app) is a software application designed to run on smartphones, tablet computers and other mobile devices.

Ex. 9. Focus on the degrees of comparison of adjectives; translate the sentences.

1. Technologies make life **easier, safer, and happier**.
2. Historians do not know exactly how the Mayan calendars were developed, but they came into use in the first century A.D. Their solar calendar was **more accurate** than any other calendar in the ancient world.
3. *Pi* was one of **the greatest** discoveries in computing history.
4. *The Rhind Mathematical Papyrus* is our **most important** source of information about Egyptian math. It was named for Alexander Henry Rhind, a Scottish archaeologist.
5. As **newer** and **more memory-intensive** software comes out, and old junk files accumulate on your hard drive, your computer gets **slower and slower**, and working with it gets more and **more frustrating (boring)**.
6. Astronomers in ancient China created **the earliest** known star charts. The chart is 6.5 feet (2 m) long, and it shows 1,339 stars in red, black, and white ink.
7. In today's time a CPU may only stay on the market for 24 months, some even **less** before it is replaced by something new and **greater**.
8. Euclid was one of **the greatest** mathematicians in history.
9. The Greek philosopher Plato believed that society would benefit if everybody were educated to **the highest** level possible.
10. Some historians think that Archimedes was the ancient world's **greatest** math

wizard. He used math to design machines and made great advances in computing technology. For example, around 240 B.C., Archimedes computed a new value for *pi* that was much **more accurate** than **earlier** figures.

11. The first **biggest** mistake people make in buying a computer is shopping for price rather than [а не] service. Although lots of places will sell you the **cheapest** computer in the galaxy, they may not provide you with much after-sale support.

The second **biggest** mistake is shopping for hardware before shopping for software.

12. The next generation of computers will be **better, faster**, and maybe **less expensive**.

13. Modems are generally included in laptop computers, though some of the **less expensive** models may not have them. It's **best** to ask.

14. The typical home computer sold today is far **more powerful** than all the mainframes of 30 years ago.

Ex. 10. Use either comparative (C) or superlative (S) degree of the italicized adjectives.

1. One of *useful* (S) numbers to engineers, physicists, and other scientists is *pi*.

2. Computing technology can do *much* (C) than solve practical problems.

3. You could pay \$2,000 or higher for the *late* (S) computer model with the *fast* (S) microprocessor and all that techy stuff.

4. In 2005 scientists from Greece and the United Kingdom conducted new studies on the ancient Clock Mechanism. They used three-dimensional X-rays and digital photography to see inside the mechanism. With this new data, they explored its *tiny* (S) internal parts.

5. Mayan computing was *advanced* (C) than math used at the same time in Europe, Asia, and Africa. Mayan mathematics included the concept of zero, which was not widely used in other parts of the world until later.

6. The Egyptians developed one of the ancient world's *famous* (S) civilizations. The ancient Egyptians built giant pyramids, invented a picture-writing system called hieroglyphics, and created other advanced technologies.

7. Thanks to the incredible processing ability of computers, modern people can work *fast* (C) and with *few* (C) errors than our ancestors.

8. The doctor told him to eat *little* (C) and to exercise *much* (C).

9. Among *bad* (S) computer viruses till date are Melissa Virus (1999), ILO-VEYOU virus (2000), Code red Virus (2001), MSBlast virus (2003) and Sobig Virus (2003).

10. The *complex* (S) games may require motion-activated gloves, headgear or mouthpieces to maximize play strategy.

Ex. 11. Focus on the modal verbs should, must and its equivalents.

to have to [приходится]

m u s t [должен] to be to [обязан]

1. Cost **should** not be the most important factor in buying a computer.

2. In the 1880s, anybody making a telephone call **had to** go through an operator at

a telephone exchange [телефонный узел]. This made private calls impossible because the operator could listen in.

3. The Maya also celebrated many religious holidays, which **had to** be observed on the same days each year.

4. The first Roman calendar, developed around 738 B.C., was based on the lunar year. With just 304 days – divided into ten months – the calendar was 61 days short. Later, the Romans added two more months, but they were not long enough. To make up for the shortfall, the Romans **had to** add an extra month to their calendar every two years.

5. I **have to** keep late hours this week because I have a lot of extra work.

6. The secretary **was to** email the letters to the clients yesterday.

7. You **will have to** check the figures one more time – we don't want any mistakes.

8. Non-specialists **shouldn't** be allowed to enter this laboratory.

9. You **are to** research and write about a technology and its positive and negative impacts on people, the economy, and the environment. Gather information from the library, the Internet, and experts.

10. All workers **must** pass a safety test before using these tools.

11. As newer and more memory-intensive software comes out, and old junk files accumulate on your hard drive, your computer gets slower and slower. You double-click your favorite application and **have to** wait 30 seconds for it to open, or you open a second program and it brings your system to a halt.

12. The workstations used for data input **are to be** upgraded, using faster machines with higher memory.

Ex. 12. Insert the right modal verb to complete the sentence. Explain your choice.

1. Users ___ enter a password to gain access to a network.

a) should b) has to c) be to

2. At many companies, employees ___ attend classes in order to become computer literate.

a) are to b) should c) have to

3. Yesterday we ___ hear about the whole journey from beginning to end.

a) must b) should c) had to

4. Data, which is put into the computer for processing, ___ be coded into a binary form.

a) is to b) have to c) should

5. All products ___ be safe, attractive, useful, and reliable. They ___ sell at a price consumers will pay.

a) must, must b) should, must c) is to, must

6. To develop new technologies, engineers ___ have a clear understanding of the principles, theories, and laws of science.

a) have to b) should c) must

7. Engineers make mathematical calculations to know where robots ___ be used and for what tasks.

a) has to b) should c) mustn't

8. Young people who finish the school ____ be trained to operate computers.
a) should b) must c) are to

Ex. 13. Focus on the verb can and its equivalent. Translate the sentences.

c a n to be able to

1. Our ancestors knew very little about technology. However, they **were able to** use their limited knowledge and their hands to form stones into useful tools.

2. Binary code uses patterns of 0s and 1s. For example, the number 9 in the decimal system **can** be written as 1001 in binary code. All modern computers use binary code in their operations.

3. Scientists are working on a TV image that can be watched in 3D. **You'd be able to** walk around the image and see it from different angles.

4. Over time, computer scientists **were able to** build advanced computing technology into devices that fit in a person's hand.

5. Energy **cannot** be created or destroyed, but it **can** be changed from one form to another.

6. The Greek astronomer Hipparchus used trigonometry to study the position of the Sun and planets and **was able to** more accurately measure the length of a year. His calculation was correct to within 6.5 minutes.

7. You **can** use a printer with a laptop computer, if the laptop computer has a printer connection (a printer port).

8. That bag looks really heavy – are you sure you'll **be able to** carry it on your own?

9. Future telescopes **will be able to** examine the atmospheres of other planets to search for signs of life.

Ex. 14. Focus on the verb may and its equivalent. Translate the sentences.

m a y to be allowed to

1. **May** I borrow your pen-drive? I've left mine at home.

2. I **am allowed to** play videogames because I have finished my Grammar test; my teacher is OK.

3. The exam **might** be easy. You never know.

4. You **are not allowed to** use your mobile phone at the examination.

5. I **wasn't allowed to** park my car in front of the hospital.

6. Machines in the future **might** design and create new technologies without human intervention.

7. **Are** goalkeepers **allowed to** touch the ball with their hands?

8. I'm not really sure where this file is. It **may** be in this or that folder. Try to activate the 'search' function.

9. You **might** be right, but I'm going to check anyway.

10. No employee **is allowed to** use the office phone for personal calls.

Ex.15. Explain the choice of the modals. Translate the sentences into Russian.

1. Nanorobots **may** be one of the major inventions to come in medicine.

2. There are no true speakers in smaller, handheld, and palmtop computers.

However, they have the ability to beep and bleep and **may**, in some cases, **be able to** play music. (The point is that you don't buy that type of computer

specifically to hear opera!)

3. What do you think of when you hear the word ‘*technology*’? You probably think of state-of-the-art gadgets. You **might** think of computers, MP3 players, and the latest scientific tools. But technology doesn’t mean just brand-new machines and discoveries. Technology is as old as human civilization.

4. The ancient Chinese were advanced mathematicians. They developed the basis for a decimal system and invented the first automated computing device, the abacus. They **may** have even discovered ideas of geometry before the Greeks made those ideas famous.

5. One day, robot companions **may** be a part of every home ... but not yet. This little helper **may be able to** walk and sing and kick a ball, but it would cost as much as a luxury car.

6. When your grandparents were your age, they **may** have watched black-and-white television. Today you **might** watch your favorite shows on the Internet or on a high-definition television.

7. Have you ever thought about building your own computer? Here are three reasons why you **might** want to build your own computer: You’ll **be able to** create a machine that exactly matches your needs. It will be much easier to upgrade your machine in the future because you’ll understand it completely. You **may be able to** save some money. And, if you’ve never done it before, you’ll definitely learn a lot about computers.

8. Technology means different things to different people. A physician **might** think of technology as a way to produce a new medicine. To a space engineer, it **might** mean making better rocket engines.

9. It is difficult to say when the Information Age began. It **may** have started in 1844 when Samuel Morse tapped out the first long-distance telegraph message.

10. We **can** generate electricity and power from many sources today.

Ex. 16. Translate the sentences, paying attention to the Infinitives.

1. Technology is the use of knowledge, inventions, and discoveries **to make (in order to make)** life better.

2. The Greeks divided math into two main branches. They used (applied) math **to solve** practical problems. Theoretical math was used **to prove and disprove** theories about the natural world.

3. Archimedes used math **to design** machines; he made great advances in computing technology.

4. In one of his last works Archimedes calculated how many grains of sand it would take **to fill** the universe. He ended up with a number equal to 8 followed by zeros. **To find** this figure, Archimedes developed a system for computing with very large numbers.

5. Have you ever heard of Big Ben? It’s a 13-ton bell in the Clock Tower of the Houses of Parliament in London. People have used Big Ben **to keep** track of the time since 1859.

6. The Romans were practical people who applied math to real-life problems. They needed freshwater for their cities, so they used computing technology **to design**

aqueducts, or giant water channels. The Romans constructed roads, buildings, and other structures. The Romans used math as a tool.

7. American George Stibitz is often considered the father of the modern computer. In 1937 he built the first calculator that used the binary numeral system, or binary code, **to perform** arithmetic.

8. It's an interesting fact that the first computer game, 'Space War', was invented **to help** sell a computer.

9. Electricity is a form of energy that is used **to provide** heat and light, and **to power** all sorts of machines.

Ex. 17. Answer the following questions according to the model:

What did ancient engineers and builders use Mathematics for? (to design roads, buildings, and machines) → Ancient engineers and builders used Mathematics to design roads, buildings, and machines. Древние инженеры и строители использовали математику для того, чтобы проектировать дороги, здания и машины (... для проектирования дорог, зданий и машин).

1. What did the Egyptians use algebra for? *(to solve practical problems)*

2. What did the ancient Greeks use the word 'technology'? *(to mean a discussion of arts and crafts)*

3. What did the Egyptians use fractions [дроби] for? *(to multiply and divide)*

4. Digital computers – such as modern computers – are programmable machines.

What can the user program them for? *(to perform specific operations)*

5. Throughout the 1900s, digital computers grew both in ability and size. What do scientists develop hardware for? *(to store information)*

6. What is a printer used for? *(to put information down on paper, to create a hard copy of the text you see on the screen)*

7. What is a supercomputer designed for? *(to do many complicated tasks quickly)*

8. What was the Hubble space telescope designed for? *(to send back clearer images of far-off planets and galaxies than could be obtained from the Earth)*

9. Battery. What does it use chemicals for? *(to store electricity)*

10. Silicon Graphics is a computer manufacturer. What are their computers used for? *(to create computer animation in the movies and on TV)*

Ex. 18. Match the English phrases (A) with their Russian equivalents (B).

A B

1. bank balance a) объединять (собирать) друзей

2. in a few seconds b) состояние банковского счета

3. instead of c) среди молодежи

4. on a real-time basis d) через несколько секунд

5. to do maths e) определенная зарплата

6. learning software f) решать задачи

7. spelling mistakes g) вместо (чего-либо)

8. certain salary h) в режиме реального времени

9. among the youth i) орфографические ошибки

10. to bring friends together j) обучающая программа

Ex. 19. Make sure you pronounce the following phrases correctly:

various fields, the learning software, in almost every sphere of life, to be done at a very fast speed, word processing software, spelling and grammar mistakes, a wordprocessed document, database programs, every employee in a company, receive a certain salary, almost all the computers in the world, enormous amounts of information, very fast and convenient access to information, video conferencing tools, social networking sites, the basic purpose, your monthly expense, e-learning applications and processes.

Read the text and translate it, using a dictionary, if necessary.

APPLICATIONS OF COMPUTERS IN VARIOUS FIELDS

Nowadays computers are used everywhere. You wake up in the morning, switch on your PC and check mails or update your Facebook status. You go to work, switch on your computer and work. You come back from work, and re-check your mails, check your bank balance, etc. As a student you may do your grammar test using the learning software. You watch a movie or play one round of computer game and end your day. So, computers play an important role in our life today. Let us know more about it. We find their applications in almost every sphere of life - particularly in fields where computations are required to be done at a very fast speed and where data is too complicated for the human brain. Word Processing software automatically corrects spelling and grammar mistakes. If the content of a document repeats, you don't have to type it each time. You can use the copy. You can print documents and make several copies. It is easier to read a word-processed document than a handwritten one. You can add images to your document. Database programs allow a computer to store large amounts of data (information) in a systematic way. Such data might include the name, address, telephone number, salary, and starting date of every employee in a company. The computer could then be asked to produce a list of all employees who receive a certain salary. The Internet is a network of almost all the computers in the world. You can browse through much more information than you could do in a library. That is because computers can store enormous amounts of information. You also have very fast and convenient access to information. Through e-mail, you can communicate with a person sitting thousands of miles away in a few seconds. Forums enables one to chat with another on a real-time basis. Video conferencing tools are becoming readily (easily) available to everyone. Social networking sites are rapidly gaining popularity among the youth today. The basic purpose of these sites is to bring families and friends together. Accounts*. Do you remember the last time you actually did maths using a pencil and paper, or even calculated your monthly expense using a calculator? This is because most of us use computers for our daily accounts. Your memory devices can preserve (store) large data for a really long time. Software is widely used in telecommunications. All mobile phones have software embedded in them. E-learning applications and processes include Web-based learning, computerbased learning, virtual (distant) education. Instead of a book it is easier to learn from an elearning software.

Note: *accounts – бухгалтерские счета.

Ex. 20. Choose the correct alternative to complete the sentence.

1. You wake up in the morning and ...
 - a) switch on your PC b) correct grammar mistakes
2. You go to work and ...
 - a) store large amounts of data b) check your emails
3. We find their applications ...
 - a) in almost every sphere of life b) in the human brain
4. It is easier to read a word-processed document than to ...
 - a) add images to your document b) read a handwritten document
5. Database programs allow a computer to ...
 - a) store large amounts of data b) update your Facebook status
6. Through e-mail, you can communicate with a person ...
 - a) switching on your computer b) sitting many miles away
7. Video conferencing tools are becoming ...
 - a) an important role in our life today b) available to everyone
8. The Internet is a network of ...
 - a) all the computers in the world b) your bank computer balance
9. Social networking sites are rapidly gaining popularity among ...
 - a) the content of a document repeats b) the youth
10. The basic purpose of social networking sites is to ...
 - a) to produce a list of all employees b) bring friends together
11. All mobile phones have software ... in them.
 - a) embedded b) printed
12. Instead of a book it is easier to learn from ...
 - a) your Facebook status b) an e-learning software

Ex. 21. The list of computer applications is endless. Here are some more examples.

B a n k s . All financial transactions are done by computer software. An automated teller machine (ATM) is a computerized device that enables the clients of a financial institution to perform financial operations without the need for a cashier, human clerk or bank teller. ATMs are known by various other names including *cash machine*, *cashpoint*, etc. The customer is to enter his/her personal identification number (PIN) with a chip that contains a unique card number. Using an ATM, customers can access their bank accounts in order to make cash withdrawals, check their account balances, pay for various services, etc.

M e d i c i n e . Software is used in magnetic resonance imaging [магнитно-резонансное изображение] to examine the internal organs of the human body. Software is used for performing surgery. Computers are used to store patient data.

T r a v e l . One can book air or railway tickets and make hotel reservations online.

A i r p l a n e s . Pilots train on software, which simulates flying.

W e a t h e r a n a l y s i s . Supercomputers are used to analyze and predict weather.

R o b o t i c s is the branch of technology that deals with the design, construction and application of robots - electro-mechanical machines that are controlled by a computer program. Today, robotics is a rapidly growing field, because we continue to research, design, and build new robots that serve various practical purposes:

domestic, commercial, or military. Many robots do jobs that are dangerous or boring to human beings.

Ex. 22. The sentences below sound nonsensical because their beginnings and endings don't match. Correct the mistakes and translate the sentences into Russian.

1. One can book air tickets or railway tickets that are dangerous or boring to human beings. Many robots do jobs and make hotel reservations online.
2. Software is used on software, which simulates flying. Pilots train to examine the internal organs of the human body.
3. With desktop publishing, you can store patient data. Computer software in hospitals is used to create page layouts for entire books on your personal computer.
4. Robots serve various practical purposes: cash machine, cashpoint, etc. ATMs are known by various other names including domestic, commercial, or military.

Ex. 23. Translate the text into Russian. Do it in written form. Check your translating speed.

Computer Applications in Engineering

In science and engineering, computers do calculations, draw diagrams, process the results of experiments, etc. Computer-aided design (CAD) programs enable engineers and architects to design three-dimensional models on a computer screen. Engineers don't have to make prototypes to demonstrate a project and its potential. They can use a three dimensional modeling program to show people how something might look. CAD also allows for [предусматривать] endless variations and experiments to show how the look of something can be altered, and these can be done at the click of a button, rather than with boring drafting work.

Ex. 24. Which computer application do you find the most useful one? The phrases below may be helpful to prove your point.

- I think that ...
- I'm sure that ...
- I can't imagine my life without ... because ...
- ... is gaining popularity because ...
- ... enables us to ... , therefore it is ...

UNIT THREE COMPUTER HARDWARE

Lesson one COMPUTER HARDWARE: THINGS EVERYONE IS TO KNOW ABOUT

Ex. 1. Copy and memorize the following words and phrases.

1. **(p r i n t e d) c i r c u i t b o a r d (P C B)** - печатная (схемная, монтажная) плата

*Development of the methods used in modern **printed circuit boards** started early in the 20th century.*

2. **f a n** – вентилятор, кулер

Fans are available in many sizes and capacities.

3. **f l a s h d r i v e / p e n d r i v e** – флешка

*The most common use of **flash drives** is to transport and store personal files, such as documents, pictures and videos.*

4. **i n t e g r a t e d c i r c u i t / m i c r o c h i p / c h i p** – интегральная микросхема, чип

*The **integrated circuit (IC)** is a small electronic device made out of a semiconductor material. A **microchip** is a very small piece of silicon inside a computer. A silicon **chip** is a part of a computer or other piece of machinery.*

5. **m a i n (i n t e r n a l) m e m o r y** – основная (оперативная) память

*The computer can manipulate only data that is in **main memory**.*

6. **m a n u a l** – учебник, руководство

*Consult the computer **manual** if you have a problem.*

7. **m o t h e r b o a r d** – системная плата, материнская плата

*On most PCs, it is possible to add memory chips directly to the **motherboard**.*

8. **p e r m a n e n t** – постоянный

*Hard disks are used inside computers as **permanent** memory.*

9. **r a p i d / f a s t / q u i c k** – быстрый, стремительный

***Rapid** learning: Learn to speak a new language in 12 weeks! Don't talk so **fast** – I can't understand what you're saying. Some children are particularly **quick** learners.*

10. **s e c o n d a r y (e x t e r n a l) m e m o r y** – вторичная (внешняя память)

***Secondary (external) memory** is the slowest and cheapest form of memory.*

11. **t e m p o r a r y** – временный

*There are a lot of programs which can find and delete all **temporary** and unwanted files from your system.*

12. **t o k e e p** – поддерживать, сохранять

*The fan **keeps** a room or machine cool.*

13. **t o r e f e r t o** – относить, приписывать (какому-л. классу и т. п.)

*This style of music is generally **referred** to the 18th century.*

14. **t o r e m a i n** – оставаться

*Mars is too cold to permit (\approx allow) water to **remain** on the surface.*

15. **w i r e** – провод

***Wires** are used to carry electricity and telecommunications signals.*

16. **to upgrade** – совершенствовать, обновлять (аппаратные средства и ПО)
upgrade – замена аппаратных средств, апгрейд

*You'll need to **upgrade** your hard drive to 4Mb before running this software.*

*The **upgrade** is a new version of a software or hardware product designed to replace an older version of the same product.*

17. **high-end / sophisticated** – сложный, совершенный _____, современный

***High-end** products are more expensive and of better quality than other products of the same type. As this equipment is more **sophisticated**, more training is required.*

Ex. 2. Translate the following sentences into Russian.

1. Your computer contains a lot of **temporary** and obsolete files; these junk files waste your disk space and slow down the speed of the computer.

2. A **microchip** has electronic circuits on it and can hold large quantities of information or perform mathematical and logical operations.

3. A **computer fan** is to draw cooler air into the case from the outside and expel warm air from inside.

4. A **pen drive** is a portable memory device for storing and transferring audio, video, and data files from one computer to another.

5. Do you know how to **upgrade** your software to the latest version for the least cost?

6. If equipment or services are **upgraded**, they are improved or made more efficient.

7. In a computer, the **motherboard** is the main electronic circuit board to which the microchips that perform important functions are attached.

8. Instruction **manuals** that usually accompany new computer hardware and software are difficult to understand.

9. **Integrated circuits** are often classified by the number of transistors and other electronic components they contain.

10. The first **integrated circuit** was developed in the 1950s by Jack Kilby of *Texas Instruments* and Robert Noyce of *Fairchild Semiconductor*.

11. The level of difficulty of each type of **upgrade** varies, but hardware replacement is not rocket science. It will require a bit of preparation, and you'll need to turn off your machine. With a little **manual** reading and online research, you can figure out (\approx understand) what parts and tools you need and learn how to do your hardware upgrade.

12. The word '*computer*' once meant a person who did computations, but now it **refers** to electronic devices.

13. **Flash drives** are easy-to-use as they are small enough to be carried in a pocket and can plug into any computer with a USB drive.

14. Vast quantities of aluminum, copper, nickel and steel **wire** are employed for telephone cables.

15. Who he was, where he had come from, why he was there—all these questions **remained** unanswered.

Ex. 3. Replace the Russian words with their English equivalents.

1. (*Материнская плата*) are available in different hardware configurations and designs.
2. A (*флешка*) usually has a large storage capacity and provides quick data transfers.
3. Now I want to (*заменить*) the central processing unit.
4. The ADC-10 [осциллограф] comes from *Pico Technology* together with a 24-page user (*руководство*) and software on disc.
5. The average lifespan of computers in developed countries has dropped from six years in 1997 to just two years in 2005. Fortunately, there are hardware (*замена*) that can extend the useful life of your current computer.
6. (*Печатная плата*) is a thin plate on which chips and other electronic components are placed.
7. 3G Internet (*относиться к*) third generation wireless network technology, provided by mobile phone companies.
8. The word (*проволока*) may refer to a telegram.
9. Danish watch maker Linde Werdelin has developed the world's most (*совершенный*) dive computer called the Sea instrument. It has an easy user interface and a lot of features that help to protect a diver in the water.

Ex. 4. Choose either -ing or -ed form. Translate the sentences into Russian.

1. A wire is a long thin piece of metal that is *using /used* to fasten things or to carry electric current.
2. Electrical wires are usually *covering / covered* with *insulating /insulated* materials, such as plastic, rubber-like polymers, etc.
3. Hard disk fan is *mounting / mounted* next to or on a hard disk drive.
4. *Integrating / Integrated* circuits are used for a variety of devices, including microprocessors, audio and video equipment, and automobiles.
5. The company provides a *detailing / detailed* instruction manual and a telephone support service to make sure your project is a success.
6. The computers remained in their boxes until enough money was found to buy the software *needing / needed* to operate them.
7. The motherboard is a *printing / printed* circuit board *containing / contained* the principal components of a computer or other device.
8. Typically, software companies sell upgrades at a discount to prevent users from *switching / switched* to other products.
9. USB flash drives have less storage capacity than an external hard drive, but they are smaller and more durable because they do not contain any internal *moving / moved* parts.
10. Without fans, components of your computer can malfunction, become *damaging /damaged*, or even crash.

Ex. 5. Match the English terms (A) with their Russian equivalents (B).

A B

1. silicon a) хаб, концентратор, повторитель
2. network card b) (сетевой) коммутатор
3. hub c) сетевая карта, сетевой адаптер

4. (networking) switch d) сетевое устройство

5. network device e) кремний

Ex. 6. Translate the following sentences into Russian.

1. **Silicon** is a nonmetallic element found throughout the universe. It is best known for its use in computer chips, and lent (\approx gave) its name to the Silicon Valley, seat of the technology industry in the United States.

2. **Network devices** are components used to connect computers or other electronic devices together so that they can share [обмениваться] files or resources like printers or fax machines.

3. One example of a common wireless **network device** is a wireless router. Wireless routers are used not only by at home laptop users, but large businesses and colleges as well.

4. A **hub** is a networking device that receives the data and then transmits this data out on all other parts.

5. A **network card** is an internal computer component that gives the machine the ability to connect to a **network**.

6. **Network cards** may be designed to connect to a wired **network**, or to a wireless **network**.

7. A networking **switch** is the central device in a wired or wireless local area network (LAN). It receives signals from each computer on the network via Ethernet cables in a wired network or radio waves in a wireless LAN. In both cases, the **switch** directs traffic across the LAN, enabling the computers to talk to each other and share resources.

8. Although **hubs** are very inexpensive, they may not be the best solution if you require a more efficient use of bandwidth [трафик] and its distribution among ports. Traffic may become congested (\approx overloaded) because of collisions on the network. To decrease congestion, the network administrator will replace the **hub** with a **switch**.

Ex. 7. Often your translation is wrong because the words some and same are confusing you. They have different meanings (= their meanings are not the same).

1. A DVD has the **same** dimensions as a standard CD but cannot be read by a standard CD player.

2. In 1997 Microsoft paid \$425 million to buy WebTV Networks, a manufacturer of low-cost devices to connect televisions to the Internet. That **same** year Microsoft invested \$1 billion in *Comcast Corporation*, a U.S. cable-television operator.

3. In **some** cases, the damage could not even be repaired.

4. Machine translation systems are unable to produce output (\approx result) of the **same** quality as a human translator.

5. Mobile phones can interfere with the function of **some** medical devices, for example, hearing aids.

6. My computer sometimes stops and reboots itself. The lights dim at the **same** time.

7. **Some** viruses are programmed to damage the computer by damaging programs,

deleting files, or reformatting the hard disk.

8. The ideal position for the monitor is on the **same** plane [плоскость] as the keyboard and as close to the keyboard as possible.

9. The report says science and new technologies may be successful in solving **some** of these problems in the next few years.

10. The system has the ability to run more than one program at the **same** time.

Ex. 8. Insert either some or same and translate the sentences into Russian.

1. ___ hackers break into systems to get commercially valuable information.

2. Don't talk on the phone and input data into the spreadsheet at the ___ time.

3. I just wanted ___ more information about language courses.

4. We hope to find the answers to ___ of these questions.

5. Pick any design of the flash drive you want - they're all the ___ price.

6. ___ students only come here because they want to have fun, not because they want to learn.

7. What is the difference between cellular and mobile phones? There is no difference. They are just different ways of referring to the ___ thing.

8. The idea for the design of a robot manipulator is the human arm, but with ___ differences.

9. I keep making the ___ mistakes.

10. Her interests were the ___ as most young girls - pop music, boys and clothes.

Ex. 9. Translate the following sentences, paying attention to the words though (although) – хотя and nevertheless – тем не менее.

1. We may have different opinions. The basic concept **nevertheless** remains the same.

2. The history of PC as mass-market electronic devices began in 1977 with the introduction of microcomputers, **although** some mainframe and minicomputers had been applied as single-user system much earlier.

3. **Although** computers provide good entertainment, your eyes may hurt or your back may give you pain if you spend much time in front of a monitor.

4. **Though** first developed for military purposes, radar can be used in modern cars.

5. My laptop is quite old, **nevertheless** it's still reliable.

6. What you said was true. It was, **nevertheless**, a little unkind (\approx cruel, thoughtless, hard-hearted).

7. **Although** the sun was shining it wasn't that warm.

8. **Although** he is known to only a few, his reputation among them is very great.

9. **Although** there have been attempts [попытки] to design one 'universal' computer language that serves all purposes, all of them were not accepted in this role.

Ex. 10. Make sure you pronounce the following words and phrases correctly:

the physical computer components, can be touched or moved, the same basic hardware, integrated circuits, satellite navigation systems, the central processing unit, microprocessor, internal memory, external memory, temporary, on a permanent basis, through telephone wires or television cables, wireless network devices, certain high-end machines, thanks to rapid technological advances, their fundamental concept.

Read the text and translate it, using a dictionary, if necessary.

BASICSOFCOMPUTERHARDWARE

The term *computer hardware* refers to the physical computer components - the parts (inside or outside of the computer) that can be touched or moved. All computers have the same basic hardware. Inside your computer are tiny pieces of silicon called 'integrated circuits', or 'microchips'. Modern integrated circuits have millions of transistors as small as one millimeter thick. They are found in every modern device - from credit cards, computers, and mobile phones to satellite navigation systems, traffic lights and airplanes. A computer contains many chips placed on electronic board called printed circuit board. The central processing unit (CPU) is the most important integrated circuit. It is also called 'microprocessor'. The CPU is the computer's 'brain'. It handles all the information that goes into and comes out of the computer. The memory is a hardware component that holds programs and data while the microprocessor uses it. Most digital computer systems have two levels of memory - the main (or internal) memory and secondary (or external) memory. The internal memory is used for temporary storage of information and data. The external memory is used to store data on a permanent basis. A motherboard is a square-shaped circuit board which holds many basic components of the system, such as the central processing unit (CPU) and memory.

Input and output devices are other types of hardware. Input devices - the keyboard, mouse, etc. - let the user enter data or commands into the computer. Output devices - the monitor, printer, and speakers - let the user see or hear the results produced by the computer. Network devices connect computers to each other. They let people send data from one computer to another and connect to the Internet. The most common network devices are *modems*, *hubs*, *switches*, and *routers*. Modems send data through telephone wires or television cables. Both the hub and the switch are network devices. But there is a difference between them. The hub receives a message and then transmits it to all the other devices on its network. The switch receives a message from any device connected to it and then transmits the message only to the device for which the message was meant. Routers pass data, such as web pages, email, and videos between the home (or office) computers and the Internet. Some computers use wireless network devices.

To provide high quality of multimedia applications you need a video card. It is installed on the motherboard in its slot. The network card is necessary for connecting your computer to a local network or to the Internet. To lower the internal temperature and keep the processing components as cool as possible all computers have fans. USB ports are the ports which we use for connecting our MP3 players, digital cameras, flash drives, etc. to our computer. Today, most computers come with a minimum of 6 USB ports although certain high-end machines can have up to 10 USB ports. If you are a newcomer to computers, you should always consult the manual before buying a machine. These were some computer hardware basics. Though most of these components are constantly being upgraded thanks to rapid technological advances, their fundamental concept, nevertheless, continues to remain the same.

Ex. 11. Answer the following questions to the text.

1. What does the term *computer hardware* refer to?
2. Is there any difference between *integrated circuits* and *microchips*?
3. What is the most important integrated circuit?
4. What does the central processing unit do?
5. What is the internal memory used for?
6. What components of the system does the motherboard hold?
7. What is the difference between input and output devices?
8. What network devices do you know?
9. What provides high quality of multimedia applications?
10. What do you use when you want to connect your pen drive to the computer?
11. How many USB ports do high-end computers have?
12. Are you a newcomer to computers?

Ex. 12. What hardware component(s) does each sentence refer to?

1. You can touch and move it. It is basically the same in all computers.
2. It manipulates all the information entering the computer and coming out of it.
3. It is used for temporary and permanent storage of information.
4. It is also called the *system board*, *main board*, *base board* or *logic board*.
5. These are the monitors, printers, speakers, scanners, keyboards, etc.
6. These devices connect computers to each other.
7. It receives a message and then transmits it to all the other devices on its network.
8. It sends data through telephone wires or television cables.
9. It keeps the processing components as cool as possible.
10. Without them you cannot connect your flash drive to a computer.
11. You should always consult it before buying a computer.
12. They are constantly being upgraded thanks to rapid technological advances.

Ex. 13. Translate the text into Russian. Do it in written form.

АППАРАТНОЕ ОБЕСПЕЧЕНИЕ КОМПЬЮТЕРА

Термин “железо” относится к физическим компонентам компьютера. Они находятся внутри или снаружи корпуса компьютера (computer case). Вы можете касаться или перемещать (переносить) компоненты “железа”. Все компьютеры имеют одинаковое аппаратное обеспечение. Компьютер содержит много микросхем. Микросхемы могут делаться из разных материалов, например, из кремния. Эти микросхемы находятся на печатной плате. Основной печатной платой компьютера является материнская плата. На материнской плате размещаются центральный процессор и память. “ЦП” означает “центральный процессор”. Это самая важная микросхема, это “мозг” компьютера. ЦП обрабатывает всю информацию, которую мы вводим в компьютер. Память – это элемент “железа”, который удерживает программы и данные. Большинство цифровых компьютеров имеют два уровня памяти – внутреннюю и внешнюю память. Внутренняя память временная, а внешняя память постоянная. Такие устройства, как мышка, клавиатура, микрофон и т.д., относятся к устройствам ввода. Они позволяют нам вводить информацию в

компьютер. Принтер, монитор, динамики и т.д. называются устройствами вывода.

Сетевые устройства необходимы, для того чтобы соединять компьютеры друг с другом. Одним из самых распространенных сетевых устройств является роутер. Компьютеры могут использовать беспроводные сетевые устройства. Чтобы смотреть фильмы и другие мультимедийные приложения, вам необходима видеокарта (видеоадаптер). Когда компьютер работает, температура внутри очень высокая. Поэтому существуют кулеры. Они поддерживают нормальную температуру внутри компьютера. USB порты – очень важные компоненты компьютерного “железа”. Мы используем порты для соединения цифровых камер, MP3 плееров, флешек и т.д. с компьютером. Самые совершенные компьютеры могут иметь до 10 портов.

Прежде чем покупать компьютер, вам следует внимательно прочитать руководство пользователя. Технологии меняются, и компоненты аппаратного обеспечения постоянно обновляются. Тем не менее, основные компоненты остаются прежними (одинаковыми).

***Lesson two* COMPUTER HARDWARE: THINGS EVERYONE SHOULD KNOW ABOUT**

***Text 1* Motherboard**

Ex. 1. Copy and memorize the following words and phrases.

1. **BIOS (Basic Input/Output System)** – базовая система ввода-вывода

A BIOS is a set of instructions that tell a computer how to start.

2. **chips et** – набор микросхем, чипсет

Chipset is a group of integrated circuits designed to serve one or more functions.

3. **compatible** – совместимый

To access 3G Internet, you must have a 3G compatible device like a mobile phone or a tablet.

4. **feature** – характеристика, свойство, функция

Tablet PCs are mobile PCs that combine features of laptops and palmtops.

5. **socket** – гнездо; **CPU socket** – процессорный разъем

Each CPU socket is designed for a specific group of CPUs.

6. **slot, expansion slot** – слот расширения, джампер (гнездо на системной плате, в которое устанавливается плата расширения)

In computers, a slot, also called expansion slot, refers to a part in a computer where you can insert an expansion board.

7. **to attach** – присоединять, прикреплять

This gadget can be attached to any vertical surface.

8. **to depend on** – зависеть от чего-л., кого-л.

Choosing the right computer depends on what you want to use it for.

9. **to design** – проектировать, создавать **design** – конструкция, проект

Originally computers were designed for arithmetic purposes. Some changes have been made to the computer's basic design.

10. **to support** – поддерживать **support** – поддержка

Sorry! Your browser either doesn't support JavaScript or this feature is switched off. The Internet is a good source for freely available technical support.

Ex. 2. Translate the following sentences into Russian.

1. **The Input/Output System (BIOS)** gives the computer basic information about how to interact with hard drives and memory.
2. In the 1980s, *Chips and Technologies* pioneered the manufacturing of **chipsets** for PC-compatible computers.
3. A computer CPU is designed to be capable of handling many different types of calculations, a **chipset** is usually designed for very specific functions.
4. In addition to holding the processor, **the CPU socket** has a lock [лок] for keeping the processor in place.
5. In the 1980s, mechanical hearts were **attached** by wires and tubes to machinery outside the body.
6. An expansion card is an electronic circuit board that adds more functionality to a desktop computer. Expansion cards are installed into the **expansion slot** of a computer motherboard. Video cards are common examples of PC expansion cards.
7. Mechatronics is mixture of technologies and techniques that together help in **designing** better products.
8. Supercomputer is **designed** to perform calculations as fast as current (\approx modern) technology allows; it is used to solve extremely complex problems.
9. During the past 35 years, the UNIX operating system has evolved into a powerful operating system. New **features** are constantly being developed for various versions of UNIX, with most of these **features compatible** with earlier versions.
10. If a computer or computer system **supports** a particular program, language or device it means that it is permitted (allowed) to be used with it.
11. The **design** of automobiles and airplanes depend upon mathematical analysis.
12. A **CPU socket** is a mechanical component that provides mechanical and electrical connections between a microprocessor and a printed circuit board.
13. The success of e-commerce applications **depends** on the variety and innovativeness of multimedia content and packaging.
14. There are a number of **features** available in Excel to make your task easier.

Ex. 3. Choose the best alternative to complete the sentences.

1. The ___ is the embedded software that tells the computer how to control the keyboard, display screen, disk drives, etc.
a) CPU b) BIOS c) ABC
2. The only Intel CPU brand ___ with the Socket 604 is the Intel Xeon.
a) comfortable b) compatible c) common
3. ___ allow you to expand the capabilities of a computer.
a) Hard disks b) Slots c) Switches
4. AutoFormat is one of the ___ of Excel: it lets you to choose many preset table formatting options.
a) futures b) lectures c) features
5. Charles Babbage ___ the first universal automatic calculator.

- a) depended b) supported c) designed
6. ___ are usually designed to work with a specific family of microprocessors.
a) Cheapsets b) Chipsits c) Chipsets
7. Advanced operating systems ___ multiprocessing to enable several programs to run simultaneously.
a) support b) handle c) depend
8. The content of the course ___ on what the students would like to study.
a) designs b) depends c) drives
9. A technical ___ analyst is responsible for assisting others with technical solutions.
a) support b) transfer c) slot
10. The fundamental purpose of the ___ is to initialize and test the system hardware components and to load an operating system.
a) BIOS b) RAM c) DVD

Ex. 4. Match the English terms (A) with their Russian equivalents (B).

A B

1. Socket 478 a) периферийное устройство
2. peripheral device, peripheral b) определенная группа
3. series (range) of processors c) процессорный разъем Socket 478
4. control center d) семейство процессоров
5. specific group e) центр управления

Ex. 5. Make sure you pronounce the following phrases correctly:

the main circuit board, is called a motherboard, expansion slots, peripheral device, Intel Pentium 4, Celeron series CPUs, socket 478, among the processors available, socket 939, the AMD64 range of processors, integrated and non-integrated motherboards.

Read the text and translate it, using a dictionary, if necessary.

How Does a Motherboard Work Inside Your Computer?

The main circuit board inside your computer is called a motherboard. Actually the motherboard is a chipset - it contains the CPU with BIOS, memory, and expansion slots. Expansion slots are used to attach additional boards (video cards, etc.).

You can think of the motherboard as a control center. The purpose of the motherboard is to enable all other components and peripherals to 'talk' to each other. An important part of a motherboard is the socket used to house the CPU.

Motherboards typically support a specific type of CPU, such as a processor made by AMD™ or Intel™. Among the processors available, there are different grades of CPUs. An AMD™ 64-bit processor requires a different CPU socket than an AMD™ 32-bit processor. Each CPU socket is designed for a specific group of CPUs. Socket 478, for example, is used for Intel Pentium 4 and the Celeron series CPUs. Socket 939 is used for the AMD64 range of processors. The number 478 means that it has 478 pins [ножки] which are inserted into the motherboard's socket. So, if you buy parts to build a computer make sure that the CPU and motherboard are compatible. Motherboards are also classified as integrated and non-integrated. Integrated motherboards have all the ports for connecting various de-

vices on board. All the latest desktop and laptop motherboards are of the integrated type. Older motherboards were of non-integrated type – for example, they did not support a network card.

Ex. 6. Match the halves of the given sentences together. You may consult the text.

1. The main circuit board inside your computer is called ...
 - a) did not support some network devices.
 - b) all other components and peripherals to communicate with each other.
 - c) of the integrated type.
 - d) the AMD64 range of processors.
 - e) a specific group of CPUs.
 - f) the CPU, memory and expansion slots.
 - g) a motherboard.
 - h) Intel Pentium 4 and the Celeron series CPUs.

Ex. 7. Translate the text about the motherboard into Russian. Do it in written form. Check your translating speed.

Text 2 Central Processing Unit (CPU)

Ex. 1. Copy and memorize the following computer terms.

1. **arithmetic logic unit (ALU)** – арифметико-логическое устройство ЦП
The ALU is a fundamental building block of the central processing unit of a computer.

2. **computer case** – корпус компьютера
Computer cases are usually constructed from steel or aluminum.

3. **control unit** – устройство (блок) управления ЦП
Depending on the CPU's architecture, the control unit may perform varied tasks.

4. **memory location / memory address** – ячейка памяти, адрес (ячейки) памяти
Places within the computer memory that contain information are called memory locations or addresses.

5. **performance** – рабочие характеристики; быстродействие (компьютера)
Their aim was increasing the computer's performance.

6. **register** – регистр
The register is a special storage area within the CPU.

7. **to add** – прибавлять, добавлять; складывать **addition** – сложение
Material about recent research has been added to this new edition. Add 7 and 5 to make 12. Addition is the process of calculating the total of two or more numbers.

8. **to divide** – делить **division** – деление
If you divide 21 by 3, you get 7. In mathematics, especially in elementary arithmetic, division (\div) is an arithmetic operation.

9. **to multiply** – умножать **multiplication** – умножение
Children learn to multiply in the second grade. Multiplication is the process of calculating the total of one number multiplied by another.

10. **t o s u b t r a c t** – вычитать **subtraction** – вычитание

If you **subtract** 3 from 5, you get 2. The basic mathematic operators are (+) addition,

(-) **subtraction**, (x) **multiplication**, (/) **division**.

Ex. 2. Translate the following sentences into Russian.

1. All information is transmitted across the Internet in small units of data called packets. Software on the sending computer **divides** a large document into many packets for transmission; software on the receiving computer regroups incoming packets into the original document.
2. **Computer cases** are available for do-it-yourselfers who want to build a computer from the components up.
3. If you **subtract** one number from another, you do a calculation in which you take it away from the other number.
4. In mathematics, the word '**division**' means the operation which is the opposite of **multiplication**. The symbol for **division** can be a slash, a line, or the **division** sign (/).
5. Processor **registers** provide the fastest way to access data.
6. **Registers** are fast stand-alone [автономный] storage locations that hold data temporarily.
7. The arithmetic part of the **arithmetic logic unit** usually performs simple **addition** and **subtraction** operations. More complex mathematical functions, such as **division** and **multiplication** are often performed by completing a series of **subtractions** or **additions**.
8. The **control unit** extracts instructions from memory, decodes and executes them, and sends the necessary signals to the **arithmetic logic unit (ALU)** to perform the operation needed.
9. The Harvard Mark I computer could perform arithmetical operations (**addition, subtraction, multiplication, division**) on numbers up to 23 digits long without human intervention.
10. The most common type of **memory address** refers to a **location** within the computer's memory, which provides fast access to changing data.
11. This guy has a remarkable ability to **multiply** huge numbers correctly without pen or paper.
12. We need to use both **multiplication** and **division** to find the answers.
13. When you have a math problem that involves more than one operation - for example, **addition** and **subtraction**, or **subtraction** and **multiplication** – which do you do first?

Ex. 3. Choose the correct alternative to complete the sentences.

1. (*Economist, Mathematician, Fashion designer*) John von Neumann introduced the arithmetic logic unit concept in 1945. Research into ALUs remains an important part of computer science.
2. (*Registers, Printers, Digits*) are normally measured by the number of bits they can hold, for example, an '8-bit register' or a '32-bit register'.

3. A control (*register, unit, source*) is responsible for taking the various inputs from the computer, instructions and data and telling the processor what to do with them.
4. Computer performance (*means, transfers, displays*) “How well is the computer doing the work it is to do?”
5. In mathematics, a multiplication table is a mathematical (*table, desk, chair*) used to define a multiplication operation for an algebraic system.
6. In the 1980s, as information technology was introduced, engineers began to (*store, put, embed*) microprocessors in mechanical systems to improve their performance.
7. Information on the Web is divided into (*books, letters, pages*).
8. Plastic and other materials such as glass, wood and even Lego blocks are used to (*employ, handle, manufacture*) computer cases.
9. The company provides cheap Internet access. In (*multiplication, subtraction, addition*), it makes shareware [условно-бесплатное ПО] freely available.
10. The hardware is put through tests which assess [оценивать] the (*process, performance, application*) of the processor.
11. To convert the (*length, weight, temperature*) from Fahrenheit to Celsius, subtract then multiply by 5 and divide by 9.
12. What do you (*upgrade, get, provide*) if you multiply six by nine?

Ex. 4. Copy and memorize the following words.

1. **both ... and ...** – как ..., так и ...

*She can **both** speak **and** write Japanese.*

2. **e n t i r e** – весь, целый

*Some viruses are designed to mess up your **entire** computer and destroy all data.*

3. **major** – важный, главный, крупный

*A **major** user of robots is the automobile industry.*

4. **t o b e r e s p o n s i b l e f o r** – отвечать за что-л., быть ответственным за что-л.

*The secretary was **responsible** for typing all the documents.*

5. **t o b e l i e v e** – считать, полагать; верить

*We **believe** that any robot with a computer is a very powerful robot.*

6. **t o c a r r y o u t / t o p e r f o r m / t o e x e c u t e** – выполнять, исполнять

*We need to **carry out** more research. The computer **performs** calculations in binary code and converts the results to decimal code. To **execute** a program you should type the program name.*

7. **t o i n t r o d u c e** – внедрять, вводить; представлять **i n t r o d u c t i o n** – внедрение

*They want to **introduce** a system of identity cards. Sega Enterprises Ltd. **introduced** its first games for personal computers in 1995. What we are talking about is the **introduction** of the latest technologies.*

8. **t o m a k e s u r e** – убеждаться, проверять

*If the ‘power’ lamp is off, **make sure** that the power plug is plugged in.*

9. **t o r e m o v e** – удалять

*Find ways to **remove** potentially unwanted software from your computer.*

10. **to manufacture / to produce** – производить, выпускать
manufacturer / producer – (фирма-) изготовитель, производитель
Toshiba Corporation produces a wide range of household appliances: washing machines, televisions and videocassette recorders, and so on. The new model will go into production next year. Although the hardware is not manufactured in Silicon Valley, it is being designed, tested and financed here. Automated machines will increasingly assist humans in the manufacture of new products.

11. **to schedule** – планировать, устанавливать время **schedule** – план, график
Don't schedule too many meetings. I have a busy schedule for the next few days, so I may not be in touch.

Ex. 5. Translate the following sentences into Russian.

1. Advertisement: “We are a **major** hardware **manufacturer** in Taiwan that **produces** high quality products, export all over the world. Contact us right away to get a complete catalogue of our products. Highest quality for the lowest price”.
2. Antivirus software is usually sold as packages containing many different software programs that are independent of one another and **perform** different functions.
3. **Both** the license **and** the right to use the Program terminate automatically if you violate any part of this Agreement.
4. Check **to make sure** any new hardware or software is properly installed. If this is a new installation, ask your hardware or software **manufacturer** for any Windows updates you might need.
5. In recent years automotive **manufacturers** have been faced with the need to **produce** lighter weight vehicles (motor cars, etc).
6. Modern washing machines, microwave ovens and other appliances are **manufactured** with embedded microchips to manage their operation.
7. In the 1980s, the **introduction** of the cassette tape was revolutionary in music recording, allowing people to record their own music easily and cheaply at home.
8. Simply by opening a particular email, or browsing a particular website, Internet users may have a Trojan horse **introduced** into their systems.
9. So far we are on **schedule** and the project should come to an end in two months, as planned.
10. The first time I used *Turbo Your PC* I could not believe how much faster my PC was. It's so easy to use and makes a huge difference to my PC **performance**.
11. There have been **major** new developments in satellite technology.
12. To *defragment* means to **carry out** an operation on a computer that brings together all free space and all similar files, and therefore increases the speed at which the computer operates.
13. Viruses should not be on your computer and can be **removed** by you manually or by virus removal software.
14. We will not be able to **execute** the programs without more funding.
15. When it comes to **removing** spyware from your computer there are various options open to you and these include installing a spyware blocker, spyware cleaner, and spyware detection software.

Ex. 6. Replace the Russian words with their English equivalents and translate the sentences.

1. This computer can (*выполнять*) 400 million instructions per second.
2. (*Как*) Jim (*так и*) Peter are attending the conference in New York this weekend.
3. A (*главный*) purpose of programming languages is to provide instructions to a computer.
4. Many people (*считать*) that governments should spend as much money as possible on developing or buying computer technologies, while others think that governments should spend money on more basic needs.
5. Learn about antivirus programs, online scanners, and tools that help (*удалять*) malicious software from your computer.
6. Hardware (*производители*) will not write device drivers for some of their older stuff.
7. Under such automated systems and automated quality controls, the (*производство*) line will be stopped if (*рабочие характеристики*) is not up to standard.
8. The part of CPU (*ответственный*) for arithmetical operations is called the arithmetic logic unit.
9. The hardware scanning engine [модуль сканирования] checks your (*весь*) computer, including external peripherals (both attached and unattached), before making its report.
10. The work is progressing ahead of (*график*) and can be completed within three weeks.

Ex. 7. Put questions to the underlined words.

1. Galileo performed a few experiments in mechanics.
2. The meeting is scheduled for 5 p.m. at City Hall.
3. The computer CPU is responsible for handling all instructions it receives from hardware components and software programs running on the computer.
4. This program automatically executes the commands once a day.
5. When the automatic line is introduced, the number of workers is to be reduced.
6. Compact discs that stored sound were introduced in 1982.

Ex. 8. Make sure you pronounce the following phrases correctly:

hardware component, surf the Internet, an internal component of the computer, extremely expensive, in the late 1970s, major CPU manufacturers, high-end super performance chips, mid size desktop and laptop markets, arithmetic logic unit (ALU), control unit, addition, subtraction, multiplication and division, the flow of information through the processor, make sure, is sent to the correct components.

Read the text and translate it, using a dictionary, if necessary.

How Does a CPU Work?

The Central Processing Unit (CPU) is a hardware component that acts as the brain of a computer system. Without the CPU, you wouldn't be able to play games, type research papers, or surf the Internet. Sometimes people mistakenly believe the computer case is the CPU. However, a CPU is an internal component of the computer. You can't see it from the outside of the system; you have to peek inside and

remove both the CPU heatsink [радиатор] and fan to get a good look. On large machines, the CPU requires one or more printed circuit boards. On personal computers and small workstations, the CPU resides on a single chip called a micro processor. The first CPUs were used in the early 1960s. They were designed as part of a larger computer, making them extremely expensive. With the introduction of the integrated circuit in the late 1970s, it became possible to manufacture smaller CPUs. This helped transform computers from large, bulky devices that took up entire rooms to more convenient desktop and laptop models. Currently, *Intel* and *AMD* are the major CPU manufacturers in the world. *Intel* leads in the high-end super performance [повышенной производительности] chips and processors in general, while *AMD* is entering the mid size desktop and laptop markets. Most computers such as APPLE Macs, Gateway computers, HP computers and Dells use processors made by the same computer manufacturers, such as Intel, AMD, etc. There are many different CPU designs. But in general, the CPU consists of the arithmetic logic unit (ALU), the control unit and the registers. The arithmetic logic unit carries out mathematical operations – addition, subtraction, multiplication and division. The control unit regulates the flow [поток] of information through the processor. More complex control units schedule when and how this great amount of information is to be processed and make sure that the data is sent to the correct components of the computer.

The registers are very small memory locations that are responsible for holding the data that is to be processed.

Ex. 9. Translate the following sentences into English.

1. Центральный процессор - это часть аппаратного обеспечения компьютера.
2. В персональных компьютерах ЦП размещается на одном чипе, который называется микропроцессором.
3. Первые ЦП появились в 60-х годах прошлого века; они были очень дорогими.
4. Более удобные настольные компьютеры и лэптопы появились благодаря внедрению центральных процессоров небольшого размера.
5. В настоящее время компании *Intel* и *AMD* - главные производители центральных процессоров в мире.
6. Центральные процессоры, выпускаемые компанией *AMD*, используются, в основном, в ноутбуках и небольших настольных компьютерах.
7. Центральный процессор состоит из арифметико-логического устройства, устройства управления и регистров.
8. Арифметико-логическое устройство отвечает за выполнение основных математических операций – сложения, вычитания, умножения и деления.
9. Устройство управления регулирует поток информации, (проходящей) через процессор.
10. Регистры – это очень маленькие ячейки памяти; они отвечают за временное хранение данных.

Text 3 Computer Memory

Ex. 1. Copy and memorize the following computer terms.

1. **memory / s storage** – память, запоминающее устройство (ЗУ)

*The data is stored in the computer's **memory**.*

a) primary memory / main memory / internal memory – первичная (внутренняя) память

*In **primary memory** data is stored for quick access by the computer's processor. Modern computers may have over 2 Gb of **main memory**.*

• **read-only memory (ROM)** – постоянная память / постоянное запоминающее устройство (ПЗУ)

• **random-access memory (RAM)** оперативная память / оперативное запоминающее устройство (ОЗУ)

*The data in **ROM** is not lost when the computer power is turned off.*

RAM is directly installed onto a motherboard.

b) secondary memory / external memory – вторичная (внешняя) память)

***Secondary storage** is often a hard drive connected to the motherboard by a cable.*

c) cache memory – кэш-память

***Cache memory** is extremely fast memory that is built into a computer's CPU.*

d) flash memory – флэш-память

***Flash memory** is often used in smartphones and digital cameras.*

e) to fail – выходить из строя **failure** – отказ, выход из строя, сбой

*A **failing** computer system can be catastrophic in a hospital or on a satellite.*

*Hundreds of people were delayed at the airport because of a computer **failure**.*

2. **to run a program / application** – запускать (программу); запускаться (о программе)

*Download the program that you want to **run**. The software will **run** on any PC.*

3. **v o l a t i l e** – энергозависимый **n o n v o l a t i l e** – энергонезависимый

***Volatile memory** is memory whose contents are erased when the system's power is turned off. **Non-volatile** memory stores data without power.*

Ex. 2. Translate the following sentences into Russian.

1. **Cache memory** is built into a computer's CPU or located next to it on a separate chip.

2. **Flash memory** is widely used in computers and electronic gadgets because it is fast and remembers data written to it even when unpowered.

3. **Flash memory** remains on the chip even when it is not connected to a power source.

4. If your hard drives fail, the last bit of data which was being written onto the hard drive when the **failure** occurred will be lost.

5. **Inquisitor** (a hardware testing system) analyzes and tests your hardware from top to the bottom and guarantees that it won't **fail** easily under the production stress.

6. **Memory** is the amount of space that can be used for storing information on a computer.

7. On today's smaller computers, especially personal computers and workstations, the term **random access memory (RAM)** is used instead of **primary memory**,

and the hard disk (hard drive), CD, DVD and pen drive collectively refer to **secondary memory**.

8. Personal computers now have much increased **memory** capacity.

9. **Random-access memory** is **volatile**: if the computer is turned off anything stored currently in it will be erased.

10. Upgrading computer will greatly improve your machine's ability to **run** several **applications** simultaneously [одновременно].

11. **Volatile memory** loses its contents when the power is turned off.

12. When the computer is turned off, the **ROM** still retains all the data stored on it and is not erased.

Ex. 3. Replace the Russian words and phrases with their English equivalents and translate the sentences.

1. (ЗУ) is the part of a computer where information can be stored.

2. Today, (жесткие диски) are available in capacities of more than 2 TB!

3. The CPU uses (кэш-память) to store instructions that are repeatedly required to run programs, improving overall system speed.

4. There is insufficient memory (чтобы запустить эту программу).

5. (Постоянное запоминающее устройство) has data stored on it during the manufacturing process. This data is permanent and cannot be altered or deleted.

6. The best example of (энергонезависимый) memory is a computer hard drive.

7. (Флэш-память) is a computer memory chip that stores information without requiring a power source.

8. RAM is (энергозависимый): if the computer is turned off anything stored currently in it will be erased. Therefore not to lose data users have to frequently save their work to a hard drive, which is (энергонезависимый).

9. The hard disk (hard drive), CD, DVD and pen drive collectively refer to (вторичная память).

10. If the computer crashes due to a power (сбой), the system may not have time to copy the cache back to the disk.

Ex. 4. Match the English words and phrases (A) with their Russian equivalents (B).

A B

1. memory chip a) внешний

2. internal b) прямо, непосредственно

3. external c) часто

4. as well as d) внутренний

5. directly e) распространенный, обычный

6. common f) микросхема памяти

7. frequently g) а также

Ex. 5. Translate the following sentences into Russian.

1. Tests carried out by *Macronix* on the novel **memory chips** show that they can last at least 100 million write and read cycles.

2. By means of the Internet, companies sell goods and services online to customers. In addition to electronic commerce, companies use the Net to interact with

other businesses to exchange financial information **as well as** to access various databases.

3. It is **common** knowledge that travel broadens the mind.
4. The *Roomba* (a robotic vacuum cleaner) operates with **internal** batteries and must be recharged regularly from a wall plug.
5. **External** devices that enable the user to see or hear the results of the computer's data processing are known as output devices.
6. Machine language is used to write instructions that can be read **directly** by a computer; it consists only of numbers.
7. Current cellular telephones offer such features as a memory database for storing **frequently** called numbers.

Ex. 6. Choose the right alternative to complete the sentence.

1. The keyboard is the most ___ device enabling us to input numerical and text data.
a) frequent b) common c) direct
2. You can download an image ___ from a digital camera.
a) frequently b) usually c) directly
3. The ___ holds programs and data either temporarily or permanently.
a) input chip b) memory chip c) output chip
4. Software is typically stored on an ___ long-term memory device, such as a hard drive, CD, or flash memory device.
a) external b) internal c) outer
5. For this job, you will need a good knowledge of Italian and Spanish ___ the skill of using a computer.
a) also b) as well c) as well as
6. Rechargeable batteries provide the usual source of power, but most cell phones can also be attached to the cigarette lighter in a car or to some other ___ power device.
a) external b) internal c) volatile

Read the text and translate it, using a dictionary, if necessary.

W h a t I s a C o m p u t e r M e m o r y ?

Computer memory is a physical device used to store data and programs. Most digital computer systems have two levels of memory - the primary memory and secondary memory. Primary memory is directly accessed by the CPU. It can take several forms. Every computer comes with a certain amount of main memory or random-access memory (RAM) consisting of silicon chips. RAM is directly installed onto a motherboard. When your computer is turned on, it loads data into RAM. Programs that are currently running as well as open files are stored in RAM.

Main memory is volatile: when the electricity to the RAM is cut, it forgets everything; that's why an unsaved document is lost if there is a power failure. When you save a document it goes onto a hard drive, or another type of storage device. Cache memory is a supplementary (\approx additional) random-access memory system that temporarily stores frequently used instructions and data. The CPU can access this type of high speed memory more rapidly than main memory. As the

microprocessor processes data, it looks first in the cache memory and if it finds the data there, it does not have to 'go to' larger memory. Read-only memory (ROM) is built into the computer and cannot be changed. It contains information and software (such as the operating system) that controls the computer's actions from start up to shut down. ROM is called nonvolatile memory because the memory chips do not lose their information when power to the computer is turned off. Secondary memory is not directly accessed by the CPU; it is nonvolatile memory.

One of the most common forms of this memory is the hard drive of a computer, which is used to store the operating system (OS) and other programs. In simple terms, it is the place where all of your documents, spreadsheets, pictures, music files, videos, etc. are stored. Hard drives can be internal as well as external. Internal hard drives are housed within the computer case; external ones are removable and are connected through a USB port.

Ex. 7. Answer the following questions to the text.

1. What is computer memory used for?
2. How many levels of memory do most computers have?
3. Is primary memory directly accessed by the CPU?
4. Where is RAM installed?
5. Where does your computer load data when you switch it on?
6. Where are open files as well as running programs stored?
7. Main memory is volatile. What does it mean?
8. Where does a document go when you save it?
9. What instructions does cache memory store?
10. What is the difference between random-access memory and cache memory?
11. Can read-only memory be changed?
12. Can anything happen to ROM when you switch off your computer?

Ex. 8. Mark the following statements as True or False.

1. ROM stands for 'random-access memory'.
2. Read-only memory cannot be changed.
3. Read-only memory contains information and software that controls every computer's action.
4. ROM is nonvolatile because the memory chips lose their information when you turn on your computer.
5. Secondary memory is nonvolatile.
6. The computer hard drive is an example of external memory.
7. There are both internal and external hard drives.
8. Internal hard drives reside (are located) on the motherboard.
9. External hard drives are connected through a USB port using an external fan.
10. DVDs as well as removable flash memory are forms of secondary memory.

Text 4 P e r i p h e r a l E q u i p m e n t

Usually, the word *peripheral* means a device external to the computer case. Most of the time peripherals refer to input and output devices of a computer. Let's start with

input devices: mouse, keyboard, light pen, microphone, trackball, joystick, webcam, and scanner.

Ex. 1. *Read the texts given below and answer the question: which input peripheral does Text 4A, Text 4B ... refer to? Be careful: one sentence in each text has nothing to do with its main idea.*

Text 4A. It is a small device that a computer user moves around a desk surface in order to point to a place on a display screen and to select one or more actions to take from that position. The most conventional (\approx traditional) kind of \blacklozenge has two buttons on top: the left one is used most frequently. Primary memory is directly accessed by the CPU. The second button, on the right, usually provides some less-frequently needed capability. For example, when viewing a Web page, you can click on an image to get a popup menu that lets you save the image on your hard disk. Some \blacklozenge manufacturers also provide a version for left-handed people. Notebook computers include built-in \blacklozenge devices that let you control the cursor by rolling your finger over a built-in touchpad.

Text 4B. On most computers, a \blacklozenge is the primary text input device. It contains standard function keys, such as the Escape key, tab and cursor movement keys, shift and control keys, and sometimes other manufacturer-customized keys. The computer \blacklozenge uses the same key arrangement as the mechanical and electronic typewriter \blacklozenge . The standard arrangement [расположение] of alphabetic keys is known as the QWERTY \blacklozenge , its name deriving from the arrangement of the five keys at the upper left of the three rows of alphabetic keys. This arrangement, invented for one of the earliest mechanical typewriters, dates back to the 1870s. The minimum number of keys is 44 but modern \blacklozenge may have more than 100 buttons. Secondary memory is not directly accessed by the CPU.

Text 4C. A \blacklozenge is a device used primarily for playing computer video games. A \blacklozenge usually has a square or rectangular plastic base to which a vertical lever is attached. Control buttons are located on the base and sometimes on top of the lever. The design of automobiles and airplanes depend upon mathematical analysis. Most \blacklozenge are two dimensional, having two axes of movement, just like a mouse, but three-dimensional \blacklozenge do exist. \blacklozenge can move in all directions and controls the movement of an object on a screen.

Text 4D. A \blacklozenge is a specific style of computer mouse that allows the user to keep his hand and arm in one place, while manipulating a ball that moves the on-screen pointer. A motherboard is a square-shaped circuit board. The \blacklozenge mouse performs the same functions as the original style mouse, but instead of moving the entire mouse to position the cursor, a small, solid ball is located left of center or directly on the top of the mouse, which is used to navigate the cursor across the screen. With a mouse, the ball is rolled by moving the whole unit over a desktop or other surface. With a \blacklozenge , the user rotates the ball itself while the unit is stationary. A \blacklozenge takes little desktop surface.

Text 4E. The keyboard can input only text through keys provided in it. If we want to input a picture the keyboard cannot do that. \blacklozenge is an optical device that can input any graphical matter and display it back. An optical \blacklozenge converts a physical image,

text, or object into a digitized form that can be stored as a 2D image file on a computer. Optical ♦ are also used to record fingerprints and votes from ballots, and serve as ‘eyes’ for the blind that convert text into automated speech.

Text 4F. A ♦ (or stylus) may look like an ordinary pen. It is an input device that uses a light-sensitive detector to select objects on a display screen. Pilots train on software, which simulates flying. A ♦ allows user to interact with a computer display - to move the pointer and select objects on the display screen by directly pointing to the objects with the pen.

Text 4G. A ♦ is an input device because it captures a video image of the scene in front of it. It is either built in to the computer (for example, in a laptop) or it is connected through an USB cable. The uses of a ♦ are limitless. Businesses often use ♦ for video conferencing, and ♦ technology is used by numerous other organizations to give the public access to a variety of information. Some schools and day care facilities use a ♦ to allow parents to see what their children do at school. A spreadsheet is an interactive computer application program for organization and analysis of information in tabular form.

Text 4H. A ♦ is an audio input device. It converts sound into signals that can then be stored, manipulated, and reproduced by the computer. Audio input devices allow a user to send audio signals to a computer for processing, recording, or carrying out commands. Audio input devices such as ♦ allow users to speak to the computer to record a voice message. Most operating systems, including Windows, come with basic recording capability built in. The minimum number of keys on a keyboard is 44 but modern keyboards may have more than 100 buttons.

Ex. 2. Tell us about output devices. Answer the questions using the information given in brackets.

1. What are output devices? (*pieces of computer hardware that allow a computer system to communicate information to a user or another system*)
2. What does information usually include? (*sound and images*)
3. What is the best example of an output device presenting information visually? (*a monitor*)
4. What is displayed on the monitor? (*text, pictures, and other images*)
5. What do they allow users to do? (*to interact with computer programs and receive data*)
6. What is another type of output device? (*a video projector*)
7. Where do video projectors display images? (*over a much larger area*)
8. What do printers allow the computer to do? (*to produce documents, pictures, and images on paper*)
9. What are audio output devices? (*speakers*)
10. What do speakers allow the user to do? (*to hear sounds, such as music or spoken words that the computer generates*)

UNIT FOUR COMPUTER SOFTWARE

Lesson one SYSTEMS SOFTWARE

Ex. 1. Copy and memorize the following computer terms.

1. **application software** – прикладное ПО, прикладные программы

Application software helps the user to perform specific tasks.

2. **boot program** – загрузочная программа, программа начальной загрузки

The boot program loads the operating system into the computer's main memory.

3. **built-in software** – встроенное программное обеспечение

The built-in software in Windows 8 easily fetches photos from any model of digital camera.

4. **character** – символ, знак

A character is a symbol representing a letter or number.

5. **device driver** – драйвер устройства

A device driver controls a particular type of device that is attached to a computer.

6. **dialog box** – диалоговое окно

In a graphical user interface, a dialog box enables communication or 'dialog' between a computer and its user.

7. **graphical user interface (GUI)** – графический интерфейс пользователя

The Apple Computer company was the first to introduce a graphical user interface.

8. **pull-down menu** – раскрывающееся меню

A pull-down menu (a list of options) appears on the top of a display screen.

9. **system software (system software)** – системное ПО

System software controls the computer hardware and provides a platform for running application software.

10. **utility** – утилита, сервисная программа

Windows XP comes with a utility called 'Disk Defragmenter'.

Ex. 2. Translate the following sentences into Russian.

1. A **device driver** is a program that controls a particular type of device that is attached to your computer.

2. A **dialog box** is a box, window, or message that is displayed on the screen of a computer to communicate something to the user.

3. A **pull down menu** enables the user to quickly access a main menu, and then make a selection from the sub-menu with a mouse click.

4. An additional and difficult-to-classify category of software is the **utility**, which is a small useful program with limited capabilities.

5. **Application software** is a type of computer software that is designed to be employed by end users to accomplish (\approx carry out) specific tasks such as writing a letter, editing a photograph or playing a video file.

6. Can you print from the iPad? - No **built-in software** there. Apple hasn't created any printing feature (ability) for the iPad.

7. *Disk Defragmenter* is a **utility** in Microsoft Windows designed to increase access speed by rearranging files stored on a disk.

8. The hard disk contains a boot sector. It contains a small program called the **boot program** (which loads the DOS system files).

9. If the **graphical user interface** is not intuitive (easy to understand) and efficiently designed, the software isn't likely to become very popular.
10. Intelligent **character** recognition (ICR) is the computer translation of manually entered text characters into machine-readable **characters**.
11. **System software** is a collection of programs, with different functions and purposes; the principal system software is the Operating System (OS) that controls an entire computer.
12. The **boot program** displays the familiar 'Non-system Disk or Disk Error' message if the DOS system files are not present.

Ex. 3. Replace the Russian words with their English equivalents.

1. Although '(системное ПО)' most often refers to computer software, the term is sometimes used for various electronic and digital media, such as television programs, recorded movies and music.
2. Hardware requires (*драйвер устройства*) so that the OS can 'see' the devices and handle them effectively and efficiently.
3. If someone closes a program but has not yet saved information in that program, a (*диалоговое окно*) will typically appear to warn a user that the information will be lost unless he or she saves it.
4. In 1984, Apple released the Macintosh computer with its unbelievable (*графический интерфейс пользователя*). Because we all use GUIs every day, it is hard for us to understand today how revolutionary the Mac was.
5. In this manual, we will talk about the (*встроенное ПО*) in iPad you need to know.
6. Microsoft's MS-DOS did not include a (*утилита*) to defragment floppy disks.
7. Optical (*символ*) recognition is computer software that recognizes numbers and letters of the alphabet which are written on paper, so that information from paper documents can be scanned into a computer.
8. Software is often divided into (*прикладное ПО*) (programs that do work users are directly interested in) and (*системное ПО*) (which includes operating systems and any program that supports application software).
9. Some (*утилиты*) come with operating systems.
10. The use of the (*раскрывающееся меню*) is common with most operating systems today.

Ex. 4. Copy and memorize the following words and phrases.

1. **proper** – правильный, соответствующий **properly** – должным образом
For work to flow smoothly, proper preparations must be made.
In case you fail to understand the text properly consult a dictionary.
2. **sequence** – последовательность
The tasks should to be performed in a particular sequence.
3. **t o d etermi n e** – определять, устанавливать
The CPU determines which operations should be carried out and in what order.
4. **to provide** – обеспечивать, предоставлять (услугу); предусматривать
Mobile phones provide immediate contact with your friends.
Modern operating systems provide a graphical user interface.

5. **to recognize** – распознавать **recognition** – распознавание

*A voice recognition module is a device that converts spoken words into information that the computer can **recognize** and process.*

6. **to reduce** – сокращать; (*мат.*: приводить к более простому виду)

*Many of the network providers offer special packages which **reduce** the cost of roaming abroad. In mathematics, **reduction** refers to the rewriting of an expression into a simpler form.*

7. **vendor** – поставщик, производитель, продавец

*An independent software **vendor** is a company specializing in making or selling software, designed for mass markets.*

8. **whereas** – тогда как; несмотря на то, что

*The old system was fairly complicated **whereas** the new system is really very simple.*

Ex. 5. Translate the following sentences into Russian.

1. .com is a commercial site **whereas** .org is a nonprofit (\approx government) site.

2. ‘Web police’ are often able to **determine** the exact source of unwanted mailings on the Internet.

3. An independent software **vendor** (ISV) is a company that specializes in producing software aimed either toward mass marketing or specific niche (segment) markets.

4. For more information on the **proper** use of Adobe’s trademarks, please refer to the www....

5. Some mobile phone service providers have used Geolocation to **determine** the location of a mobile phone on their network.

6. The computer experts are now working on improving the speech **recognition** systems – the ability of a computer to **recognize** natural languages.

7. The Harvard Mark I computer could perform any selected **sequence** of four arithmetical operations (addition, subtraction, multiplication, division) on numbers up to 23 digits long without human intervention.

8. The world is going mobile; America’s businessmen are major users of mobile applications (apps). Apps on mobile devices are helping small business owners **reduce** cost, and increase productivity.

9. The price depends on the speed of connection needed and the reputation of the **vendor** that **provides** the service.

10. When **BIOS boots up** your computer, it first **determines** whether all of the attachments (hardware) are in place and operational; then it loads the operating system into your computer’s random access memory from your hard disk.

Ex. 6. Insert missing words and translate the sentences into Russian.

1. All computers operate by the following machine language programs: a long **s******* of instructions called machine code.

2. Contact your **h***** v******* or CPU manufacturer for information about the machine.

3. Image-(**r*******) software enables the robot to locate various objects.

4. In the mid 1960s, scientists began work on using the computer to **r*******

human faces.

5. Quizzes are used to **d******* how much material students have learned.

6. Read the text and reconstruct the paragraphs of the text in logical **s*******.

7. Scanners **p******* faster and more accurate data entry because humans don't type in the data.

8. Someone who illegally breaks into a computer system in order to steal information or to stop the system from working **p******* is called a cracker or hacker.

9. System software controls the operation of the computer hardware; **w*******, application software enables a user to perform specific tasks.

10. Wireless technologies **r******* costs and cut operational risk.

Ex. 7. The word number may have different meanings:

number – число, номер; **the number (numbers) of** – число, количество;

a number of – ряд, несколько

Translate the sentences into Russian.

1. An integrated circuit is a small microchip that contains a large number of electrical connections.

2. Cell phones and watches contain tiny computers that can hold telephone numbers, addresses, and appointments.

3. If you need to register at a site to access certain services, use only your first name or use a code name. You should not give out your real last name, address, phone number, or password.

4. In the 1980s, Xerox bought a number of companies involved in such fields as optical character recognition, scanners, insurance, and financial services.

5. Most cell phones, both old and new, also have a small liquid crystal screen to display the telephone number being called or the number from which an incoming call originated.

6. People chatting on the Internet cannot see one another, and they often do not know one another. As a result of this anonymity, some people are not always truthful while chatting. Even giving out a phone number can be dangerous.

7. The amount of information on the Web continues to grow rapidly, as does the number of users around the world and the amount of online commerce.

8. The company plans to increase the number of university graduates in its staff.

9. The hacker was trying to guess the password but the number of attempts [попытки] had been limited.

10. The name 'Google' goes to the word 'googol', which refers to the number represented by 1 followed by one hundred zeros.

11. The number on the card should be identical with the one on the chequebook.

12. The technical university is ranked number one in the country.

13. We do business with a number of Italian companies.

14. When the automatic line is introduced, the number of workers is to be reduced.

Ex. 8. Match the English words and phrases (A) with their Russian equivalents (B).

A B

1. input a) предварительно установленный

2. output b) неотъемлемая часть
3. pre-installed c) передавать
4. data flow d) преобразовывать
5. intelligence e) выбирать
6. complete f) входные данные
7. integral part g) разум
8. to convert h) выходные данные
9. to manage i) поток данных
10. to transmit j) управлять
11. to select k) полный, завершённый

Ex. 9. Make sure you pronounce the following words and phrases correctly:

all of the physical work, intelligence, to interpret the images, through the eyes, two basic categories, a living being, system software, application software, it allows the hardware to run properly, designing a building, through the eyes, requires no application software to run, whereas, managing both software and hardware resources, control and memory allocation, external devices, graphical user interface, other routine tasks, dialog boxes, other controlling mechanisms more pleasant and natural, built-in software, a personal computer's microprocessor, attached devices, integral part, particular type of device, special and nonessential part, search-and-replace utility, to find a given sequence of characters, another sequence of characters, disk defragmenter, data access time, more efficiently.

Read the text and translate it into Russian, using a dictionary if necessary.

I n t r o d u c t i o n

As you know, computer can actually be divided into two parts. The first part, computer hardware, does all the physical work. The second part, computer software, tells the hardware what to do and how to do it. If you think of a computer as a living being, then the hardware will be the **body** that *does* things (seeing with eyes or lifting objects). The software will be the **intelligence**; its main task is to interpret the images that come through the eyes or to tell the arms how to lift objects. Computer software falls into two basic categories: **system software (systems software)** and **application software**. System software controls a computer; it allows the hardware to run properly. Application software refers to programs that allow users to do something besides simply run the hardware. In other words, application software is to perform specific tasks, such as designing a building, writing a paper, or playing a video game. In short, the system software serves the application, which in turn serves the user:

S Y S T E M S O F T W A R E

System software differs from application software in a couple of important ways. First, it is complete – no computer needs to have more than one version of system software. As for applications, they are generally placed on a computer in large numbers. In addition, system software is independent and requires no application software to run, whereas applications cannot run without system software such as

an operating system and proper drivers. The best-known examples of system software are: *an operating system (OS)*; *the*

BIOS (basic input/output system); *a boot program*; *a device driver*.

An operating system is a program designed to run other programs on a computer. A computer's operating system is its most important program. It is 'the backbone' of a computer, managing both software and hardware resources. Operating systems are responsible for everything - from the control and memory allocation [распределение памяти] to recognizing input from external devices and transmitting output to computer displays. They also manage files on computer hard drives and control peripherals, like printers and scanners. Modern operating systems provide a graphical user interface. The graphical user interface is the first thing a user sees when a program opens. A GUI allows the user to select commands, open files, start programs, and do other routine tasks by using a mouse. With its windows, pull-down menus, dialog boxes, and other controlling mechanisms the GUI has made computer operation not only easier to learn but more pleasant and natural. *Basic Input/Output System (BIOS)* is the built-in software that determines how computers control the keyboard, display screen, disk drives, and a number of other functions. A personal computer's microprocessor uses BIOS to start the computer system after you turn it on. It also manages data flow between the computer's operating system and attached devices such as the hard disk, video adapter, keyboard, mouse, and printer. BIOS is an integral part of your computer and comes with it when you bring it home. (In contrast, the operating system can either be pre-installed by the manufacturer or vendor or installed by the user.) *The boot program* loads the operating system into the computer's main memory. *A device driver* controls a particular type of device that is attached to your computer, such as a keyboard or a mouse. The driver program converts the more general input/output instructions of the operating system to messages that the device type can understand. There are device drivers for printers, displays, and so on. When you buy an operating system, many device drivers are built into the product. However, if you later buy a new type of device that the operating system doesn't support, you'll have to install the new device driver. System software may also include system *utilities*. A utility is a small program that provides an addition to the capabilities provided by the operating system. It is a special and nonessential part of the operating system. A good example is a search-and-replace utility. Search-and-replace is a capability that allows a computer user to find a given sequence of characters (a word, for example) in one or more text files and, if desired, replace the sequence with another sequence of characters. Another example of software utilities is a disk defragmenter. Defragmentation reduces data access time and allows using storage more efficiently. Some operating systems automatically defragment storage periodically. Windows XP comes with a utility called 'Disk Defragmenter'.

Ex. 10. Go back to the text and find the sentences similar to the following statements.

1. System software and application programs are the two main types of computer

software. 2. Unlike system software, an application program performs a particular function for the user.

Ex. 11. Choose the right alternative to complete the sentence.

1. Computer hardware does all the ____.
a) physical work b) logical work c) control work
2. Computer software tells the computer ____.
a) why to do b) what to do c) where to go
3. If you think of a computer as a human being, then the hardware will be the ____.
a) head b) brain c) body
4. If you think of a computer as a human being, then the software will be the ____.
a) intellect b) intelligence c) Intel
5. Computer software falls into system software and ____.
a) application software b) apple software c) applied software
6. System software allows the computer to run ____.
a) primarily b) particularly c) properly
7. Application software enables the user to do a ____ task.
a) special b) specific c) support
8. Designing a building or writing a paper refers to application ____.
a) hardware b) software c) freeware

Ex. 12. Go back to the text and find the sentence which focuses on the difference between system software and application software.

Ex. 13. Answer the following questions to the text.

1. What is an operating system?
2. What resources does an operating system manage?
3. Is an operating system responsible for transmitting output to the computer display?
4. Is this its only responsibility?
5. What peripherals do operating systems control?
6. What user interface do modern operating systems provide?
7. What does GUI stand for?
8. What does the GUI allow the user to do?
9. What does GUI include?
10. What type of user interface has made computer operation easy and natural to learn?

Ex. 14. Translate the following sentences into English.

BIOS (базовая система ввода-вывода) является программным обеспечением, сохраняемым на системной плате. BIOS определяет, каким образом компьютер управляет аппаратным обеспечением. BIOS загружает операционную систему и управляет потоком данных между центральным процессором и такими устройствами, как жесткий диск, видеоадаптер, клавиатура и мышь. BIOS производит тестирование компонентов системы и выводит на экран результаты. BIOS – это неотъемлемая часть компьютера. Существует разница между операционной системой и BIOS. В отличие от операционной системы, которая может быть установлена пользователем или предварительно уста-

новлена поставщиком, BIOS всегда поставляется (производителем) вместе с компьютером.

Ex. 15. Some odd words in the sentences below make the statements nonsensical. Correct the mistakes and translate the sentences into Russian.

1. A locomotive driver controls a keyboard or a lion.
2. The driver program converts the input/output instructions of the operating system to messages that the device tape can understand.
3. Many device drivers are built into the food.
4. If the operation system of a new device doesn't surprise it, you'll have to install a new device driver.
5. A utility is a small program that provides a subtraction to the capabilities provided by the operating system.
6. Hide-and-peek is a common utility.
7. A disk fragmenter is one more example of software utilities.
8. Defragmentation reduces data success time and allows using storage more efficiently.

ADDITIONAL TEXT 1

Ex. 1. Make sure you pronounce the following words and phrases correctly:

user interface, any mechanism, automobiles, industrial machinery, other areas of manufacturing, home electronics, closely associated, although, text commands, through mouse clicks, the same operation, through a command line interface.

Ex. 2. Read the text and translate it into Russian, using a dictionary if necessary.

User Interface

User interface describes any mechanism by which a human interacts with a machine

or computer. From automobiles to toasters to personal computers, nearly every mechanical and electrical device has a user interface. Generally, the term refers to the method by which a person interacts with a computer. In this area, a *user interface* may not simply refer to the mechanism of interaction, but the program that allows it. The term *user interface* originated in industrial machinery. Later, it migrated into other areas of manufacturing. When home electronics began to appear on the market, the term came into people's homes with them. As personal computers became more common, the term began to drop out of other fields. *User interface* became so closely associated with computer interfaces that older uses had to pick up new methods of describing their interactions. In a number of areas, the term simply fell out of use without a replacement. Although graphical user interface (GUI) is a commonly used tool in today's computing, IT specialists should know about one more type of user interface – a command line interface (CLI). When someone uses a command line interface computer, he has to enter text commands to interact with the computer. In GUI, commands are typically entered through mouse clicks. For example, to make a file in GUI, the user may click an

application to open it and then click the 'Save' button. The same operation through a CLI may look like this: 'pico text_file.txt'.

Ex. 3. Choose the right alternative to complete the sentence.

1. A human interacts with a computer through ____.
a) user interface b) text document c) BIOS
2. 'User interface' refers to the ____ by which a person interacts with a computer.
a) device b) method c) software
3. The term 'user interface' originated in ____.
a) industrial machinery b) railway transport c) service industry
4. As ____ became more common, the term fell out of use in other fields.
a) automobiles b) home electronics c) personal computers
5. 'User interface' fell out of use without a ____.
a) replacement b) reduction c) expansion
6. A CLI stands for ____.
a) common line interaction b) crack line invention c) command line interaction
7. Using a CLI computer, you have to enter ____ to interact with the computer.
a) text messages b) text commands c) command texts
8. In GUI, commands are typically entered through ____.
a) mouse buttons b) click buttons c) mouse clicks

ADDITIONAL TEXT 2

Read the text and translate it using a dictionary. Do it in written form. Check your translating speed.

F i r m w a r e

Computer programs or data stored in a memory chip are called firmware. Typical examples of devices containing firmware are embedded systems (such as traffic lights, consumer appliances, and digital watches), computers, computer peripherals, mobile phones, and digital cameras. The firmware contained in these devices provides the control program for the device. Firmware is held in non-volatile memory devices such as ROM, or flash memory. Changing the firmware of a device may rarely or never be done during its lifetime; some firmware memory devices are permanently installed and cannot be changed after manufacture. Common reasons for updating firmware include fixing bugs or adding features to the device. This may require physically changing ROM integrated circuits, or reprogramming flash memory with a special procedure.

Firmware is at the heart of virtually every popular digital device. Portable audio players, cell phones, personal digital assistants, digital cameras and gaming consoles are just some of the devices that use it. Upgradeable firmware has extended the life of countless electronic devices, adding new functionality.

Lesson two APPLICATIONS OF SOFTWARE

Ex. 1. To refresh your memory translate the words and phrases into Russian:

- application software

- word processing
- system software
- built-in function
- computer screen
- utility
- to edit
- design
- storage
- font
- capability
- application
- spreadsheet
- introduction
- to display
- to access
- advance
- purpose
- hardware
- to refer to

Ex. 2. Copy and memorize the following terms.

1. **bundle** – пакет (аппаратуры и программ или услуг)

to bundle – поставлять в комплекте

bundled software – стандартное ПО (поставляемое вместе с компьютером)

*A **bundle** is any group of products or services sold together as a single unit. Two popular services that often come **bundled** are cable television service and Internet service. Sometimes, telephone service is also **bundled** in with these packages.*

***Bundled software** is software that comes with a new Windows® or Macintosh® computer.*

2. **computer-aided design (CAD)** – автоматизированное проектирование

***Computer aided design (CAD)** is a form of design in which people work with computers to create ideas, models, and prototypes.*

3. **computer-aided manufacturing (CAM)** – автоматизированное производство

***Computer aided manufacturing (CAM)** is a system of using computer technology to assist in the manufacturing process.*

4. **feedback** – отклик, ответная реакция; обратная связь

*Please complete the form below to send us **feedback**.*

5. **Hypertext Mark-up Language (HTML)** – стандартный язык для создания веб-страниц

***HTML** is used to create pages that can be posted on the Internet or sent via email.*

6. **spec (specification)** – технические характеристики, технические условия
*“Laptop specs” is short for laptop **specifications**. A **specification** is a detailed set of requirements to be met by a material, product, or service.*

7. **suite** – набор программ

Software suites are groups of programs interacting with each other to make certain tasks easier.

Ex. 3. Translate the following sentences into Russian.

1. **Bundled software** that might be pre-installed with a Windows[®] computer includes: a demo or trial version of an antivirus program, Windows[®] Media Player, Windows[®] Photo Gallery, a collection of games, the browser Microsoft[®] Internet Explorer[®], Adobe[®] Reader[®], and a trial version of Microsoft[®] Office.
2. Each of the many manufacturing processes in a **CAM** system is controlled by computers, so a high degree of precision [точность] can be achieved that is not possible with machinery that must be controlled by people.
3. If you get **feedback** on your work or progress, someone tells you how well or badly you are doing, and how you could improve.
4. In most of the human-computer interaction literature, **feedback** refers to communication from the system to the user as a direct result of a user's action.
5. It is not necessary to be a computer guru to buy a good laptop, but a small crash course in key components would probably help a great deal. Since computer technologies advance so rapidly, the best way to know the latest and greatest **specs** is to run a basic search for laptop reviews on a search engine or technology website. Many websites let visitors compare laptops against one another.
6. Laptop screen size is the most important of all the laptop **specs** for some users, typically gamers and people who like to watch movies on their laptops.
7. Since the development of **HTML** in the early 1990s by British computer scientist Tim Berners-Lee, there have been many changes and versions.
8. The Institute of Electrical and Electronics Engineers (IEEE) is the largest technical society dedicated to standards in the electronic and computer field. IEEE has created a set of standard procedures on how a system requirement **specification** should be documented.
9. Using **CAD** people don't have to make prototypes to demonstrate a project and its potential, because they can use a three dimensional modeling program to show people how something might look. **CAD** also allows the designers to see how the look of something can be altered, and these can be done at the click of a button.
10. When buying a **bundled** package, it is important to carefully check and see if the price is actually cheaper.
11. Windows[®] computers come with an installed operating system. The **software bundle** may include full versions of software applications, as well as demo versions, and trial versions that have a limit of 60 or 90 days.

Ex. 4. Answer the questions using the information given in brackets.

1. Bundles are often sold at a reduced price. At what price may a set of related DVDs be packaged and sold? (*discounted price*)
2. How have you worked if you get good feedback? (*well*)
3. Through the use of CAM, a factory can become highly automated. What systems are used? (*real-time control and robotics*)
4. What are the most common suites? (*business software suites and Internet*)

security software [программные средства защиты данных] suites)

5. What does the user do to create an HTML element? (*a tag that starts and finishes with angle brackets*). What does he do next? (*to place it before the text that needs to be formatted*)

6. What is the most common software suite? (*the Microsoft Office™ line of products*) What does it include? (*Microsoft Word™, Microsoft Excel™, Microsoft Outlook™, and Microsoft PowerPoint™*)

7. What was the purpose of developing CAD? (*to assist people with technical drawing*)

8. Whom is a system requirement specification typically created by? (*a business analyst*).

Ex. 5. Copy and memorize the following words.

1. **proprietary** – патентованный

*People who use **proprietary** systems are usually provided with support by the developer or manufacturer.*

2. **reference** – ссылка, сноска

*The article made no **reference** to previous research on the subject.*

3. **release** – выпуск (программного продукта)

to release – выпускать (вариант программного продукта)

*The company held a small internal party to celebrate the **release** of new software.*

*A version of the game for Mac computers will be **released** in February.*

4. **share** – доля **to share** – совместно использовать

*Software developers need to keep track of market **share** so they can decide where to invest their resources. The office network allows users to **share** files and software.*

4. **to deal with** – иметь дело с (чем-л., кем-л.); изучать, рассматривать

*Geometry **deals** with objects in two or three dimensions, such as lines, circles, cubes, and spheres.*

5. **to estimate** – (предварительно / приблизительно) подсчитывать

*It is **estimated** that smoking causes 100,000 premature deaths every year.*

6. **to launch** – начинать (проект), запускать новый продукт на рынок

*A Game Development Program has been **launched** this year.*

7. **to view** – просматривать

*A browser is a software program that allows the user to **view** text, photographs, graphics, illustrations, and animations on the WWW.*

Ex. 6. Translate the following sentences into Russian.

1. A **launch** party is organized by a company to celebrate the **release** of a new product or service.

2. A number of companies have **released** IBM-compatible versions of their programs before turning their attention to Mac versions.

3. Many individuals now have their own Web sites. They are able to fill their pages with photographs and personal information for **viewing** by friends and associates.

4. **Proprietary** operating systems allow people to manipulate the visual display to make things larger and smaller, change desktop backgrounds, and change color

- schemes. However, nobody can enter the source code [исходный текст программы] to do something like shutting off a function or enabling a function.
5. Recent research **estimates** that 80 % or more of all e-mail sent these days is spam.
 6. Science fiction is a type of book, film/movie, etc. that is based on imagined scientific discoveries of the future, and often **deals with** space travel and life on other planets.
 7. Security software can verify the identity of computer users and limit their privileges to use, **view**, and alter files.
 8. Two new Porsche models are to be **launched** next year.
 9. When a company **releases** a new record, video, or film, it becomes available so that people can buy it or see it.

Ex. 7. Put the verbs in brackets into the correct tense form. Make up as many questions to each sentence as possible.

1. A list of references (to give – *Present Simple Passive*) at the end of the article.
2. Electronic game sales (to estimate – *Past Simple Passive*) at \$9.4 billion in the United States in 2005.
3. Her department (to launch – *Present Continuous Active*) a three-year project on training professionally oriented translators.
4. Apple's MP3 players (to be – *Present Simple Active*) proprietary. It (to mean – *Present Simple Active*) that users (not to allow – *Present Simple Passive*) to service either their software or their hardware.
5. Cybernetics (to deal – *Present Simple Active*) with communication and control systems in living organisms, machines, and organizations.
6. Microsoft (to release – *Past Simple Active*) versions of Internet Explorer for the Macintosh and Windows 3.1.

Ex. 8. Translate the following sentences into Russian, paying attention to the adjectives with the suffix -able/-ible.

1. A robot is a **programmable** device used either to manipulate or transport objects in a manufacturing process.
2. At the exhibition I was shown a home computer with many **desirable** features.
3. Cell phone **rechargeable** batteries are divided into several categories according to the production technology.
4. Computers should be made readily (easily) **accessible** to teachers and pupils.
5. In this job you need to be **adaptable** and able to cope with unexpected situations.
6. Software development today is **inseparable** from companies that have a presence in the global electronics market.
7. Surfing the web means exploring it. You can find information on the web about almost any topic **imaginable**.
8. The information should be in a publicly **accessible** and easily understood form.
9. To make a software patent **understandable** make sure that the software itself is **patentable**.
10. Windows offers several programs and settings that can make the computer

easier and more **comfortable** to use.

Ex. 9. Copy and memorize the meanings of the following phrases:

□ either ... or – или ... или ... : *Many robot uses are for tasks that are **either** dangerous **or** unpleasant for human beings.*

□ neither ... nor – ни ... ни ... : ***Neither** the programmer **nor** the analyst could explain the cause of the computer errors.*

□ both ...and – как ..., так и ...: *To complete a job, the computer requires **both** hardware **and** software.*

Translate the sentences into Russian.

1. You can **either** play on the computer **or** watch TV.
2. I can use Skype on **both** my computer **and** my phone.
3. **Neither** the computer **nor** the notebook actually work(s).
4. How can I receive emails on **both** my phone **and** my computer?
5. The equipment is **neither** accurate **nor** safe.
6. You are **neither** realistic **nor** practical.
7. Switches can be **either** on **or** off.
8. **Both** Jim **and** Peter are attending the conference in New York this weekend.
9. **Either** I accompany you to your room **or** I wait here.
10. I want to buy **either** a new desktop computer **or** a laptop, but I have **neither** the cash **nor** the credit I need.
11. Installation program is a program whose function is to install another larger program, **either** on a storage device **or** in memory.
12. A **system crash** in computing is a condition where a computer or a program, **either** an application **or** part of the operating system, ceases to function properly.
13. Qualified specialists in **both** electronics **and** software engineering are needed to design the next generation of computer apps.
14. **Both** the license **and** the right to use the Program terminate automatically if you violate any part of this Agreement.
15. Servers often provide essential services across a network, **either** to private users inside a large organization **or** to public users via the Internet.

Ex. 10. Match the English words and phrases (A) with their Russian equivalents (B).

A B

1. programming tool a) пакет прикладных программ
2. computing power b) справочные программы
3. manufacturing plant c) интегрированный программный комплекс
4. reference software d) станок
5. integrated software e) вычислительная мощность
6. machine tool f) инструмент программного обеспечения
7. application package g) документ на языке HTML
8. HTML document h) завод-изготовитель

Read the text and translate it using a dictionary, if necessary.

APPLICATIONS SOFTWARE

Introduction

Application software, also known as an application or an app, is computer software designed to help the user to perform specific tasks. An application differs from an operating system (which runs a computer), a utility (which provides an addition to the capabilities provided by the operating system), and programming tools (with which computer programs are created). Depending on the activity for which it was designed, an application can manipulate text, numbers, graphics, or a combination of these elements. Some application packages offer considerable (\approx big) computing power by focusing on a single task, such as word processing; others, called integrated software, offer less power but include several applications. Many application programs deal principally (\approx typically) with documents. Applications may be bundled with the computer system software, or may be published separately. In recent years, the term ‘app’ has been used to exclusively refer to applications for mobile devices such as smartphones and tablets. There are many types of application software.

Ex. 11. Answer the following questions to the text.

1. What does ‘app’ stand for?
2. What is application software designed for?
3. Does it perform specific or general tasks?
4. In what way does an application differ from an operating system or utility?
5. Can an application manipulate a combination of text, numbers, and graphics?
6. In what way can some application packages offer considerable computing power?
7. What software includes several applications?
8. What do many application programs usually deal with?
9. What term do we use to refer to applications for mobile devices?
10. Are there many types of application software?

Text 1

A spreadsheet is an interactive computer application program for organization and analysis of information in tabular form. The program operates on data represented as cells and organized in rows and columns. Each cell contains either numeric or text data. In addition to the fundamental operations of arithmetic and mathematical functions, modern spreadsheets provide built-in functions for common financial and statistical operations. Spreadsheets have now replaced paper-based systems throughout the business world. Although they were first developed for accounting tasks, now they are used extensively in any context where tabular lists are built, sorted, and shared.

Ex. 12. These are the answers to Text 1. Write the questions.

1. It is an interactive **computer application** program for organization and analysis of information in **tabular** form.
2. On data represented as cells and organized in rows and columns.
3. Either numeric or text data.
4. For common financial and statistical operations.
5. Yes, they have replaced paper-based systems throughout the business world.
6. No, they were not. First, spreadsheets were developed for accounting tasks.

7. In any context where tabular lists are built, sorted, and shared.

Text 2

A word processor is a computer application used for the production (including composition, editing, formatting and printing) of any sort of printable material. This program will enable the user to write articles, books, reports, etc. It makes editing a very simple task. The main features of this program are, Font Application, Spell Check, Grammar Check, Thesaurus, Autocorrect, HTML documentation etc. Microsoft Word is the most widely used word processing software. Microsoft estimates that over 500,000,000 people use the Microsoft Office suite, which includes Word.

Ex. 13. Translate the following text into Russian. Do it in written form.

Текстовый процессор представляет собой одно из наиболее популярных приложений. Мы пользуемся этим приложением в своей повседневной работе и учебе для составления текстов, их форматирования и распечатывания. Данная программа позволяет нам писать статьи, доклады, рефераты и т.д. Текстовый процессор облегчает редактирование текстов. Можно копировать предложение и даже тексты, вставлять текст из другого документа, вырезать предложения и т.д. Основными функциями текстового процессора являются применение шрифта, автоматическая проверка орфографии и грамматики. Наиболее распространенным текстовым процессором является Microsoft Word. Подсчитано, что свыше полумиллиарда человек пользуются программным пакетом Microsoft Office. Текстовый процессор Microsoft Word является частью этого программного пакета.

Text 3

A presentation program is a computer software package used to display information, normally in the form of a slide show. It typically includes three major functions: an editor that allows the text to be inserted and formatted, a method for inserting and manipulating graphic images and a slide-show system to display the content. The first commercial computer software specifically designed for creating presentations was developed at Hewlett Packard in 1979. The first software displaying a presentation on a personal computer screen was developed in 1982. This program allowed users to choose from a library of images to accompany the text of their presentation. *Microsoft PowerPoint* is the name of a proprietary commercial software presentation program developed by Microsoft. It was officially launched on May 22, 1990 as a part of the Microsoft Office suite. Many presentation programs come with pre-designed images (clip art) and/or have the ability to import graphic images.

Ex. 14. Some odd words make the statements nonsensical. Correct the mistakes.

1. A presentation program is sued to display information as a side show.
2. An editor allows the text to be inserted and formatted; a slide-slow system enables the user to display the context.
3. The first hardware displaying a presentation on a personnel computer screen was developed in 1892.
4. This program allowed users to cheese from a laboratory of images to accompany

the text of their presentation.

5. *Microsoft PowerPoint* was developed by Microsoft.

6. *Microsoft PowerPoint* was officially launched on May 22, 1990.

7. Money presentation programs come with pre-designed images (clip art).

Text 4

The primary purpose of a web browser is to bring information resources to the user, allow them to view the information, and then access other information. The first web browser was invented in 1990 by Sir Tim Berners-Lee. It was called *WorldWideWeb* and was later renamed *Nexus*. In 1993, browser software was further innovated by Marc Andreessen with the release of *Mosaic* (later *Netscape*), the world's first popular browser, which made the World Wide Web system easy to use and more accessible to an ordinary user. Microsoft responded with its *Internet Explorer* in 1995. Bundled with Windows, Internet Explorer gained dominance in the web browser market; Internet Explorer usage share peaked at over 95% by 2002. *Opera* debuted in 1996; although it has never achieved widespread use, having less than 2% browser usage share as of February 2012. The most recent major player on the browser market is *Chrome*, first released in September 2008. In December 2011, Chrome overtook Internet Explorer 8 as the most widely used web browser.

Ex. 15. Search the Internet for more information about web browsers and share it with your fellow students.

Text 5

Computer-aided design (CAD) is the use of computer systems to assist in the creation, modification, analysis, or optimization of a design. CAD software is used to increase the productivity of the designer, improve the quality of design, and to create a database for manufacturing. CAD is an important industrial art extensively used in many applications, including automotive, shipbuilding, and aerospace industries, industrial and architectural design, and many more. Computer-aided manufacturing (CAM) is the use of computer software to control machine tools. CAM may also refer to the use of a computer to assist in all operations of a manufacturing plant, including planning, management, transportation and storage.

Ex. 16. Translate text 5 into Russian. Do it in written form and let your fellow students edit your translation (if necessary).

Text 6

Simulation software is based on the process of modeling a real phenomenon with a set of mathematical formulas. It is a program that allows the user to observe an operation through simulation without actually performing that operation. Simulation software is used widely to design equipment so that the final product will be as close to design specs as possible without expensive in-process modification. Simulation software with real-time response is often used in gaming, but it also has important industrial applications. Advanced computer programs can simulate weather conditions, electronic circuits, chemical reactions, mechatronics, feedback control systems, atomic reactions, even biological processes. In theory, any phenomena

that can be reduced to mathematical data and equations can be simulated on a computer.

Ex. 17. Go back to text 6 and give the English equivalents to the Russian phrases:

программное обеспечение моделирования, реальные явления, набор математических формул, наблюдать действие, реакция в реальном (масштабе) времени, система управления с обратной связью.

Text 7

Educational software is computer software, the primary purpose of which is teaching or self-learning. The use of computer hardware and software in education and training dates to the early 1940s, when American researchers developed flight simulators which used analog computers to generate simulated onboard instrument data. Major developments in educational software in the early and mid 1990s were made possible by advances in computer hardware. Multimedia graphics and sound were increasingly used in educational programs. Many dictionaries and encyclopedias rushed into CD-ROM editions soon after the widespread introduction of the CD-ROM to home computers. One of the earliest and most well-known was Microsoft Encarta, first introduced on CD-ROM. In the dictionaries market, one of the most famous brands was Merriam-Webster. Since 2010, reference materials have begun to appear as apps on Smartphones. Wikipedia marked a new era in educational reference software. The Wiki concept allowed anyone and everyone to join in creating and editing an online set of reference works.

Ex. 18. Mark the statements as True or False. Use the following introductory phrases:

Agreement Disagreement Doubt

That's right.

I quite agree with you.

You are absolutely right!

I'm afraid, you are mistaken.

I can't agree with you.

I don't think so.

I don't know exactly.

You are partly right.

I'm not sure, but I guess ...

1. The primary purpose of educational software is simulating various phenomena in language learning.
2. In the first half of the 20th century American researchers developed a flight simulator using digital computers.
3. Analog computers were used to generate simulated onboard instrument data.
4. Advanced hardware enables both scientists and teachers to introduce developments in educational software into the teaching process.
5. Multimedia graphics and sound are the most popular educational programs.
6. Electronic encyclopedias and reference works are much more popular among computer students than printed books.

7. Wikipedia and Merriam-Webster are the best in the dictionaries market.
8. If you have a smartphone you may install any reference materials, for example dictionaries, onto your gadget.
9. Every student has a lot of apps on his/her mobile phone.
10. The Wiki concept is democratic because anyone may upload his/her information so that the whole Internet community can share it.

UNIT FIVE SOCIAL NETWORKING SITES

Ex. 1. Copy and memorize the following words and phrases.

1. **blog** – блог, сетевой журнал, “живой журнал”

*A **blog** can be private, as in most cases, or it can be for business purposes.*

2. **entry** – запись (в блоге, журнале и т.п.)

*An **entry** in a diary or reference book is a short piece of writing in it.*

3 **profile** – краткая характеристика, личные (персональные) данные/сведения

*A **profile** gives important details about a person, a group of people, or a place.*

4. **to post** – отправлять, выкладывать сообщение (информацию) в блог или форум

post – сообщение (электронной почты), запись в блоге

*Could you **post** those new flyers on David’s website?*

*An avatar appears under the member’s user name in each **post**.*

5. **to keep / stay in touch** – поддерживать контакт(ы)

*If you **keep (stay) in touch** with somebody, you write, phone, or visit him/her regularly.*

Ex. 2. Translate the following sentences into Russian.

1. A **blog** is a web page that is made up of information about a particular subject, in which the newest information is always at the top of the page.

2. An **entry** is a piece of writing in a diary, or in a book containing information.

3. An Internet forum is a discussion area on a website. Website members can **post** discussions, read and respond to **posts** by other forum members.

4. An Internet forum usually allows all members to make **posts** and start new topics.

5. **Keep in touch** with us on Facebook!

6. Organizations **posting** political or religious information on to the World Wide Web will need to register with the broadcasting authority.

7. Please stay in **touch** – I’m always available at lala@mail.ru.

8. There was **post** after **post** criticizing the Minister.

9. To apply for a job via an employment website, you are to create an **online profile** that includes a resume and an e-mail address. Each job **posted** on such a website will usually have specific instructions for how to apply, and these should be carefully followed.

10. To **post** means to put a message or computer document on the Internet so that other people can see it.

Ex. 3. Translate the following sentences into English.

1. Мы хотим разместить информацию о лингвистических курсах на сайте Самарского государственного университета путей сообщения.
2. Эта страница содержит архив [an archive] всех записей, размещенных в блоге Андрея.
3. Эта новая программа позволит вам размещать документы и фотографии во Всемирной паутине.
4. Персональные данные обычно включают информацию о каждом участнике форума – городе и стране, где он проживает, его интересах и т.д.
5. Я хочу, чтобы ты всегда оставался на связи.
6. На Интернет-форуме вы можете редактировать свои сообщения и записи в блогах, предлагать (начинать) новые темы, а также редактировать персональные данные.
7. Мы обещали оставаться с вами на связи.
8. В последнем электронном сообщении наши деловые партнеры предоставили необходимую информацию об обновлениях программного обеспечения и закупке (purchase) новых принтеров.

Read the text and translate it, using a dictionary, if necessary.

Introduction

A social networking site is a website where individuals can create an online profile, describing his/her interests, and add links to other profiles. Generally, users are able to post personal information, including photographs, videos, and blog entries. Sites for social networking are popular with people all over the world, particularly teenagers and people in their 20s. They can be a great way to stay in touch with a large group of people. If you have news you'd like to share with everyone you know, you can simply post it on your "wall", and it will be distributed to everyone on your friends' list. These sites can also be helpful for connecting with new people, whether on a business, friendship, or a romantic level.

Ex. 4. Copy and memorize the following words and phrases.

1. **to join** – присоединиться, стать членом (общества и т.п.)

*Before a member **joins** an Internet forum and makes posts to others, he or she is usually required to register.*

2. **to notify** – извещать, уведомлять **notification** – уведомление
*You will be **notified** of any changes in the system.*

*SMS **notifications** are generated automatically when you get a new message.*

Ex. 5. Translate the following sentences into Russian.

1. When your friend sends you a message, a red flag is automatically generated to **notify** you of the new message. The number inside the flag tells you how many new messages are in your inbox.
2. Any cell phone that can receive text messages can receive Facebook text **notifications**.
3. Since Facebook allowed users to "subscribe" to other users, I receive a **notification** when certain friends update his or her status.
4. Look through our numerous forums and feel free to post any subject. **Join** the

community by registering and don't forget to introduce yourself so we can all get to know you.

Ex. 6. According to the Longman Dictionary of Contemporary English 'a mate' is someone you work with, do an activity with, or share something with. Match the words on the left with their dictionary definitions on the right.

A B

1. classmate a) someone who belongs to the same team as you
2. team mate b) an officer who has the rank below captain on a ship that is not a military ship
3. soul mate c) the person chosen by someone who is trying to become president, leader etc to help win an election, and be the second most important political person if they are elected
4. first mate d) someone who you share a room with, especially at college
5. running mate e) someone you have a very close relationship with because you share or understand the same emotions and interests
6. roommate f) a member of the same class in a school, college or, in the US, a university (= fellow student)

Read the text and translate it, using a dictionary, if necessary.

F A C E B O O K

Facebook is a social networking site launched in February 2004, owned and managed by Facebook, Inc. In September 2012, Facebook had over one billion active users, more than half of them using Facebook on a mobile device. Users must register before using the site, after which they may create a personal profile, add other users as friends, and exchange messages, including automatic notifications when they update their profile. Additionally, users may join common-interest user groups, organized by workplace, school or college, or other characteristics, and categorize their friends into lists such as "People From Work" or "Close Friends". Facebook was founded by Mark Zuckerberg with his college roommates and fellow Harvard University students. Initially, the website's membership was limited to Harvard students, but later was expanded to other colleges and universities. Facebook now allows any users who declare themselves to be at least 13 years old to become registered users of the site. Facebook can be thought of as your home on the Internet. It's a place people can go to leave you a message, browse through your photo collections, or even chat with you while you are online. It can be a great way to keep in contact with friends and family, and even find long lost friends that you haven't spoken to in years. The Facebook "wall" is where it all happens. This is where you write comments, share photos and articles with your friends. You'll also see what your friends and family are posting on their walls. Anyone on your friends' list can come by and write a comment on your wall. The Facebook wall is a great place to let everyone know you are back from vacation and post trip photos. Facebook is also a place where conversations are started.

Ex. 7. Go back to the text and find the English equivalents to the following Russian phrases:

- группы по интересам,
- обмениваться фотографиями и статьями,
- заходить (на страницу сети),
- когда вы в сети ...,
- размещать на стене,
- вернуться с каникул.

Make up sentences with these phrases.

Ex. 8. Translate the questions into English and let your fellow students answer them.

1. Что такое Facebook?
2. Когда была создана эта социальная сеть?
3. Кто является собственником Facebook?
4. Можете ли вы пользоваться сетью Facebook на своем мобильном телефоне или планшете?
5. Я хочу стать участником социальной сети. Должен ли я регистрироваться, прежде чем пользоваться этим сайтом? Регистрация бесплатная?
6. Что могут делать участники форума?
7. Могут ли они обмениваться информацией?
8. Получают ли участники форума автоматические уведомления об обновлениях?
9. Какие группы по интересам существуют в социальной сети Facebook?
10. Существуют ли другие социальные сети кроме [excerpt] Facebook?

Ex. 9. Put the verbs in brackets into the required tense form. Translate the sentences into Russian. (Don't cheat looking at the text!)

1. Facebook (to found – *Past Simple Passive*) by Mark Zuckerberg
2. His college roommates and fellow Harvard University students (to help – *Past Simple Active*) in this project.
3. At first, the website's membership (to limit – *Past Simple Passive*) to Harvard students, but later it (to expand – *Past Simple Passive*) to other colleges and universities.
4. In Facebook you can find friends that you (to not speak – *Present Perfect Active*) to in years.
5. In Facebook you (to see – *Future Simple Active*) what your friends and family (to post – *Present Continuous Active*) on their walls.
6. Facebook (to be – *Present Simple Active*) also a place where conversations (to start – *Present Simple Passive*).
7. A Facebook friend (to be – *Present Simple Active*) someone who (to connect – *Present Simple Passive*) to another person through the social networking site of the same name.

Ex. 10. Each of the sentences below is followed by two paraphrases. Decide which paraphrase (a, b) is closer in meaning to the original comment. Translate the original comment and the paraphrases into Russian.

1. Facebook now allows any users who declare themselves to be at least 13 years old to become registered users of the site.

a) *Facebook's terms of service require users to be at least 13 years old.*

b) *The current Facebook rules require that users set up a Facebook profile for at least 13 years.*

2. The Facebook wall is a great place to let everyone know you are back from vacation and post trip photos.

a) *Facebook allows you to upload photos and maintain photo albums that can be shared with your friends.*

b) *Using the Facebook wall you may download your friends' photos.*

3. Facebook is also a place where conversations are started.

a) *Facebook supports interactive online chat and the ability to comment on your friends' walls in order to keep in touch or just say 'Hi'.*

b) *Facebook is a great way to give lectures in various subjects.*

Ex. 11. Think carefully before writing a proper Russian version of the following sentences.

1. It [Facebook] can be a great way to keep in contact with friends and family, and even find long lost friends that you haven't spoken to in years.

2. The Facebook wall is where it all happens.

Ex. 12. Go to the site <http://www.englishdom.com/top/weeklybox/netsites/> and listen to the speaker carefully. Of course, you may use the transcript, but it will be great if you avoid looking at the English text.

Task 1. Read the text, trying to imitate the native speaker.

Task 2. Speak on the advantages and disadvantages to being an active user of social networking sites.

ADDITIONAL TEXT WHAT ARE BLOGS?

If you've been surfing the web for the past year or five, you've undoubtedly heard of "blogs" or weblogs. *These personal Internet journals have taken the Internet by storm.* Frequently updated and written in a personal tone, a blog is a diary or journal where the writer or "blogger" will write his/her observations on the world or provide links to useful websites. Different bloggers write about different themes, sort of like a newspaper columnist but with no specialized training necessary.

Early blogs were mostly lists of recommended links with some commentary. Since then, they've evolved to something different. *Now anyone who fancies himself a writer, and even some people who don't, has a blog on the Internet.* Thanks to easy-to-use programs and websites, practically every person can get a blog online.

For some, blogs are strictly vanity projects as they ramble on about their daily observations to family and friends. For others, blogs take on a deeper meaning. Blogs can be used to make political statements, promote products, provide research information, and give tutorials. If there's a subject that interests you, there's a good chance someone's writing a blog about it. *There are many pros and cons in blogging.* Since one can write about anything in a blog, complaints about others are

commonplace. *In many blogs, names are named.* An employee may write something unpleasant in his/her blog and in a few days the blogger is fired. *Anyone who makes a controversial statement had best be well prepared to back it up.* Blogs have become so mainstream that the word «blog» was Merriam-Webster's word of the year in 2004. Parents now use blogs to keep in touch with teachers and teachers use blogs to communicate with their students. "Newsweek" magazine even recommends a few notable blogs each week to its readers. *It appears that blogging is here to stay.* Many services make creating your own blog as easy as typing and clicking. Why not start your own blog?

Ex. 1. Choose the right alternative to complete the sentence.

1. A blog is a journal or diary where the writer ___ his/her opinions with the Internet community.
a) reads b) shares c) gives
2. There is much in common with a blogger and a newspaper ____.
a) columnist b) editor c) owner
3. A blogger doesn't have to have specialized ____.
a) training b) skills c) rights
4. Early blogs were mostly ___ of interesting links.
a) books b) articles c) lists
5. Practically every Internet user can set up a blog because websites are ____.
a) simple-to-se b) easy-to-use c) light-to-use
6. Blogs can be used to make political ____.
a) states b) statesments c) statements
7. The blogger may be fired after he has written something ___ about his boss.
a) pleasant b) unpleasant c) pleased
8. You are to be well prepared to ___ your statement.
a) back up b) hand up c) head up
9. Parents now use blogs to keep in ___ with the teachers.
a) support b) stay c) touch
10. Creating your own blog is like typing and ____.
a) clicking b) writing c) printing

Ex. 2. Replace the Russian phrases with their English equivalents and try to read the text as smoothly as possible.

If you've been surfing the web в течение последних нескольких лет, you've heard of †blogs‡ or weblogs. Часто обновляемый and written in a personal tone, a blog is a diary or journal where the writer or †blogger‡ will write свои собственные наблюдения on the world or provide ссылки на полезные и интересные сайты. Первые блоги were mostly lists of recommended links with некоторые комментарии. С тех пор, they've evolved to something different. Благодаря easy-to-use programs and websites, practically every person can get a blog online.

Ex. 3. Translate the questions into English and let your friends answer them.

1. Вы можете использовать блог для выражения своего собственного мнения?
2. Кто обычно использует блог для продвижения своего продукта на рынке?
3. Можно ли использовать блог для того, чтобы давать уроки?

4. Можете ли вы пожаловаться на качество товаров и услуг в блоге?
5. Что может случиться, если сотрудник в своем блоге напишет что-то неприятное о своей компании или ее руководстве?
6. Какую информацию следует размещать в блоге?
7. Для чего родители используют блоги?
8. Какой журнал упоминается [to mention] в статье?
9. У вас есть собственный блог?
10. Каких знаменитых блогеров вы знаете?

GLOSSARY

A

- abacus – счеты
ability – способность, возможность
aboard – борт; на борту.
access – доступ; получать доступ; gain (get) access – получать доступ
accounting system – система учета
activate – активировать, приводить в действие, запускать
add – прибавлять, добавлять; складывать
addition – сложение
advance – успех, прогресс, достижение; advanced – передовой
after-sale support – послепродажная поддержка
airline reservations system – система бронирования авиабилетов
alarm system – система сигнализации
amount – количество
android – человекоподобный робот
angle - угол
announce – объявлять, извещать
anti-virus program – антивирусная программа
appear - появляться
appliance – прибор, устройство
application (app) – применение, использование, сфера (область) применения; прикладная программа.
application package – пакет прикладных программ
application software – прикладное ПО, прикладные программы
apply – использовать, применять
arithmetic logic unit (ALU) – арифметико-логическое устройство центрального процессора
arrange – распределять
artificial intelligence – искусственный интеллект
ATM (Automatic Teller Machine) / cash machine / cashpoint – банкомат
attach – присоединять
automated system – автоматизированная система
available – доступный, имеющийся в наличии

B

- bandwidth – трафик
binary – двоичный
BIOS (Basic Input/Output System) – базовая система ввода-вывода
bit – бит; разряд
blog – блог, сетевой журнал, “живой журнал”
board – плата
boot program – загрузочная программа, программа начальной загрузки
broadband – широкополосный канал связи
browse – просматривать

bug – ошибка
built-in – встроенный
bulletin board – доска объявлений
bundle – пакет (аппаратуры и программ или услуг); поставлять в комплекте
bundled software – стандартное ПО (поставляемое вместе с компьютером)
bus – шина
button – кнопка

С

cable – кабель, шлейф
cache memory – кэш-память
calculate / to compute – вычислять
calculation / computation – вычисление
capability – способность, возможность
carry – нести, переносить
carry out – выполнять
cell phone accessories – гарнитуры для мобильного телефона
central processing unit (CPU) – центральный процессор, ЦПУ
character – символ, знак
chip – микросхема, чип
chipset – набор микросхем, чипсет
cigarette lighter – прикуриватель (в автомобиле)
code – код; кодировать, шифровать
command line interface (CLI) – интерфейс командной строки
communicate – общаться; сообщать (информацию)
communication(s) device – устройство связи
compatible – совместимый
computer case – корпус компьютера
computer science – информатика
computer-aided design (CAD) – автоматизированное проектирование
computer-aided manufacturing (CAM) – автоматизированное производство
computing facilities – вычислительные средства
computing power – вычислительная мощность
congestion – перегрузка (сети)
connect – соединять; подключать
content – содержание
control center – центр управления
control unit – устройство (блок) управления ЦП
convert – преобразовывать
copy – копия; копировать backup copy – резервная копия
CPU socket – процессорный разъем
crash – аварийный отказ; приводить к аварии
create – создавать
customize – модифицировать в соответствии с требованиями заказчика
cut – вырезать; сокращать

D

damage – вред; повреждать
data processing – обработка данных
data transfer – передача данных
database application – приложение базы данных
decimal system – десятичная система
decode – расшифровывать, раскодировать
define – определять, давать определение
definition – определение
delete – удалять
desktop – рабочий стол
desktop computer – настольный компьютер
desktop publishing – верстка печатных изданий на компьютере, настольная типография
determine – определять, устанавливать
device – устройство, прибор
device driver – драйвер устройства
dialog box – диалоговое окно
dial – набирать номер (телефона)
digit – цифра; digital – цифровой
digitize – оцифровывать
disk drive – дисковод
dimension – измерение
display – выводить на экран; изображение на экране
distribution – распределение
divide – делить
division – деление
download – скачивать, загружать
drafting works – чертежные работы
DSL (Digital Subscriber Line) – цифровая абонентская линия

E

e-commerce – электронная торговля
edit – редактировать
educational software – образовательная программа
electric current – электрический ток
electrical engineering – электротехника
embed – встраивать
engineering – техника
enter – вводить
entry – запись в (блоге, журнале и т.п.)
error message – сообщение об ошибке
expansion card – карта расширения
execute – выполнять, исполнять
expert system – экспертная система

extract – извлекать

F

fail – выходить из строя

failure – отказ, выход из строя, сбой

fan – вентилятор, кулер

fast – быстрый, быстродействующий

feature – характеристика, свойство

feedback – отклик, ответная реакция; обратная связь

feedback control system – система с обратной связью

fiber-optic cable – оптоволоконный кабель

film – пленка; фильм

firmware – встроенная программа; прошивка

flash drive / pen drive – флешка

flash memory – флэш-память

flow – поток

font – шрифт

free software – бесплатное программное обеспечение

function key – функциональная клавиша

G

gamepad – игровой планшет, геймпад

gaming console – игровая приставка

generate electricity – вырабатывать электричество

generation – поколение

global positioning system (GPS) – глобальная система позиционирования на местности

graph – график

graphical user interface (GUI) – графический интерфейс пользователя

H

handheld – портативный

handle – обрабатывать (информацию)

hard drive (HD) – жесткий диск

hardware – аппаратное обеспечение компьютера (“железо”)

high-definition (HD) – высокая разрешающая способность, высокая четкость

high-end / sophisticated – высокопроизводительный, совершенный

highlight – выделять

hold (programs and data) – удерживать, хранить (программы и данные)

house – размещать

hub – хаб, концентратор, повторитель

hyperlink / link – ссылка

Hypertext Mark-Up Language (HTML) – стандартный язык для создания веб-страниц

HTML document – документ на языке HTML

I

icon – иконка

image – изображение
in real time / online – в режиме реального времени
include – включать
industrial robot – промышленный робот
input – входные данные
input device – устройство ввода
insert – вставить
install – установить
instruction – команда
integrated – интегрированный non-integrated – неинтегрированный
integrated circuit / microchip / chip – интегральная микросхема, чип
integrated software – интегрированный программный комплекс
intelligence – разум
interact – взаимодействовать
Internet connection – Интернет–соединение
Internet service provider (ISP) – поставщик Интернет–услуг
introduce – внедрять, вводить, представлять
introduction – внедрение
invent – изобретать

Ж
job – работа, задание, задача

К
keep – поддерживать, сохранять; keep record – вести записи (отчетность)
keyboard – клавиатура
key – клавиша
keyword – ключевое слово

Л
launch – начинать (проект), запускать новый продукт на рынок
learning software – обучающее программное обеспечение
letter – буква
lifespan – срок службы (ресурс)
light pen – стилус
light-sensitive detector – фотодетектор
limit – предел
limitless – неограниченный
load – загружать
local area network (LAN) – локальная сеть
look for – искать что-то

М
machine tool – станок
mail-order catalog – каталог почтовой торговли
main memory / random-access memory (RAM) – основная память /
основное запоминающее устройство (ОЗУ)
main unit – системный блок

malfuction – сбой, неисправность
malicious software – вредоносное программное обеспечение
manipulate – обрабатывать (данные, информацию)
manual – учебник, руководство
manufacture / produce – производить, выпускать
manufacturer / producer – (фирма-)изготовитель, производитель
manufacturing plant – завод-изготовитель
mean – значить, означать; иметь в виду
means – средство; by means of smth.– посредством чего-либо
measure – измерять
medium (media) – носитель данных
memory / storage – память, запоминающее устройство (ЗУ)
memory card – карта памяти
memory chip – микросхема памяти
memory location / memory address – ячейка памяти, адрес (ячейки) памяти
monitor – управлять, контролировать
motherboard – системная плата, материнская плата
mount – устанавливать, монтировать
multiply – умножать
multiplication – умножение

N

network card – сетевая карта (сетевой адаптер)
network device – сетевое устройство
networking) switch – (сетевой) коммутатор
notify – извещать, уведомлять
notification – уведомление
number – номер; число, количество
numeral system – система счисления

O

occupy – занимать (место)
operate – работать, эксплуатировать; управлять
operating system – операционная система
option – опция (команда или пункт меню, вариант выбора)
output – выходные данные
output device – устройство вывода

P

password – пароль
paste (insert) – вставлять (данные в документ)
pattern – образец, шаблон
PDA – персональный цифровой секретарь, карманный / портативный компьютер
perform – выполнять
performance – рабочие характеристики; быстродействие компьютера
peripheral device, peripheral – периферийное устройство

permanent – постоянный
personal identification number (PIN) – личный идентификационный номер
picture – картинка, изображение
pin – ножка, крепеж, пин
post – отправлять, помещать сообщение (информацию) в блог или форум
power – мощность; энергия
predict – прогнозировать
pre-installed – предварительно установленный
press – нажимать
primary memory / storage – первичная (внутренняя) память.
printed circuit board (PCB) – печатная (схемная, монтажная) плата
process / handle / manipulate – обрабатывать (информацию, данные)
productivity – производительность
profile – краткая характеристика, личные (персональные данные/сведения)
programming tool – инструмент программного обеспечения
proprietary – патентованный
protect (against) – защищать (от)
provide – обеспечивать, предоставлять (услугу); предусматривать
pull-down menu – раскрывающееся меню

R

range – диапазон; серия, ряд
read – считывать, читать
read-only memory (ROM) – постоянная память
receive – получать, принимать
rechargeable – перезаряжаемый
recognize – распознавать
recognition – распознавание
record – записывать; запись
reduce – сокращать; (*mat.*: приводить к более простому виду)
reference – ссылка, сноска
reference software – справочные программы
register – регистр
release – выпуск (программного продукта); release – выпускать (программный продукт)
remove – удалять
repair – ремонтировать
replace – заменять replacement – замена
require – требовать requirement – требование
retrieve – находить, извлекать информацию
robotic – роботизированный
robotics – робототехника
run a program / application – запускать (программу); запускаться (о программе)

S

safe – безопасный
satellite – спутник
save – сохранять
schedule – план, график; планировать, устанавливать время
screen – экран
scroll – прокручивать
search – поиск
search engine – поисковая система, поисковик
secondary (external) memory – вторичная (внешняя) память
select – выбирать
self-testing – самотестирование, самопроверка
semiconductor – полупроводник
send – отправлять
sequence – последовательность
series (range) of processors – семейство процессоров
service industry – сфера услуг
set of programs – набор программ
share – доля; совместно использовать
shareware – условно-бесплатное ПО
silicon – кремний
simulate – имитировать, моделировать
simultaneously – одновременно
slot, expansion slot – слот расширения, джампер (гнездо на системной плате, в которое устанавливается плата расширения)
social networking site – сайт социальных сетей
software – программное обеспечение компьютера
sophisticated – совершенный
sound – звук
source – источник
speaker – динамик
specs (specifications) – технические характеристики, технические условия
spelling – орфография
spreadsheet – электронная таблица
spyware detection software – программа обнаружения шпионского ПО
star chart – карта звездного неба
state-of-the-art – современный
storage device – устройство хранения
store хранить, сохранять
subtract – вычитать
subtraction – вычитание
suite – набор программ
support – поддерживать; поддержка

switch – переключатель; сетевой коммутатор; переключать
switch on / turn on – включать; switch off / turn off – выключать
system unit – системный блок
system software (systems software) – системное программное обеспечение

T

tablet (computer) – планшетный компьютер, планшет
temporary – временный
tool – инструмент
touchpad – сенсорная панель, тачпад
touch-sensitive screen – сенсорный экран
traffic – поток данных, сетевой трафик
transfer / transmit – передавать данные

U

underline – подчеркивать
unlimited access – неограниченный доступ
upgrade – совершенствовать, заменять (аппаратные средства и ПО); замена, апгрейд
upload – загружать в удалённый компьютер
utility – утилита, сервисная программа

V

vehicle – транспортное средство
vendor – поставщик, производитель, продавец
verify – подтверждать, верифицировать
via the Internet – по Интернету
view – просматривать
video card – видеоадаптер, видеокарта
volatile – энергозависимый nonvolatile – энергонезависимый

W

wire – провод; проволока
wireless – беспроводной
word processing – электронная обработка текста
word processor – текстовый процессор

X

x-ray – рентгеновский луч

КРАТКИЙ ГРАММАТИЧЕСКИЙ СПРАВОЧНИК

1. Имя существительное

§ 1. Образование множественного числа

Единственное число Множественное число

computer, error computers, errors

device, image devices, images

boy, play boys, plays

copy, discovery copies, discoveries

* **Исключения**: man – men; woman – women; child – children; foot – feet; tooth – teeth; mouse – mice (*комп.:* mouses).

§ 2. Притяжательный падеж

my friend's notebook ноутбук моего друга

company's products изделия компании

the computer's operating system операционная система компьютера

his boss's documents документы его начальника

Britain's economy экономика Великобритании

Professor Brown's lecture лекция профессора Брауна

students' computers компьютеры студентов

two hours' work двухчасовая работа

§ 3. Существительное в функции определения

Если подряд стоят два или более существительных без предлогов, то опорным является последнее существительное, а слова, стоящие слева от него, выполняют функцию определения. Перевод такой “цепочки определения” может быть разным. Главное правило

– НАЧИНАТЬ ПЕРЕВОД СПОСЛЕДНЕГО СУЩЕСТВИТЕЛЬНОГО.

computer program

компьютерная программа

monitor screen

экран монитора

error message

сообщение об ошибке

file system

файловая система

input and output devices

устройства ввода и вывода

computer specialist

специалист по компьютерам

laser printer

лазерный принтер

software architecture

архитектура ПО

the *garden* window

окно, (*выходящее*) в сад

II. Местоимение

личные местоимения притяжательные
именительный падеж объектный падеж *местоимения*

I – я

you – ты, Вы

he – он

she – она

it – он, она, оно

we – мы

you – вы

they – они

me – меня, мне

you – тебя, Вас, тебе, Вам

him – его, ему

her – её, ей

it – его, её, ему, ей

us – нас, нам

you – вас, вам

them – их, им

my – мой

your – твой, Ваш

his – его

her – её

its – его, её

our – наш

your – ваши

their – их

III. Имя прилагательное

Степени сравнения прилагательных

положительная сравнительная (более ...) превосходная (самый ...)

long longer **the** longest

high higher **the** highest

easy easier **the** easiest

happy happier **the** happiest

useful **more** useful **the** most useful

important **more** important **the** most important

***Исключения:**

good (хороший) better (лучше) the best (самый лучший)

bad (плохой) worse (хуже) the worst (самый плохой)

many, much (много) more (больше) the most (большинство)

little (мало) less (меньше) the least (меньше всего)

IV. Глагол

§ 1. Основные формы глагола

В английском языке глагол имеет четыре основные формы. Каждая форма характеризуется своими признаками и выполняет конкретные функции в предложении.

1. *Инфинитив* или *неопределенная форма (Infinitive)* только называет действие (или состояние) как таковое и не указывает на время и характер его протекания. Признаком инфинитива является частица *to*. Именно эта форма фиксируется в словаре, поэтому прежде чем переводить английский текст, необходимо выявить начальную форму глагола, от которого образовано сказуемое.

Примеры: to edit, to use, to store, to go, to give, to put.

2. *Простое прошедшее время (Past Simple)* образуется путем прибавления окончания *-ed*, если глагол правильный: *edit ed, use d, store d*. Неправильные глаголы образуют Past Simple по-разному, и эта форма указывается в специальной справочной таблице в словаре или учебнике: *to go – went, to give – gave, to put – put.*

Вторая форма глагола употребляется самостоятельно, является сказуемым и обозначает действие в прошедшем времени.

3. *Причастие прошедшего времени* или *причастие II (Past Participle, Participle II)* образуется путем прибавления окончания *-ed* к основе правильных глаголов (*edit ed, use d, store d*). Неправильные глаголы образуют третью форму по-разному; она указывается в справочной таблице: *to go – went – gone, to give – gave –*

given, to put – put – put. Participle II может употребляться как самостоятельно, так и в составе сложных глагольных конструкций.

4. *Причастие настоящего времени* или *причастие I (Present Participle, Participle I)* образуется одинаково у всех глаголов путем прибавления окончания *-ing* к основе: *edit ing, using, storing, going, giving, putting.* В предложении Present Participle может употребляться как самостоятельно, так и в составе сложных глагольных конструкций.

§ 2. Группы времен английского глагола

В английском языке существуют три группы времен: простое (*Simple*), продолженное (*Continuous*) и завершённое (*Perfect*). В пределах каждой группы выделяются настоящее (*Present*), прошедшее (*Past*) и будущее (*Future*) время. Таким образом, существуют *Present Simple, Past Simple, Future Simple, Past Continuous, Future Continuous*....

§ 2А. Группа времен Simple

Группа времен *Simple* представляет действие как факт. Служит для выражения обычных, регулярно повторяющихся действий в настоящем (*Present Simple*), прошедшем (*Past Simple*) и будущем (*Future Simple*) времени. Группа времен *Simple* часто употребляется с такими обстоятельствами времени, как: *usually, generally* – обычно
seldom – редко

always – всегда

often – часто

sometimes – иногда

every day / year... – каждый день / год ...

yesterday – вчера; last (year) – в прошлом (году); ago – тому назад; in 2013 – в 2013 году.

Present Simple глагола совпадает с его неопределенной формой без частицы *to* во всех лицах и числах кроме 3-го лица единственного числа, принимающего окончание *-(e)s*.

I (you, we, they, students) **speak** He (she, it, a student) **speaks**

I (you, we, they, students) **switch** He (she, it, a student) **switches**

I (you, we, they, students) **play** He (she, it, a student) **plays**

I (you, we, they, students) **study** *He (she, it, a student) **studies**

I (you, we, they, students) **do** *He (she, it, a student) **does**

I (you, we, they, students) **have** *He (she, it, a student) **has**

Запомните формы глагола **to be** (**быть, являться, находиться**) в *Present Simple*:

I **am** a student. We **are** students.

You **are** a student. You **are** students.

He (she, it) **is** a student. They **are** students.

Past Simple – это вторая основная форма глагола. В английском языке не существует различий между единственным и множественным числом в форме *Past Simple*. Исключением является глагол **to be**:

I (he, she, it) **was** a student. We (you, they) **were** students.

Future Simple образуется с помощью вспомогательного глагола **will** и начальной формы смыслового глагола без частицы *to*:

I (we, you, he, she, it, they) **will play (study, speak, do, have, be) will = 'll**

§2В. Группа времен *Continuous*

Группа времен *Continuous* представляет действие как процесс. Служит для выражения продолжающегося, незаконченного действия в настоящем (*Present Continuous*), прошедшем (*Past Continuous*) и будущем (*Future Continuous*) времени.

Группа времен *Continuous* часто употребляется с такими обстоятельствами времени, как:

now – сейчас

still – все еще

at this/that moment – в данный момент

throughout 2013 – на протяжении 2013 года

while – пока

all day long – весь день

Continuous образуется с помощью вспомогательного глагола **to be** в соответствующем времени и числе и **Present Participle (-ing формы)** смыслового глагола.

P r e s e n t

Continuous

I **am installing** a program *at this moment*.

He (she, it, a computer) **is installing** a program *now*.

We (you, they, computers) **are installing** a program *now*.

Past Continuous

I (she, it, a computer) **was installing** a program *all day long*.

We (you, they, computers) **were installing** a program *at that moment*.

Future Continuous

I (she, it, a computer, we, you, they) **will be installing** a program *all day long*.

§ 2С. Группа времен *Perfect*

Группа времен *Perfect* представляет действие как результат. Служит для выражения действия, которое завершилось к определенному моменту в настоящем (*Present Perfect*) или прошедшем (*Past Perfect*) времени.

Present Perfect часто употребляется с такими обстоятельствами времени, как: already – уже ever – когда-либо

never – никогда this year (month ...) – в этом году (месяце ...)

today – сегодня just – только что

recently – недавно not yet – еще не

for ages – целую вечность since (2013) – с 2013 года

Past Perfect обычно употребляется с такими фразами, как by 2004 (к 2004 году) или придаточным предложением с глаголом в Past Simple:

Perfect образуется с помощью вспомогательного глагола **to have** в соответствующем

времени и числе и **Past Participle** смыслового глагола.

Present Perfect

I (you, we, they, students) **have already installed** a program.

He (she, it, a computer) **has just installed** a program.

Today I (you, we, they, students) **have bought** a laptop.

Recently he (she, a student) **has bought** a laptop.

Past Perfect

By 2010 I (we, you, he, she, it, they) **had installed** a security system.

By 2010 I (we, you, he, she, it, they) **had bought** a new flat.

§ 3. Понятие о залоге. Образование страдательного залога.

В английском языке существует две формы залога: действительный (**Active**) и страдательный (**Passive**). Сказуемое в действительном залоге показывает, что лицо или предмет, выраженное подлежащим, само выполняет действие:

The company **produces** computers. Компания **выпускает** компьютеры.

В форме страдательного залога глагол-сказуемое указывает на то, что действие производится над предметом или лицом, выраженным подлежащим: Computers are produced *by* this company. Компьютеры **выпускают** эту компанией Страдательный залог образуется с помощью вспомогательного глагола *to be* в соответствующем времени и числе и *Past*

Participle смыслового глагола. Предлог *by* показывает, кем совершается действие, а предлог *with* – чем (каким предметом) совершается действие:

The novel *was written by* Leo Tolstoy. Роман был написан Львом Толстым

The letter *was written with* a pencil. Письмо было написано карандашом.

Ф о р м ы с к а з у е м о г о в с т р а д а т е л ь н о м з а л о г е

Simple

Present Simple Passive The music *is* recorded.

The records *are* sold.

Музыка записывается.

Записи продаются.

Past Simple Passive The music *was* recorded in 2012.

The records *were* sold in 2012.

Музыка была записана в 2012 г.

Записи были проданы в 2012 г.

Future Simple Passive The music *will be* recorded.

The records *will be* sold.

Музыка будет записана.

Записи будут проданы.

Ф о р м ы с к а з у е м о г о в с т р а д а т е л ь н о м з а л о г е

Continuous

Present Continuous Passive

The music *is being* recorded *at this moment*.

The records *are being* sold *all day long*.

Музыка записывается в данный момент.

Записи продаются в течение всего дня.

Past Continuous Passive The music *was being* recorded *at that moment*.

The records *were being* sold *all day long*.

Музыка записывалась в тот момент.

Записи продавались весь день.

Ф о р м ы с к а з у е м о г о в с т р а д а т е л ь н о м з а л о г е

Perfect Present Perfect Passive

Today the music *has been* recorded.

The records *have been* already sold.

Сегодня музыка была записана.

Записи были уже распроданы.

Past Perfect Passive

By 2012 the music *had been* recorded.

By 2012 the records *had been* sold.

К 2012 г. музыка была записана.

К 2012 г. записи были распроданы.

§ 4. Функции и перевод слов с окончанием -ed

Окончание *-ed* является признаком *правильного глагола*, поэтому начальную форму сказуемого без труда можно найти в словаре.

Функция Пример Перевод

Сказуемое

в *Past Simple* We *installed* a new program. Мы *установили* новую программу. часть составного сказуемого в *Passive* и в *Perfect* A new program was *installed* onto the computer. We have already *installed* a new program.

Новая программа была *установлена* на компьютер.

Мы уже *установили* новую программу.

определение The software *installed* on the

computer ... Программное обеспечение, *установленное* на компьютер ...

§ 5. Функции и перевод слов с окончанием *-ing* Окончание *-ing* является признаком причастия I и герундия. В большинстве случаев для понимания и перевода английского текста не столь важно, с какой формой вы имеете дело. Важно, какое место она занимает в предложении, потому что от этого зависит перевод всего высказывания. Итак, какие функции может выполнять слово на *-ing*?

1) часть сказуемого в *Continuous*

The train was *moving* at a high speed. Поезд *двигался* с большой скоростью.

2) если *-ing* форма стоит в начале предложения, то она может переводиться • подлежащим *Speaking English is very important. Говорить* по-английски очень важно. • обстоятельством в форме деепричастия

Speaking English he made no mistakes. (While) speaking English he made no mistakes. Говоря по-английски, он не делал ошибок.

3) определение; в этом случае *-ing* форма стоит, как правило, после существительного и переводится русским причастием настоящего времени People *speaking English are my friends. Люди, говорящие* по-английски, мои друзья.

4) очень часто перед *-ing* формой стоит предлог или союз. При этом варианты перевода могут быть разными, но помните, что прежде всего следует установить начальную форму глагола и знать перевод союза или предлога. They spoke about *installing* new software. Они говорили об *установке* нового ПО. There is a means of *reducing* power consumption. Есть способ *снизить* расход энергии. After *making* a back-up copy I deleted the file. После того как я *сделал* резервную копию, я удалил файл. Translate the text without *using* a dictionary. Переведите текст, не *пользуясь* словарем.

§ 6. Функции и перевод инфинитива

Инфинитив в английском языке имеет две формы: действительного залога (Infinitive Active) и страдательного залога (Infinitive Passive): *to ask – to be asked; to do – to be done.*

Инфинитив может выполнять следующие функции:

1) подлежащее; переводится неопределенной формой глагола или существительным To study English means to communicate with native speakers. И з у ч а т ь английский язык – это значит общаться с носителями языка. (И з у ч е н и е английского языка означает общение с носителями языка.)

2) обстоятельство цели; при этом перед инфинитивом может стоять оборот *in order*.

(*In order*) *To t r a n s l a t e* this book you should use a dictionary.

Для того чтобы перевести эту книгу, вам следует воспользоваться словарем.

3) определение к стоящему перед ним существительному. В подобном случае мы имеем дело с явлением, которое называется принципом экономии в языке: то, что в английском языке выражается коротко – с помощью инфинитива (как активного, так и пассивного) – на русский язык часто переводится придаточным предложением:

There are a lot of questions t o b e answered.

Есть много вопросов, н а к о т о р ы е н а д о д а т ь о т в е т
(о т в е т и т ь) .

This question will be discussed at the conference to open in Moscow.

Этот вопрос будет обсуждаться на конференции, к о т о р а я о т к р о е т с я в
М о с к в е .

§ 7. Модальные глаголы и их эквиваленты Как известно, глагол – это часть речи, обозначающая действие или состояние лица или предмета. Модальные глаголы выделяются в особую группу, так как они обозначают не само действие, а отношение к этому действию, например, возможность или необходимость (обязательность) его совершения. Поэтому их принято называть недостаточными, дефектными. Модальный глагол употребляется в предложении вместе с другим, смысловым глаголом в форме инфинитива без частицы *to*. Основными модальными глаголами в английском языке являются:

m u s t – *долженствовать с a n* – мочь, уметь

m a y – *иметь право, разрешение s h o u l d* – *следует*

В отличие от “обычных” глаголов, с помощью которых можно назвать действие в настоящем, прошедшем или будущем времени, модальные глаголы имеют форму только настоящего времени, у них нет формы будущего времени. Что касается формы прошедшего времени, то у глагола *must* она просто отсутствует, а *Past Simple* глаголов *can* и *may (could, might)* в реальном речевом употреблении имеет дополнительные оттенки значения, и поэтому использовать их надо осторожно – в противном случае можно исказить смысл высказывания и сказать не то, что вы хотели. В английском языке существуют так называемые эквиваленты модальных глаголов. Однако имейте в виду, что эквивалент в языке не предполагает полного равенства или замены – каждый эквивалент несет в себе какой-либо дополнительный оттенок значения. Рассмотрим более подробно употребление и перевод каждого модального глагола и его эквивалентов.

m u s t = t o h a v e t o , t o b e t o

must – *долженствование, необходимость произвести действие в настоящем времени:*

Your contract says that you must work 40 hours a week.

В контракте говорится, что вы должны (обязаны) работать 40 часов в неделю.

to have to – необходимость совершить действие в силу определенных обстоятельств; соответствует русскому “придётся, пришлось”.

I had to take an umbrella because it was raining. Мне пришлось взять зонт, потому что шел дождь.

to be to – необходимость совершить действие в связи с имеющимися планами (по расписанию, по приказу и т.п.)

We are to take five exams this term. В этом семестре мы должны сдавать пять экзаменов.

The train was to arrive at 9 p.m. Поезд должен был прибыть в 9 часов вечера.

can = to be able to

To be able to часто переводится на русский язык “быть в состоянии что-либо сделать”.

By means of computer programs economists will be able to make more complex economic models in future.

В будущем при помощи компьютерных программ экономисты смогут создавать более сложные экономические модели.

may = to be allowed to

В отличие от основного модального глагола *may* конструкция *to be allowed to* служит для выражения разрешения не только в настоящем, но и в будущем и прошедшем времени:

Only in 1993, commercial Internet providers were allowed to sell Internet connections to individuals.

Только в 1993 году Интернет-провайдерам разрешили на коммерческой основе предоставлять частным лицам доступ к сети.

should

Модальный глагол *should* используется для выражения долженствования в форме рекомендации.

You should visit a doctor. Вам следует сходить к врачу.

§ 8. Оборот *there + to be*

Перевод этого оборота часто вызывает трудности, потому что в русском языке отсутствует его буквальное соответствие.

Слово *there* является здесь формальным подлежащим, переводить его на русский язык не надо. Смысл этого оборота можно передать словами “имеется, есть, существует”; причем акцент сделан на том, *где, в каком месте* имеются предметы или люди. В каждом конкретном случае можно найти более удачное русское слово для перевода – “находится, расположен” и т.п.; слово “имеется” звучит неуклюже, зато подходит всегда.

There are ten computers in the room. В комнате (есть, имеется) десять компьютеров. Как можно заметить, в русском языке сказуемое можно вообще опустить. Если в английском языке есть обстоятельство места (оно стоит в конце или в начале предложения), то перевод целесообразно начинать именно с него:

There was a laptop and a pen-drive *on the desk*.

На столе лежали (находились) лэптоп и флешка.

§ 9. В о п р о с и т е л ь н ы е п р е д л о ж е н и я

В отличие от русского языка, в котором нет особых правил образования вопроса (кроме интонации), английское вопросительное предложение характеризуется структурой, присущей только этому языку.

В английском языке существует несколько типов вопросительных предложений. Мы рассмотрим *о б щ и е* и *с п е ц и а л ь н ы е* вопросы.

§ 9А. *О б щ и й в о п р о с* Общий вопрос задается ко всему предложению в целом; на него можно дать краткий ответ – “Да” или “Нет”.

С х е м а о б щ е г о в о п р о с а *Вспомогательный глагол* *Подлежащее* *Смысловый глагол без to* *Остальные члены предложения*

Перевод

Do I/you/we/they live in Samara? (Вы) живете в Самаре?

Does he/she/ it live in Samara? Он/она живет в Самаре?

Did I/you/we/they/

he/she/it

live in Samara? ... жили в Самаре?

Вспомогательный глагол *t o d o* *н е у н о т р е б л я е т с я* в следующих случаях:

1) когда в составе сказуемого уже есть вспомогательный глагол (в будущем времени,

страдательном залоге, Continuous, Perfect):

W i l l you go to the cinema with me?

Were these printers produced in China?

W i l l the letter b e s e n t in time?

Was the office manager watching TV when her boss came?

Has the company des igned a new computer?

2) когда в состав сказуемого входит модальный глагол:

Can your brother speak English?

May I u s e your mobile phone?

Must first-year students take an English exam?

Should they switch off the alarm system?

3) когда сказуемое выражено глаголом *t o b e* :

Are you a computer specialist?

I s it a high-end security system?

Are there any questions to the speaker?

Was your English teacher a strict examiner?

Помните, что в ОБЩЕМ ВОПРОСЕ на первом месте всегда стоит ГЛАГОЛ.

§ 9В. *С п е ц и а л ь н ы й в о п р о с*

Специальный вопрос задается к конкретному члену предложения (подлежащему,

дополнению, обстоятельству и т.д.). Если вы научились задавать общий вопрос, очень легко образовать специальный вопрос, потому что для этого пе-

ред общим вопросом вам следует поставить соответствующее вопросительное слово:

who *кто* where *где, куда* which *который из*

whom *кого, кому, кем* where...from *откуда* how *как*

whose *чей, чья, чьё* what *что, какой* how long *как долго*

when *когда* what kind of *какой* how often *как часто*

why *почему, зачем* what...for *для чего* how many / much *сколько*

The first computer appeared in Russia in 1783. When did the first computer appear in Russia? The devices were produced in China. Where were the devices produced? The engineers have improved the design. What have the engineers improved? I like classical music. What *music* do you like? I have been working here for five years. How long have you been working here? There are ten computers in the class room. How many computers are there in the room? My father studied at Moscow University. What University did your father study at? They are talking about the latest news. What are they talking about? Вопрос к подлежащему или определению, относящемуся к подлежащему, – это тот тип вопроса, который не должен вызывать затруднений, потому что порядок слов в русском и английском языках практически одинаков:

Кто учится на электротехническом факультете?

Who studies at the Electrical Engineering Faculty?

Что требуется для получения доступа к сети?

What is required to access the Internet?

Какой антивирусник защищает твой компьютер?

What antivirus program protects your computer?

Сколько человек живет в Самаре?

How many people live in Samara?

§ 10. Отрицательные предложения

Структура английского отрицательного предложения очень похожа на структуру вопроса тем, что и в том, и в другом типе предложений употребляется вспомогательный глагол *to do*. В тех случаях, когда глагол *to do* отсутствует в вопросительном предложении, его нет и в отрицательном предложении; частица *not* стоит сразу после сказуемого или изменяемой его части (если сказуемое выражено двумя или более словам): *Вопрос Краткий отрицательный ответ Полный отрицательный ответ*

Do the kids speak French? No, they don't. They do not (don't) speak French.

Does Pete play the piano? No, he doesn't. He does not (doesn't) play the piano.

Did they use a mike? No, they didn't. They did not (didn't) use a mike.

Will you believe me? No, I won't. I will not (won't) believe you.

Can she meet me? No, she can't. She cannot (can't) meet you.

Have you seen Susan? No, I haven't. I have not (haven't) seen her.

Are you watching TV? No, I'm not. I am not (aren't) watching TV.

Is the truck overloaded? No, it isn't. It is not (isn't) overloaded.

§ 11. Наиболее распространенные служебные слова

according to – в соответствии с, согласно чему-л.

although, though – хотя; несмотря на то, что
 as – так как; когда; по мере того как; в качестве
 as long as – до тех пор пока
 as soon as – как только
 as well – также; тоже
 as well as – так же, как и
 because of – из-за, вследствие
 by means of – посредством, при помощи
 due to – благодаря; вследствие; из-за; в результате
 during – в течение, в продолжение; во время
 for – так как; для; за; в течение
 however – однако, тем не менее
 if – если
 instead of – вместо того, чтобы; вместо чего-л.
 moreover – более того, кроме того
 nevertheless – тем не менее, однако, несмотря на
 no longer – уже не, больше не
 once – как только
 provided – при условии (что); если только
 rather than – а не
 since – так как; с тех пор как; с
 such as – например; такой, как
 unless – если...не
 unlike – в отличие от
 until – до тех пор пока...не
 within – в; в пределах; в рамках
 while – в то время как; когда

Infinitive Past Simple Participle II П е р е в о д
 be was, were been быть, являться, находиться
 become became become становиться, делаться
 begin began begun начинать
 break broke broken ломать, разбивать
 bring brought brought приносить, привозить
 build built built строить
 burn burnt burnt гореть, жечь
 buy bought bought покупать
 catch caught caught ловить, схватить
 choose chose chosen выбирать
 come came come приходить
 cut cut cut удалять, вырезать, сокращать
 do did done делать
 draw drew drawn рисовать, чертить
 drive drove driven приводить в движение, управлять
 fall fell fallen падать

feed fed fed подавать, питать
find found found находить, обнаруживать
fly flew flown летать
forbid forbade forbidden запрещать
forget forget forgotten забывать
get got got получать, доставать, становиться
give gave given давать, предоставлять
go went gone идти, ехать
grow grew grown расти, увеличиваться
have had had иметь
hear heard heard слышать
hold held held держать, хранить
keep kept kept держать, хранить
know knew known знать
lay laid laid класть, положить
lead led led вести, управлять
learn learnt learnt узнавать, учить
leave left left оставлять, уходить, уезжать
let let let позволять, разрешать
light lit lit освещать, зажигать
lose lost lost терять; проигрывать
make made made делать; заставлять
mean meant meant значить, означать; иметь в виду
meet met met встречать
pay paid paid платить
put put put класть, ставить
read read read читать
ring rang rung звонить
run ran run бежать, двигаться
say said said говорить, сказать
see saw seen видеть
seek sought sought искать, стремиться
sell sold sold продавать
send sent sent посылать
set set set ставить, помещать, устанавливать
show showed shown показывать
shut shut shut закрывать
sit sat sat сидеть
speak spoke spoken говорить, разговаривать
spend spent spent тратить; проводить (время)
spread spread spread растягивать, распространять(ся)
stand stood stood стоять
steal stole stolen красть, похищать
take took taken брать, принимать

tell told told сказать, рассказывать
think thought thought думать, полагать, считать
wear wore worn носить, изнашиваться
win won won выигрывать
write wrote written писать, сочинять

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ТУСИНА НАДЕЖДА ВЛАДИМИРОВНА

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