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АНГЛИЙСКИЙ ЯЗЫК

ДЛЯ СТУДЕНТОВ,

ИЗУЧАЮЩИХ ИНФОРМАТИКУ

Учебное пособие

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Учебное пособие состоит из 10 циклов-уроков. Каждый цикл объединен единой тематикой и содержит основной текст, назначением которого является обучение чтению технической литературы по специальности "Информатика", дополнительные тексты для ознакомительного чтения, активизации грамматических структур и лексики по специальности; письменные и устные грамматические и лексические упражнения коммуникативной направленности.

Пособие предназначено для студентов, изучающих информатику.

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Предисловие

Настоящее пособие предназначено для студентов, изучающих информатику. Цель пособия – подготовить студентов к чтению специальной научно-технической литературы для извлечения информации, а также привить им навыки устной речи по специальной тематике.

При организации учебного материала авторы ставили перед обучающимися задачи повторения и обобщения основных грамматических тем и лексики, пройденных в средней школе, а также углубленного изучения тех грамматических явлений, которые необходимы студентам для профессионального общения на английском языке. Тексты пособия отобраны из оригинальных американских источников с учетом их информативности и соответствия изучаемой специальности.

Пособие состоит из десяти уроков и приложения. В каждом уроке представлены три – четыре текста, объединенных общей тематикой, и поурочный англо-русский словарь основных терминов. Все эти тексты предназначены для обучения различным видам чтения. Первый текст урока является основным и подлежит тщательной проработке и анализу для изучения грамматических и лексических явлений урока. Второй, третий и четвертый тексты служат развитию навыков чтения и извлечения необходимой информации, что способствует закреплению лексико-грамматического материала, проработанного в первом тексте. Каждый урок начинается с предтекстовых упражнений для преодоления лексических и грамматических трудностей текста, включает в себя упражнения, направленные на выработку навыков чтения и перевода литературы по специальности, ведения поиска нужной информации в тексте и развитие навыков устной речи в пределах представленной тематики. Упражнения на словообразование содержат в основном активную лексику. Эти упражнения рекомендуется выполнять в аудитории под руководством преподавателя.

Работа над пособием под руководством преподавателя позволяет овладеть навыками перевода текстов по специальности, а также знаниями по основным разделам грамматики. Для снятия трудностей, возникающих в процессе овладения грамматическими навыками и при чтении и переводе текстов, в пособие включено приложение, содержащее следующие разделы: "Правила чтения", "Наречие", "Союз", "Фразеологические сочетания", "Предлог", "Порядок слов в английском предложении", "Система времен глагола в действительном залоге", "Система времен глагола в страдательном залоге", "Неличные формы глагола", "Неправильные глаголы".

Уроки 1 – 5 и грамматическое приложение составлены Т.С. Ежовой, уроки 6 – 10 составлены Т.В. Балакаевой.

LESSON 1

Глаголы to be, to have
Времена группы Indefinite Active, Passive
Оборот there + to be
Порядок слов в предложении
Суффиксы существительных
Text A. Introduction to today's computers
Text B. Computers in education, science and medicine
Text C. Computer-based communications systems

PRE-TEXT EXERCISES

1. Выберите правильную форму глагола:

My friend Ann (have, has) a large family. She (have, has) a father, a mother, a sister and two brothers. Her sister (is, are) only five years old. Her brothers (are, is) older than Ann. They (is, are) not schoolboys, they (is, are) students. They (have, has) a lot of friends at the University. Ann's family (have, has) a three-room flat. It (are, is) large and comfortable.

2. Выберите правильную форму глагола *am/am not; is/is not; are/are not:*

1. I ... from Russia. 2. I ... a student of the Russian State Vocational Pedagogic University. 3. Excuse me, how old ... you? I ... seventeen. 4. My friend ... interested in computers. 5. His parents ... around 40. 6. Yekaterinburg ... situated on the Neva river. It ... situated on the Iset river. 7. My father and my brother ... both programmers. 8. I ... keen on sports. But I ... rather good at basketball. 9. Our University ... young. 10. It ... as large as the Urals State Technical University, but there ... a lot of students in it as well. 11. There ... part-time and full-time students here. 12. This ... our dean. His name ... N.N. 13. The dean's office ... on the first floor.

3. Поставьте следующие предложения в Past или Future Indefinite, добавляя, где необходимо, слова *last/next week, last/next year, last/next month, tomorrow, yesterday.*

1. We are first-year students now. 2. The students of our group are very busy today. 3. We have three or four lectures every day. 4. Mary is our monitor. 5. She is

good at mathematics. 6. She is in the reading-room now. 7. It is quite possible for us to help him. 8. Today we have time to go to the cinema. 9. My knowledge of English is very poor. But my friend is a good student. His knowledge is better. 10. We are good friends. 11. There are twenty-five students in my group.

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1. It is a warm and sunny day today. 2. There is no sun in the sky and there are many clouds there. 3. There is a strong wind today and it is cold outside that's why it is pleasant to stay indoors. 4. There is a good canteen on the ground floor. 5. There are many well-equipped laboratories at our University.

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1. I study six days a week. 2. I go to the University every day. 3. Usually I get up at seven o'clock. 4. My studies begin at eight o'clock. 5. After the third period my friend and I go to the canteen. 6. As a rule I leave the University after the fourth period. 7. At home I do my homework for the next day. 8. It takes me two or three hours to get ready for my practical classes. 9. On weekdays I watch television or read. 10. It is interesting but difficult to study at the University because we do not know how to organize our work and time.

4. Поставьте сказуемое в отрицательную форму:

1. I am a first-year student now. 2. Almost all of my friends were schoolchildren last year. 3. It was a very difficult year for us. 4. We got ready for our exams. 5. We had three entrance exams last summer. 6. I got excellent marks for my entrance exams and became a full-time student. 7.Yesterday we went to the University library. 8. The librarian gave us all the necessary books. 9. The greater part of our students study free of charge, but some of us study on a commercial basis.

5. Переведите предложения:

1.Our University was founded in 1979. 2. At first it was called the Sverdlovsk Engineer Pedagogic Institute. 3. In 2001 the University was given the Russian status. 4. Now it is called the Russian State Vocational Pedagogic University. 5. There are many computer classes here. 6. Many complex problems can be solved with the help of computers. 7. New specialities are suggested to our students. 8. Every year new laboratories are opened here. 9. The study of theory is accompanied by practical training. 10. Every summer students may be sent to plants and enterprises for industrial training. 11. A lot of basic subjects must be studied by the students to become qualified specialists. 12. New strategic tasks of the University development will be solved by collective efforts of the teaching staff and students. 13.The development of science is closely connected with the development of higher

education. 14. Any country must be provided with good specialists in all branches of science and technology for its further development.

6. Поставьте все возможные вопросы к каждому предложению:

1. The academic year in this country's higher schools begins on the first of September. 2. Students take exams at the end of each semester. 3. Twice a year the students have vacations – two weeks in winter and two months in summer.

7. Преобразуйте следующие предложения в вопросительные и отрицательные:

1. University graduates are offered a wide choice of jobs. 2. This matter will be discussed only tomorrow. 3. We hope a solution will be found soon. 4. He was asked about his opinion of the new trends in software design. 5. The seminar was attended by all the students of our group. 6. At the university lectures and seminars are followed by examinations.

8. Переведите предложения, обращая внимание на многозначность выделенных слов:

1. The ***men*** will ***ship*** the goods tomorrow. The captain will ***man*** his ***ship*** next month. 2. ***But*** me no ***buts.*** 3. ***Running*** a computer games business has become very popular lately. This man is responsible for ***running*** a computer business in this region. They ***run*** a very profitable business somewhere in South Africa. The teaching of industrial business was ***run*** as a commercial enterprise. 4. It is necessary to ***weigh*** one plan against the other. Before coming to a conclusion he ***weighed*** all the "pros" and "cons". 5. ***While*** computers are becoming more and more complex, no computer has attained human intelligence so far. ***While*** computers can answer some questions better and quicker than man can, it is the man who must formulate the questions. ***While*** people can manage without computers, the reverse is not possible so far. ***While*** the number of electronic computers is constantly growing they are not used to full capacity because there is no adequate software. 6. He meets a lot of ***people*** every day. A lot of different ***peoples*** live in Asia. 7. ***Link*** is the hardware and/or software used to connect two or more systems. They ***link*** two main parts.

9. Переведите предложения, обращая внимание на существительные в функции определения:

1. Argument force rather than force argument should dominate. 2. This approach is used for time and money saving purposes. 3. Such integrity was achieved by a combination of manual and computer based controls. 4. Procedure-oriented languages are usually related to a class of problem types. 5. The research

team developed a new kind of information receiving system. 6. Another problem with Vnukovo is the quality and accessibility of phone services provided by the airport. Vnukovo management has installed special phone booths, which can be used with special phone cards sold in the airport. 7. Last week there was the Russian-Chinese investment forum in St. Petersburg.

10. Составьте предложения из данного набора слов, соблюдая порядок слов повествовательного предложения:

1. by, the first, Intel, was, in, microprocessor, 1969, designed.
2. innovations, is, new, of, each, technological, based, generation, on, computers.
3. requires, system, input, a computer, devices, devices, and, output.
4. the computer, the physical, are, as, known, components, of, hardware.

11. Переведите следующие предложения, обращая внимание на безличные обороты:

It is impossible...	Невозможно...
It is necessary...	Необходимо...
It is late...	Поздно...
It is difficult for them...	Им трудно...
It is easy for us...	Нам легко...
It is quite possible for me...	Вполне возможно, что я...

1. It is necessary to work at the language every day. 2. It is difficult for me to translate this text because I do not know the words. 3. It is impossible to answer your question. 4. It is quite possible for him to forget her telephone number. 5. It is easy for us to get to the University by tram or trolleybus. 6. It is late to go to the canteen because the lecture will begin in five minutes.

12. Переведите предложения на английский язык:

Я учусь на первом курсе. Студенты первого курса изучают математику, физику, химию, иностранный язык и некоторые другие предметы. Учиться на первом курсе трудно, потому что мы еще не умеем планировать свое время. Обычно у студентов дневного отделения нашего университета бывает три лекции в день или две лекции и лабораторная работа. Ежегодно мы пишем по две курсовых работы. Два раза в семестр мы сдаем внеаудиторное чтение по английскому языку. Обычно мы выбираем тексты из английских газет или журналов. Учебный год состоит из двух семестров. Каждый семестр завершается экзаменационной сессией, состоящей из зачетов и экзаменов. Студенты сдают экзамены дважды в год – обычно в декабре и июне. Как

правило, студенты сдают не более пяти экзаменов во время сессии. Старшекурсники изучают предметы по выбранной специальности. Очень хорошей традицией Института информатики является то, что теория сопровождается практикой. Уровень преподавания в Институте информатики очень высок, поэтому нашим выпускникам легко найти работу. Лучшие выпускники, занимающиеся научными исследованиями, становятся аспирантами и продолжают учебу в аспирантуре.

WORD-BUILDING

13. Запомните суффиксы существительных:

Суффикс	Значение	Примеры
-er; -or	аппарат, действующее лицо, профессия, химически действующее активное вещество	refrigerator, transformer, teacher, actor, transmitter, hardener, operator
-ian	специальность, национальность	Russian, Indian, Italian, technician, politician, physician
-ist	профессия, партийная принадлежность	biologist, chemist; socialist, activist
-ee	человек – объект действия	trainee, employee, addressee
-ing	процесс, действие	melting, burning, writing, reading
-ness	состояние, свойство, качество	usefulness, happiness, hardness
-ity	состояние, свойство, качество	community, electricity, nationality, intensity
-ment	действие, событие	government, development, achievement, movement, requirement
-tion, -ion, -ssion	процесс, действие	administration, definition, session
-ture, -age	отвлеченное понятие	nature, future, picture, message, advantage
-th	используется для образования существительного от прилагательного	wide — width, strong — strength, long – length
-dom,-hood, -ship	отвлеченное понятие	freedom, childhood, friendship

14. Переведите следующие производные слова:

to examine — examination; to adopt — adoption; to graduate — graduation; to specialize — specialization; to organize — organization;

to environ — environment; to enroll — enrollment; to develop — development; to achieve — achievement; to move — movement; to establish — establishment; to improve — improvement; to agree — agreement; to appoint — appointment;

to think — thinker, to compress — compressor, to lecture — lecturer;

dark— darkness; useful — usefulness; help — helplessness;

to resist — resistance; to differ — difference; to be absent — absence; to be present – presence; appear — appearance;

science — scientist; special — specialist; art — artist; biology — biologist;

short — shortage; to break — breakage; to use — usage;

to respond — responsibility; to stabilize — stability, to realize — reality, to individualize — individuality, to popularize — popularity;

nature, culture, structure, manufacture, feature, measure, treasure.

15. Образуйте существительные от следующих слов, используя суффиксы *-ance, -ence, -tion, -ssion, -ing, -ture, -ness, -age, -ity, -th* или нулевой суффикс:

appear, perform, important, differ; explore, prepare, implement, realize, transit, propose, create, discuss; lighten, encode; useful, noiseless, powerful; store, prior; grow; structural, dangerous, electronic.

KEY TERMS

16. Запомните следующие слова:

application software	прикладное программное обеспечение
artificial intelligence	искусственный интеллект
assembly language	язык ассемблера
CD-ROM	компакт-диск
central processing unit (CPU)	центральный процессор
computer-aided design (CAD)	автоматизированное проектирование
diskette (floppy disk)	дискета (флоппи-диск)
display monitor	дисплей
dot-matrix printer	матричный принтер
electronic-mail (e-mail)	электронная почта
facsimile machine (FAX)	факс (факсимильная машина)
fixed disk (hard disk)	жесткий диск, винчестер

hard copy (output)	печатный или машинописный текст
hardware	аппаратное обеспечение
high-level programming language	язык программирования высокого уровня
ink-jet printer	струйное печатающее устройство
input device	устройство ввода
integrated circuit	интегральная схема, ИС
keyboard	клавиатура
letter-quality printer	принтер с типографским качеством печати
large-scale integration (LSI)	интеграция высокого уровня
low-level language	язык низкого уровня
main memory	основная память, оперативная память
mainframe	большая ЭВМ
multiuser	многоабонентский
natural language	естественный язык
nonimpact printer	безударный принтер
off-the-shelf software	стандартное ПО
programmer	программист
random-access memory (RAM)	прямой [произвольный] доступ; способ организации доступа к устройству памяти, при котором для чтения/записи произвольного блока данных не требуется последовательный просмотр блоков, начиная с самого первого, например ОЗУ
secondary storage	вспомогательное ЗУ; внешнее ЗУ
second-generation language	язык второго поколения
software	компьютерные программы, программное обеспечение
software interface	1) поверхность раздела; граница раздела; 2) устройство сопряжения; связующее звено, интерфейс (между человеком и ЭВМ или машиной)
very large-scale integration	сверхбольшие интегральные схемы (СБИС)

17. Прочтите и переведите текст.

TEXT A

INTRODUCTION TO TODAY'S COMPUTERS

A computer is an electronic device used to process information. It is this function of the computer that placed it at the centre of our transition from the industrial period of our society to the information age. Today, we encounter computers in almost every aspect of society. Computers are highly visible in such professions as education, science, medicine, and business, but they also can be found behind-the-scenes at the grocery store, in our automobiles, microwave ovens, and VCRs.

Computers have evolved through several generations. Each new generation is based on technological innovations and new methods of processing data. The first generation began with the development of the earliest large mainframe computers. These room-sized computers, such as the UNIVAC 1, were based on electromechanical devices and vacuum-tube technology. Computers based on the transistor, which was invented in the late 1950s, mark the beginning of the second generation of computers. Transistors brought about the development of smaller, faster, and more efficient computers.

The third generation of computers used integrated circuits that opened the door for the creation of even smaller and faster computers. These smaller computers were known as minicomputers and were the first to incorporate operating systems that automated many of the computer's operational tasks, tasks that had been formerly handled by humans.

The fourth generation of computers is characterized by large-scale integration of computer circuitry and small microprocessors. Microcomputers (also called personal computers or PCs) were based on these microprocessors and they put computing power into the hands of individual users. In the future, computers that utilize artificial intelligence technologies will be able to make decisions based on accumulated evidence.

Although the technological innovations that mark the different generations in the evolution of the computer are generally concerned with the central processing capabilities of the computer, a computer system is actually an integrated set of computing components. A computer system requires input devices (keyboard, mouse, scanners, etc.) to get information into the computer and output devices (monitor, printer, etc.) to get information out of the computer.

These physical components of the computer are known as hardware. The set of instructions or programs that are created by programmers to control the computer's response to user input is known as software.

There are several types of software: systems software, which refers to the programs used to operate the computer itself applications software, which refers to

programs used to perform various tasks such as word processing, database management, and record keeping; and programming software, which refers to programs used to create software.

Programming languages have evolved through a series of generations, just as computer hardware has. Machine languages give the programmer precise control over all of the computer's activities using programming commands that are closely related to hardware capabilities. Assembly languages use easier-to-understand code words rather than the binary code used in machine languages. High-level languages, which utilize English-like instructions, made the programming process much easier.

Today, nonprocedural languages, object-oriented languages, and natural-language approaches provide much more flexibility to programmers by eliminating the need for many of the special syntax rules of earlier languages. Just as the personal computer gave computing power to the individual, today's new authoring tools are providing a way for nonprogrammers to create their own programs.

18. Ответьте на вопросы:

1. What is a computer?
2. Where are today's computers being used?
3. What technological advances are identified with each generation of computers?
4. What is a programming language and how is it different from an operating system or an applications program?
5. What contribution did the integrated circuit make to the development of computers?
6. How will new technologies such as artificial intelligence and expert systems affect the use of computers in the future?
7. What is the function of a computer's central processing unit (CPU)?
8. Why is a computer's main memory system called random-access memory (RAM) and how does it differ from secondary storage systems?
9. What does the term "interface" refer to?

19. Переведите следующие словосочетания на русский язык:

specially designed climate-controlled rooms; knowledgeable computer users; word processing; computerized learning programs; on-screen digitized video; real-world situations; sophisticated computer programs; medical diagnostic technologies; computer-based medical imaging; fastest-growing areas.

20. Прочтите и переведите текст.

TEXT B

COMPUTERS IN EDUCATION, SCIENCE AND MEDICINE

In the past, many might have questioned the need to know about computers. Computers were complex, mysterious devices that were managed by computer professionals in computer centres that were hidden away in specially designed, climate-controlled rooms. But today, we use computers and computerized devices every day. And while there is still a tremendous need for computer programmers and other computer professionals in our society, there is an even greater need for knowledgeable computer users. From word processing to medical imaging, today's computers give us new capabilities and new ways to accomplish our daily tasks. Today's users need to know what computers and computer programs are capable of and how to take advantage of those capabilities.

In education, personal computers have given teachers new ways to individualize instruction. New types of computerized learning programs can combine text, graphics, and even on-screen digitised video to give students more realistic, motivational lessons. Programs that provide practice and feedback about basic concepts have now been supplemented with tutorials and simulations that present students with information about real-world situations.

Today, elementary and secondary schools as well as colleges and universities provide a variety of courses about using computers. Many high schools and colleges are now requiring all students to take at least one course on using computers and some states now require all teachers to be knowledgeable about computers and computer programs before they can acquire teaching credentials.

Researchers in ***science and medicine*** have used computers since they were invented, but today new, more powerful computers and more sophisticated computer programs have made them indispensable to scientists. Scientific instrumentation for research and analysis has now become thoroughly computerized. And medical diagnostic technologies and computer-based medical imaging represent one of the fastest-growing areas in the computer field.

21. Ответьте на вопросы:

1. Why did only computer professionals manage computers in the past?
2. What do today's users need to know about computers?
3. What can computerized learning programs combine?
4. What have personal computers given teachers?
5. How long have researchers used computers in science and medicine?

22. Переведите следующие словосочетания:

computer-based communication systems; electronic mail systems; e-mail messages; computerized security systems, electric appliances; phone's numbered dialing buttons; interactive video entertainment; computerized entertainment center; computer-based technologies; FAX machines; business environment; cable TV programs; computer applications.

23. Прочтите и переведите текст.

TEXT C

COMPUTER-BASED COMMUNICATIONS SYSTEMS

Computer-based communications systems have significantly enhanced our ability to communicate with each other. In the last few decades, computer-based technologies led to a redesign of our telephone systems, and new technologies have created new ways to convey information.

FAX machines and computers that can communicate with FAX machines now quickly send copies of documents across the country or across the world.

Even our traditional methods of sending mail have changed because of the computer. Computers are now used to prepare memos, letters, and business information. New programs can create much more attractive documents that include graphics and varieties of text styles and sizes.

In addition, many computer users now send mail electronically. Electronic mail (e-mail) systems are computer-based systems that provide individual computer users with an "address" to which computer messages can be sent. Once sent by the computer, the e-mail message will arrive almost instantaneously at its destination, where it will be stored until the addressee uses a computer to access it. Individuals can also send and receive e-mail through subscriber services. E-mail systems are one of the fastest-growing uses of computers. Today, they are becoming common in business and in education.

Over the last few decades, almost every business, whether large or small, has "computerized." And every aspect of business — from sales to product delivery — now involves the use of a computer. In marketing, the computer is used to maintain information about customers and accounts. In manufacturing, the computer is used to keep track of raw materials, production, and inventory. Computers are now so common in business that they are used to track a company's products from their design to their delivery. And most large businesses now have a special department to manage the computers and the flow of computerized business information. In today's competitive business environments, decisions about which types of computers and computer programs to use are often closely related to the overall success of the company.

Our private homes represent one of the last places in our society to be significantly changed by the computer. While government offices, schools, hospitals and businesses have found advantageous applications for computers, many homes have not. Some have predicted that the next great surge in new computer applications will be for our homes.

They say we will soon be ordering our groceries, our auto service, our cable TV programs, or our Sunday papers simply by choosing an option from a menu of choices on the computer's screen.

Today, there are already computerized security systems in many homes. Some homebuilders have installed systems in houses that use a computer to control the lights, the heat, and ever the electric appliances. In some homes, these computerized systems can be controlled by calling the house from any phone and typing in number sequences using the phone's numbered dialling buttons.

Now, many computer experts believe that the computer will finally find its way into our homes as part of a unified information and entertainment system. If the technologies of television, computers, and electronic games come together, they will provide a new form of interactive video entertainment. This may take the form of continually available television broadcasts that can be stored inside your computerized entertainment centre, letting you determine what you want to see when you want to see it.

REVIEW QUESTIONS

24. Ответьте на вопросы:

1. What changes in a society indicate that it is moving into the information age?
2. What do we mean when we say that computers can process information?
3. Computers are now used to enhance our ability to communicate with each other. Name some of the devices and techniques that we are now using to facilitate communications.
4. What were the main characteristics of the first generations of computers? How did they differ from the second and third generation computers?
5. Today computers can be large or small. The smallest computers are based on a new type of processing device. Name that device and describe the new types of computers that are based on it.
6. Describe the differences between main memory and secondary storage.
7. A computer system includes devices that are used to get information into the computer (input devices) and to transfer information out of the computer in a form usable by humans (output devices). List some of today's most common input and output devices.
8. What does the term software refer to? Name the three main classifications of software.

LESSON 2

Времена группы Continuous Active, Passive
Функции *it, that, one*
Степени сравнения прилагательных
Суффиксы прилагательных и наречий
Text A Computer hardware
Text B The computer's components
Text C Input and output devices

PRE-TEXT EXERCISES

1. Объясните употребление времен группы Continuous, переведите предложения:

1. I am sitting at the table and reading an English text. 2. The teacher is listening to me. She is not sitting; she is standing. She is looking at us. She is holding a pen in her hand, but she is not writing. 3. It is getting cold now, isn't it? Look out. Is it raining now? 4. When I came home my brother was watching TV. 5. She usually gets up at seven o'clock. But today she got up at half past seven. Her parents were having breakfast. 6. Yesterday when I was having dinner a friend of mine rang me up. 7. I hope they will be waiting for me when I come back. 8. They will be translating this difficult article the whole day tomorrow. 9. In June the students will be taking their exams for the whole month.

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1. Our dean is not available at the moment. He is being interviewed. 2. I couldn't use the photocopier this morning. It was being repaired. 3. What is going on? A new method of research is being discussed. 4. A new material was being explained when you came in. 5. Much is being done to improve computer-based communications systems.

2. Преобразуйте следующие предложения в вопросительные и отрицательные:

1. The students are listening to the lecturer. 2. At the last lecture professor N. was encouraging us to ask questions. 3. A new teacher training computer program is being developed by our programmers. 4.The computer was being repaired when they entered the computer class. 5. They were working all day yesterday. 6. Teachers are discussing merits and demerits of the new approach in language teaching. 7.The Prime Minister will be staying three days in France.

3. Выберите правильную форму глагола:

1. He (is reading/reads) now. 2. She usually (is reading/reads) English books in the evening. 3. Now they (are translating/translate) a technical text. 4. They usually (do not translate/are not translating) stories. 5. He (looked/was looking) through the newspaper when I rang. 6. The students (were having/had) an interesting discussion when their teacher came in. 7. The students often (have/are having) interesting discussions after lectures. 8. What problems (will be being discussed/will be discussed) at the meeting? 9. We (will be taking/ will take) a test next month.

4. Раскройте скобки и поставьте глагол в форме Present или Past Indefinite или Continuous по смыслу:

1. What you (to do)? – I (to translate) an article. 2. Where you (to get) this magazine? – A friend of mine (to give) it to me yesterday. 3. Last week I (to get) two letters from my brother. 4. He (to show) me their new flat when the letter was brought. 5. When I (to translate) the article I (to use) a dictionary. 6. What you (to do) at 8 o'clock in the evening yesterday? I (to want) to come to see you. 7. It (to rain) from 2 till 4 o'clock yesterday. 8. We (to watch) TV when a friend of mine (to come). 9. The hall (to be) full of people when we (to come) in. 10. It (to rain) still? I am afraid to be late.

5. Переведите следующие предложения на английский язык:

1. Не мешайте ему. Он работает над своим дипломным проектом. 2. На следующей неделе мы уезжаем на конференцию. 3. Члены комиссии ждут вас в 403-й аудитории. 4. Когда они вошли в комнату, мы обсуждали результаты зимней сессии. 5. Этот преподаватель никогда не прерывает студентов, когда они выступают на семинаре. 6. Пока декан говорил, старосты внимательно слушали его. 7. Она всегда опаздывает.

6. Переведите *it* в различных функциях:

1. It is interesting to study at the University. 2. It is a new subject. It is very important for our future profession. We shall study it for two years. 3. It is known that the knowledge of general engineering subjects is necessary for the study of special subjects. 4. We found it necessary to control the whole process. 5. It is no use to dispute the truth. 6. The supposition was correct. It was scientifically proved. 7. It is the development of computer technologies that will solve some very complex problems of industry. 8. It is evident that research is becoming more specialized now. 9. It is the invention of computers that accelerated the industrial progress.10.It is industrialization that is making ecological problems very serious. 11. It is possible that the problem will be solved. 12. It is precisely that method that he followed.

7. Переведите *one* в различных функциях:

1. One can easily understand why the profession of an engineer requires special college training. 2. We must translate only one text. 3. One cannot translate such a text without a dictionary in the first year. 4. One must pass all the exams well to enter the University. 5. You may take my dictionary. – Thank you, I have one, the one that my friend gave me yesterday. 6. One is never old to learn. 7. The new technologies that are being developed must be connected with traditional ones. 8. The use of an analogue computer permits one to obtain such results quite rapidly. 9. The problem that has become the most important one in the modern world is the problem of terrorism.

8. Переведите *that/those* в различных функциях:

1. That University was founded in 1979. 2. Can you repeat all those questions that the teacher asked? 3. The article that you gave me yesterday is very interesting. 4. We know that he studies at the RSVPU. 5. That the profession of an engineer requires a special training is a well-known fact. 6. That computers and industrial robots are important for industrial uses is well known to scientists and engineers. 7. It is the growth of industrialization that is changing the life on the planet. 8. The aim of today's policy is that peace in the world must be permanent. 9. Those computers are more reliable in use. 10. These programs are more reliable than those designed in our laboratory. 11. Every man has three characteristics: that which he exhibits, that which he has, and that which he thinks he has. 12. It is the high qualification of future specialists that will determine the scientific and technological progress of any country. 13. The main purpose of education is that graduates must be able to work with the technology of tomorrow. 14. A complete test set is that of tests that test every point that can be tested. 15. The education in Oxford and Cambridge is different in many ways from that in other universities.

9. Приведите недостающие степени сравнения:

newer, more, (the) greatest, less, (the) worst, longer, (the) hardest, faster, (the) hottest, (the) shortest, lower, (the) heaviest, thinner, narrower, (the) biggest, thicker, easier, (the) widest, older, better, colder.

10. Вставьте *more* или *the most* :

1. ...of all I liked this report. 2. Mathematics is ... interesting for me than chemistry. 3. This subject is ...difficult than strength of materials. 4. She is ... beautiful girl here. 5. New classification is ... precise than the old one. 6. Life is becoming ... expensive.

11. Выберите правильную степень сравнения:

1. Last year the enrolment to this University was (larger/the largest) of all the Universities. 2. Pete is (better/the best) student in our group. His term papers are always (better/the best) than yours. 3. This subject is (more interesting/the most interesting) of all subjects in this faculty. But it is (more difficult/the most difficult) than other subjects. 4. This student does not work at all. He is (worse/the worst) of all the students of our group. 5. Her term paper is (worse/ the worst) than yours.

12. Прочтите и переведите, обращая внимание на устойчивые словосочетания:

the ... the – чем ... тем;	as ... as... – такой же ... как;
less...than – меньше...чем;	not so... as – не такой...как.

The more we study, the more we know. The more we know, the more we forget. The more we forget, the less we know. The less we know, the less we forget. The less we forget, the more we know. So, why study?

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1. The more you read, the faster you'll learn to understand books and papers in foreign language. 2. The more we knew them, the less we liked them. 3. The less you talk, the better. 4. The more I thought about it, the less I understood. 5. His speech was as long as it was dull. 6. This text is not so difficult as that one. 7. The English language is not so difficult as the German language. 8. During the holidays the students are not so busy as during the academic year. 9. There are not so many mistakes in his dictation as in hers.

13. Переведите следующие пословицы на русский язык и подберите для каждой из них русский эквивалент.

Better late than never, but better never late. Say well is good, do well is better. Those do least who speak most. East or West home is best. All is well that ends well.

The truth does not come at once. Once bitten, twice shy. One cannot be in two places at once. Score twice before you cut once.

14. Прочтите и переведите на английский язык следующие предложения:

1. Чем скорее ты выучишь неправильные глаголы, тем тебе будет легче

переводить. 2. Новый проект гораздо сложнее, чем старый. 3. Он говорит по-немецки так же хорошо, как по-английски. 4. Чем больше человек имеет, тем больше ему хочется. 5. Она читает так же быстро, как я. 6. Чем больше человек знает, тем больше он понимает, что знает мало.

WORD-BUILDING

15. Запомните суффиксы прилагательных:

Суффиксы	Значение	Примеры
-ful	наличие качества, свойства	useful, hopeful, truthful, beautiful
-less	отсутствие качества, свойства	careless, useless, restless
-able, -ible	способность подвергнуться действию или совершить действие	movable, remarkable, sensible, extensible, inexhaustible, reliable
-ive, -ent	отвлеченное понятие	active, excellent, different, convenient
-al, -ary	отвлеченное понятие	usual, historical, special, disciplinary
-ic, -ous	отвлеченное понятие	academic, patriotic, various, numerous
-en	материал	wooden, golden
-ish	ослабление качества	reddish
-fold -proof	кратный, способный противостоять тому, что выражено в значении корня слова	threefold waterproof, fireproof

16. Переведите следующие производные слова:

industry — industrial; profession — professional; person — personal;
evidence — evidential; influence — influential; confidence— confidential;
fame — famous; variety — various; number — numerous;
monotony — monotonous; autonomy — autonomous;
anonymity — anonymous;
to excel — excellent; to confide — confident; innocence — innocent;
to access — accessible; to rely — reliable; to consider — considerable;
to avail — available;

to conserve — conservative; progress — progressive;
effect — effective; intensity — intensive;
power — powerful; success — successful; skill — skillful;
change — changeless; water — waterless, help — helpless;
end — endless; fruitful — fruitless; limit — limitless.

17. a) Образуйте от приведенных ниже глаголов прилагательные с суффиксами -able; -ible согласно образцу и переведите их:

to move — movable: to comfort, to change, to compare, to control, to program, to measure, to drink, to eat, to understand, to access, to suit, to obtain, to win, to reuse, to wash, to transfer, to value, to convert.

b) Образуйте от приведенных ниже слов прилагательные с суффиксами: *-less* и/или *-ful* согласно образцу и переведите их:

color – colorless, colorful: taste, father, home, sleep, use, hope, help, tact, joy, care, respect.

18. Запомните суффиксы наречий:

Суффикс	Примеры
- ly	badly, monthly, weekly
-ward, wards	upward, backwards
-wise	clockwise

19. Переведите следующие слова:

toward(s), sideward, forward(s), backward(s), afterward(s), downward(s), northward(s), southward(s), homeward(s), outward(s), inward, seaward.

20. Образуйте наречия от следующих прилагательных и переведите их на русский язык:

nice, slow, easy, attentive, expressive, correct, open, ready, comfortable, clear, certain.

21. Поставьте наречия в нужное место:

1. I don't understand you. (frankly) 2. Please, do your work. (carefully) 3. I do it like this. (always) 4. They are on time. (never) 5. I am busy. (always) 6. With a notebook a programmer can work. (even), (outside) 7. Have you been there before?

(ever) 8. I'm late for my appointment. (seldom) 9. They had left when you called. (just). 10. Have you seen this movie? (yet) – Yes. We've seen it. (already)

Наречия, значение которых отличается от значения соответствующих прилагательных и которые представляют трудность для перевода

Наречие	Значение	Наречие	Значение
hardly	едва	shortly	вскоре, короче говоря
nearly	почти	likely	вероятно
readily	легко, охотно	similarly	подобным образом
mainly, mostly, chiefly	главным образом	properly	должным образом, как следует
largely	широко, в значительной степени	unlikely	невероятно
heavily	сильно, усиленно	necessarily	обязательно
highly	очень, весьма, чрезвычайно	readily	легко
increasingly	все более и более	repeatedly	многократно
successfully	успешно	successively	последовательно
lately	недавно	ultimately	в конечном счете
greatly	значительно	easily	легко

22. Переведите следующие наречия:

satisfactory, really, theoretically, physically, equally, definitely, absolutely, surprisingly, separately, scientifically, subsequently.

KEY TERMS

23. Запомните следующие слова:

alphanumeric monitor	буквенно-цифровой монитор
American Standard Code for Information Interchange (ASCII)	Американский стандартный код для обмена информацией
arithmetic logic unit (ALU)	арифметико-логическое устройство
band printer	ленточный принтер

bit	бит
bit-mapped	с побитовым отображением, растровый
byte	байт
cathode-ray tube (CRT)	электронно-лучевая трубка (ЭЛТ)
chain printer	цепное печатающее устройство
character-based interface	текстовый интерфейс
character-mapped display	символьный дисплей
color graphics adapter (CGA)	адаптер цветной графики
command-line interface	интерфейс типа командной строки
computer terminal	терминал вычислительной машины
control unit	блок управления
daisywheel printer	принтер с лепестковым литероносителем
data path (data bus)	тракт прохождения данных, шина данных
decimal system	десятичная система счисления
dot-addressable monitor	монитор с адресацией (отдельных) точек
download	загружать (по каналу связи)
draft quality	среднее качество
drum printer	печатающее устройство барабанного типа
electroluminescent (EL) display	электролюминесцент дисплей, устройство отображения
electrostatic plotter	электростатический графопостроитель
ergonomics	эргономика
execution cycle or E-cycle	исполнительный цикл
Extended Binary Coded Decimal Interchange Code (EBCDIC)	расширенный двоично-десятичный код обмена информацией
extended graphics adapter (EGA)	усовершенствованный графический адаптер
file server	файловый сервер
flatbed plotter	планшетный графопостроитель
flat-screen monitor	монитор с плоским экраном
font	тип шрифта; семейство шрифтов
gas plasma display	плазменный дисплей
gigabyte (G-byte)	гигабайт (1024 Мбайт= 2^30 байт)
graphic monitor	графический монитор
graphical user interface (GUI)	графический интерфейс пользователя
graphics scanner (image scanner)	графический сканер

graphics tablet	графический планшет
hand-held computer	карманный компьютер
hexadecimal number system	шестнадцатиричная система (счисления)
host computer	главная вычислительная машина
human-computer interface	человеко-машинный интерфейс
IBM-compatible computer (clone)	IBM-совместимая вычислительная машина
icon	иконка, пиктограмма
instruction cycle or I-cycle	командный цикл
internal clock	внутренний генератор тактовых импульсов
kilobyte (K-byte)	килобайт
laptop computer	"дорожная" вычислительная машина;
light pen	световое перо
line printer	построчно-печатающее устройство
liquid crystal displays (LCD)	жидкокристаллический дисплей
machine cycle	машинный цикл
magneto-optical storage	магнитооптическое ЗУ
megabyte (M-byte)	мегабайт
memory dump	дамп памяти, разгрузка памяти
menuing system	система меню
monochrome monitor	одноцветный, монохромный монитор
multiprocessing	многопроцессорная обработка
nonvolatile	энергонезависимый
notebook computer	блокнотный компьютер, ноутбук
optical character recognition	оптическое распознавание символов
parity bit	контрольный бит четности
parallel port	параллельный порт
personal digital assistant (PDA)	"карманный" компьютер
pixel (picture element)	пиксел, минимальный элемент изображения
plotter	плоттер; графопостроитель
portable computer	портативная вычислительная машина
pull-down menu	меню, разворачиваемое (спускаемое) от заголовка
punched card	перфокарта
read head	считывающая головка
register	регистр
resolution	разрешение
RGB monitor	RGB-монитор, цветной монитор
serial port	последовательный порт
storage device	запоминающее устройство

stylus	пишущий узел; перо
super VGA (S-VGA)	супер VGA
supercomputer	суперкомпьютер
third party	третье лицо, третья сторона
touch pad	сенсорный планшет
touch screen	сенсорный экран
trackball	шаровой манипулятор
track	дорожка; канал; дорожка перфорации, проводник, связь
video display terminal (VDT)	терминал визуальной информации
video graphics array (VGA)	логическая матрица видеографики, стандарт VGA
voice input	голосовой ввод
volatile	временный, энергозависимый
word size (word length)	длина машинного слова в байтах или битах

24. Прочтите и переведите текст на русский язык.

TEXT A

COMPUTER HARDWARE

There are three basic types of computers: mainframes, minicomputers, and microcomputers (personal computers). Although each of these types of computers function in much the same way, they differ in terms of size, speed, and cost. All computers process data using some kind of central processing unit, and they all provide methods for storing data. Computers must also provide specialized devices that humans can use to communicate with the processing hardware. A computer system's hardware includes the following components: the central processing unit and its related processing components, input devices (such as a keyboard or a mouse), output devices (such as a display monitor or a printer), and secondary storage devices (such as a diskette drive, a fixed-disk drive, or a magnetic tape drive). A computer usually uses two types of solid-state, chip-based memory: RAM (random-access memory) and ROM (read-only memory). The computer uses RAM to temporarily store program and processing information. This information is lost when the computer is turned off. ROM contains permanently stored information such as the instructions that are needed for the computer's operation. Computers use a data encoding system that is based on a two-state binary system. Information in this system is represented through the use of ones and zeros. The digit 1 stands for on (the presence of an electronic signal), and the digit 0 stands for off (the absence of an electronic signal). When using magnetic media such as disks and tapes, these two states are indicated through the use of one or two magnetic polarities. When

computers store data in a binary representation, each letter, number, and special character is stored based on a coding system. The two most commonly used coding systems are American Standard Code for Information Interchange (ASCII), and the Extended Binary Coded Decimal Interchange Code (EBCDIC), which is usually used only on large mainframe computers. The smallest unit of data that a computer can deal with is known as a bit, but generally computers deal with bits in groups of eight, referred to as a byte. As a result, data management and storage capacities are usually measured in bytes. The term secondary storage refers to devices that are used to store data and program files for longer periods of time. There are many different types of secondary storage devices including diskette drives, fixed disk drives, and magnetic tape drives. Humans interact with the computer's processing hardware with the help of input and output devices. The most common input devices are the keyboard and the mouse. Pointing devices like the mouse were developed when the first graphical user interfaces came into use. Today, there are a number of new types of input devices based on digitizing technology that allow the user to transfer text and images from hard copy into a form that can be used by the computer. The most common types of output devices, which are used to get information out of the computer in a form usable by humans, are the display monitor and the printer. Both of these output devices come in many different types. The image quality of both monitors and printers is determined by the number of horizontal and vertical picture elements (pixels) available. More pixels result in a higher resolution. Likewise, the image quality of printed output depends on the number of printed dots the printer is capable of producing within a given space (the most common measure of printer capability is dots per inch, often abbreviated as dpi). Ergonomics is the study of how humans interact with machines like computers. Since today's computer users may be interacting with the computer and its devices for many hours at a time, ergonomic considerations should be taken into account whenever a computer system is installed.

25. Ответьте на вопросы:

1. What are the three main types of computers and how do they differ from each other in terms of size, speed, and processing power?
2. What is the difference between a host computer and a file server?
3. Why is the CPU known as the "brains" of the computer?
4. What is the main memory and how is it different from secondary storage?
5. What is the difference between RAM and ROM?
6. What are the acronyms ASCII and EBCDIC stand for?
7. What terms are used to represent data storage capacity?
8. What are the differences between character-based interfaces and graphical-user interfaces?
9. Why has the mouse become so important for the use of graphical-user interface?
10. What are the advantages of using laser printers over dot-matrix printers?

26. Прочтите и переведите текст.

TEXT B

THE COMPUTER'S COMPONENTS

As we have seen, a computer is a device used to manage the world's information. But a computer is more than one device; in addition to the main computer itself, it includes a group of devices that are used to get data into and out of the computer.

Devices that are used to get information into the computer are known as input devices; those used to transfer information out of the computer in a form useable by humans are known as output devices. The computer along with its related devices is known as a computer system. The physical components of the computer system are known as hardware; that includes the computer itself and/or its related devices.

Processing Hardware. Almost all of today's computers, large and small, are based on a design that couples some sort of central processing device with a memory area that is used to temporarily hold instructions and data that can be used during processing. And, although today's processors are far more capable than the ones used in the first computers, this basic design has been in use since the early days of computing.

The Central Processing Unit. Today's computers are designed around a single large-scale processing chip known as the central processing unit (CPU). At the microscopic level, many circuits and processing capabilities are incorporated into one chip that may only be one or two inches square. The CPU can be thought of as the "brains" of the computer: it directs most of the computer's information-processing activity.

Each new generation of CPUs has added new processing capabilities, and yet, despite this increased capability, each new generation processes information faster. Over the years, as new, faster processing methods were invented, new ways of miniaturizing the required circuits were also devised. This miniaturization, along with new processing techniques, has resulted in ever smaller, faster computers. Microcomputers that you can now carry in your briefcase have more processing power than computers that used to be as big as a room. And, because many more computers are sold today, their cost has come down significantly.

Today's CPUs are complex devices composed of many different components and circuits that carry out a great variety of functions.

Main Memory. In today's computers, the CPU acts on instructions that are retrieved from a storage system known as main memory. The CPU also uses this main memory to store data temporarily as it carries out-processing tasks.

In today's computers, this temporary storage system is based on sets of silicon chips. Each chip is actually made up of millions of circuits that store data in a

coded format. Because data stored using this type of primary storage can be accessed at any time, in any order, it is also known as random-access memory (RAM).

Secondary Storage Systems. Secondary storage devices store data not currently being processed. While the computer's main (primary) memory provides temporary storage, the secondary storage systems are used for more permanent data storage. Usually based on magnetic disks or magnetic tape, secondary storage is often used to store data and program files.

The most common type of secondary storage systems in use today is based on magnetic disks. As these disks rotate inside a disk drive, the computer interacts with the drive to retrieve data from the disk or to send new data to it.

Diskette Drives. Diskettes (also known as floppy disks) are a form of storage that can be inserted into a computer that has a compatible disk drive. Some personal computers use a 5 1/4-inch diskette housed inside a flexible plastic jacket; however, the trend is toward smaller 3 1/2-inch diskettes enclosed in a hard plastic case. Both types of diskettes use the same thin, flexible disk inside, but their capacities can vary from 360,000 bytes to more than 2 million bytes.

Fixed Disk Drives. Fixed disks (also known as hard disks) are very similar to diskettes but they are fixed permanently inside the computer. Fixed disks use one or more spinning platters that are very much like diskettes, but they can hold far greater amounts of data.

Magnetic Tape Drives. Magnetic tape drives were one of the first storage devices that used magnetic media, and many of today's large computers still use them. Because the very long tapes provide far more magnetic surface area than disks, they can hold far more data (for that reason, they are often used for backing up data; that is, for making a second copy for safekeeping).

Optical Disk Drives. Some newer storage devices use a nonmagnetic technology that is based on optical disks. Optical disks are far more durable and they can be used to store significantly more information.

Today, CD-ROM (compact disk — read-only memory) systems are becoming a popular peripheral for use with microcomputers. These systems use a disk that looks just like the well-known music CDs and can hold more than 500 megabytes (millions of bytes) of data. These disks are especially useful when there is a need to store a large amount of information — such as a complete encyclopedia — on a single disk.

27. Ответьте на вопросы:

1. What functions does the CPU perform?
2. What is the main memory used for?
3. What are the secondary storage systems used for?
4. What kinds of drives do you know?

28. Прочтите и переведите текст.

TEXT C

INPUT AND OUTPUT DEVICES

Devices that are used to get information into the computer are known as input devices. Input devices are used to convert information from a form used by humans into a form that is useable by computers.

Today, there are many different ways to get information into the computer, but the keyboard, a device that has been part of computer systems for many years, is still one of the most common input devices. The computer mouse is another input device that is becoming almost as common as the keyboard. It is referred to as a pointing device.

Unlike the keyboard — which is used to enter data one character at a time — a pointing device is used to move a pointer around on the display screen; when the screen pointer is resting on a name or an image on the screen, a button can be pressed to select the option or activity that is represented. In addition to the mouse, a number of other types of pointing devices for computers are also in use today.

Several other types of devices can be used to convert data into a digital form that can be used by computers. Data that exists in the form of characters or pictures on paper, as bar codes printed on packaging, or the magnetic patterns stored on credit cards can all be read by special devices and converted into a form that can be used by computers.

Output devices are used to get information out of the computer in a form useable by humans. The display monitor and the printer have long been the computer's primary output devices. Today, they still represent the two most common ways to get information out of a computer, but the type and variety of both monitors and printers are in constant change.

Computer display monitors are the computer's main output devices. Based on the same kind of technology used in television sets, the early display monitors could only produce characters in one color on a black background. Today, computer display monitors can present information in many colors and in many forms, including pictures.

These new output capabilities have led to a number of new computer applications that provide a way to create, display, and print pictures on the computer screen. Computer-aided design (CAD) programs are used to create engineering drawings and blueprints, paint and draw programs provide a set of software tools that can be used to create on-screen pictures, and presentation graphics programs can be used to turn numbers into charts and graphs.

Computer printers have also evolved as computer users sought better-printed representations of what they saw on the display screen. Data that is printed out on paper using a printer controlled by a computer is known as output, or hard copy.

Today, there are many different types of computer printers in use but they can generally be categorized as impact or nonimpact.

The most common type of impact desktop printer is the dot-matrix printer.

This type of printer places a dot on paper when one of a group of pins in the print-head strike through an inked ribbon. A series of these dots are used to represent characters or graphic images.

Another impact printer is the letter-quality printer. Letter-quality printers also place ink on paper by striking through an inked ribbon using strikers embossed with letters (like a typewriter).

Nonimpact printers produce an image on paper without using a striking device. Laser printers are a type of nonimpact printer. They have been available for some time, but they are now becoming more popular as the price of this printing technology has come down. Using a technology developed in dry-toner copying machines, laser printers are faster and quieter than impact printers and generally produce a high quality output.

Another nonimpact printer that is growing in popularity is the ink-jet. This type of printer places one dot at a time, but instead of using pins to strike through an inked ribbon this type places droplets of ink on the paper.

A number of other new nonimpact printer technologies are also now in use or under development.

REVIEW QUESTIONS

29. Ответьте на вопросы:

1. Almost all of today's computers are based on the same design. Describe the three main elements of that design and list the four main types of computers in use today.
2. Computers based on a microprocessor are known as microcomputers. There are now several different types of microcomputers in use. Describe them.
3. The central processing unit is the computer's main processing device. Name the CPU's three different components and describe what they do.
4. Describe the role of input devices.
5. To use today's computers, we have devised a number of different methods to encode computer data. Name three different data encoding systems and describe each system's purpose.
6. Today's computers use secondary storage systems to store data that is not currently being processed. Name and describe three different types of storage systems that use disks.
7. Compare and describe the use of a command-line human-computer interface with a graphically oriented interface.

LESSON 3

Времена группы Perfect Active, Passive
Подлежащее, сказуемое
Суффиксы глаголов и числительных
Text A Computer software
Text B Systems software
Text C Applications software
Text D Programming software

PRE-TEXT EXERCISES

1. Объясните употребление времен группы Perfect, переведите:

1. She has been absent this week. She has been ill. 2. We have already written our term papers. 3. We have never been to England. 4. The rain had begun before we arrived home. 5. I have not seen my friend since the holidays. 6. He asked me if I had been invited to the party. 7. Have you already finished your diploma work? – No, I shall have finished it by the end of May. 8. Before the exhibition closes eighty to ninety thousand people will have attended it. 9. The once insoluble problems have been easily resolved by the research team. 10. Has she graduated from the University yet? 11. By the end of March the project will have been realized. 12. The project has already been submitted to the commission. 13. Easton and Fagin had found that the quality of the model improved. 14. The system had been installed before we finished. 15. This term has been used for a long time.

2. Выберите правильную форму сказуемого:

1. He (has graduated/graduated) from the RSVPU this year. He (graduated/ will have graduated) from the RSVPU in 5 years. 2. I (read/ have read) this article in the morning yesterday. I (read/have read) this article this morning. 3. We (saw/have seen) this film last year. We never (had seen/have seen) it before. 4. The title of the article (will be changed/will have been changed) by the author. 5. This method (is used/has been used) since 1999. This method (was used/ had been used) yesterday.

3. Раскройте скобки, поставив наречия в нужное место в предложении:

1. We have passed our examination (just). 2. They have finished their research work (already). 3. My sister has been a good student (always). She has been late for classes (never). 4. The dean has changed the time of our meeting (just). 5. I have not heard the news (yet). 6. He has told us about his scientific work (never).

4. Переведите следующие предложения на английский язык:

1. Мы изучаем английский язык уже давно. Еще до того, как мы поступили в университет, мы занимались языком больше пяти лет. Мы будем заниматься им и дальше. 2. Вы приготовили домашнее задание? – Да. – Когда Вы его приготовили? – Вчера. А мой товарищ еще не приготовил его. Он сейчас в читальном зале готовит его. Он обычно готовится к занятиям в читальном зале. 3. Приходи ко мне завтра в 3 часа. В это время я буду переводить статью и объясню тебе все сложные места. Я думаю, что к трем я закончу все свои другие задания.

5. Определите, чем выражено подлежащее в каждом предложении, переведите предложения на русский язык:

1. After the Japanese had set a goal to be the industry leader in ten years the fifth generation computers were introduced in the mid 1990s. 2. FORTRAN (short for FORmula TRANslator), the first high-level language, was developed in 1954 for mathematical computations; COBOL (short for COmmon Business Oriented Language) was introduced in 1959 for business application. 3. Everyone knows that today there are computerized security systems in many homes. 4. That the Countess of Lovelace, Augusta Ada Byron was the first programmer is not a well-known fact. 5. The 1960s and 1970s saw rapid growth in the use of both mainframe computers and minicomputers. 6. These new operating systems automated many tasks. 7. One must study five or six years to become a good programmer. 8. That computers can be found in all aspects of society including education, communication, science, medicine and business is known to everyone. 9. In the last few decades, computer-based technologies led to a redesign of our telephone systems. 10. One may get all the necessary books about computers in libraries and bookshops. 11. What has been and is being done in computer programming cannot be measured in yesterday's standards. 12. What is necessary for the programmers is to get a good qualification.

6. Определите, чем выражено сказуемое в каждом предложении:

1. The difference and analytical engines invented by Charles Babbage were used in finding errors in handwritten tables and for mathematical calculations. 2. It is evident that the use of computer software requires special training. 3. UNIAC was created based upon Atanasoff-Berry Computer (ABC) principals. 4. In 1981, the largest U.S. computer company, IBM, released the IBM PC. 5. New computer programs and new methods of programming computers must be designed and put into operation. 6. Some of the tasks that computers will do in the next generation of computing can be defined as artificial intelligence (AI). 7. It was the miniaturization, along with new processing techniques, that has resulted in ever smaller, faster computers. 8. The question is whether this scientific model will be applied to the

industrial plants. 9. The main tendency of our life is that computers are being used in all spheres of technology, science and everyday life. 10. The question remains whether these data are reliable.

WORD-BUILDING

7. Запомните суффиксы глаголов:

Суффикс	Примеры
-en	to shorten, to strengthen, to widen
-ize	to organize, to liberalize, to utilize, to terrorize
-fy, -ate	to fortify, to intensify, to satisfy, to unify, to illuminate, to regulate

8. Переведите следующие производные слова:

Computer – to computerize; special – to specialize; ideal – to idealize; crystal – to crystallize; central – to centralize; light – to lighten; bright – to brighten; deep – to deepen; less – to lessen; magnification – to magnify; occupation – to occupy; satisfaction – to satisfy; qualification – to qualify; ratification – to ratify; identity – to identify.

9. Образуйте глаголы от следующих слов согласно образцу:

Usage — to use: subdivision, indication, complication, production, systematization, difference, appearance, changeable, measurable, large, active.

10. Запомните суффиксы числительных:

Суффикс	Употребление	Примеры
-th	порядковые числительные, кроме: *the first, the second, the third*	the seventh, the twenty sixth
-teen	количественные числительные от 13 до 19	thirteen, seventeen
-ty	десятки	sixty

11. Запомните арифметические знаки:

+ — plus; = — equals/is equal to; : — divided by; > — is greater than;
- — minus; x — times; % — per cent; < — is less than.

12. Прочтите:

1) 5000 workers; 398 computers; 620 students;
2) 5.7%; 25%; 109%; 0.04%;
3) 0.75; 62.359; 9,995; 3.638; 5.67; 1.234;
4) June 10, 1946; September 21, 1912; 1799; 1147; 1823; 2005;
5) 32 x 3 =; 0,25: 25 =; 1002 + 8 =; 56 > 12; 145 < 693.

13. Определите, к какой части речи относятся следующие слова и переведите их:

a) to produce—producer—product—production—productive—productivity; overproduction—underproduction—reproduce—reproducible—reproducibility;
to act — actor — actress — acting — active — activist — activity — inactivity; reactivity — activator — activate — activated — activation — reactivation;
to use — useful — useless — usefulness — uselessness;
resistant — resist — resistance — resistor;
theory — theorist — theoretical — theorize;
physics — physicist — physical — physically;
to explain — explainable — explanation;
to satisfy — satisfactory — satisfaction;

b) reliable, elongate, percentage, stabilizer, stabilize, prospective, carrier, brilliant, relativity, intelligent, intelligence, assistance, mainly, encircle, departure, statement, hypersonic, liner, horizontal, powerful, encode, capacity, disintegrate, emission, widen, intensive, incredible, stranger, reality, strengthen, indestructible, amplification, substance, entirely, vaporize, gravity, peaceful, permanent, consequence, dominant, relative, relativity, flexible, apparently, celebrity, novelty, connection, complicate, desirable, significant, utilize, pressure, famous, weightlessness, eaten, depth, damage, shorten.

KEY TERMS

14. Запомните следующие слова:

accomplish	завершать, выполнять
algorithm	алгоритм
assembler	ассемблер
attach	прикреплять, присоединять
beta-testing	бета-тестирование (предварительное тестирование с целью выявления ошибок при программировании)
bug	ошибка, дефект, помеха, сбой

card-punch machine	карточный перфоратор
code	код; система кодирования; машинная программа; программировать
collectively	коллективно
compile	собирать, составлять, компилировать
compiled language	транслируемый язык (в отличие от интерпретируемого)
compiler	компилятор, транслятор
computer programmer	программист
computer-user interface	взаимодействие пользователя и компьютера
control module	блок управления
consider	рассматривать, считать
debugging	отладка
documentation	документация
describe	описывать, охарактеризовывать
desktop publising	настольные издательские системы
end user documentation	документация конечного пользователя
error in logic	ошибка в последовательности операций
express	выражать
flowchart	блок-схема, структурная схема
general-purpose application	приложение (прикладная программа) общего назначения
host computer	главный компьютер
GUI (Graphical User Interface)	графический интерфейс пользователя (ГИП)
horizontal application	приложения для горизонтального рынка
interpreter	интерпретатор
job-control language (JCL)	язык управления заданиями
mainframe computer	большая ЭВМ
manage	управлять
multitasking	многозадачность
multiuser environment	многопользовательская среда
natural language	родной язык
narrowly	узко
object oriented authoring	объектно-ориентированная авторская система
object program	выходная (конечная) программа
objective	цель
OS/2	операционная система ОС/2

outline	план, схема
primary memory	основная память, оперативная память
procedural language	процедурный язык
productivity software	рабочее приложение
program editor	редактор текстов программ
pseudocode	псевдокод
query language	язык запросов
real memory	основная память
sequence	последовательность
simultaneously	одновременно
single-tasking	одноцелевой
source program	исходная программа
spread sheets	электронные таблицы
structured programming	структурное программирование
succeed	следовать; иметь успех, удаваться
syntax error	синтаксическая ошибка, нарушающая последовательность символов данного языка
systems software	системное программное обеспечение
technical writer	разработчик программ
top-down design	нисходящее проектирование
utility program	утилита, служебная программа
variety	разнообразие
vertical application	приложения для вертикального рынка
virtual memory	виртуальная память
widely	широко

15. Прочтите и переведите текст.

TEXT A

COMPUTER SOFTWARE

Computer programs, known as software, are sets of instructions written by a computer programmer to control the computer's activities.

Programming languages underwent considerable development in the 1950s. Programming gave computer professionals a way to control the computer with stored programs rather than with the "hard-wired" instructions that were previously used.

In the early days, computer programmers used punched cards and a binary coding system to program the computer. Today's programming languages use code that is much more like the English language.

When developing software, programmers must carefully consider the computer-user interface, or the way in which information is presented to the user.

The group of programs that control and coordinate the resources and operations of the computer system are known collectively as ***the systems software.*** The system software of a host computer must manage computer resources for the many users who may be in contact with the computer simultaneously. The system software for a personal computer is usually provided as a set of specialized utility programs that are used to manage the computer and its attached input and output devices. Collectively these programs are known as the computer's operating system.

Today's large host computers operate in a multi-user environment: that is, the systems software must keep track of many users who are all in contact with the computer at the same time.

The control commands used with mainframe computers are often referred to as job-control languages (JCLs).

Application software is widely used to accomplish a user's computer tasks; it is used for such things as entering and editing text (word processing and desktop publishing), for entering and manipulating numeric data (spreadsheets and other business programs), and for recordkeeping (database management). These programs are known as general-purpose applications. Because they are also used by a wide variety of users in different environments, they are also known as horizontal applications. Specialized applications programs that are designed to meet the needs of a narrowly defined group of users are called vertical applications.

Programming software is used by computer programmers to create all of the computer programs we use, including applications programs and systems software programs. A programming language has words, symbols, and rules of grammar (known as the syntax of the language).

Machine languages are designed for a specific type of computer processor and are referred to as low-level languages. They were first developed in the early days of computing and are therefore known as first-generation languages.

Assembly languages (second-generation languages) are similar to machine languages but instead of using the binary form of instructions, more English-like instructions are used.

High-level programming languages, referred to as third-generation languages, are more English-like and they are easier to use than the older machine and assembly languages. They are also more machine independent (the programs created can often be used on more than one type of computer with little modification).

Programs, not written in machine language, must be translated into a form that can be understood by the computer. They can be compiled as a whole using a compiler or acted upon instruction-by-instruction using ***an interpreter.*** High-level computer languages are also known as ***procedural languages;*** newer, fourth-generation languages (4GLs) require less specificity and are referred to as ***nonprocedural languages.*** **A query language** is used to organize data and print out reports based on information stored in a database. These newer types of programs use

a natural language approach and are often referred to as very ***high-level languages*** or fifth generation languages.

Object-oriented programming (OOP) languages are based on a concept of "objects" that combine stored data and programming instructions. Object-oriented authoring (OOA) systems give non-professionals a way to create their own custom applications by providing programmable objects and graphics tools that can be used to design the screen display.

An algorithm is the sequence of steps that will form a programmed solution to a problem. It can be expressed in ***a flowchart*** (an outline of the program using a set of geometric symbols) or as ***pseudocode*** (a set of statements in English that map out the program plan).

Errors in computer programs are often referred to as ***bugs*** and finding and fixing a program's errors is referred to as ***debugging.***

16. Ответьте на вопросы:

1. What are the identifying characteristics of the three basic types of computer software?
2. Why is the computer-user interface an important consideration in the development of software applications?
3. What is a horizontal program and how does it differ from a vertical application program?
4. What is the difference between a compiler and an interpreter?
5. Why is each succeeding generation of programming language easier to use than the previous generation?
6. What is the difference between a flowchart and pseudocode?
7. What does it mean to "debug" a computer program?
8. What is the difference between a syntax error and an error in logic?
9. What is the difference between programmer documentation and end-user documentation?

17. Прочтите и переведите текст.

TEXT B

SYSTEMS SOFTWARE

Today, software can generally be categorized into one of three types — systems software, applications software, and computer programming software. At any one time, one, two, or all three of these software types may be in operation.

Systems Software. The group of programs that control and coordinate the resources and operations of a computer system are known collectively as the systems software. The systems software controls basic computer operations and coordinates

the activity of the other two software types. The systems software has many tasks related to the operation and control of the computer's resources, but its primary role for computer users is related to file management and the control of the devices attached to the computer. For example, users will use one or more systems-control programs to copy or delete files, to check the status and contents of storage devices, and to regulate input and output speeds and protocols.

Systems Software Capabilities. Despite their size, the earliest large computers were designed to be used for only one task, by only one user at a time. As a result, the systems programs that were used with these computers were relatively simple and their capabilities were directly related to the needs of that single user. Today's large computers operate in multiuser environments; that is, the systems software must keep track of many users who are all in contact with the computer at the same time. This is known as time-sharing and it requires more sophisticated systems software.

All this requires more computer *capacity* and today's systems programs must be capable of managing all these resources. For example, the systems programs used with today's computers must constantly keep track of the amount of memory that is required for the programs each user is using. While the past generations of systems programs could only use *primary memory* (referred to as real memory), today's system software can determine when memory demand is great and use secondary storage (for example, disk storage) as if it were primary memory. This new capability of systems software to use secondary storage is known as *virtual memory*. A virtual-memory operating system can carry out very large programs by loading only part of a program into primary memory, leaving the rest in secondary storage. It can detect when the next part of the program is needed and load that segment.

Modern systems programs for large computers are capable of carrying out the following tasks:

- Schedule programs for execution, start execution, and monitor execution in case of errors.
- Determine where in primary storage a program will be stored and what input and output devices will be used and where in secondary storage program and data files will be stored.
- Monitor any transfer of data between primary storage and a data file in secondary storage.

On shared processing computers, these tasks are often initiated by a computer operator who types in a special command to initiate the next computer activity. The systems-control commands that are used with mainframe computers are often referred to as *job-control languages*. Since each mainframe computer has its own specialized set of commands, the computer operator must receive special training to use them.

To avoid the necessity for specialized training and to make it easier *to hire skilled computer operators,* some large computers are now being designed to use the same standardized operating systems that are used on other computer models. For example, some manufacturers of large computers have adopted a version of the

UNIX operating system that is also used on desktop and *midrange computers*. UNIX was first developed for minicomputers by Bell Laboratories in the early 1970s. Over the years, it has undergone many revisions and today it is available for many different types of computers, large and small.

18. Ответьте на вопросы:

1. What functions can the systems software perform?
2. What is the difference between the primary memory and virtual memory?
3. What tasks are modern systems programs for large computers capable of carrying out?
4. Where can the UNIX operating system be used?

19. Прочтите и переведите текст.

TEXT C

APPLICATIONS SOFTWARE

Applications software includes most of the types of programs we use every day to get our computerized work done. Applications programs are widely used in our society for entering and editing text (word processing and desktop publishing programs), for entering and manipulating numeric data (spreadsheets and many other business programs), and for record keeping (database management programs). These types of programs are sometimes referred to as *general-purpose applications.* Because they are used by a wide variety of users in many different environments, they are also known as *horizontal applications.*

There are only a few types of software that can be truly said to cut across all aspects of computerized activity. They are:

Word processing and desktop publishing
Electronic spreadsheets
Database management
Graphics
Communications

These programs are used by many different types of users for many different purposes. But there are also much more specialized applications programs. They are used for such computer tasks as the calculation of the wind currents around a skyscraper, for analysing the chemical components in an ore sample, or for teaching a child how to tell time. An almost endless variety of such programs are sometimes referred to as *vertical applications* because, even though they are also examples of the applications category, they are used to carry out tasks within a narrowly defined area.

Because both horizontal and vertical applications are used as tools to help us get our work done, they are all sometimes referred to as productivity software.

Most of the applications programs that were created during the early computer generations were used for business-related activities. However, as these companies continued to develop programs for in-house use, certain applications began to emerge that solved the types of data-processing problems that were common to a variety of organizations. As computers spread throughout the business community, programmers began to sell their most popular applications programs to other businesses. Eventually, as the demand grew, the manufacturer and sale of applications programs became a business in and of itself.

But it took the development of the microcomputer to turn this smattering of software sales into a significant software business. At first, personal computers were used mainly by hobbyists who built and programmed their own computers. As more and more people bought their own PCs, there was soon a growing demand for programs that could help individual users get their work done. They wanted to keep track of their stamp collection, or to balance their checking accounts. While the big businesses that used big computers used only a narrow range of business-oriented application programs, the needs of the PC world were as varied as the types of users.

Generally, it was not the professional programmers who worked for big businesses who created the programs to meet this new demand; it was more likely to be the users of the PCs themselves. As personal computers became much more popular in the early 1980s, many books were written about how to program them. This created a new crop of PC programmers who started to create new types of programs to meet the growing need. They created new, easier-to-use word processing programs. They devised easier ways to create computerized record keeping and report-generating forms. In fact, the changing needs of personal computer users resulted in the creation of entirely new types of programs. For example, many credit the rapid growth of the PC business itself to the creation of computerized spreadsheets that could be used to enter and analyse information based on numbers.

20. Ответьте на вопросы:

1. What does application software include?
2. What are applications programs used for in modern society?
3. What is the difference between general-purpose applications (horizontal applications) and vertical applications?
4. What was the role of non-professional programmers in creation of new application programs?
5. What are the types of software that can cut across all aspects of computerized activity?
6. When were most of the application programs created? What were they used for?

7. When did programmers begin to sell their most popular applications programs to other businesses?

21. Прочтите и переведите текст.

TEXT D

PROGRAMMING SOFTWARE

Programming software is used to carry out a specialized task that is crucial to the use of computers – the creation of computer programs. Software packages in this category are development systems that are used by computer programmers to create all the computer programs we use. Programming software is used to formulate and store the complex sets of instructions that are used to dictate computer tasks. Every program, including all of the systems and applications program, and even the programming languages themselves, begin as a set of specific instructions to the computer. These software development systems provide a way for the computer programmer to set down rules of computer activity and store them so that they can be triggered later when the computer used starts the program.

High-level languages. Ada. Developed specifically for the U.S. Department of Defence to replace both FORTRAN and COBOL. The language was named for Ada Byron who many consider to be the first programmer.

APL (A Programming Language). Designed for mathematical applications, APL uses a symbolic notation system that is useful for scientific and engineering programming.

BASIC (Beginner's All-Purpose Symbolic Instruction Code). Designed as a straightforward approach to line-by-line programming. Often used to train beginning programmers. Simple versions of BASIC were commonly provided as the only programming software packaged with the early PCs.

C. Originally developed as part of the UNIX operating system. Ñ was designed to provide a structured, machine-independent approach to programming. Ñ includes features that provide programming approaches similar to assembly languages. Ñ is very popular today for application development.

C++. Versions of Ñ that include object-oriented methods are often referred to as C++. These new versions of the Ñ language are especially useful for applications development when the application is being designed for modern graphical user interfaces.

COBOL (COmmon Business Oriented Language). Designed as an easier-to-use business oriented language. It includes many English-like statements for automating business tasks.

FORTRAN (FORmula TRANslation). One of the early high-level languages, FORTRAN was designed to solve mathematical problems in science and

mathematics. However, it became a programming standard in many different fields, the most widely used language with the earlier generations of computers.

Pascal. Designed to be a powerful, structured approach to applications development. Pascal is still widely used and is one of the most popular languages used in college programming courses. The language was named for Blasé Pascal, the pioneering mathematician and philosopher.

PL/1 (Programming Language 1). Designed as a general purpose, easy-to-use language, PL/1 combines many of the features pioneered in earlier languages. It is used in business, science, engineering, and education.

Fifth-Generation Languages. Many people believe that the next generation of programming languages will use query-based methods that are even easier to use. Some refer to them as fifth-generation languages. These new programming methods generally do not have the special syntax requirements of the fourth-generation languages. Using these newer programming systems, a computer user can write statements that are very much like normal human language. This natural language approach is similar to that used in query languages, but, since the programmer does not have to learn special rules of statement entry, they are even easier to use. A programming statement can be written in many different ways. In some cases, words can even be misspelled. With these languages, the computer interprets the request based on key words in the statement. If needed, the user may be prompted to enter more information to clarify the request.

REVIEW QUESTIONS

22. Ответьте на вопросы:

1. To meet the needs of today's diverse group of computer users, software developers now focus on the computer-user interface. Describe how today's input and output devices have changed to facilitate today's easier to use software designs.
2. Describe the three main types of software used today.
3. Name four common high-level programming languages.
4. Today, programming methods are undergoing change. Describe the differences in programming approaches of new fourth-generation languages, fifth-generation languages and object-oriented programming methods .
5. Applications software represents the great variety of computer programs in use today. Describe the difference between horizontal applications and vertical applications. Name four examples of each type.
6. Describe the differences between machine languages, assembly languages, and high-level languages.
7. Describe program documentation and user documentation, and describe the differences between them.

LESSON 4

Согласование времен
Дополнение, дополнительные придаточные предложения
Приставки
Текст A Computers and society
Текст B Training for computer professionals
Текст C Computer operator positions

PRE-TEXT EXERCISES

Согласование времен

	he ***will live*** in Moscow		he ***would live*** here (будет жить)
He ***says*** that	he ***lives*** in Moscow	He ***said*** that	he ***lived*** here (живет)
	he ***lived*** in Moscow		he ***had lived*** here (жил)

1. Переведите предложения на русский язык, учитывая правило согласования времен:

1.He knew that I never missed the seminars. 2. We thought that we should be able to see our old friends. 3. I knew that you were very tired. 4. I thought that the meeting took place that day. 5. I hoped that you would meet him. 6. She was sure that the lecture was going on. 7. Students were informed that they would have industrial training in the third year. 8. He said that he had already carried out his research work. 9. The students were told at the lecture that the first programmer Augusta Ada Byron was a daughter of George Byron. 10. He said he would not go to the University tomorrow. 11. The newspapers reported that a Russian Proton-M rocket carrying the US DIRECTV 8 telecommunications satellite was launched from Russia's Baikonur space center in Kazakhstan at 9:59 p.m. Moscow time on Sunday.

2. Раскройте скобки, поставив глаголы в нужную форму согласно правилу согласования времен:

1. The engineer was told that he (may) test the device in the afternoon. 2. It was known that the head of our laboratory (to be) a graduate of the RSVPU. 3. They thought that she (to graduate) from a technical institute. 4. When I came they (to tell) me that he (to leave) half an hour before. 5. The chief engineer believed that we (to work) at the problem for a month the following year. 6. We were told that it (to be) cold on the following weekend. 7. He did it better than I (to expect). 8. He asked the

students whether the ever (to see) such a book. 9. We thought that he not (to be able) to make his work in time and therefore (to offer) to help him. 10. When I came they (to tell) me that he (to leave) half an hour before.

3. Определите, чем выражено дополнение, переведите предложения на русский язык:

1. The students of our group wrote a test work yesterday. They said it was very difficult. 2. We see that the basic design of the computer has not changed much in the last few decades. 3. The company provided users to select items from menus' of choices by manipulating the mouse. 4. To copy a file from one disc to another the user could use a mouse to select and "drag" a picture that represented the file. 5. A computer will do only what it is precisely told to do. 6. They asked when they should deliver the device. 7. We did not know if he was responsible for this work. 8. We are sure it is possible to change the terms of work. 9. We do not know whether such service stations are useful and convenient in practice. 10. It was realized that large computers are capable of carrying out a lot of tasks. 11. At first it was not clear whether new telephone and teletype communication with ships via six satellites was economical and reliable or not. 12. Specialists did not know if it was possible to continue modernizing the electronic equipment of this kind – the costs were too high. 13. I did not know then if I should see him again. 14. The lecturer told me to look up this term in a good dictionary.

4. Переведите на английский язык:

1. Мы полагали, что он скоро вернется. 2. Я задумался о том, что нас ждет в будущем. 3. Он не мог вспомнить, куда он положил свой учебник. 4. Он предупредил, что тест будет трудным. 5. Они сказали, что пробудут у нас только две недели. 6. Мы спросили преподавателя, когда мы будем писать словарный диктант. 7. Они сказали, что уже просмотрели статьи по этому вопросу. 8. Мы знали, что ее родственники живут в Качканаре.

5. Переведите следующие предложения из прямой речи в косвенную:

Примечание. При переводе из прямой речи в косвенную происходит замена местоимений, наречий и т.п.: now – then; here – there; yesterday – the day before; tomorrow – the next day. He said, "There will be some changes in the timetable tomorrow ". – He said *(told (us)/informed (us)/explained/announced/insisted)* that there would be some changes in the timetable the next day.

1. The director said, "I won't support this idea". 2. The programmer said, " I shall never change my mind". 3. The chairperson said, "We shall put off the discussion of this issue till tomorrow". 4. He said, "Whatever you say I'm right".

WORD-BUILDING

6. Запомните следующие приставки:

Приставка	Значение	Примеры
un-	отрицательная	unhappy, uncomfortable, unreal
in-	отрицательная	indefinite, ineffective, informal
ir-	отрицательная	irregular
il-	отрицательная	illegal
im-	отрицательная	impossible, immoral, impolitic
non-	отрицательная	non-standard, non-resistant
anti-	отрицательная	anti-social, anti-constitutional
dis-, de-	противоположное значение	to disorganize, to decode, demobilization, denationalization
counter-	против, контр-	counteraction, counterrevolution
mis-	неправильно	mistake, misunderstanding
re-	повторность действия	to rewrite, remake, *but: to replace, to remove*
in-	внутри	inside
out-	снаружи	outside
inter-	между, взаимно	interplanetary, interaction
over-	сверх- пере-	overproduction
super-	сверх-, над-	superstructure
under-	под-, ниже-	underproduction
sub-	под-	submarine, subgroup
pre-	до-	prewar
post-	после-	postwar
semi-	полу-	semiconductor
multi-	много	multinational
poly-	много	polyphony, polygamy
uni-	один	uniform, unidirectional
en-, be-	используется для образования глаголов от прилагательных и существительных	to enlarge, to belittle

7. Переведите следующие слова:

renew, renewal, renewable; reorganize, reorganization; reuse; rebuild; remake;
material, immaterial; important, unimportant; perfect, imperfect; possible, impossible, natural, unnatural; limited, unlimited;
to like — to dislike; illusion — disillusion; comfort — discomfort;
supernatural; superpower; supersonic; superconductor;
rich — to enrich; large — to enlarge; close — to enclose; to estimate — to overestimate;
subsystem; subcommittee; subdivision; subsurface;
underdeveloped; underground;
non-effective; non-essential; non-standard; non-metal; non-stop;
anti-fascist; counter-espionage; counter-attack;
ex-champion; ex-minister;
demobilization; demoralization; denationalization;
pre-capitalist; prehistoric; post-operative;
co-author; interrelation, intersection, interurban.

8. Образуйте производные слова согласно образцу и переведите:

a) computer — microcomputer; chip, electronics, film, phone, processor, wave, organism;
b) *computer — minicomputer;* screen, tour, bus, size;
c) *tidy - untidy:* pleasant, known, able, democratic, cultured, true, happy, kind, lucky.

KEY TERMS

9. Запомните следующие слова:

camera-ready copy (CRC)	фоторепродуцирующий оригинал-макет
cathode-ray tube (CRT)	электронно-лучевая трубка
computer tomography (CAT) scan	компьютерная томография
computer-aided instruction (CAI)	компьютерное обучение
copy protection	защита от копирования
data encryption	шифрование данных
ergonomics	эргономика
hackers	хакеры
magnetic resonance imaging (MRI)	магниторезонансная обработка изображений
password	пароль
shareware	условно-бесплатное ПО

systems analyst	специалист по системному анализу
telecommuting	режим дистанционной работы
user group	пользовательская группа
virus detection program	программа обнаружения вируса
word processing program	программа подготовки текста

10. Прочтите и переведите текст.

TEXT A

COMPUTERS AND SOCIETY

Computers are being used throughout our society to increase the productivity of many different types of users. Some of the key issues regarding the role of computers in society today are summarized below. While some people fear the change that computers represent (this fear is known as technophobia), others are taking advantage of the new capabilities they offer. For example, using computers and communications technologies, some people are working out agreements with their employers wherein they do their work in their homes. This is known as telecommuting.

As computers continue to provide new benefits in productivity, they also introduce new problems that must be addressed if we are to use computers to our best advantage. With so much information stored about each of us in huge databases across the country, there is a legitimate concern for the protection of our right to privacy. In response to this concern, a number of legislative acts have been passed over the years to protect these rights.

Concerns about the computer's affect on our health have also been raised. As a result, computer manufacturers are continually working to improve the safety and usability of their products.

Ergonomics is the study of how humans interact with all kinds of machines, not just computers. The computer industry is attempting to solve problems related to the use of computers. Special attention has been focused on ergonomic factors that can improve the design of input and output devices in order to reduce fatigue and other work-related problems. In addition, new software designs utilize standard ways to carry out standard computer tasks. If the computer-user interface used in software programs is the same or very similar from one program to the next, the user can generalize from information previously learned.

Along with the proliferation of computers in our society, crimes related to the use of computers have also increased. Corporations have had to devise sophisticated methods for protecting both their computers and their computer-stored data. Some computer users unwittingly commit a computer crime by making copies of their computer programs for others. One method that software manufacturers have used to protect themselves against this kind of software piracy is to offer site licenses which

allow the purchaser of a program to make a specified number of copies of the program to be used only in a specified location.

Both those who intend to be computer professionals and those who will work in other professions need some computer training in order to be effective workers in the information age. A wide variety of computer-related courses are available. Some computer courses are required as part of advance degree programs at universities, but many other types of training can be found through special-interest discussion groups, called computer user groups. Additionally, many professional organizations offer computer training in topics that are of particular relevance to their members.

11. Ответьте на вопросы:

1. How are computers used in business, educations, medicine, science, and art?
2. How is the science of ergonomics related to the computer and its user?
3. Why is privacy an issue that arises with the increased use of computers throughout our society?
4. If you give your friend a copy of a software program that you have purchased, are you committing a crime?
5. What are some of the methods used to protect computer systems and their data from theft?
6. What is a computer virus and how is it similar to human viruses?
7. Why is the study of ethics an important computer-related issue?
8. How can you prepare yourself for a role in the information age?

12. Переведите на русский язык:

Entry-level jobs; data input process; data-entry people; high-quality graphics; ad agencies; on the fly; in the long run; camera-ready copy; in-house training; special-interest discussion groups; computer-related courses; retail store; to get stuck; to be familiar.

13. Запомните слова:

applicant	кандидат, претендент, соискатель
attempt	попытка
commit	совершать, фиксировать
continually	непрерывно
devise	разрабатывать, изобретать
facilitation	облегчение, помощь
fatigue	усталость
fear	опасение, страх, испуг
huge	огромный

issue	вопрос, проблема, экземпляр
installation	установка, инсталляция
maintenance	содержание, текущий ремонт
proliferation	распространение
safety	безопасность
unwittingly	непроизвольно, невольно
usability	удобство работы, простота работы

14. Прочтите и переведите текст.

TEXT B

TRAINING FOR COMPUTER PROFESSIONALS

The invention and evolution of the computer has resulted in millions of new types of computer-related jobs. From those who enter the data to those who maintain the largest computer systems, there continues to be a worldwide demand for workers who are trained to play a role in the development and use of computer technology.

Data Input Positions. Many of the educational resources can provide the kind of training that you will need for entry-level jobs in the computer industry. Skills related to the use of the basic types of applications programs will often be sufficient for those who want to be involved in the data input process. Because computers are used to store vast amounts of data, there is a great need for people who can use a keyboard, or other input devices, to get data into the system. As companies have become computerized, much of the training of employees to use computers has taken place on the job. Often this training takes place on the fly. Data entry people learn how to use a word processor while using it to do their job. When they get stuck, they refer to manuals and they ask questions. However, many companies have learned that it is more profitable in the long run to use a more realistic approach that provides in-house training or payment to employees who attend courses offered elsewhere.

As the use of computers has become more common, many businesses now are more likely to require potential employees to have computer skills before they are hired.

Technical Support Positions (Technicians). Technical support people help in the installation of hardware and systems software. After installation, they are involved in maintenance of the equipment. They also maintain networking hardware and data communications systems. These employees should be familiar with diagnostic procedures and electronics, and they should be able to read and understand technical manuals. These jobs require at least two years of college, but often a bachelor's degree is preferred.

Customer Support Technicians. There are a variety of companies that require customer support technicians. For example, manufacturers of computer hardware and computer software usually hire technical support personnel to answer user's questions related to the company's products. These people need to know not only about their company's products, but also how the products interface with other systems. Retail stores that sell computer hardware and software may also have positions for technical support people in order to keep their customers satisfied. Technical support personnel usually have a background in computer technology before they are hired; nevertheless, since these positions require knowledge of a great variety of potential hardware and software problems, these employees will usually receive additional specialized training.

Technical Writers. There is a large demand for people who can write instructional manuals about how to use computers and related technologies. All of today's hardware and software products include user manuals, reference guides, and often a variety of other technical documents. These documents are created by technical writers. Technical writers may also work with computer trainers to produce training materials and they may be called upon to produce specification sheets, product information sheets, brochures, and newsletters.

The technical writer must be skilled at translating technical jargon into a simplified language that can be readily understood by users of the product. Today, the technical writer is frequently called on to produce camera-ready copy for their employers. This requires special training in the use of desktop publishing and graphics programs, as well as knowledge of page design and a variety of other publishing skills.

For large projects, the technical writer may also become a project manager who works with technical editors and document-production staff during the production of the manual. As part of the production of technical documents, technical specifications must be deciphered, interviews with engineers and programmers must often be conducted, and arrangements must be made with data-entry people, desktop publishers, artists, photographers, and printers. The more of these skills a technical writer has, the more they can offer to potential employers. Sometimes technical writers are hired as outside consultants. Since technical writers must demonstrate knowledge of computer technology and possess excellent writing skills, they often have extensive experience and considerable education. An applicant for a technical writing position must usually show potential employers copies of manuals they have previously written.

Computer Artists. With the proliferation of hardware and software products designed to facilitate the creation of high-quality graphics, there is a growing demand for people who have the skills to put them to use. Ad agencies and design houses are now using microcomputers to create professional marketing documents and other types of advertising. Magazines, newspapers, and book publishers are hiring designers and graphics artists who are able to do their work on computers. Computer

artists usually have completed specialized training in art and in the use of computer graphics programs.

Computer-Based Training Specialists. Many types of organizations are now hiring trainers to develop and implement computer-based training programs for their employees. These training programs may be entirely or partially delivered by computer. The designer of a computer-based training program must have a great deal of knowledge about the topics being taught and about the hardware and software that is used in the training. These specialists must have education and experience not only in computer technology but they must also have skills in all methods, and they must possess excellent communication skills, both verbal and written. They are often also responsible for developing the training manuals and instructional materials that often accompany computer-based training programs.

15. Ответьте на вопросы:

1. What computer-related jobs do you know?
2. What functions do technicians perform?
3. What skills must technical writers possess?
4. How many years of college training does a job of technical writer require?
5. What are the functions of a computer artist?
6. What skills must computer-based training specialists have?

16. Прочтите и переведите текст.

TEXT C

COMPUTER OPERATOR POSITIONS

Customer Support Personnel. Customer support staffs are often employed by manufacturers of computer hardware and software to provide information and advice to customers. If the customer is purchasing a complex computer system, these employees may have to spend a great deal of time at the customer's office during installation. They are to assure that no problems arise during and after the installation. These employees must know how to work with programmers and engineers. Usually they have experience and training in systems analysis and programming. They may also be involved in training the customer's employees to use the products.

Sales Personnel. There are a large number of jobs available for people who have the skills to sell computer hardware and software. These people may work for the manufacturers of products or they may work for retail or wholesale houses that sell hardware or software products. The growth of the computer industry has also resulted in technical sales positions with publishers of technical books and magazines and a

number of other businesses related to the use of computers. In addition to having skills in sales, these employees must have knowledge of the products they are selling.

Database Managers (Database Administrators). These employees are responsible for the development of an organization's database-management system or they may be responsible for the maintenance of a system already in place. They generally do not have to be hardware specialists, but they must have completed extensive training on using database-management software. In addition, they must have experience to solve problems related to the organization's data. These positions generally require at least two years of specialized training. An applicant with a college degree will have an advantage when applying for these positions.

Data Control Positions. Because data is so important to businesses and other organizations, it is important to have a mechanism for checking the accuracy of data input into the system. Data control employees are responsible for double-checking data that is input by other people. They keep records and conduct periodic checks to be sure procedures are being followed. These employees usually have completed at least two years of training at a college or technical school.

In addition, an organization may hire one or more individuals who are responsible for managing and protecting the organization's data storage media. These employees who keep track of active and backup copies of data may also be responsible for the protection of data and programs against theft or damage. Often these employees need at least two years of college or technical school training.

These are the people who keep complex systems running. They may be involved in scheduling data analysis and maintaining program and data files. There are a number of different levels of these positions. The entry-level position usually requires at least a degree from a two-year college or training at a technical school. Experience and on-the-job training can lead to advancement to higher-level positions. A college degree in a technical field is generally required for highest-level (management) positions in computer operations.

Computer Professionals. The development of new hardware and software and the installation and maintenance of computer systems are areas that are handled by professionals with extensive training in computer science.

Engineers and programmers (software engineers) are responsible for the development of hardware and systems software. These employees may work with a systems analyst in the design and implementation of data-management systems. Engineers and programmers are generally classified into trainee, junior, or senior (lead) levels. Trainees may have as little as two years of college, but more often a college degree is required. Often trainees have little or no practical experience with the organization's computer system and must therefore work under the supervision of others. With more experience and specialized education, trainees can move to the junior level. Often additional specialized education, such as a graduate degree in a technical field, along with a great deal of experience is required before a junior employee can become a lead engineer or senior programmer.

Systems analysts. Systems analysts are often responsible for developing and implementing new computer-based data-management systems. They are also responsible for maintaining and implementing changes to existing computer systems. A systems analyst may be an engineer or a programmer, and often needs to have specialized skills related to the overall design of an organization's computer system. The analyst must also have the organizational and communication skills (written and verbal) to serve as a liaison between all the users of the computer system. This person must have education and experience in computer technology and should have knowledge about computer programming and training in the type of organization where employed. A bachelor's or master's degree in computer science with additional training in business administration or a related technical field may be required.

Experienced managers of the departments that are responsible for overseeing an organization's computer operations are always in demand. There are a number of jobs available for people-oriented individuals who want to be involved at the management level. Managers are needed throughout the computer industry, as well as in companies and organizations that have installed extensive computer systems. Managers of operations, information systems managers, database managers, managers of systems development, product managers, managers of technical support, and managers of end-user support are all needed in today's computer-using organizations.

REVIEW QUESTIONS

17. Ответьте на вопросы:

1. Computers can now be found in every school. The key to their effective use is in the development of good learning software. Contrast computer-aided instruction and computer-managed instruction programs.
2. What software programs and what computer devices are used in the process of creating camera-ready copy?
3. What does the term ergonomics refer to? Describe why it is important to all computer users.
4. With the increased use of computers to store large amounts of information about all citizens there is increased concern about privacy. Describe how computer data could be used to reveal private information about taxpayers, health service users, or credit card users.
5. As computers take on a more important role in our society, computer crime becomes more of a problem. Name three types of computer crime and describe ways to combat each.
6. Today, the number of jobs that are related to the use of computers or the maintenance of computers is growing steadily. Describe four different computer-related jobs and the skills these jobs require.

LESSON 5

Определения
Определительные придаточные предложения
Суффиксы и приставки
Text A Word processing and desktop publishing
Text B Word processing
Text C Editing your document
Text D Desktop publishing

PRE-TEXT EXERCISES

1. Переведите словосочетания, обращая внимание на разные способы выражения определения:

Computer's operation, computer's evolution, hundreds of different English-like programming languages, coded instructions used to instruct the computer, machine language, assembly language, high-level language, machine-language instructions, binary-coded sets of ones and zeros, easier-to-use programming languages, natural-language approach, special syntax requirements, object-oriented techniques, graphics-oriented systems, Microsoft's Windows operating environment, Apple Macintosh operating system.

2. Найдите определения в следующих предложениях и переведите их на русский язык:

1. The device made in our laboratory will be used in industry. 2. Scientists working at new computer programs have a lot of different problems to solve. 3. A citizen of our country was the first to circle the globe. 4. Computers of different types and sizes have appeared in every country of the world. 5. Materials necessary to produce supercomputers are difficult to make. 6. A system capable of transmitting long distance messages was developed at the end of the last century.

3. Укажите способы присоединения придаточных дополнительных и определительных предложений к главному, переведите предложения на русский язык:

1. When the mass production of computers began people realized they wanted to have computers at homes. 2. Experiments proved that a photon can greatly increase the operation of a computer. 3. Can you tell me whether computers are used for desktop publishing? 4. It became clear computerization had a great influence on people's life. 5. Russian newspapers informed that about 2,000 satellites had been

launched into the orbit. 6. People often view problems the way they want to view them. 7. Every task a computer does must be programmed. 8. Life has a purpose that must be fought for. 9. A man is known by a company he keeps. 10. Everything comes to him who knows how to wait. 11. This is the only way by which we can distinguish which of the two events came first. 12. Most laboratories have some devices that are being used for demonstration purposes. 13. There is no particular reason why this should be so. 14. Morse invented a code that used dots and dashes for letters of the alphabet.

4. Укажите, чем выражено определение:

1. Yesterday we watched a very late TV program of a football match. 2. Our electronics and radio electronics industry have developed from the country's only radio laboratory in Nizhny Novgorod. 3. It was announced that 1,000 well-equipped sport clubs could be opened in this country. 4. How can architects solve the problem of living in a region where night lasts for several months and where the temperature may be below 40°C and 50°C?

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1. The experiments carried out by these scientists didn't give any positive results for a long time. 2. Communication satellites used by all countries make intercontinental television transmission possible. 3. Articles published by Franklin in 1752 dealt with electricity. 4. The new methods applied in computer technology were more effective. 5. The results obtained showed that this theory was right. 6. The experiments differed in the data obtained when analyzed. 7. A famous article by Alan Turing entitled "Computing Machinery And Intelligence" appeared in 1950 in the philosophical journal Mind. 8. In this article the idea now referred to as Turing test was first described.

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1. Nowadays computers capable of performing billions of operations a second are required. 2. Computers available everywhere nowadays make our life easier.

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1. Mendeleev was the first to make a classification of chemical elements. 2. Bill Gates was the first to bring the idea that intelligence could someday be replicated in binary code. 3. The plants computer components are produced at must be superclean. 4. The number of components supercomputers consist of is great. 5. Materials new computers depend on must be of the best quality. 6. The problem two Harvard students Bill Gates and Paul Alien were interested in was not an easy one and it took several years to solve it.

WORD-BUILDING

5. a) Переведите следующие слова, обращая внимание на суффиксы и приставки:

technical, vocational, optional, educational, national; guaranteed, specialized, qualified: economics, physics, mathematics; co-education, coexistence, cooperation; full-time employment; post-war, post-revolutionary; post-graduate, undergraduate.

b) Переведите следующие слова, обращая внимание на отрицательные приставки *un-, in-, ir-, dis-*:

unbalanced, unequal, undone, insignificant, unnecessary, unemployed, unbalanced, untested, unloaded, independent, inorganic, irrespective, irregular, irreversible, impossible, underdeveloped, underline, underground; to disappear, to displace, to discharge, to disagree; unhappiness, unexpected.

c) Переведите следующие слова, обращая внимание на суффиксы *-ize -ssion, -tion,* и приставки *sub-, re-, dis-, mis-*:

expression, equation, calculation, approximation; characterize, organize, generalize, individualize, materialize; subdivision, subinterval, subway, subtropical, subnormal, submarine; to rewrite, to remake, to reread, to rearrange; displacement, disintegrate; to misunderstand, to mislead, to mispronounce, to misinform.

d) Образуйте от приведенных ниже слов прилагательные с суффиксами *- able, -ible; -less, -full* и переведите их:

to drink, to eat, to understand, to read, to access, to suit, to obtain, to win, to reuse, to wash, to transfer, to value, to compare, to convert; color, taste, home, sleep, use, hope, help, tact, joy, care, respect.

e) Переведите следующие слова, обращая внимание на суффиксы и приставки:

to resist — resistance — resisting — resistant; physics — physical;
to distribute — distribution — distributor — distributed — distributive;
to value — value — valuable — evaluation — devaluation;
to attract — attraction — attractive — to distract — distraction;
to modify — modifier — modification;
to arrange — to rearrange — rearrangement;
to mix — mixer — mixture.

KEY TERMS

6. Запомните следующие слова:

arrow keys	клавиши со стрелкой
centered justification	выравнивание по центру
defined style	заданный именованный набор параметров для форматирования текста (размер и гарнитура шрифта, выравнивание текста)
dragging	перетаскивание
font	шрифт
footer	нижний колонтитул
header	верхний колонтитул
help option	опция подсказки
insert mode	режим вставки
insertion point indicator	указатель точки вставки
justification	выравнивание
macro	макрос
mail-merge	формирование стандартных писем слиянием
menu	меню
optical character recognition (OCR)	оптическое распознавание символов
page composition program	программа пополосного набора
page preview	предварительный просмотр
ragged justification	неровное выравнивание
right justification	ровное выравнивание
ruler line	строка линейки
save option	опция сохранения
scroll bar	линейка прокрутки
scroll box	ползунок линейки прокрутки
spell checker	программа проверки правописания
status information	информация о состоянии
text style	стиль текста
thesaurus	тезаурус
typeface	гарнитура шрифта
typeover mode	режим перезаписи
word wrap	автоматическое выравнивание текста (укладка текста)
WYSIWYG	What You See Is What You Get

7. Прочтите и переведите текст.

TEXT A

WORD PROCESSING AND DESKTOP PUBLISHING

Word processing programs provide software tools that make it easier to edit text on the computer's screen, to prepare that text for printing, and to save a document as a file on disk for later retrieval.

Using the keyboard, text is entered starting from the left side of the screen (determined by the left margin setting for that particular document). When enough characters are entered to reach the end of the line, the Return key could be pressed to end that line and drop the cursor down to the beginning of the next line. Alternatively, modern programs can detect the position determined by the right margin down to the beginning of the next line (known as the word wrap feature).

Many word processing programs provide a way to search for characters in the document, and a way to replace found text with different characters.

A spell checker is a special feature of some modern word processing programs that is used to check the spelling of words in your document against a dictionary of words that can be accessed by the program.

Desktop publishing (DTP) programs evolved to meet the needs of page designers. They add special capabilities for displaying and managing graphics, fonts, and other page design features like lines and boxes, and they can display a close representation of what your printed pages will look like (known as WYSIWYG, or what-you-see-is-what-you-get).

Desktop publishing programs provide the capability to define styles (define text attributes for each section of a document).

Image scanners convert printed pictures or photographs to digital files that can be incorporated into a desktop publishing document. With optical character recognition (OCR) software, an image scanner can also be used to convert printed text to disk files that can be read by a word processing program.

8. Ответьте на вопросы:

1. What is the advantage of using a word processing program's "word wrap" feature?
2. What is a "ruler line" and how is it used?
3. What are the two types of dictionaries used by modern word processing programs?
4 What are the main differences between word processing and desktop publishing?
5. What is WYSIWYG?
6. How can images be incorporated into documents?

9. Переведите текст.

TEXT B

WORD PROCESSING

In the past, people processed words using typewriters. Although the typewriter did a fair job of getting readable characters into paper, once they were there it was hard to get them off. And because you didn't get a chance to see your words until they were on paper, by the time you realized you had made a mistake it was too late: you had to try to erase the mistake or start the document over. This problem was solved when computer word processing programs gave you a chance to preview the pages of your document before they were printed.

Word processing refers to the use of a computer program to prepare and print documents. A word processing program can be used to create letters, memos, and a variety of other types of documents. Word processing programs include features that are used to create, edit, format, save, and print documents.

For our purposes, we will define a word processing document as a text file that was created using a computerized word processing program. Such a file can be revised and reformatted as often as necessary. If the computer has a printer attached, the document can be printed as often as necessary. Today, if you are using a modern, full-featured word processing program, your documents can even include graphics. In addition to text, a modern word-processed document can contain special page-design elements such as lines and boxes designed to make pages easier to read.

Word Processing Program Design. For many first-time users, a computerized word processing program might seem very much like using a typewriter. The characters and punctuation are typed using a keyboard that looks very much like the one on a typewriter. The big difference is that the characters are not printed directly to paper, but are instead displayed on the monitor screen.

Document Status. Usually the word processing program includes status information at the top or at the bottom of the screen that displays the name of the file you are working on and the page, line, and character number related to the current position in the document.

Menu Options. Many modern word processing programs also include a set of keywords across the top of the screen that refers to menus that provide program options. With these word processing programs, selecting a menu name results in a display of that menu. Each menu groups and summarizes specific areas of the program's functions. An option title is selected from the menu to initiate that option. Often, selecting the menu title "opens" that menu directly beneath the title.

The Cursor. Word processing programs display either an on-screen cursor or an insertion point indicator. The cursor indicates the position at which the next character entered will be placed. The cursor may be a horizontal bar that is displayed beneath

text characters or a rectangle that overlays each character. Many modern word processing programs use an insertion point indicator that is a vertical bar narrow enough to be displayed between characters. We will refer to each type as a "cursor."

If the word processing program supports the use of a mouse, the cursor can be moved to a new position by repositioning the mouse pointer and pressing a button on the mouse. The cursor can also be moved by pressing one of the arrow keys on the keyboard. Each press of a left- or right-pointing arrow key moves the cursor one character position in the direction of the arrow, each press of an up- or down-pointing arrow key moves the cursor up or down one line. Many beginners make the mistake of repositioning the cursor by pressing the spacebar. Many typewriter users got used to moving to a new position on the page by using the typewriter's spacebar. But that method should not be used with a word processing program because the program places an invisible space-holding character at the cursor position every time the spacebar is pressed. Likewise pressing the Return key adds a line-holding character at the cursor position and moves the rest of the lines in the document down one line. (The Return key is sometimes referred to as the Enter key). If either of these keys is used for cursor placement, you will soon fill up your document with these invisible characters. To avoid this problem, some word processing programs include an option that displays a special character on the screen to indicate the presence of each invisible character.

Some word processing programs include other cursor movement options that provide ways to move between words or between pages in the document. For example, special key combinations or menu options may provide a way to go to a different place in the document. Many of today's word processing programs provide menu options for navigating through the document and for initiating many of the program's main features. Most also provide a set of keyboard shortcuts for the same purposes. Many programs take advantage of the Control key that appears on most keyboards. You hold down the Control key while you press one of the letter keys as a shortcut method of initiating a program option.

Many modern word processing programs support the use of a mouse as a pointing device. If so, you may be able to move through your document by repeatedly clicking the mouse button while the pointer is positioned over the scroll bar that is displayed at the right side of the screen.

You can also move to a new position in the document by dragging the scroll box up or down. "Dragging" means to position the mouse pointer over the scroll box, hold down one of the buttons on the mouse, and move the scroll box up or down. When you release the mouse button, a new section of text will be displayed that is associated with the area of the scroll bar where you placed the scroll box. You can also move the area of text displayed by positioning the mouse pointer over the scroll arrows at the top or bottom of the scroll bar and then clicking the mouse button. Each click on the scroll arrow moves the display one line. It may take some experimenting with the scroll bar, the scroll box, and the scroll arrows to learn how much each action changes the displayed position in the document.

Entering Text. Using the keyboard, text is entered starting from the left side of the screen. The left side starting position is determined by the left margin setting for that particular document. When enough characters are entered to reach the end of the line, the Return key could be pressed to end that line and drop the cursor down to the beginning of the next line. However, using today's word processing programs, you don't have to press the Return key to end each line. Modern programs can detect the position determined by the right margin setting and automatically move the cursor down to the beginning of the next line. This is known as the word wrap feature. It makes it easy to keep your hands on the proper character keys because you don't have to take them off to press the Return key to end the line. In addition, if you allow the words you enter to automatically wrap to the next line, any changes you might make later will automatically be reformatted.

The Tab key is used to add blank spaces at the beginning of text lines or between words. Each press of the Tab key moves the cursor to the next preset tab position. To add blank lines between paragraphs or titles, you press the Return key (once for each blank line). Remember, as described earlier, the program will place an invisible line-holding character at the cursor position each time you press the Return key.

10. Ответьте на вопросы:

1. How did people process words in the past?
2. What were the disadvantages of using typewriters?
3. What can word processing program be used to?
4. Where is a set of keywords situated?
5. What does the cursor indicate?
6. What is the Tab key used to?

11. Прочтите и переведите текст.

TEXT C

EDITING YOUR DOCUMENT

Most of today's word processing programs provide "full-screen" editing. That means you can move the cursor to any position on the screen and change the text that appears there. You just move the cursor to that position and begin typing. If you are in insert mode, each new character you add will be inserted at the cursor position and the characters that follow will be pushed to the next position. If you are in type-over mode, each new character you enter will replace the character at the cursor position. The rest of the characters on that line will not be moved.

Deleting Text. Most word processing programs have been programmed so that one or more keys on the keyboard can be used to delete text. Most computer keyboards have a Delete key that is usually used to delete the character that is at or to

the right of the cursor position. Each time you press the Delete key, the next character is deleted and the characters that follow on the line are moved one position to the left. Since the spacebar, the Tab key, and the Return key insert invisible characters into your document, they too can be erased using the Delete key. With most word processing programs, the Backspace key is also used to delete characters. However, the Backspace key generally deletes characters to the left instead of to the right.

Formatting Your Document. All word processing programs have a number of features that make it easy to format your document. This includes features for setting margins, tabs, and indents. Modern word processing programs also generally include options that give you a way to format special headers and footers that will appear on every page of the document automatically.

Setting Margins, Tabs, and Indents Setting Margins. Word processing programs provide a way to set the left and right margins for each document. The margins are usually set by entering a number, in inches or other unit of measure for left, right, top, and bottom margins.

The Ruler Line. Some word processing programs provide a visual representation of the current margins, indents, and tab settings by displaying a ruler line. A ruler line is a horizontal line across the screen with the margins, indents, and tab settings noted along it.

With some word processing programs, you can insert additional ruler lines throughout the document to change the formatting for text that follows it.

Setting Tabs and Indents with a Mouse. Some modern word processing programs take advantage of the mouse's pointing and dragging capabilities by providing a ruler line that lets you set the tabs and indents more directly by positioning special markers along it.

Notice that there are small pictures, known as icons, displayed along this type of ruler line. After highlighting areas of text (by holding down the mouse button and dragging the mouse pointer across the text area), you can reset the indents, tabs, and other formatting features by clicking on the ruler's icons with the mouse. For example, you could use the mouse to drag the left-indent marker to the right until it is positioned under the ruler's one-inch mark. As a result, the text that is highlighted will be indented one inch.

Setting Alignment and Line Spacing. Many of today's word processing programs give you a great deal of control over your document's alignment of text and line spacing. Most provide a way to align your lines of text along the left margin, leaving the right ends of the line ragged. This is left justification. Some programs let you align the right margin, leaving the left end of the text lines ragged. This is right justification. You can also set paragraphs as full justified: the program adds spacing between words or letters on each line so all lines will end evenly at the margins. Finally, you can center each line of text.

Different word processing programs provide different ways to set text alignment. You can set the alignment for all text in a document, for a block of text that follows a ruler line, or for a block of text that has been highlighted. Some word processing

programs also let you set the line spacing for the entire document or for selected paragraphs.

Saving Your Document. Modern word processing programs give you a chance to save your work to disk at any time. Experienced users don't wait until they have finished entering text and editing their document before saving: they save periodically as they work.

Save Your Work Often. There are good reasons for saving your work often. If something happens to the computer's power supply, you could lose all the work you did since the last time you saved. When you are working on a document, a record of what you enter is kept in the computer's memory. If the computer is turned off, or if there is even a momentary interruption of power to the computer, this memory will be erased and all your work will be lost if you have not saved it.

Save to Disk Options. With most word processing programs, your document is not permanently saved to disk storage until you name and save it using a Save or Save As option. Some programs require that you specify a name for the disk file when you start the document; others don't ask for the name until you choose the Save option. Either way, with most word processing programs, you have to select the Save option to save the file on disk.

Printing Your Document. Word processing programs include special features that communicate the document's text and formatting to a printer that is attached to your computer. To use a printer with your word processing program, you may have to tell the program what type of printer you are using. Most word processing programs provide special subprograms called "drivers" for each type of printer that the program can use.

Background Printing. With some word processing programs, if used with suitable computer systems, you may be able to continue working on your document while printing. This is known as "background" printing. With some systems, you can even use other programs while your document is being printed.

Other Word Processing Features. Today's word processing programs often include a great variety of additional editing and formatting features. Each new revision of a specific word processing program will likely add at least a few new features to make the program more attractive to potential buyers. While many of these features are not commonly used with simple documents, some can be invaluable when your document becomes more complex. Some of the more common editing and formatting options are described in the following sections.

Block Operations. Once you have entered some sentences and paragraphs in your document, you may find that you want to copy or reorder some of them. If your word processing program does not have the capability to deal with blocks of text, you would have to reenter it all over again.

A Two-Step Process. Managing blocks of text in word processing is a two-step process. First, you have to specify the text block you want to work with. This is usually done by highlighting the text block. Second, you choose a block operation that acts on the selected text block.

First, the user highlights the block of text. This can be done by positioning the cursor at the beginning of the block, selecting a "start block" option, and then moving the cursor to the end of the block and choosing an "end block" option. With most programs, the block will be highlighted. If you are using a mouse, you can usually highlight the block by dragging the mouse pointer across the block of text while holding down one of the mouse buttons. The second step in the above example shows that the user then selected a Move Block option. At that point, most programs would ask you to specify a location for the block. Once the location is specified, the highlighted block of text will be moved to the new location. Once a block of text is highlighted, it can also be copied. This leaves the original block of text in place and places a copy of it in the specified location. Also, once it is highlighted, a block of text can also be deleted.

Search and Replace Options Searching for Text. In longer documents, it may be difficult to find a particular word or sentence. For that reason, many word-processing programs provide a way to search for one or more characters the document.

Replacing Text. In addition to searching for characters, many word processing programs provide a way to replace the found text with different characters For example, you may want to change every occurrence of the words "Patent 1993" with "Patent applied for 1992" throughout an entire document Using the Search and Replace option, you can specify a search for the first phrase replacing it with the second. You can choose to replace the text the first time it is found, or you can replace it throughout the document

Headers and Footers. Most modern word processing programs provide a way to enter a line of text that will be printed at the top of each page of your document (a header) and another that is to be printed at the bottom of each page (a footer) Such programs often give you a way to automatically insert the current page number in the header or footer

Spell Checkers. A spell checker is a special feature of some modern word processing programs that is used to check the spelling of words in your document against a dictionary of words that can be accessed by the program.

Thesaurus. Some word processing programs even give you access to a thesaurus to show you some alternatives to a selected word. As with spell checkers, the program attempts to locate the word in a dictionary of synonyms. If found the program displays a set of alternative words.

Mail-Merge. is a name for a set of special word processing features that make it easier to prepare form letters. Using these features, you can leave blank areas in a letter (for example, the inside address and the salutation). To personalize the letter, these blanks can be filled automatically just before each letter is printed by instructing the program to insert names from a list of names another computer file.

Macros. To avoid the need to constantly repeat of ten used keystrokes, some word processing programs give you a way to store a series of keystrokes as a macros.

You can usually start the stored keystroke sequence by pressing one special key or a combination of two keys.

Help. Many word processing programs provide a special option to give you help with all the program's features. When you choose the help option many programs will display a list of word processing topics for which help is available.

Page Preview. A number of new word processing programs now provide an option that allows you to see on-screen exactly what your document will look like when it is printed. This page preview option lets you view each individual page of your document so that you can see if the margins and centering are right, and if the headers and footers look the way you want them to. For complex pages with multiple columns and a variety of text styles and sizes, this option is valuable for examining the balance of each page before printing.

12. Ответьте на вопросы:

1. What keys are used to delete characters?
2. What options are included to help the user in formatting a document?
3. What ways do word processing programs provide to set text alignment?
4. Why is it necessary to save the work often?
5. What is known as "background" printer?
6. What operations can be done with the highlighted block of text?
7. How can different words or characters be replaced throughout the document?
8. What does page preview option allow you to do?

13. Прочтите и переведите текст.

TEXT D

DESKTOP PUBLISHING

Word processing programs were originally designed to produce simple documents like letters or memos. Today, even the most capable of our modern full-featured word processing programs are line oriented: that is, they make it easy to create and print documents that are composed of lines of print. But as personal computers and printers become more capable, users want to put more than simple lines of text into their documents. With today's computer systems, you can work with graphics as well as text, and while some of the newer word processing programs can import graphics files, they are not designed to work with lines of text that flow around or interact with graphics. That specialty area is the domain of desktop publishing programs.

The Evolution of DTP. Desktop publishing (DTP) programs evolved to meet the needs of page designers. Sometimes known as page composition programs, desktop publishing programs provide many word processing functions, but, in

addition, they add special capabilities for displaying and managing graphics, fonts, and other page-design features like lines and boxes.Desktop publishing programs are designed to help you work on pages details presentation of what your printed pages will look like as possible. This is known as WYSIWYG (what-you-see-is-what-you-get). The term is pronounced "wiz-wig."

The Role of the Laser Printer. A key to the rapid growth in popularity of desktop publishing programs was the invention of the laser printer. Laser printers noiselessly produce high-quality text and graphics on plain paper. With the use of a full-featured desktop publishing program and a laser printer, a personal computer user can often produce the kinds of professional-looking documents that formerly required the services of a professional typesetting company. If higher-quality typesetting is required, the output from many desktop publishing programs can be sent directly to typesetting equipment or to very high-resolution laser printers. People, who use desktop publishing to create professional-quality documents, often use their in-house laser printer to create proof copies of their document and then use service bureaus with specialized equipment to print the final version.

Importing Graphics. All desktop publishing programs provide a way to import graphics. Although their methods vary most desktop publishing programs make it easy to insert these imported pictures into the document you are creating. The types of graphics files that can be imported are dictated by the capabilities of the desktop publishing program you are using. Once imported, pictures can be resized or moved to a new position in the document. Some desktop publishing programs even give you a way to edit the picture after it is brought into the desktop publishing environment, but generally you create and modify the graphic in a separate graphics program.

Most desktop publishing programs also provide a limited set of graphics creation and editing tools that let you create and edit your own simple graphics as you develop the document. These tools are very useful for drawing lines and boxes and other simple objects that can enhance your document by emphasizing important items on the page.

Standard Desktop Publishing Features. Desktop publishing offers more than graphics and text management. Desktop publishing programs provide a number of special features that make it easier to design complex pages that include text in a variety of fonts and sizes along with graphics and other page design elements. Many desktop publishing programs provide a way to organize your document's pages into blocks or frames. Following page layout principles that evolved long before the invention of personal computers, these programs help you design your pages by providing separate areas for blocks of text and graphics. Once created, text and graphics can then be placed into those blocks.

Page-Design Features. While word processing programs are designed to make it easier to create text lines and paragraphs, desktop publishing programs are designed to produce complete pages. These programs usually provide a number of different views of the page you are working on. You can display a full-page view to see how

your overall page is looking, or you can work on page details by "zooming" in until a small portion of your page fills the entire screen.

Editing Mode. Some desktop publishing programs provide a special editing mode that allows the user to work with the text in a form that is much more like word processing. When the user selects this special editing option, all of the text is displayed in an easy-to-read font in a scrolling field. The user can then move easily from one part of the document to the next without having to spend the time required to display each page individually. Spell checking and search and replace options can also be performed more efficiently in this edit mode than they can in page mode.

Creating Standard Page Elements. Another special feature that users create professional documents is the capability to create text and design elements that will appear consistently on every page of the document. Generally this option is used to create repeating page-design elements such as headers and footers. If the user wants to specify different design elements for right and left pages (as you might for a book), that is easy to do.

OCR Scanning. Scanners can be used to convert printed text to disc files that can be read by a word processing program or imported into a desktop publishing document. This type of scanning is known as optical character recognition (OCR). Originally, OCR technology did not do a very good job of recognizing characters, and the process of cleaning up the mistakes was along and tedious process. Now the technology is improving, and the process of scanning printed documents can save a great deal of time over entering text by hand.

REVIEW QUESTIONS

14. Ответьте на вопросы:

1. In recent years, word processing programs have incorporated more document-processing features. Name three of today's common word processing features that were relatively unknown a decade ago.

2. Today's graphically oriented user interfaces have resulted in new word processing features that can only be used with a pointing device such as a mouse. Briefly describe how highlighting text, selecting menu options, and scrolling through a document are made easier through the use of a pointing device.

3. Describe two ways in which a desktop publishing program differs from a word processing program.

4. Describe the differences between using an image scanner to convert a photograph to a digital file and using the same scanner for optical character recognition.

5. When using either a word processing program or a desktop publishing program, text can be aligned in four different ways. Describe each type of alignment.

LESSON 6

Модальные глаголы *can, may, must, should, need* и их эквиваленты
Сочетания *no longer, because of, due to, thanks to*

Text A Types of Graphics Software
Text B Trends in Graphics Programs
Text C Presentation Graphics

PRE-TEXT EXERCISES

1. Заполните пропуски глаголами *mustn't, needn't, don't (doesn't), have to:*

1. You ... pay for the Internet. It's free. 2. You ... erase this information. It's very important. 3. You ... forget to deliver this letter. 4. You ... to modify this image. I can do it myself. 5. You ... to develop a new program. There are plenty of programs. 6. You ... use these wires. It's dangerous. 7. Service is included. You ... set up the system yourself. 8. When you are driving, you ... take your eyes off the road. 9. You ... navigate around the Internet aimlessly.

2. Раскройте скобки, используя Future Indefinite.

1. You mustn't edit this text (unless you are allowed). 2. Ann may simulate the animation effect (when she sets up the program). 3. My sister can buy a laptop computer (when she has enough money). 4. I must combine these programs (as soon as I get them). 5. He can't assign this device (unless you help him). 6. Andy may visit the chat room (after he finishes his homework). 7. He can guide the drawing style (when he uses the program graphic tools).

3. Переведите следующие предложения:

1. You won't have to transmit this data. 2. He had to modify this image. 3. May I take your floppy disk? 4. The boy was able to use computer graphics. 5. He must transfer pictures and texts into the computer. 6. They could not incorporate some freehand drawings into their presentation. 7. He needn't replace this onscreen grid. 8. This microwave relay station should be established here. 9. We are to buy a server. 10. They need new materials to make this experiment. 11. This student has missed some lectures and now he can't tell anything about a bit-mapped graphics program.

4. Преобразуйте следующие предложения, используя модальные глаголы:

1. There was no need for you to carry out this task. 2. It's necessary for you to enlarge the image on your computer screen. 3. I doubt the data was sent at a high speed. 4. He hasn't come yet. Perhaps he has changed his mind. 5. John is capable of refining photos if he wants to. 6. Your types of graphs are old. Why didn't you change them? 7. They arranged to clarify the data the next day.

5. Переведите предложения:

1. К счастью, люди сумели предотвратить эту катастрофу. 2. Он сказал нам, что мы можем использовать любой тип графов. 3. Нельзя игнорировать влияние всеобщей компьютеризации. 4. Вы должны следовать этой инструкции и не должны нажимать на эту кнопку. 5. Напрасно я установил это устройство. Я им так и не воспользовался. 6. Если вы хотите получить хорошее образование, то придется много заниматься. 7. Тебе не следовало стирать эти данные! 8. Он должен был закончить работу вечером, но обнаружил ошибку, и ему пришлось все переделывать.

6. Замените модальные глаголы соответствующими эквивалентами:

1. We can see electrical devices everywhere. 2. He may decode this information. 3. You can use this delivery tool. 4. I have got a laptop, so I can always pick up my e-mails. 5. He must print this document out. 6. Manufacturers must develop new programs. 7. He may not modify this image. 8. She can't reduce the image on the computer screen. 9. You may log in my password.

7. Переведите предложения, обращая внимание на союзы *due to, thanks to, because of, no longer:*

1. Ships can communicate over long distances due to the radio. 2. It is no longer possible to put off the solution of ecological problems. 3. Because of the earth's rotation there are days and nights on the earth. 4. Due to the latest achievements in electronics it has become possible to develop supercomputers. 5. Solar and atomic batteries are used to supply power to transmitters in spacecrafts because of their long life. 6. We no longer use these types of graphs. 7. Thanks to the development of radio telescopes radio astronomy has made great achievements. 8. He no longer deals with this kind of devices. 9. Thanks to the development of cosmonautics our century can be called "Space Age". 10. He is due to speak at the meeting. 11. The disagreement was due to misunderstanding. 12. They treated the problem with due attention. 13. He is not able to do things properly because he does not give them enough thought. 14. The process has been widely used because it was relatively easy to implement. 15. Because of this strategy of both players has high stability. 16. The company has lost several customers because of its very bad work. 17. Because

modeling methodology is becoming increasingly broad, more powerful tools must be developed.

KEY TERMS

8. Запомните следующие слова:

axis	ось
calculation	вычисление
cohesive format	связанный формат
database	база данных
dedicated analysis graphics programs	программы, посвященные графическому анализу
digitized video image	оцифрованное видеоизображение
full-color	полноцветный
geometric shapes	геометрические формы
highlighting	подсвечивание
in-house personnel	внутренний персонал
integrated software package	объединенный пакет программ
item	пункт
numerical data	числовые данные
pattern	рисунок
pie chart	секторная диаграмма
pictorial representation	иллюстрированное представление
projection devices	устройства проектирования
quantity	количество
sales figures	числовые данные объема продаж
sales pitch	коммерческое представление
spreadsheet-based analysis graphics	графический анализ на основе крупноформатной таблицы
size	размер
three-dimensional graphs	трехмерные графы
tool	инструмент
wedge	клин
word processing	обработка текстов

9. Прочтите и переведите текст:

TEXT A

TYPES OF GRAPHICS SOFTWARE

Analysis Graphics. Analysis graphics (also called business graphics) software is used to transform numerical data into a variety of charts, graphs, and diagrams that can be easily understood.

The computer is particularly adapted to this task because it is capable of performing calculations on large quantities of numerical data. Users of all types take advantage of analysis graphics in the performance of their jobs. Businesses use analysis graphics for analyzing sales figures over time. Researchers use these programs to analyze the differences between groups or conditions. Many organizations use business graphics programs to look at the cost of products and services. Analysis graphics software generally comes into two forms – spreadsheet-based analysis graphics software and dedicated analysis graphics software.

Spreadsheet-Based Analysis Graphics. Part of an integrated software package that includes word processing, database, spreadsheet, and the graphics component. This type of program is very convenient to use because it provides a way to quickly create charts and graphs based on numerical data that you have entered into a spreadsheet. This can be done without exiting the program. With some programs, when information is changed in the spreadsheet, corresponding changes in the graph will be made to reflect the change. This type of program generally provides a standard set of graph types, a way to enter text to be used to label the graph, and a variety of colors or textures to differentiate between different sets of information. These programs also include options for printing or displaying the graph. These programs are generally not as sophisticated as the dedicated analysis graphics software discussed in the next section, but they are usually easier to use. They can be used to provide a quick pictorial representation of your data. An advantage of a spreadsheet-based analysis graphics program is that the numerical data is easily accessible since it is there within the same program. The data is selected by simply highlighting the cells that you want to be graphed. Using modern graphic versions of this type of spreadsheet program, once the graph has been created it can be printed out as a part of a report.

Dedicated Analysis Graphics Programs. Dedicated analysis graphics programs are used in the same way as the spreadsheet-based programs, but generally they are more sophisticated and may provide additional ability. Example, for create three-dimensional graphs which may provide a clearer understanding of certain types of numerical data. One disadvantage of this type of program is that the data must be entered by hand or a file must be imported from another program such as an electronic spreadsheet.

10. Ответьте на вопросы:

1. What is analysis graphics?
2. What do businesses and researches use analysis graphics for?
3. What type of program is convenient to use and why?
4. What is an advantage of a spreadsheet-based analysis graphics program?
5. What programs can be used to create three-dimensional graphs?

11. Прочтите и переведите текст.

TEXT B

STANDARD TYPES OF GRAPHS

There are many different types of graphs that may be included with both spreadsheet-based graphics programs and dedicated-analysis graphics programs.

Pie Chart. A pie chart is used most effectively when you want to compare the way in which individual parts relate to the whole. It is called a pie chart because it looks like a piece of pie cut into wedge representing one of the items under comparison.

Generally, analysis graphics software provides a set of patterns or colors that can be used to further differentiate between the various pieces of the pie chart.

Generally, you shouldn't use more than about ten wedges in the pie or it may become too confusing.

Line Graphs. Line graphs can be used to look at trends that continue over a period of time. They are especially useful when comparing the values of two different variables on the same graph. With line graphs, points are marked out along a vertical and horizontal axis and then a line is drawn between the points.

The angle of the line along the vertical axis represents the trend and the distance of the line from the horizontal axis usually represents a quantity. When a second category is to be compared, a separate line is drawn between the points that indicate that category.

Bar Graphs. Bar graphs use bars along a vertical or horizontal axis to illustrate differences among individual items. This type of graph is particularly valuable when you want to portray differences in size and quantity. Although the bars can run either horizontally or vertically, the vertical axis (y-axis) generally measures quantity and the horizontal (x-axis) measures the values for each category being compared.

The values for the different categories being compared are often represented by bars with different patterns or colors. Some programs provide a way to create grouped bar graphs or stacked bar graphs which provide a way to compare the way a number of items compare over time.

When creating graphs to illustrate numerical data, the most important decision is to select the appropriate type of graph.

Each type of graph is generally designed to illustrate certain kinds of data: selecting the wrong type can confuse the viewer instead of clarifying the data.

12. Ответьте на вопросы:

1. When is a pie chart used?
2. Why is a pie chart called so?
3. How many wedges should be used in a pie?
4. When are line graphs useful?
5. When are bar graphs valuable?
6. What should we do when illustrating numerical data?
7. What can happen if we select the wrong type of graph?

13. Запомните слова:

ability	способность
additional	дополнительный
advantage	преимущество
appear	появляться
allow	позволять
be capable of	быть способным
compare	сравнивать
confuse	путать
create	создавать
decision	решение
differentiate	дифференцировать
emerge	возникать
enliven	оживлять
include	включать
label	маркировать
measure	измерять
perform	выполнять
portray	изображать
provide	обеспечивать
reflect	отражать
relate	соотносить
represent	представлять
select	выбирать
transform	преобразовывать

14. Прочтите и переведите текст.

TEXT C

PRESENTATION GRAPHICS

Presentation graphics programs, used to make computer-based presentations to others, represent a fast-growing segment of today's computer applications. These programs are used in business and education or by anyone else who needs to make presentations to groups.

Although analysis graphics software has been used in business for some time to illustrate numerical data, it is only recently that the new category of presentation graphics software has emerged. Whereas analysis graphics software allows the user to create a variety of charts and graphs for display on the computer screen or for output to a printer, presentation graphics software provides a way to create high-quality presentations for delivery by computer. Often special projection devices are used to display a larger version of the graphics that appear on the computer's screen.

Business people are constantly involved in presenting a variety of information to different groups of people, whether it is in meetings of in-house personnel or a sales pitch to a customer. Presentation graphics software provides a way to communicate this type of information in a cohesive format. These programs generally provide a set of easy-to use options that can be used to create a series of computer-generated "slides", screens full of information that can be presented in sequence by the computer.

Usually, the user can select from a variety of colored borders and backgrounds that help to enliven the overall look of the presentation. Graphics can also be imported from other programs. For example, charts and graphs created software can be imported.

Full-color, three-dimensional photographs which have been scanned (digitized) can also be added to the presentation. Text can be entered for titles objects. Some of today's presentation graphics programs also provide a way to import digitized video images, animation, and sound.

Most presentation graphics software provides a variety of output options. Even if the presentation is to be presented on a room-sized screen using an LCD projector or a large screen monitor, the presenter may want to output certain information to a printer to create handouts for the group.

Through the use of special devices and media, the presentation screens can be transferred to 35 mm slides, to transparencies, or to video tape. In addition, some of today's presentation packages include features found in creative paint or draw programs, such as tools to draw geometric shapes and lines of different styles and thickness. These graphics tools can be used to create simple diagrams or line drawings to add special emphasis to certain aspects of the presentation.

LESSON 7

Причастие
Независимый причастный оборот

Text A Computer-Aided Design Programs
Text B Rendering
Text C Creative Paint and Draw Programs

PRE-TEXT EXERCISES

1. Выберите необходимую форму причастия:

1. It seems to be a very (interesting, interested) story. 2. This user seems (interesting, interested) in creating rotating images. 3. Having erased that secret information he stood for a moment (confusing, confused) and (frightening, frightened). 4. The third photo (refining, refined) by him was used in his presentation. 5. The (breaking, broken) modem was taken to the specialist.

2. Переведите следующие предложения:

1. A soft-error having occurred, I had to re-load the computer. 2. Having used a fiber-optic cable, I increased the unloading speed. 3. Being connected to the local-area network I can copy music and films from other computers. 4. Having bought a monitor with a 170 per cent angle of view, you can look at a screen practically from any position. 5. Erasing the data, don't forget to make a copy of it. 6. Using a high-resolution monitor, you will protect your eyesight.

3. Переведите, обращая внимание на форму причастия:

1. Мы смотрели на экран компьютера, увеличивая и вращая изображение, созданное нашим учителем. 2. Данные, переданные электронной почтой, были адресованы хозяину дома. 3. Вот новые диски, присланные для нашей библиотеки. 4. Изучив инструкцию, он начал устанавливать модем. 5. Имя человека, создавшего этот график, неизвестно. 6. Завершив подключение нового устройства, он передал данные в цифровой форме. 7. У него было нескольких фотографий, усовершенствованных компьютером. 8. Прочитав эту главу, вы сможете описать различные элементы компьютерной системы, включая аппаратное и программное обеспечение. 9. Когда-то компьютеры были сложными, таинственными устройствами, спрятанными в специально спроектированных помещениях, оборудованных приборами, осуществляющими климат-контроль.

4. Раскройте скобки, образовав от глаголов нужную форму причастия:

1. He didn't doubt that the information (to receive) by morning mail was of great interest for his competitors. 2. A new road will soon be built (to connect) the plant with the railway station. 3. She had a good practical knowledge of French (to work) as an interpreter for many years in France. 4. Never (to experience) such difficulties she was at a loss. 5. (to address) the parcel, I went out at once to post it. 6. Electronic computers (to use) in the research saved the scientists a lot of time. 7. (To carry out) numerous experiments and tests, the scientists tried to prove the original hypothesis. 8. The experiments (to carry out) by a team of young scientists led to sensational results. 9. They got their children (to educate) in the best British Universities. 10. She had her manuscript (to type) without a single typing mistake.

5. Переведите предложения, обращая внимание на причастный оборот:

1. The capabilities of the program being very large, they created some fine photographs. 2. The treaty having being signed, trade was at once resumed. 3. The image being refined, he phoned his friend. 4. The information being stored in the computer, she sent us a message. 5. Electrons moving through a wire, electrical energy is generated. 6. Radio was invented in Russia, its inventor being the Russian scientist A.S.Popov. 7. Any moving object can do work, the quantity of kinetic energy depending on its mass and velocity. 8. The cathode heated, the electrons move with varying velocities, their velocity depending on the temperature and nature of the material. 9. The idea can be pronounced true if tested by experience. 10. When speaking about the new project the lecturer showed the map. 11. The barometer is an instrument measuring atmospheric pressure. 12. When frozen water is a colorless solid. 13. If desired the instrument may be used repeatedly. 14. The other conditions being equal, the acceleration will be the same. 15. All the equipment removed, the explorers stopped working. 16. The temperature being raised, the kinetic energy is increased. 17. The session being over, with many aspects of the problem left unsolved.

6. Объедините предложения, используя независимый причастный оборот:

1. The data-sending capabilities of his computer permit. We shall transmit the information. 2. They enjoyed using these combined programs. They decided to buy them. 3. The example of a consistent policy of peace and democratic resolutions of internal problems is given by Russia. It helps to settle all the problems. 4. It was a very nice film. They played it back. 5. It was a motionless image. We simulated the animation effect. 6. The peoples are showing a new and deeper sense of solidarity in the struggle for peace and democracy. It serves the better future for the world. 7. The data was too difficult for him to decode alone. He asked for help.

7. Переведите на английский язык, заменяя придаточные предложения независимым причастным оборотом:

1. Так как датчики помещены в специальную перчатку, я могу погрузиться в виртуальную реальность. 2. Так как данные были закодированы, мы обратились к специалисту. 3. После того как инженер разработал эту программу, его (программу) обсудили производители. 4. Так как в нашей квартире нет видеомагнитофона, мы не могли воспроизвести эту видеопленку. 5. После того как отправляющие способности моего компьютера были улучшены, я начал передавать информацию с высокой скоростью и в обоих направлениях. 6. Так как приложение было отредактировано, я показал его профессору. 7. Когда показ закончился, мы задали несколько вопросов.

KEY TERMS

8. Запомните слова:

advent	приход
angle of view	угол изображения
bit-mapped graphics program	графическая программа с побитовым изображением
clip art	аппликация
creative graphics programs	творческие графические программы
computer-aided programs	программы автоматизированного проектирования
depth	глубина
designate	определять
display	показ
drawing tools	инструменты для рисования
enlarge	увеличивать
freehand drawings	ручные рисунки
free-form drawings	рисунки свободной формы
guide	руководить
image	изображение
lighting	освещение
lightpen	световое перо
on-screen grid	сетка на экране
option	опция
provide with	обеспечивать чем-либо
rendering	визуализация
rotate	вращать
tablet	планшет

9. Прочтите и переведите текст.

TEXT A

COMPUTER-AIDED DESIGN PROGRAMS

Computer-aided design (CAD) programs are used by engineers, architects, draftsmen, and other specialists to design and test a variety of products from clothes to aircraft. Before CAD programs were created mechanical and engineering drawings had to be drawn by hand on paper, making them very difficult to store and to modify later. With CAD, when a change is required, it can be made quickly and easily by manipulating the image on the computer's screen. The early CAD programs were very expensive and ran exclusively on powerful mainframes or minicomputers. These early programs could cost as much as $100,000. But, with the advent of more powerful microcomputers, CAD programs were more likely to be designed to run on them. CAD programs are now available for personal computers for less than $500. Computer-aided design software not only provides sophisticated options for designing a product, but it gives the engineer a way to see the design on screen from a variety of perspectives.

Modern CAD programs can reduce, enlarge, or rotate the image on the computer screen. Images can also be copied or moved.

These primitives are basic elements such as points, lines, and circles that are used to construct larger images. Positions on the computer's screen are usually designated by a set of coordinates. These numbers represent the placement of the graphics primitives.

CAD software provides computerized versions of the traditional drawing tools such as rulers, pens, pencils, protractors, T-squares, and drafting triangles.

These software tools can be used to guide the drawing style and positioning of the images on the computer screen.

These methods provide a way for the creation and exact placement of objects such as lines, circles, or arcs on the screen. The user can also enter numbers to represent screen coordinates, and the program will draw the object based on those coordinates.

The user determines the appropriate coordinate by referring to an on-screen grid. Then, once an object has been drawn on the screen, it can be moved to a new position or it can be copied or modified in many other ways through the use of the program's graphics tools.

10. Ответьте на вопросы:

1. What are CAD programs used for?
2. What difficulties did specialists have before CAD programs?

3. What can be done with CAD?
4. Were the early CAD programs very expensive?
5. What can modern CAD do?
6. Who works with these programs?
7. What traditional drawing tools are computerized?
8. How can we guide the drawing style?

11. Прочтите и переведите текст.

TEXT B

RENDERING

Rendering and animation programs represent a new category of software that provides CAD with new capabilities for rendering and animating.

Also it very useful for conveying information to others in a form that is much more easily understood.

Rendering programs were developed to deal with the display of more realistic images. They provide new capabilities for the lighting, coloring, and texturing of on-screen images. Rendering programs give the user a way to interactively control the perspective and angle of view of a drawing.

The image can be positioned and rotated. Even the depth of field can be affected by selectively blurring areas of the image. The latest rendering programs often provide sophisticated control of light that can simulate different kinds of light from a variety of directions. All of these capabilities help users create images and objects that are very realistic as opposed to the nonrealistic two- or three-dimensional images of traditional CAD packages.

For all of these reasons, CAD manufacturers have begun to incorporate more rendering capability into their programs. While traditional CAD programs are generally output to pen or plotter devices, some rendering programs now can provide output to videotape or color film.

CAD drawings can often be imported for use in these programs, and some rendering programs even provide a way to edit the original CAD geometry without having to leave the program.

12. Ответьте на вопросы:

1. What is rendering useful for?
2. What new capabilities do rendering programs provide?
3. How can users create realistic images?
4. Where can CAD drawing be imported?

13. Прочтите и переведите текст.

TEXT C

CREATIVE PAINT AND DRAW PROGRAMS

A number of different types of graphics programs are used to create free-form drawings. These programs provide the user with tools that can be used to create lines, patterns, and designs.

Creative graphics programs generally are categorized as falling into one of two types. Both types of programs provide options that allow the artist or designer to create sophisticated freehand drawings, but they do it in very different ways. In order to understand the difference between these two types of graphics programs, it is necessary to understand something about bit-mapped (paint) and vector (draw) images.

Paint Programs. When an image (such as a circle or a rectangle) is created in a bit-mapped graphics program (generally referred to as a paint program), it loses its identity as a whole object. The object is created as a pattern of pixels. This means that the characteristics of the rectangle, such as its overall size, or its line thickness, cannot be changed; instead, the image is changed by erasing or adding individual pixels. Information about the image is stored in the computer's memory as a series of bits.

In monochrome paint programs (usually displayed as black images on a white background), one pixel corresponds to one bit in memory. Color graphics programs assign more bits to display the color of each pixel. The smaller and closer together the pixels are, the better the image will be. The number of pixels is determined by the resolution of the screen. High-resolution monitors can use 1.024 by 1.024 pixels.

Paint programs provide a set of software drawing tools that can be manipulated using a pointing device such as a mouse. These tools mimic the drawing characteristics of a real-world drawing tool such as a pencil or a paintbrush. These tools can be used to turn the pixels on the screen from white to black or from black to white or in patterns of black and white pixels. An "erasing" tool is used to turn pixels back to the standard white.

Paint programs generally include an option that lets the user "zoom in" or magnify any area of the screen. This gives the user a way to make detailed corrections to the image.

These programs also include a palette of textures or patterns that can be used to "fill" shapes and objects with the selected pattern. Today, paint programs provide users access to full color as well as a great variety of drawing tools and other options for modifying an image.

These programs offer the artist/designer a way to create very sophisticated drawings. In addition, a wide variety of clip art (art on disk) is available for those who are less adept at creating their own images.

Draw or Vector Programs. When an object such as a rectangle is created in a vector graphics (or draw) program, the program uses a set of mathematical instructions that describe all of the rectangle's characteristics. The object is treated as a whole entity. This means that the characteristics of a drawn rectangle can be changed. The object, once drawn, can be resized or reshaped as a whole. Its line thickness can be changed and the object can be filled with a pattern. The objects created with a draw program of this type can be resized without being distorted (not true for paint graphics images).

As with paint graphics, a special drawing device such as a mouse, lightpen, or digitizing (or graphics) tablet is used and the programs provide a set of software tools to create the images.

Because draw programs usually are used to create more precise drawings than can be created using paint programs, many draw programs have rulers and grids that allow the user to place objects precisely on the screen.

14. Ответьте на вопросы:

1. What are graphics programs used for?
2. What does a quality of image depend on?
3. How can a user make detailed corrections to the image?
4. In what program can characteristics of a drawn object be changed?
5. What do draw programs usually have and why?

15. Переведите предложения, обращая внимание на выделенные слова:

to bookmark – to put it in a list of websites; ***server*** – central computer that distributes e-mail and other services to a group of users; ***to subscribe*** – to become a member of; ***to be down*** – not working; ***to hack into*** – accessed it illegally; ***garbled*** – just a series of meaningless letters and numbers; ***to bounce*** – to come back; ***to hack into*** – to access illegally; ***anti-virus software*** – protection against computer viruses.

1. I'***ve bookmarked*** the CNN home page as I use it regularly to get the latest news. 2. Our ***server*** at work ***was down*** yesterday so I didn't get your message till today. 3. That file you sent me as an attachment was unreadable. The text was completely ***garbled.*** 4. Do you have good ***anti-virus software***? It's worth updating it frequently. 5. If you ***subscribe to*** newsgroups, you often get hundreds of messages. 6. Someone ***hacked into*** our company server and destroyed all our files. 7. She must have changed her e-mail address – the e-mail I sent her ***bounced.***

LESSON 8

Герундий
Герундиальные конструкции
Text A Trends in Graphics Programs
Text B Multimedia Applications
Text C Computer-Based Virtual Reality

PRE-TEXT EXERCISES

1. Переведите предложения на русский язык, определив форму и функции герундия:

1. A lot depends on his transmitting computer data in time. 2. Rotating the image on the computer screen was not easy for the user. 3. They finished assigning the program at 10. 4. He was blamed for not having provided them with wires. 5. He was accused of decoding the secret information. 6. He doesn't like using combined programs too often. 7. Supercomputer is able of performing one billion operations a second. 8. I have no hope of ever carrying out this task. 9. He doesn't mind being asked about it.

2. Переведите на русский язык, обращая внимание на герундий:

1. Our teacher keeps insisting on our using this draw program. 2. He denied having erased that information. 3. She avoided modifying the image. 4. He enjoyed incorporating text, graphics, sound and video into one program. 5. He postponed displaying his new computer graphics as he fell ill. 6. He went on creating the ways of immersing the users into the artificial world. 7. I can't put off editing this video sequence. 8. I don't mind interacting with three-dimensional displays. 9. He couldn't help checking the data-sending capabilities of his computer.

3. Раскройте скобки, употребляя нужную форму герундия:

1. In (to assign) this device they came across some difficulties. 2. This program is not worth (to carry out). 3. This data requires (to transmit) in digital form. 4. This equipment needs (to deliver). 5. He reproached me for (not to edit) the text. 6. He couldn't help (to play back) this popular music. 7. The students were busy (to describe) their experiments when one of them suddenly remembered (to leave) his results at home. 8. Do you remember (to post) the letter?

4. Переведите на английский язык, используя герундий:

1. Директор возражает против доставки этого кабеля через неделю. 2. Он настаивает на приобретении специализированных программ. 3. Он не может не погружаться в виртуальную реальность. 4. Она отрицала, что стерла это

сообщение. 5. Учитель одобрил использование видеоизображения во время презентации. 6. Я не мог не закодировать эту секретную информацию. 7. Он возражает против того, чтобы уменьшить изображение на экране компьютера.

5. Переведите на русский язык:

1. He looked forward to buying all the necessary attached devices. 2. A laser-based reading device prevents discs from spoiling. 3. The manufacturers succeeded in developing combined programs. 4. She dreamt of getting the access to that information. 5. The workers gave up the idea of being provided with the new equipment. 6. He objected to her buying a modem. 7. We congratulated him on having created such a good paint program. 8. He insists on buying this high-capacity device. 9. We approve of using computer graphics editing methods. 10. Debugging a program is a hard job. 11. One of the benefits of buying this system is that it has detailed documentation. 12. I'm against accepting this plan. 13. The program is worth using. 14. In writing this program we met a lot of difficulties. 15. By using this software you will solve a lot of problems. 16. Programming is the process of preparing, testing, correcting instructions for a computer. 17. After performing calculations a computer displays some result.

6. Замените выделенные части предложения герундиальными оборотами, употребляя приведенные в скобках предлоги.

1. He insisted *that the image should rotate* (on). 2. There is *a possibility that we may color on-screen images* (of). 3. *The fact that you have English lessons* helps you to work with the computer (of). 4. Thank you *that you set up this system* (for). 5. He gave up the idea *that he could carry out that task* (of). 6. We knew *that the manufacturers had been asked to deliver those attached devices* (of). 7. I remember *that I have transmitted this information.*

7. Запомните следующие выражения:

accuse smb of	обвинять кого-либо в чем-либо
apologize for	извиняться за что-либо
approve of	одобрять что-либо
be capable of	быть способным на что-либо
be engaged in	быть занятым чем-либо
be interested in	интересоваться
be tired of	быть усталым от
be worth doing	быть стоящим
benefit by	получать выгоду от чего- либо
get used to	привыкнуть к чему-либо
object to	возражать против чего-либо

8. Переведите на русский язык, употребляя герундий:

1. Его обвинили в том, что он взломал код доступа. 2. У нее нет шансов соединить всю информацию. 3. Я помню, что поместил датчик в специальные очки. 4. Эти файлы стоят того, чтобы их сохранить. 5. Она устала от долгой работы над проектом. 6. Сначала у нее и мысли не было о том, чтобы включить это видеоизображение в свою презентацию. 7. Программу стоит использовать. 8. Он знал, что меня попросили отредактировать эту статью. 9. Она поблагодарила меня за то, что я уменьшил изображение на экране компьютера. 10. Одно из преимуществ покупки этой системы в том, что она имеет подробную документацию. 11. Он отрицает, что ему помогли выполнить эту работу. 12. Они возражали против подписания этого документа.

KEY TERMS

9. Запомните слова:

delivery tool	инструмент для доставки
digital video	цифровое видео
display goggles	очки на основе компьютерного дисплея
Enhancement	увеличение
high-resolution monitor	монитор с высоким разрешением
image processing	обработка изображения
internal memory	внутренняя память
full-color	полноцветный
multimedia authoring systems	мультимедийные системы авторской разработки

10. Прочтите и переведите текст.

TEXT A

TRENDS IN GRAPHICS PROGRAMS

Today, new types of graphics programs are constantly being developed. One new type of paint program, known as an image-processing program, provides powerful options for working with photographs that have been scanned into the computer (digitized).

These programs generally require high-resolution monitors and a considerable amount of primary and secondary storage, but they give the user the capability to create professional-quality images on a PC-based system. Image processing programs are designed specifically to deal with photographs and therefore contain a large

selection of filters, contrast and brightness controls, and a variety of enhancement options that give the user many ways to refine an image. Some of these programs even provide a way to do color separations (separating the image into the four process colors: black, cyan, yellow, magenta), which are required by a printer when printing full-color images.

Computer Animation And Illustration Programs. Computer animation is increasingly being used to add motion to graphics created in both paint and draw programs. Animation programs provide architects, engineers, and a variety of other professionals in television, film, and training fields to take the two- or three-dimensional drawings created with CAD and rendering programs and add motion. As with rendering (discussed earlier in this chapter), motion provides a more realistic way to communicate complex information.

Today the computer can be used to create and store the images and to simulate the animation effects. The images created on the computer can then be recorded on motion picture film or on videotape. As these powerful capabilities grow in popularity, software manufacturers are beginning to develop programs that combine CAD, rendering, and animation in a single package.

Although these combined programs may be more complex to use than single-purpose programs, they do provide a common user interface and provide a smooth integration between all aspects of the image development process.

11. Ответьте на вопросы:

1. What is an image-processing program used for?
2. What do graphics programs require?
3. What do image processing programs deal with?
4. What are color separations required by?
5. What is used to add motion to graphics?
6. What do animation programs provide specialists with?
7. What can we do with the image created on a computer?
8. What programs are being developed now?

12. Прочтите и переведите текст.

TEXT B

MULTIMEDIA APPLICATIONS

Among the most exciting new applications of the computer is the ability to bring together information that exists in a variety of forms. New computer tools, often using combinations of hardware and software, are now providing better ways to bring together information that is stored on other media in the form of graphics, sound, and

video. These new programs, known collectively as multimedia applications, bring the other media sources under computer control.

There are a number of multimedia applications that are providing new ways to create presentations that use many different forms of information. Examples of these new applications are summarized in the sections that follow.

CD-ROM-based Multimedia. One of the problems in dealing with computer-controlled sound and graphics is that the related files require extremely large amounts of storage. One solution is to store graphics, sound, and video files on a high-capacity device such as compact disk (CD). Compact disks can store huge amounts of data and the CD drives can be used to deliver this information to the computer's internal memory as data.

Because most of these devices cannot be used to record information, they are known as read-only memory (ROM) devices.

Although they are used to store computer data, these devices do not use the same kind of magnetic media generally used by computers to store data.

Instead, these devices store information by permanently etching the encoded data into the same kind of plastic disk used to store and play back popular music.

Because the stored data is deciphered using a laser-based reading device, there is no physical contact with the disk and no possibility of wear to the disk. Their high capacity and permanence are making CD-ROM disks a common storage and delivery tool for multimedia.

Videodisc. The videodisc player is similar to the compact disk player, but the disks used are somewhat different. While the CD disks are used to store and deliver computer data, videodiscs are used to store and deliver video images. They can be used to deliver high-quality video to a television set by displaying the video images in sequence at the same 30-frames-per-second rate that is used in broadcast television. Many videodisc players can be controlled by computer.

And because the video images are stored a single image at a time, one image can be displayed under computer control or a sequence of images can be displayed to create the effect of live video.

Digital Video. Most of the video images we are used to seeing on our home television sets were originally captured using a video camera and stored on video tape. But today, special devices make it possible to store video images in digital form on a computer's magnetic media as computer graphics. By rapidly delivering these digital graphics images to the computer's screen one after the other, we can simulate the kind of video images we see on our television set.

Computer-delivered digital video presents many exciting possibilities. Because the video images are stored on normal computer media as data in separate graphics files, there is unlimited potential for editing the video sequence using computer graphics editing methods. And because the video images can be displayed on the computer's screen as graphics, they can be incorporated into presentations that in the past used only still pictures.

Multimedia Authoring Systems. In order to manage the presentation of information that is stored in dissimilar formats, new multimedia-based authoring systems are being developed. These programs vary considerably in design, but all are capable of incorporating text, graphics, sound, and video into one program. These programs provide special tools to manage these resources and to deliver them to the user interactively.

One of the first authoring systems to be used to deliver multimedia was the HyperCard program for Macintosh computers. The HyperCard program is object-oriented in that it provides a set of manipulatable on-screen objects that can be used to create, edit, and store text and images or to initiate computer activity based on the user's interaction with the object

The HyperCard program also includes special software tools for dealing with external devices such as CD-ROM drives and videodisc drives and for the incorporation of digital video. Today, a variety of other authoring programs have been created to manage multimedia resources.

13. Ответьте на вопросы:

1. Where can we store large amounts of information?
2. How do ROM-devices store information?
3. What are the advantages of CD-ROM disks?
4. What are videodiscs used for?
5. What are the advantages of digital video?
6. What computer tools are used now?
7. What are new multimedia authoring systems developed for?
8. What can these programs incorporate?
9. What was the first authoring system?
10. What is the HyperCard program?

14. Прочтите и переведите текст.

TEXT C

COMPUTER-BASED VIRTUAL REALITY

With the emergence of ever more realistic computer graphics, many people have found the computer's monitor to be a limited output device for displaying them. Many found the two-dimensional view of modern, complex color graphics did not fully convey the potential held by this new form of computerized information. This led to the investigation of ways to present and to interact with more realistic, three-dimensional displays.

The result was the development of highly realistic displays that provide users with the feeling that they are fully immersed in the computer image. Collectively, these applications have become known by the catchy title of "virtual reality."

Although there is some disagreement about just what constitutes a virtual reality computer application, it might be said to be any highly realistic presentation of computer graphics that provides users with methods of interacting with the display as if they were "inside of" or "part of" the display. This is done through the use of special computer-display goggles or other display devices that limit the user's view to computer-generated information. By using the display goggles to view a three-dimensional presentation of a computer-created virtual world, in combination with sensors on the user's body to detect movement, users can react as if they are both inside of and interacting with that artificial world.

Many virtual reality computer programs coordinate the user's movements with an animated display of the artificial world. Limited versions of these programs provide the user with a glove that is imbedded with sensors. Movement of the glove sends data about the user's movements to the computer. With this method, the user can manipulate the glove through a series of specific gestures to navigate through the artificial world. More complex versions imbed the sensors in a full body suit that provide output of natural human movements that can be interpreted and acted upon by the computer.

REVIEW QUESTIONS

15. Ответьте на вопросы:

1. What led to the development of highly realistic displays?
2. What is used to make users feel they are inside the artificial world?
3. How can a user navigate through the artificial world?
4. Contrast business graphics programs with spreadsheet-based analysis graphics programs. How do they differ? How are they alike?
5. What is a CAD program? Who used CAD programs? For what purpose? What kinds of software "tools" are utilized in today's CAD programs?
6. Contrast paint and draw programs. What software "tools" are provided in these types of programs?
7. Multimedia programs bring a variety of media resources under the control of the computer. Describe the different types of media that are now being used in multimedia programs.
8. What are multimedia authoring systems and how are they used?
9. Many experts believe that multimedia will play an important role in tomorrow's computer-based training. Describe how virtual reality might also be used in training.

LESSON 9

Инфинитив
Сложное дополнение, сложное подлежащее

Text A Communications Needs
Text B Communications Channels
Text C Connection Options

PRE-TEXT EXERCISES

1. Переведите предложения:

1. He seems to be saying something, but I can't hear the word. 2. I felt that to show him the letter would only pain him uselessly. 3. Bob was sorry to have missed so many lectures. 4. We didn't expect him to return so late. 5. You should have seen the doctor at once. 6. Mary was glad to have met you. 7. He was the only one not to change his opinion. 8. To write an absolutely new program is a hard task. 9. We have some problems to be solved immediately. 10. To help find files you are to use the File Management command. 11. The programmer must be a good mathematician to compile a program.

2. Переведите предложения согласно образцу:

Он ожидал, что проблема будет решена сразу же. – He expected the problem to be solved at once.

1. Он рад, что ему помогают. 2. Мой друг попросил, чтобы ему разрешили взять эти диски на два дня. 3. Инженер хотел, чтобы ему показали весь завод. 4. Всем хотелось, чтобы конференция была посвящена проблемам образования. 5. Я рассчитываю, что сообщение будет послано немедленно. 6. Я хочу, чтобы мне дали эту работу. 7. Никто не хочет, чтобы его наказывали.

3. Преобразуйте предложения, используя инфинитив вместо придаточного предложения:

1. I hope I'll see you there. 2. Mother was pleased when she got a letter from her son. 3. He hoped that he'd meet her in the library. 4. She pretended that she didn't know me. 5. The children were amused when they saw the monkey's tricks. 6. Do not promise that you will do it, if you are not sure that you can. 7. She was happy that she wasn't alone in the house.

4. Замените выделенные части предложений инфинитивами.

Образец: He has no books *that he could read.* – He has no books *to read.*

1. This is the information *that we should bring together.* 2. It was the only way *in which he could transmit data.* 3. There are special animation programs *which will simulate the animation effect.* 4. We use videodiscs *which will deliver video images on a television screen.* 5. We have got many tasks *which we must carry out.* 6. He has much information *which he must decode.* 7. Here is some computer data *which must be transmitted immediately.*

5. Замените выделенные придаточные предложения инфинитивами.

Образец: The problem is so difficult *that it is impossible to solve it.* – The problem is too difficult *to be solved.*

1. These sensors are so small *that it is impossible to detect them.* 2. That device was so heavy *that it was very difficult to deal with it.* 3. His combined program was so complex *that some students couldn't understand it.* 4. That video film was so old *that it was impossible to play it back.* 5. She was so inattentive *that she didn't notice the mistake.*

6. Переведите на английский язык, употребляя нужную форму инфинитива:

1. Им повезло, что они получили доступ к этой информации. 2. Мне очень жаль, что я не воспользовался графической программой. 3. Она была благодарна, что ей предоставили специализированные программы. 4. Он сожалеет, что приобрел несовместимые устройства. 5. Я только хочу, чтобы мне позволили воспользоваться модемом. 6. Он был рад, что полностью погружен в компьютерное изображение. 7. Она была счастлива, что сохранила в памяти эти данные.

7. Переведите на русский язык:

1. Everybody expected manufacturers to create new programs. 2. They thought him to be a good specialist. 3. We want this data to be transmitted at high speed. 4. I knew her to develop computer programs. 5. She would like this information to be stored in the computer's memory. 6. I want this image to be changed. 7. The scientist wanted these facts to be grouped into one investigation. 8. They saw his activity bring great success. 9. We know the information has been accepted. 10. We allowed him to carry out the experiment. 11. They asked him not to interfere. 12. He ordered the review to be published. 13. We know the assembler to produce the machine code. 14. The instructor told the students to use the File Management command to help find files.

8. Переведите на английский язык, используя сложное дополнение:

1. Пользователи хотели, чтобы видеоизображения были включены в презентацию. 2. Она слышала, что он получил указания. 3. Мы знали, что он обеспечил свой кабинет современными устройствами. 4. Я думала, что он всегда доставляет письма вовремя. 5. Он видел, что датчики помещены в специальные очки. 6. Она заметила, что он устанавливал новую систему получения данных. 7. Мы видели, как он увеличивал изображение на экране компьютера.

9. Замените сложноподчиненные предложения простыми, употребляя сложное подлежащее:

Образец: It is said that the actors have arrived. – The actors are said to have arrived.

1. It is considered that this link is the most reliable. 2. It is said that the images created on the computer can be recorded on videotape. 3. It is supposed that computer animation adds motion to graphics. 4. It is understood that microwave relay stations must be atop high towers. 5. It seems that the article is written by an expert. 6. It is expected that new computer tools will provide better ways to bring together the information that is stored on other media. 7. It is believed that the conference will soon take place.

10. Переведите на английский язык, используя сложное подлежащее:

1. Известно, что метод записи информации на кристаллах при помощи лазера был разработан русскими исследователями. 2. Говорят, что интенсивные исследования оптико-электронного компьютера ведутся рядом компаний в США. 3. Ожидается, что количество ежегодно выпускаемых персональных компьютеров достигнет в ближайшем будущем нескольких миллионов. 4. Вероятно, каждая семья будет иметь компьютер.

KEY TERMS

11. Запомните слова:

access data	получить доступ к данным
altitude	высота
amplify	усиливать
atop	наверху
coaxial cable	коаксильный кабель
communications channels	коммуникационные каналы

complete	завершать
connect	соединять
decrease	уменьшать
dedicated line	выделенная линия
download	загрузка из главной ЭВМ в подчиненную
establish	устанавливать
fiber-optic cable	оптоволоконный кабель
headquarters	штаб
line-of-sight	линия прямой видимости, радио-видимость
microwave relay station	микроволновая ретрансляционная станция
pathway	путь
satellite	спутник
shared line	общая линия
strand	нить
switched line	коммутируемая линия
terminal-to-host	терминал-к-хосту (главной вычислительной машине)
transmission	передача
twisted pair wire	провод витой пары
upload	загрузка в удаленный компьютер
via	через

12. Прочтите и переведите текст.

TEXT A

COMMUNICATIONS NEEDS

Today, computer communications serve a variety of needs, but most often we use communications to access data that is stored on another computer or to send data to another computer. For example, you may want to access data that is stored as a database of information on a mainframe computer at company headquarters. When you establish communications with another computer, you download data (transfer data from a remote computer to your computer), or you can upload data (transfer data from your computer to a remote computer).

Computer-to-Computer Communications

One of the most common communications uses is the exchange of data between two computer systems. The communication can be between two microcomputers.

Terminal-to Host Communications

Often a communications channel will be permanently established to access data that is stored on a host computer. In such a case, you might communicate with the host computer using a microcomputer or using a terminal (which includes a keyboard and a display monitor, but does not include any data processing or storage capability). Although a terminal can be purchased at low cost, with the price of microcomputers constantly decreasing, many terminals are being replaced with these small personal computers that can be used for other tasks in addition to communications.

13. Ответьте на вопросы:

1. What do we use communications for?
2. What does a terminal includes?
3. What can replace a terminal?
4. How can we access data that is stored on another computer?

13. Прочтите и переведите текст.

TEXT B

COMMUNICATIONS CHANNELS

If data is to be transmitted, a pathway or channel is required. The ***communications channel*** is the link or line through which the data is transmitted. There are three primary types of communications channels in use today— wire and cable, microwave, and satellite.

Wire and Cable

A channel makes use of a variety of wire and cable media types including twisted pair wire, coaxial cable, or fiber-optic cables. Twisted-pair wire is simply two strands of copper wire and is widely used in communications systems, including the phone system. Communications channels that require higher speeds of transmission use coaxial cable or fiber-optic cable.

Microwave

Unlike transmissions that use the various types of wire media, ***microwave*** is sent through the air in the form of electromagnetic waves. One problem with microwave transmissions is that they must be sent in a straight line. Therefore, microwave transmission positions must be established in direct line-of-sight configurations. Because the surface of the earth is curved, microwave relay stations must be atop high towers a few dozen miles apart.

Satellite

When data is transmitted via a satellite communications system, the transmission is relayed by a satellite that is placed in orbit 22,300 miles above the earth's surface.

At that altitude, the satellite can rotate at the same speed as the earth, maintaining a constant position above one point on the earth's surface. Equipment aboard the satellite receives the transmission, amplifies it, and retransmits it back to earth. Although these systems are very expensive to put in place, the amount of information that can be transmitted and the fact that a set of properly placed satellites can almost instantly transmit to any place on earth, is resulting in constant expansion of satellite-based communications.

14. Ответьте на вопросы:

1. What communications channels are used nowadays?
2. Why must microwave relay stations be atop high towers?
3. What wire and cable media types do you know?
4. How is microwave sent?

15. Прочтите и переведите текст.

TEXT C

CONNECTION OPTIONS

Data communications lines can be connected in two ways, point-to-point and multipoint.

Point-to-Point Connections. Two computer devices may be connected with no other devices on the line. This configuration is known as a point-to-point connection. This type of connection may be switched line, as used by the phone system. The phone company directs the call and establishes the connection. When the transmission is completed, the line is disconnected. Alternatively, the transmission may use a dedicated line that is never disconnected.

Multipoint Connections. Often, several computer devices share the same channel. This is known as a multipoint or multidrop configuration. These systems are designed to establish communications between a number of devices and involve the use of some type of controller to manage the traffic of transmitted data on the shared line.

16. Ответьте на вопросы:

1. What does a phone company do?
2. What type of connection is used by the phone system?
3. What is a multipoint configuration?
4. What does the equipment aboard the satellite do?
5. Why is a satellite communications system useful?

LESSON 10

Условные предложения

Text A Communications hardware
Text B Communications options
Text C Communications network

PRE-TEXT EXERCISES

1. Закончите следующие предложения:

1. She'll soon feel better if she ... . 2. What would happen if ... ? 3. Would you have sold your car if ... ? 4. If you were asked to work overtime, ... 5. If he had listened to my advice, he ... . 6. Would you forgive me if I ... ?

2. Раскройте скобки, используя соответствующее время глаголов:

1. I'd use a pie chart if I (to be) you. 2. If we (to know) that before we wouldn't have confused. 3. If you (to clarify) the data book I would know the answer. 4. I think you would get the permission if you (to ask) me. 5. Your presentation (to be) more interesting if you added motion. 6. What would you do if you (to have) the access to this information? 7. If the laboratory was equipped with this device we (to carry out) the work. 8. If we (to book) the seats beforehand we (to have) tickets now.

3. Переведите предложения:

1. Если вы прочтете его новую статью, вы сможете приготовить хороший доклад. 2. Если бы вы объяснили мне мои ошибки (но вы не объяснили), я бы не повторил их. 3. Джон жалел, что не сохранил информацию. 4. Мне бы хотелось, чтобы данные передавались в обоих направлениях. 5. Мы бы не настаивали, если бы дело не было срочным. 6. На вашем месте я бы старался использовать разные виды графов. 7. Если бы я мог установить это устройство, я не побеспокоил бы вас. 8. Если бы вы читали английские книги в оригинале, это принесло бы вам большую пользу. 9. Профессор не хочет, чтобы вы прекращали работу. 10. Если вы посмотрите внимательно, вы сможете найти ошибку. 11. Если бы она не перепутала документы, все бы было сейчас в порядке. 12. На твоем месте я бы изменил изображение на экране компьютера. 13. Если бы ты выбрал правильный тип графа, ты бы не запутался. 14. Если бы у него были деньги, он купил бы миникомпьютер. 15. Если бы он не пропустил занятие вчера, он смог бы воспользоваться секторной диаграммой. 16. Если бы ты установил эту систему, ты имел бы доступ к базе данных. 17. На твоем месте я бы не проводил так много времени в Интернете.

4. Переведите предложения:

1. She wished she had never decoded this information. 2. If he had recorded that song, we would have played it back. 3. Peter would do it if he had that high-capacity device. 4. We wouldn't have immersed in the computer image if we hadn't imbedded some sensors into a special glove. 5. Nothing would have happened if he had described the situation. 6. Jack would have finished his work last week if it hadn't been so difficult. 7. If you had brought together the information, you wouldn't have had difficulties. 8. I wish I had been taught a foreign language since childhood. 9. She wished he hadn't been elected President of the club.

5. Переведите бессоюзные условные предложения:

1. Were it possible to set up this system they would transmit data in both directions. 2. Had he dealt with these related files earlier he would have finished this operation much quicker. 3. Had he used new materials the device would have been more reliable. 4. Had they used a combined program the result would have been much better. 5. Were the data-sending capabilities of his computer improved he would perform the transmission at high speed. 6. Had we assigned this attached device it would have been possible to carry out this operation. 7. Had the sensors been imbedded into this glove you could immerse in the computer image.

6. Измените следующие предложения согласно образцам:

Образец 1: If I were free, I should help you. – Were I free, I should help you.
Образец 2: If he had known about the lecture, he would have come. – Had he known about the lecture he would have come.

1. If there were no computers, space flights would be impossible. 2. If he had had all the necessary equipment, he would have refined these photos. 3. If it were possible, manufacturers would develop these programs at once. 4. If they had got the access to that information, they would have decoded it. 5. If he had been more attentive, he wouldn't have erased the data. 6. If there were videodiscs, we would play them back. 7. If he had added motion, he would have simulated the animation effect.

7. Прочитайте, переведите и укажите различные значения *as*.

1. It was necessary to lay cables across the Atlantic Ocean, as there was no radio or satellites at that time. 2. Wire and cable media types such as twisted pair wire, coaxial cable, fiber-optic cable are widely used in communications systems nowadays. 3. Engineers are working at the problem of making computers as small as possible. 4. A communication device that carries out modulation and demodulation is referred to as a modem.

KEY TERMS

8. Запомните следующие слова:

attached device	присоединенное устройство
binary form	двоичная форма
broadband	широкополосный
direct-connected modem	модем с непосредственной связью
data flow	поток данных
data rate	размер данных
full-duplex	дуплексный
half-duplex	полудуплексный
high-speed channel	быстродействующий канал
incompatible devices	несовместимые устройства
local-area network	локальная сеть
narrowband	узкополосный
node	узел
simplex	симплексный
transmission method	метод передачи
wide-area network	глобальная сеть

9. Прочтите и переведите текст.

TEXT A

COMMUNICATIONS HARDWARE

Simple communications between a computer and an attached device such as a printer can be accomplished without special communications hardware. However when data is transmitted between incompatible devices or over longer distances, special devices are required.

Modems. While computers manage data using digital methods that are expressed in binary form (either on or off), most communications devices use analog methods that deal with continuous patterns of sound frequencies. When computers transmit data using standard communications systems (such as the phone system), binary data must be converted to the analog signals used by that system.

This is known as modulation. When such data is received by computers, it must be converted back again to its digital form. This is known as demodulation.

A communications device that carries out both tasks is referred to as a modem (a contraction of the terms modulation and demodulation). A variety of modems are available. The types of modems that are used with microcomputers directly to the phone line are the most common.

The types of modems that are used with microcomputers transmit and receive data at speeds from 300 bps to 9,600 bps or more. Faster modems are available, but are usually more expensive.

Multiplexers. A multiplexer is a communications device that allows a number of computing devices to share the same communications line. Such devices are often used to make signals from several computing devices and combine them for transmission via a modem over high-speed channels. Another multiplexing device at the other hand of the connection is used to split the signals back into their original components.

Today, multiplexers are also playing another role in communications systems. Because data is often transmitted in a variety of different formats (known as protocols), many organizations use multiplexers that include a protocol converter. They provide a way for different types of computers using different types of transmission methods to communicate with each other. Such systems are often used to allow communications between microcomputers and mainframes.

Concentrators. Multiplexing can also be done by a concentrator. This device, which may be a computer with special multiplexing capabilities, divides the data channel into separate channels. It allocates channel space as the need arises by providing internal storage of the transmitted data when traffic on the channel is high and then forwarding the data later when the channel is available. A concentrator can also have additional data-management capabilities making it more flexible than other multiplexers.

10. Ответьте на вопросы:

1. When are special devices required?
2. What is a modem?
3. What allows a number of computing devices to share the same communication line?
4. What is a protocol converter used for?
5. What device divides the data channel into separate channels?

11. Прочтите и переведите текст.

TEXT B

COMMUNICATIONS OPTIONS

When computer data is transmitted, the information is sent as a coded sequence that is decoded by the receiving device. The way this data is sent can vary. Therefore both of the communicating devices must be capable of encoding and decoding specific types of transmitted information. Most systems include special software that gives users a way to set up their data receiving system to match the data-sending

capabilities of another computer. The communications options that can be selected before transmissions can take place include signal type, data rate, data flow, and transmission method.

Signal type. A system that uses digital signals sends information coded as a set of bits that can have one of two values. For example, a high pulse can carry the value of 1, and a low pulse can carry the value of 0. Before transmission, patterns of these 1 bits and 0 bits are grouped into bytes and encoded using standard computer coding methods. Systems that use analog signals are somewhat different. They send data as a wave pattern that varies continuously. Computers manage data in digital form. The telephone system, however, uses an analog signal type.

Data Rate. Since the rate at which information is transmitted over a channel varies, communicating computer devices must be capable of transmitting and receiving data at differing rates. Data rates are measured in bits per second or bps. Each type of channel has a maximum rate at which data can be transmitted, based on the type of media used in the channel and its design. Generally, channels with data rates less than 300 bps are referred to as narrowband. Rates of 300 to 9,600 bps are known as voiceband or voice-grade. The fastest channels are referred to as wideband or broadband. They are considered to be high-speed channels.

Data Flow. Data flow can be managed in one of three modes — simplex, half-duplex, or full-duplex. These three modes refer to the direction of the data flow. If you are using a communications system in the simplex mode, data can only travel through the channel in one direction. Since this mode restricts communication to a one-way transmission, either sending or receiving, it is not used very often for communications between two computers. Using the half-duplex mode, on the other hand, data can be sent in both directions, but not at the same time.

Using the full-duplex mode, data can be transmitted in both directions at the same time. Systems with special types of wiring may be able to transmit data at higher speeds using the full-duplex mode. However, the half-duplex mode is more commonly used when transmitting data between two computers.

Transmission Method. Two methods are used to transmit characters over a channel. The asynchronous transmission method is used to send one character at a time. Since the transmission is synchronized by sending a start bit and a stop bit, data can be sent at any time. The synchronous transmission method is used to send blocks (groups) of characters in a timed sequence. Although this method requires more sophisticated communications equipment, it can be used to send data at higher transmission rates.

12. Ответьте на вопросы:

1. What type of connection is used by the phone system?
2. What does the phone company do?
3. What is a multipoint configuration?
4. What does the equipment aboard the satellite do?

14. Прочтите и переведите текст.

TEXT C

COMMUNICATIONS NETWORKS

A communications network links computers and computing devices so they can share information, yet continues to operate independently. Such networks can link microcomputers, terminals, minicomputers, mainframe computers, and computing devices such as printers and storage devices. Networks have grown rapidly in popularity because they give users access to computers and devices beyond the computer they are currently using.

Local-Area Networks. Local area networks (LANs) are used to connect computers and computing devices that are located in the same general area: in the office, in one building, or in one group of buildings in the same organization. Examples include microcomputers connected together in a college lab, microcomputers in a sales office and several different buildings that are connected to the organization's mainframe computer located in the basement of one of the buildings.

Wide-Area Networks. Wide-area networks (WANs) are used to connect computers and computing devices that are separated by greater distances. An example would be an inventory-management network that ties together groups of microcomputers in local sale offices in many different cities. These local networks may in turn be interconnected with a set of company mainframes and minicomputers that are located at the company headquarters in yet another city.

Additionally, networks are often categorized as either baseband or broadband. The difference lies in the speed of communications between stations on the network. Baseband networks are the slower of the two, usually using twisted-pair wire connections. Broadband networks use higher-speed and multiple-channel.

Network Nodes. A network may include a variety of computers (micros, minis, and mainframes) and computing devices such as printers, storage devices, and digitizers. Either a computer or a computing device can occupy a node on the network. In some cases, a peripheral device such as a printer may be attached to one computer on the network; nevertheless, the device can often still be accessed by other computers on the network.

Cabling. Each of the computers and computing devices that are attached to the network must be physically connected or connected through broadcasting and receiving devices. The wiring of a network can vary considerably. The data-transmission capabilities of the cabling are usually dictated by the complexity of the network and the distance between stations. Complex, widespread networks often use more expensive, faster cabling media.

Network Interface. To enable interconnections between computers on the network, each computer must include an interface device. The cabling is connected

directly to the physical port that is provided by the interface device. These interface hardware components may be built into a computer, or they may be provided by a specialty manufacturer and added to the computer.

Server. Computers and computing devices on a network may be connected to a server. A server (also known as a file server) provides a data storage function for the entire network. Often, a microcomputer is used to provide this server function, and it may also provide other network functions.

REVIEW QUESTIONS

15. Ответьте на вопросы:

1. What devices can networks link?
2. Why have networks grown in popularity?
3. Where are LANs used?
4. What networks connect computers separated by great distances?
5. What can a network include?
6. What is necessary to enable interconnections between computers on the network?
7. What does a server provide?
8. What is the difference between uploading and downloading?
9. What types of media are generally used in communications channels?
10. What is the difference between microwave and satellite transmission?
11. What is the difference between a local-area network and a wide-area network?

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ПРИЛОЖЕНИЕ

ПРАВИЛА ЧТЕНИЯ

Четыре типа чтения английских гласных в ударных слогах

Буква	Открытый слог +0; +гласная; +согл. + гласн.	Закрытый слог +согл. (+согл.)	Открытый слог + r+ гласн.	Закрытый слог + r + r + согл.
A a	[eɪ] day, place	[æ] exam, black	[ɛə] Mary	[ɑ:] car, park
O o	[ou] go, road, home	[ɔ] not, off	[ɔ:] more	[ɔ:] nor
E e	[ɪ:] he, sea, Pete	[e] pen, dress	[ɪə] here	[ə:] her
I i	[aɪ] I, fine	[ɪ] sit, since	[aɪə] fire	[ə:] fir
Y y	[aɪ] my, type	[ɪ] myth	[aɪə] tyre	[ə:] Byrd
U u	[ju] cue, student	[ʌ] but, must	[juə] during	[ə:] fur

БУКВЫ И ЗВУКИ

A a [eɪ]

[eɪ] state, aim, stay, table, taste, change
[æ] back, matter, battle, marry
[ɑ:] car, card, task, fast, class, after, chance
[ɛə] fare, fair
[ɔ:] all, salt, fault, saw, cause, caught

E e [ɪ:]

[ɪ:] he, Peter, beet, beat, field, receive
[e] bet, better, settle, terror, head
[ə:] term, pre'fer, learn
[ɪə] here, hear, cheer
[u:] flew, grew, Jew
[ju:] new, few

I i [aɪ]

[aɪ] lie, line, title, mind, mild, might
[ɪ] bit, bitter, middle, mirror
[ə:] fir, first
[aɪə] fire, liar, quiet

O o [ou]

[ou] no, note, noble, coat, show
[ɔ] hot, hotter, bottle, sorry
[ɔ:] for, born, more, thought
[ɔɪ] boil, boy
[u:] spoon
[u] book
[au] cloud, town, now
[auə] flour, flower

U u [ju:]

[ju:] tune, due, bugle, produce
[u:] rule, blue, in'clude, Judy
[ʌ] but, butter, shuttle, currency
[ə:] fur, further
[juə] cure, pure,
[uə] sure

Y y [waɪ]

[aɪ] my, type, de'ny
[ɪ] myth, Kitty, 'typical
[j] yet

C c [sɪ]

[k] cap, cold, cut, clean, back
[s] cent, cite, face, cycle

G g [dʒɪ:]

[g] go, gun, game, guest
[dʒ] gentlemen, gin, gym, page

H h [eitʃ]

[h] home
[ʃ] ship, fishing, dish
[tʃ] chin, teacher, which, catch
[θ] thin, truth
[ð] that, with, breathe

L l [el]

[l] late, tell, little, idle

N n [en]

[n] neck, knock, manner
[ŋ] song, thing
[ŋk] think, thank

P p [pɪ]

[p] play, step, stepping; [f] phone

Q q [kju:]

[kw] quick, quite, question, quote

R r [ɑ:]

[r] rain, cry, write, sorry

S s [es]

[s] same, mass, cats
[z] plays, reads, easy, noses
[ʒ] pleasure

W w [dʌblju]

[w] way, why, wheat

X x [eks]

[ks] box, ex'pect, ex'cuse (в конце слова и перед гласной, в том числе перед буквой C, читаемой [k]) 'exercise (между ударной и безударной гласной)

[gz] e'xact (между безударной и ударной гласной)

[k] ex'cept (перед буквой C, читаемой [s])

Структура слова, значение, ударение

При немотивированной, с точки зрения современного языка, морфологической структуре слова запомнить место ударения помогает буквенный состав. Например, в словах с некоторыми начальными буквосочетаниями ударным, как правило, является второй слог:

a'ccept, accuse, achieve, acute, address, advance, advise, affair, afford, agree, amuse, annoy, appoint, approach, arrange, arrest, arrive, ashamed, attach, attack, attempt, attend, avoid, away; be'come, begin, behave, belong, betray; de'bate, decide, declare, decline, decrease, defeat, defend, delay, delight, deny, depend, depress, describe, deserve, destroy, devote; con'cern, conclude, confirm, confuse, consist, consult, consume, contain, contest, combine, commit, compete, complain, comply, complete, compose; ex'claim, expect, explain, explode, express, for'bid, forget, forgive; in'clude, increase, inflict, inform, insist, inspect, intend, invade, invest, invite, impress, improve; o'bey, oblige, observe, omit, oppose; re'ceive, record, reduce, reflect, refresh, refuse, regard, regret, reject, release, rely, remain, remind, repair, report, request, require, reserve, resist, resort, respect, result, resume, retreat.

Если за ударным слогом без ***r*** следует слог с безударным [ı], ударная гласная, как правило, произносится кратко:

а) в двухсложных словах с открытым ударным слогом:

[æ] 'cabin, habit, rapid, valid; [e] chemist, credit; [ı] civil, critic, limit, spirit; [ɔ] profit; [Λ] publish, punish и т.п. (за исключением гласной ***u,*** которая имеет алфавитное чтение, например, [ju:] music, duty, unit, stupid);

б) в словах с суффиксом ***-ic*** (ударение – в предшествующем слоге):

[æ] 'classic, plastic, dramatic; [ɔ] a'tomic, historic; [e] synthetic; [ı] specific;

в) в словах с суффиксом ***-age***: [æ] 'damage, passage; [ɔ] hostage; [ı] image;

г) в словах, оканчивающихся на [ıən] rebellion.

В двухсложных существительных с суффиксом ***-ture*** гласная читается по правилу типа слога: [e] lecture; [ı] picture; [ı:] creature, feature; [ju] future.

Ударение может дифференцировать глагол и существительное:

to inc'rease–'increase, to im'port –'import, to pro'test – 'protest, to con'tract – 'contract, to pro'gress – 'progress, to pre'sent – 'present, to re'cord – 'record.

В трехсложных и многих четырехсложных словах ударным является третий слог от конца. Ударная гласная читается кратко, независимо от типа слога: [ɔ] 'colony, [e] 'enemy, [i] 'criminal.

Исключение: буква ***u*** в открытом слоге имеет алфавитное чтение (например, [ju:] 'unity, 'universe, en'thusiasm).

Чтение ударной гласной перед ***r*** следует проверять по словарю.

Ударение на третьем слоге от конца,
ударная гласная читается кратко

'Ambulance, benefit, cabinet, caravan, chemistry, character, competent, conference, contrary, comedy, critical, delegate, deputy, diplomat, energy, general, history, holiday, incident, industry, interest, interval, liberty, minister, ministry, opera, optimism, optimist, passenger, pessimism, pessimist, policy, popular, president, primitive, property, strategy, summary, sympathy, symphony, tendency, terrorism, tragedy, victory; ability, activity, ambassador, apology, economy, economist, ecology, facility, humanity, monopoly, original, political, practical, publicity, stability.

В многосложных глаголах с суффиксами ***-ate, -ise, -ize, -y*** ударение падает: в трехсложных глаголах на первый слог, в остальных на третий слог от конца.

Ударная гласная читается кратко, независимо от типа слога: [ɪ] ca'pitulate, [æ] 'ratify, [e] 'educate, [ɪ] 'imitate.

Исключение: буква ***u*** в открытом ударном слоге имеет алфавитное чтение (например, [ju] 'unify, 'utilize, co'mmunicate).

Ударение на третьем слоге от конца,
ударная гласная читается кратко

'Advertise, analyze, compromise, criticize, dramatize, mechanize, recognize, sympathize, terrorize; 'magnify, occupy, qualify, ratify, satisfy, terrify; complicate, concentrate, confiscate, demonstrate, devastate, dominate, educate, imitate, liberate, operate, penetrate; accommodate, capitulate, commemorate, congratulate, eliminate, exaggerate.

Суффикс существительного и прилагательного ***-ate*** читается [ət]/[ɪt]: candidate, certificate, delegate, delicate, separate.

Суффикс существительного ***-ion*** читается слитно с последней буквой корня и произносится:

гласн. + -tion, -ssion [ʃən]/[ʃn] section, session;

гласн. + -sion, -ion – conclusion, [jən] rebellion.

Ударение падает на слог, предшествующий суффиксу. Перед ***-tion, -ssion, -sion*** ударная гласная читается по правилу типа слога: [eɪ] in'flation, [ou] ex'plosion, [ʌ] pro'duction.

Исключение: ударная гласная ***i*** читается кратко также и в открытом слоге (например, [ɪ] tra'dition, di'vision).

В словах, оканчивающихся на ***-ion*** , ударная гласная обычно читается кратко: [ɪ] o'pinion, [æ] com'panion, [ʌ]'onion.

Исключение: ударная гласная ***u*** имеет алфавитное чтение (например, [ju:] 'union).

**Ударение на предпоследнем слоге,
ударная гласная читается по правилу типа слога,
ударная гласная *i* читается кратко**

-tion: a'ttention, construction, destruction, election, promotion, relation, nation; ***-ssion:*** co'mission, mission, permission, profession; ***гласн. + -sion;*** co'llision, conclusion, decision, division, explosion, invasion, occasion, precision, provision.

Слова, состоящие из четырех и более слогов, имеют два ударения. Второстепенное ударение предшествует главному и отстоит от него на один слог:

,adap'tation, education, complication, constitution, corporation, declaration, demonstration, domination, explanation, indignation, operation, opposition, population, recognition, registration, relaxation, reputation, resignation, satisfaction; ,auto'matic, democratic, diplomatic, economic, optimistic, pessimistic; ,corres'pondent, entertainment, manufacture, propaganda; a,ccomo'dation, administration, capitulation, congratulation, exaggeration, imagination, investigation; ,meta'llurgical, productivity, satisfactory.

ЗВУКИ И БУКВЫ

[ɑ:] Cast, past, nasty, part, half, laugh, draft, bath, plant, grant, branch, glass, class, dance, France, charge; argue, artist, barber, barter, market, scarlet, army, party, partner, article, arsenal, master, father, rather; advance, demand, command, compartment, department;

[ʌ] cut, shut, rush, brush, blush, drug, stuff, fun, front, dub, ugly, love, glove, come, done; punish, publish, public, summit, stubborn, number, current, tunnel, struggle, smuggle, suffer, subject, hurry, fussy, customer, summary, punctual, mother, other; consult, result, construct, production, reduction, construction, destruction, introduction, conductor;

[aɪ] pie, lie, shy, dry, fly, sight, slight, flight, mind, blind, prize, rise, price; liner, rival, pilot, tidy, item, silent, frighten; polite, behind, decline, collide, inside, aside, excite, surprise, besides, oblige, remind, rely, reply, supply, apply, describe, provide; advertise, criticize, sympathize, realize, organize;

[aɪə] fire, hire, tired, quiet, client, liable; entire, empire, inspire, require, society;

[aʊ] round, sound, ground, pound, found, loud, proud, count, shout, south, now, crowd, crown, thousand, lounge; arouse, around, announce, pronounce, surround, amount, without, aloud;

[aʊə] power, tower, shower;

[e] 'presence, selfish, plenty, elder, central, entrance, settle, effort, fellow, excellent, gentleman; pleasure, measure, treasure, leisure; very, merry, bury; o'ffend, defend, neglect, pretend, upset, attempt, attend, correct, address, event, forget, depend, respect, suspect, expect, object, prevent, accept; su'rrender, develop, detective, immensely, effective, attention, deception, adventure; head, bread, dead, spread, ready, steady, in'stead, deadlock;

[eɪ] age, stage, fail, grain, aid, aim, raise, praise, paint, claim, maize; safety, lady, shaky, vacant, major, cable, bakery; display, delay, escape, invade, remain, explain, complain, contain, ashamed, arrange, debate, delay, behave; arrange, exchange, change, range, strange, danger; haste, waste, taste;

[æ] act, wrap, cash, gang, add, slang; 'cabin, planet, habit, rapid, traffic, classic, plastics, happen, cancel, accent, talent, channel, rally, capture, madam, gather, radical, national, accident, camera; a'ttack, attach, attract, expand, relax, perhaps, adapt, establish;

[ɛə] dare, spare, stare, square, air, fair, hair, wear, bear, airport, careful, chairman; a'ffair, repair, prepare, compare, declare;

[iː] meet, green, screen, queen, clean, dream, mean, beat, wheat, treat, speech, reach, peace, niece, chief, field, siege, breath, feature, creature; a'chieve, believe, relieve, reveal, conceal, defeat, compete, complete;

[ɪ] sick, print, gym, myth, witch, bridge; 'limit, system, symbol, symptom, witty, silly, whisper, thriller, simple, middle, silver, single; 'minister, visitor, incident; in'sist, consist, convince, inflict, equip, commit, admit, efficient, edition;

[ɪə] near, hear, fear, clear, beer, sphere, cheerful, merely, beard;

[ɔː] talk, force, horse, cause, call, fall, tall, raw, draw, launch, fault, more, ore, score, bore; walk, wall, water, war, warm, warn; bought, brought, ought, fought, thought, taught, caught; 'author, order, porter, normal, awful, laundry, shortage, corner; per'form, support, import, afford, ignore, withdraw, export, distort, reform, restore, record, abroad, important, according;

[ɔ] knock, job, cross, wrong, solve; bother, copper, cotton, offer, common, nonsense, profit, modern, prospect, project, horror, hobby, lobby, sorry, 'borrow, follow, hollow, politics, 'conference; watch, wash, watch; a'dopt, across, atomic, involve, astonish;

[ɔɪ] point, soil, join, joint, voice, noise, choice; a'void, destroy, employ, annoy, appoint, enjoy;

[ou] phone, boat, soap, coal, load, boast, post, host, most, loan, quote, clothes, throat, throne, throw, owe, show, low, blow, cold, fold, gold, bold, hold, oats, poll; 'program, moment, broken, notice, progress; pro'mote, devote, suppose, expose, propose, explode, ago, control;

[u:] do, too, tooth, noon, choose, zoo, troops, wool, rude, true, threw, drew, flew, grew, flu, gloomy, juice, cruise, fruit; in'clude, conclude, cartoon; prove, move, improve, approve;

[ju:] tune, huge, due, stupid; a'cute, dispute, amuse, accuse, excuse, reduce, produce, deduce, consume, resume, pursue;

[u] hook, look, put, pull, push, bush;

[juə/uə] cure, pure, lure; poor, sure, tour, tourist;

[ə:] firm, burn, turn, nurse, church, hurt, shirt, birth, earth, search, learn, earn, heard, verse; further, murder, perfect, circle, furnish, merchant, urgent, birthday, service, perfume, permanent; encircle, reserve, observe, deserve, concern, prefer, occur, confirm, disperse, e'mergency.

Прочтите следующие слова:

door, floor; short, for, port, sport,; more shore, sore; small, all, ball, wall, walk, chalk; because, saucer, cause, autumn; saw, raw, shawl, draw, awful; war, warm, water, warn; your, four, pour;

along, frost, lost, dot; want, wash, was, wander;

car, marble, article; rather, father, bathroom, path; ask, task, fast, grasp, plaster, master;

whole, note, rode, go, pole, rose; boat, load, road, soap, throat, coast, boast; low, row, know, show, blow, throw; cold, old, sold, bold, told; post, most;

town, down, brown, gown; out, about, round, loud, proud;

dare, fare, mare, rare, care; air, fair, hair, pair, chair, stair;

work, word, worst, worth, world; dirty; circle, sir, virgin, first, third; turn, urge, urgent, nurse, purse,; servant, person, nerve, serf; early, earth, learn;

use, union, cue, due, amuse, music, new, few, dew, knew.

НАРЕЧИЕ

Наречие	Значение	Наречие	Значение
1	2	3	4
above	выше, наверху	materially	существенно
accordingly	соответственно, поэтому	merely	лишь
actually	фактически	moreover	кроме того
almost	почти	mostly	главным образом
alternatively	иногда, попеременно	namely	а именно
approximately	приблизительно	near	близко
badly	очень плохо	nearly	почти
before	раньше, прежде	necessarily	обязательно
behind	позади	never	никогда
below	внизу	nevertheless	тем не менее, однако
beside	рядом	occasionally	иногда, время от времени
besides	кроме того	once	когда-то
chiefly	главным образом	originally	первоначально
certainly	конечно	otherwise	иначе
closely	внимательно, тесно	particularly	особенно
commonly	обычно	partly	частично, отчасти
comparatively	сравнительно	previously	ранее
considerably	полностью	primarily	в первую очередь
completely	значительно	principally	главным образом
consequently	следовательно	probably	вероятно
constantly	постоянно	properly	должным образом, основательно
directly	прямо, непосредственно	quite	вполне, совсем
entirely	полностью	rarely	редко
essentially	по существу	rather	довольно

Окончание таблицы

1	2	3	4
even	даже	readily	легко
ever	когда-либо	recently	недавно, за последнее время
extremely	крайне, чрезвычайно	repeatedly	неоднократно
everywhere	везде	respectively	соответственно
formerly	прежде	seldom	редко
frequently	часто	shortly	вскоре
further	далее	similarly	подобным образом
generally	обычно	slightly	слегка, незначительно
greatly	очень, весьма	sometimes	иногда
hard	упорно, трудно	somewhat	немного, несколько
hardly	едва (ли)	still	еще, все еще
hence	следовательно	simultaneously	одновременно
highly	очень, весьма	suddenly	вдруг
increasingly	все более	sufficiently	достаточно
inside	внутри	then	затем, тогда
instead	вместо этого	throughout	везде, повсюду
just	как раз, только что	thus	так, таким образом
largely	в значительной степени, широко	too	слишком
lately	недавно, за последнее время	unlike	в отличие от
likely	вероятно	unlikely	вряд ли
mainly	главным образом	yet	до сих пор, пока еще, однако, тем не менее
as	так как, поскольку, по мере того как	as often as not	нередко
as to (for)	что касается, относительно	such as	такой, как; например
as far as	насколько, поскольку	as such	как таковой, по существу

СОЮЗ

Союз	Значение	Союз	Значение
both ...and	и... и; как... так и	if	если; ли
either ... or	или... или	in case	в случае, если
while	в то время как	yet	однако, все же
neither...nor	ни... ни	once	после того, как
as...as	также... как и	provided (that), providing	при условии, если
after	после того, как	since	так как; с тех пор
although	хотя	so that	так что; так, чтобы
as	тогда как; по мере того, как; как	till	до тех пор, пока
as if	как если бы	though	хотя
as soon as	как только	unless	если... не

ФРАЗЕОЛОГИЧЕСКИЕ СОЧЕТАНИЯ

Сочетание	Значение	Сочетание	Значение
1	2	3	4
according to	согласно	at present	в настоящее время
a great deal of	много	compared to	по сравнению
along with	наряду с	depending on (upon)	в зависимости от
and so on	и так далее	on account of	ввиду; из-за
a number of	ряд, несколько	on no account	ни в коем случае
as early as	еще, уже	due to	из-за; вследствие
as for, as to	что касается	except for	кроме
as high as; as many as	до	for the sake of	из-за; ради
as little as; as low as	всего лишь	the former	первый (упомянутый)
as a matter of fact	действительно	in accordance with	в соответствии с
as regards	в отношении	in addition	кроме того
as well as	так же как и	irrespective of	независимо от
at first	сначала	instead of	вместо

Окончание таблицы

1	2	3	4
at the expense	за счет	in spite of	несмотря на
at last	наконец	in view of	ввиду
at least	по крайней мере	the latter	последний
at once	сразу	on the contrary	наоборот
by means of	посредством	other than	любой кроме, кроме как
by all means	обязательно	owing to	благодаря, из-за
by no means	ни в коем случае	rather than	а не
to be the case	иметь место, происходить	a matter of dispute	спорный вопрос
in case	если	a subject matter	основная тема, содержание
in any case	во всяком случае	as it does	фактически
in no case	ни в коем случае	in doing so	при этом
to meet the case	удовлетворять предъявляемым требованиям	to do away with	уничтожить, покончить с
by virtue of	благодаря, в силу, посредством	to do without	обходиться без
in addition to	кроме, в дополнение к	owing to	из-за, благодаря
in relation to	относительно, что касается	thanks to	благодаря
in view of	ввиду	with respect to	по отношению, относительно
to be of interest	представлять интерес	to be of importance	иметь значение
to be of help	оказывать помощь	to be of value	представлять ценность

ПРЕДЛОГ

1. Простые предлоги, обозначающие:

время

after — после: *after the lecture* — после лекции;
at — в (точное время): *at three o'clock* — в три часа;

before — до: *before the lecture* — до лекции;

by — к (какому-то времени): *by that time* — к тому времени;

for — в течение: *for the summer* — в течение всего лета; *to stay there for three months* — оставаться там в течение трех месяцев;

from... (till) — с, от... (до): *from 2 till 3 o'clock* — с двух до трех часов;

in — за (в течение); через: *to do smth. in three days* — сделать что-л. за (через) три дня;

on — на, в (относительно дней): *on Monday* — в понедельник; *on the following day* — на следующий день;

over — на протяжении; в пределах: *over the period of time* — на протяжении этого периода времени;

since — с: *since then* — с тех пор;

till (until) — до; *to sleep till (until) midnight* — спать до полуночи; *not to sleep until midnight* — не спать до полуночи;

место

above — над (выше чего-л.): *above the table* — над столом;

among — между, среди: *to agree among themselves* — согласиться между собой;

at — у, на, в, за: *at the door* — у двери; *at the concert* — на концерте; *at the table*— за столом;

before — перед: *to stand before the crowd* — стоять перед толпой;

behind — за, сзади, позади: *to stand behind him* — стоять за ним;

below — под (ниже чего-л.): *below the picture* — под картиной;

between — между (обычно двумя): *a fight between two boys* — драка между двумя мальчиками;

by — около: *to stand by smb.* — стоять около кого-л.;

in (inside) — в, (внутри): *in the box* — в коробке;

out of (outside) — из, вне: *to go out the room* — выйти из комнаты; *to be outside the door* — быть за дверью;

over — над: *over the head* — над головой; *to jump over a ditch* — перепрыгнуть через канаву;

under — под: *under the table* — под столом;

within — в, внутри, в пределах: *within the scope of the chapter* — в пределах этой главы;

направление

across — через, поперек, по (поверхности): *across the road* — через дорогу; *across the grass* — по траве;

along — вдоль (по): *to go along the road — идти (вдоль) по дороге;*

(a)round — за: *to run (a)round the corner* — убежать за угол;

down — вниз: *to run down the hill* — бежать (вниз) с горы;

from — из, от: *from the room* — из комнаты; *a letter from my sister* — письмо от моей сестры;

into — в (внутрь): *to bring smth. into the room* — внести что-л. в комнату;

off — от (чего-л.); с чего-л. (поверхности): *to sail off the shore* — отплыть от берега; *to go off the meeting* — убежать с собрания;

onto — на (к поверхности): *to fall onto the surface* — падать на поверхность;

through — через, сквозь: *through the forest* — через лес;

throughout — насквозь, на протяжении чего-л.: *throughout the book* — на протяжении всей книги (по всей книге);

to — к (кому-л., чему-л.): a *letter to my sister* — письмо моей сестре;

toward(s) — по направлению к: *toward(s) the forest* — (по направлению) к лесу;

средство

against — против: *to go against the tide of public opinion* — идти против общественного мнения;

by — (кем, чем, путем, с помощью): *to go by bus* — ехать на автобусе;

like — как (каким образом): *to work like a horse* — работать как лошадь;

with — посредством, с помощью: *to write with a pen* — писать пером; *to break the window with a stone* — разбить окно камнем;

without — без (не используя): to *do smth. without assistance* — сделать что-л. без помощи;

цель

for — для, ради, за: *to do smth. for the money* — сделать что-л. ради денег (за деньги); *to die for a country* — умереть за страну;

to — (кому-то, чему-то): *to give smth. to a friend* — дать что-л. другу;

with — с, вместе с: *to go with the tide of public opinion* — идти в ногу с общественным мнением;

наличие

of — (имеющий, обладающий, представляющий): *a problem of interest* — проблема, представляющая интерес;

with — имеющий: *a woman with large eyes* — женщина с большими глазами;

without — без (не имеющий): *the house without a porch* — дом без крыльца;

содержание

about — о, об, про: *a book about books* — книга о книгах; on — о, по: *a lecture on chemistry* — лекция по химии;

2. Составные предлоги

along with — наряду, вместе с;
as for — что касается;
as to — что касается;
away from — помимо, кроме;
because of — из-за, вследствие, благодаря;
but — кроме;
but for — если бы не;
by means of — путем, с помощью;
due to — из-за, вследствие, благодаря;
except for — за исключением;
for (with) + all — несмотря на (все);
in comparison with — по сравнению с;
in front of — перед;
in order to — для того чтобы;
in spite of (despite) — несмотря на;
in view of — ввиду;
notwithstanding — несмотря на;
out of — из;
owing to — благодаря, из-за, для;
up to — вплоть до;
with (in) reference to — относительно, что касается, ссылаясь на;
with (in) regard to — относительно;
with respect to — относительно, что касается.

ПОРЯДОК СЛОВ В АНГЛИЙСКОМ ПРЕДЛОЖЕНИИ

0	I	II	III	IV
Обстоятельство	**Подлежащее**	**Сказуемое**	**Дополнение**	**Обстоятельство**
где? почему? как? когда? (либо в самом начале предложения, либо в конце)	*кто? что?*	*что делает? что делают с подлежащим?*	*с кем? о ком? кому? на кого? у кого? и т.д. (соответствует всем падежам русского языка, кроме именительного)*	*где? почему? как? когда?*

Примечание. Определение (какой? какая? какие? какое?) не имеет постоянного места в предложении и занимает место либо перед, либо после определяемого слова.

СИСТЕМА ВРЕМЕН ГЛАГОЛА В ДЕЙСТВИТЕЛЬНОМ ЗАЛОГЕ

(v –глагол-сказуемое)

Continuous ***to be + v+ing*** (действие в процессе, в момент времени)	Indefinite ***v*** (обычное действие)	Perfect ***to have+ v+ed*** (действие, законченное к моменту времени)	Perfect Continuous ***to have been+v+ng*** (действие в процессе целого периода времени)
		Present	
am + v+ ing is + v+ ing are + v+ ing	v v+ s (3л. ед.ч.)	have + v+ed has + v+ed	have been + v+ng has + been + v+ng
		Past	
was + v+ ing were + v+ ing	v+ed	had + v+ed	had been + v+ng
		Future	
shall be + v+ ing will be + v+ ing	shall + v will + v	shall have + v+ed will have + v+ed	shall have been + v+ng will have been + v+ng

Сигналы глагола-сказуемого (v): v + s, v + ed; 8 форм глагола to be: be, been, being, am, is, are, was, were; 3 формы глагола to have: have, has, had; вспомогательные глаголы shall, will, do, does, did; модальные глаголы must, may, might, can, could, need, ought.

СИСТЕМА ВРЕМЕН ГЛАГОЛА В СТРАДАТЕЛЬНОМ ЗАЛОГЕ

(формула страдательного залога: to be + 3fv)

Continuous ***to be + being + 3fv (v+ ed)***	Indefinite ***to be + 3fv (v+ed)***	Perfect ***to have been +3fv(v+ed)***
	Present	
am + being + 3f v (v+ ed) is + being + 3f v (v+ ed) are + being + 3f v (v+ ed)	am + 3f v (v+ed) is + 3f v (v+ed) are + 3f v (v+ed)	has + been +3f v (v+ed) have + been +3f v (v+ed)
	Past	
was + being + 3f v (v+ ed) were + being + 3f v (v+ ed)	was + 3f v (v+ed) were + 3f v (v+ed)	had been + 3f v (v+ed)
	Future	
–	shall + 3f v (v+ ed) will +3f v (v+ ed)	shall +have+been+3f v (v+ ed) will+have+been+3f v (v+ ed)

НЕЛИЧНЫЕ ФОРМЫ ГЛАГОЛА

Формы инфинитива

	Active	*Passive*
Indefinite	To v	To be + v+ed (3fv)
Continuous	To be + v + ing	—
Perfect	To have + v+ed (3fv)	To have been +v+ed (3fv)
Perfect Continuous	To have been +v+ing	—

Формы герундия

	Active	*Passive*
Indefinite	v +ing	being + v+ed (3fv)
Perfect	having + v+ed (3fv)	having been + v+ed (3fv)

Формы причастия

	Active	*Passive*
Indefinite	v +ing (PI)	v+ed (3fv) (PII)
Perfect	having + v+ed (3fv)	having been + v+ed (3fv)

УСЛОВНЫЕ ПРЕДЛОЖЕНИЯ (СОСЛАГАТЕЛЬНОЕ НАКЛОНЕНИЕ)

Союзы	Тип	Придаточное предложение	Главное предложение	
if, in case, unless, provided	I	Present Indefinite	shall, will +v (Future Indefinite)	
	II	Past Indefinite	should, would might, could	+ v (Infinitive)
	III	Future Indefinite		+ have +3fv (Perfect Infinitive)

Примечание: Сказуемые в предложениях II и III типа обычно переводятся на русский язык с частицей "бы".

НЕПРАВИЛЬНЫЕ ГЛАГОЛЫ ПО ГРУППАМ

cost — cost — cost;
cut — cut — cut;

wear — wore — worn;
bear — bore — born;

hit — hit — hit;
hurt — hurt — hurt;
let — let — let;
put — put — put;
shut — shut — shut;

lend — lent — lent;
send — sent — sent;
spend — spent — spent;
build — built — built;

burn — burnt — burnt;
learn — learnt — learnt;
smell — smelt — smelt;

lose — lost — lost;
shoot — shot — shot;
get — got — got;
light — lit — lit;
sit — sat — sat;

keep — kept — kept;
sleep — slept — slept;
feel — felt — felt;
leave — left — left;
meet — met — met;
dream — dreamt — dreamt;
mean — meant — meant;

bring — brought — brought;
buy — bought — bought;
fight — fought — fought;
think — thought — fought;
catch — caught — caught;
teach — taught — taught;

blow — blew — blown;
grow — grew — grown;
know — knew — known;
throw — threw — thrown;
fly — flew — flown;
draw — drew — drawn;
show — showed — shown;

sell — sold — sold;
tell — told — told;

have — had — had;
hear — heard — heard;
hold — held — held;
read — read — read;
say — said — said;
pay — paid — paid;

make — made — made;
stand — stood — stood;
understand — understood — understood;

break — broke — broken;
choose — chose — chosen;
speak — spoke — spoken;
steal — stole — stolen;
wake — woke — woken;

drive — drove — driven;
write — wrote — written;
rise — rose — risen;
beat — beat — beaten;
bite — bit — bitten;
hide — hid — hidden;
eat — ate — eaten;
give — gave — given;

fall — fell — fallen;
forget — forgot — forgotten;

see — saw — seen;
take — took — taken;

drink — drank — drunk;
swim — swam — swum;
ring — rang — rung;
sing — sang — sung;
run — ran — run;
begin — began — begun;
become — became — become.

Оглавление

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АНГЛИЙСКИЙ ЯЗЫК ДЛЯ СТУДЕНТОВ, ИЗУЧАЮЩИХ ИНФОРМАТИКУ

Учебное пособие

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