ДОНСКОЙ ГОСУДАРСТВЕННЫЙ ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ

УПРАВЛЕНИЕ ДИСТАНЦИОННОГО ОБУЧЕНИЯ И ПОВЫШЕНИЯ КВАЛИФИКАЦИИ

Кафедра «Иностранных языков»

Методические указания

по развитию навыков чтения и говорения
по теме «Моя специальность»
по дисциплине

«Английский язык»
(Часть 2)

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Аннотация

Методические указания предназначены для студентов 1 и 2 курсов направлений подготовки 08.03.01 «Строительство», 09.03.03 «Прикладная информатика», 23.03.03 «Эксплуатация транспортно-технологических машин и комплексов», 38.03.01 «Экономика». Цель – развитие навыков чтения и говорения по теме «Моя специальность».

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Оглавление

CENTRAL HEATING

1. Answer these questions.

a. What do you know about gas and heat supply? Is it used in our country?

b. Why did you decide to choose this profession? What are your plans after you graduate from the university?

2. Make a list of things that are important when you choose a job.

3. Read the text and answer the questions.

1. What is central heating?
2. How does the central heating differ from the local heating?
3. What kind of heating is used in different countries?
4. What are the common components of a central heating system using water circulation?

Central heating is a common method of providing warmth to the whole interior of a building, or portion of a building, from one point to multiple rooms. When combined with other systems in order to control the building climate the whole system may be referred to as HVAC (Heating, Ventilation and Air Conditioning).

Central heating differs from local heating in that the heat generation occurs in one place, such as a furnace room in a house or a mechanical room in a large building. The most common heat source is through combustion of fossil fuel. The resultant heat is then distributed typically by forced air through ductwork, by water circulating through pipes or by steam fed through pipes. Of increasing use, the heat source may be solar powered, in which case the distribution system is normally by water circulation.

In the UK and much of northern Europe and urban portions of Russia central heating is installed in most new housing. Where gas is not readily available, oil fired systems are used. Steam heating systems may be fired by coal, oil or gas and are used in the USA, Russia and Europe primarily for larger buildings. Far less energy efficient and less common are electrical heating systems.

Water heating.

The common components of a central heating system using water circulation are:

Gas supply lines (sometimes including a propane tank) or oil tank and supply lines

- Boiler – heats water in a closed water system
- Pump – circulates the water in the closed system
- Radiator – wall mounted panels through which the heated water passes in order to release heat into rooms

It is also common in the United Kingdom and other parts of Europe to combine the needs of room heating with hot water heating and storage. These systems are less common in the USA.

4. How are the following things used?

a boiler
a pump
a radiator

5. Work in pairs.

Student A: You are an engineer specializing in heat and gas supply.

Student B: You are a director of a factory. You have some problems with heat and gas supply.

Discuss the problems. Find the solutions.

Possible problems:

• early resource deterioration of networks and equipment of heat, cold and hot water supply systems;

• breakdown of pipelines and service lines of heat, cold and hot water supply systems;

• temperature reduction in premises;

• hot water temperature reduction;

• penalty provisions;

• increase of heat loss up to 70%;

Proposed solutions:

1. Inspection of heat system, hot and cold water supply system;

2. Repair, rerun, reconstruction and laying of new service lines – heat, cold and hot water supply systems;

3. Washing of heat, cold and hot water supply systems;
4. Pressing of heat, cold and hot water supply systems;
5. Disinfection of heat, cold and hot water supply systems;
6. Energy audit of the enterprise.

6. Read the following list of outcomes and match them with the proposed solutions in Exercise 5.

a. reset of operating characteristics of heat and water supply systems;
b. removal of 70% of deposit and mud;
c. increase of heat emission of the system up to 50 %.
d. economy of heat carrier over 30 %;
e. prolongation of service life of systems for 10-15 years.
f. plan of activities on energy savings;
g. energy certification of the enterprise.

INFORMATION SYSTEMS AND TECHNOLOGY

1. Work in pairs and answer the questions.

1. How can computers help in construction?
2. Do you know any computer programmes used in construction?

2. Read the text and answer the questions.

1. What does the abbreviation CAD stand for?
2. What is CAD?
3. Why is CAD useful for building?

PLANNING TOOLS

Around the 1960s and 1970s, expert systems were developed to visualize the most important decision-making processes in planning and assisting the process with artificial intelligence. However, given the numerous conscious and unconscious influencing parameters this concept could not fully succeed. The planning of buildings will therefore continue to be determined by the human beings involved in the project and their interaction with each other.

In the 1980s, CAD (Computer Aided Design) established itself in the construction industry. With the aid of CAD, which had originally been developed as a design aid in machine building, drawings could for the first time be first created virtually. Drawing aids tailored to the specific requirements of the individual designer were developed.

By now, CAD is state of the art in the construction document phase. Any desired construction can be graphically displayed without any specifications. However, due to the high performance capability required for the design of structural components of complicated configuration, CAD systems are highly complex and require long familiarization times when used as stand-alone solutions.

A typical precast part drawing contains all of the data required for production. But for the design with precast parts, this complex information requisite to the CAD construction document phase is not required. Here, simple design tools, with whose precast parts can be quickly developed are better suited for the first stage.

CAD was designed as a drawing program. The information is therefore primarily limited to drawing objects. For the design with

precast parts, however, a summarization of data units to virtual elements which correspond to the precast parts, would be more practical. The virtual building model put together from these elements can therefore display elemental building.

Other than is the case with CAD as a pure drawing program, with object-oriented programming, all properties, from planning to production to building utilization, can be stored and visualized with the virtual element. If for a draft design element, only the properties important for a given planning phase are visualized, then the other data can be retrieved in later phase.

3. Match the words on the left to their definitions on the right.

1. artificial	a. that which is demanded or ordered; a need; a command
2. conscious	b. necessary, needed by circumstances
3. concept	c. facts, things certainly known
4. requirement	d. not natural; made by the art of man
5. requisite	e. to be in agreement or harmony with
6. tool	f. an idea or general notion
7. data	g. a special quality; that which is proper to a thing
8. correspond	h. an instrument used in doing work
9. property	i. aware, knowing

4. Fill in the gaps with the words in ex.3.

1. The chemical _____ of iron.
2. His expenses do not _____ to his income.
3. My grandmother has _____ teeth.
4. You should fulfil the _____ of the law.
5. Everything _____ for a long journey.
6. The old man was _____ that his strength was failing.

5. Match the column on the left to the column on the right to make up collocations and give their Russian equivalents.

1. performance …	a. displayed
2. precast…	b. processes
3. draft…	c. components
4. graphically…	d. solutions
5. familiarization…	e. capability
6. decision-making…	f. element
7. stand-alone…	g. to the specific requirements
8. tailored …	h. part drawing
9. structural…	i. times
10. building…	j. design
11. artificial…	k. utilization
12. virtual…	l. intelligence

6. Discuss in pairs.

1. What are the benefits of using CAD for technical drawing?
2. Do you know any other programmes of this kind?

BUILDING RESTORATION & RECONSTRUCTION

Architecture | Building engineering

1. Work in pairs and discuss the following questions.

1. What is "restoration /reconstruction"? What is it for you?
2. What are your plans when you graduate from the university?
3. Comment on the following statement: **"***Building restoration can be thought of as that set of activities which are greater than year-to-year maintenance, but which by retaining the building are less than a demolition and the construction of a new building***".** Give grounds.

2. Match the following words and word groups to the Russian ones.

refurbishment	неисправность
derelict	текущий ремонт
disrepair	уборка зданий
maintenance	восстановление
Building cleaning	обветшание
affordability	заброшенный
decay	доступность по цене

3. Look through the text and name at least 4 reconstructed architectural complexes and 2 state organizations for historic preservation (Russian or foreign).

4. Read quickly the text and answer the following questions.

1. What types of restoration are mentioned in the text?
2. What does the term "historic preservation" mean?
3. Why do exterior and interior paint colors present similar problems over time?

5. Read the text and decide whether the statements are true or false. Correct the false ones.

T/F

1. Building restoration describes the process of the renewal and refurbishment of the fabric of a building.
2. Buildings don't require ongoing maintenance to

prevent them falling into disrepair

3. Rebuilding means the replacing of one damaged or missing part of a building

4. A part of heritage restoration involves just the replacement of outdated heating and cooling systems with newer ones

5. The building restoration seeks to follow the original design of the building.

Building restoration describes the process of the renewal and refurbishment of the fabric of a building. The phrase covers a wide span of activities, from the cleaning of the interior or exterior of a building - such as is currently underway at St Paul's Cathedral in London - to the rebuilding of damaged or derelict buildings, such as the restoration of the Windsor Great Hall in Windsor Castle after a destructive fire in 1992. The 1985–1989 removal of 38 layers of paint and the cleaning and repair of the extrior sandstone walls of the White House in the U.S. are an example of building restoration.

Buildings are structures which have, from time to time, particular purposes. They require ongoing maintenance to prevent them falling into disrepair as a result of the ravages of time and use. Building restoration can be thought of as that set of activities which are greater than year-to-year maintenance, but which by retaining the building, is less than the demolition and construction of a new building.

The scope of restoration depends upon the need and other circumstances, such as the status of the building, and the affordability of the work required. There are three main types of restoration:

Building cleaning - most especially cleaning the external facade of a building, typically needed in cities that have suffered from smoke pollution. Many granite, sandstone, and limestone buildings in the UK, for example, have for most of their existence, been black in colour owing to smoke and smog. Many, in turn have been cleaned after air pollution legislation diminished the incidence of airborne particulate matter.

Major repair - especially to stonework affected by acid rain and other pollutants, which has weathered or decayed to a structurally unsound or aesthetically displeasing condition.

Rebuilding means the replacing of severely damaged or missing parts of a building.

Here, in all cases, a balance is to be struck between recreation of the original building using materials and techniques similar to the original construction as happened at very great expense at Windsor Castle; and the use of more modern techniques and materials.

Not all building restoration seeks to follow the original design of the building. It is reasonably commonplace for the shell of a building - its external walls - to be retained while an entirely new building is constructed within. This approach is also referred to as adaptive reuse.

Although techniques of restoration are improving, the action of cleaning or repairing buildings can, with hindsight, be seen to cause problems that at the time were unforeseen. A good example is the unrestrained use of sandblasting to clean smog deposits from soft-stoned buildings - a technique employed in the UK in the 1960s and 1970s - which has damaged the external faces of stonework to the extent that in some cases, later, the stonework needed to be replaced. Contemporary building codes recognise such problems, and (it is to be hoped) mitigate poor outcomes.

In the field of historic preservation, building restoration can refer to the action or process of accurately revealing, recovering or representing the state of a historic building, as it appeared at a particular period in its history, while protecting its heritage value. Work is often performed to reverse decay, or alterations made to the building after its initial construction. A part of heritage restoration can involve the replacement of outdated heating and cooling systems with newer one, or the installation of climate controls that never existed at the time of building. Tsarskoye Selo, the complex of former royal palaces outside St. Petersburg in Russia are an example of this sort of work. Physical materials of an earlier time, that might have been state of the art at the time of construction, might have failed and now need replacement with contemporary better functioning, but aesthetically similar materials. Restoration of buildings at the Bauhaus in Dessau, Germany corrected a failed c. 1925 peat composition roof.

Exterior and interior paint colors present similar problems over time. Air pollution, acid rain, and sun take a toll, and often many layers of non-original paints are applied before an attempt at restoration is made. Color spectrum analysis of old paint now allows a

corresponding chemical recipe to be produced. But this is often only a beginning as many of the original materials are either unstable or in many cases environmentally unsound. Many eighteenth century greens were made with arsenic, a material no longer allowed in paints. Another problem occurs when the original pigment comes from a material no longer available. In the early to mid-nineteenth century, ground mummy parts were used in making some browns. In this case, organizations like Britain's National Trust for Places of Historic Interest or Natural Beauty will work with a historic paint color recreator like Farrow and Ball to replicate the antique color in durable, stable, and environmentally safe materials. In the United States the National Trust for Historic Preservation works similarly with Fine Paints of Europe a small manufacturer located in the U.S. state of Vermont that uses mostly Dutch and Swedish pigments and binders. The polychrome painted interiors of the Vermont State House and Boston Public Library are examples of this type of heritage restoration.

6. Think over the following statement: "Although techniques of restoration are improving, the action of cleaning or repairing buildings can, with hindsight, be seen to cause problems that at the time were unforeseen". Make a list of the pros and cons. Prove your point of view.

7. Work in pairs. Imagine a city where buildings have never been restored. Describe it to the rest of your group.

8. What are the essential qualities of a specialist in the field of restoration and reconstruction? Do you have the right qualities to be a restorer? Think about it and advance your opinion.

REAL ESTATE MANAGEMENT INDUSTRY AND SYSTEM OVERVIEW

1. Answer the following questions.

1. What does real estate mean?
2. What is the range of management?
3. Which kind of management are you specialized in?

2. Read the text and choose the terms dealing with real estate management.

REAL ESTATE EXPERTISE AND MANAGEMENT

Students receive knowledge in the field of state and municipal real estate management; standards and licensing of activity in the sphere of real estate; technical appraisal, evaluation, ecological assessment of real estate; real estate marketing, economy and management. Skillful real estate management is another important success factor in the retail trade. The multifaceted spectrum ranges from strategic location development through commercial, technical and infrastructure management to the integration of properties into the local social or cultural life. METRO Group Asset Management handles the construction and operation of real estate properties used by the METRO Group. It is one of Germany's major retail real estate managers and oversees about 650 METRO Group facilities. METRO Group Asset Management combines a high level of expertise in real estate with trade-specific know-how. Its regional area of activities covers 12 countries: Austria, France, Germany, Great Britain, Greece, Hungary, Italy, Luxembourg, Poland, Russia, Spain and Turkey. The Real Estate Management system is a sophisticated property information management system that enables you to manage your leases and financial information with up-to-the-minute processing and billing capabilities. Real Estate Management is lease-based. A lease is an agreement between a lessee (tenant) and a lessor (owner or property manager) that specifies a period of time and rent that is payable to the lessor. The lease is the basis for invoices or vouchers, and receipts or payments.

Using Real Estate Management, you can produce everything from simple, one-time-only invoices to the most complex recurring billing that is required by any type of lease. Real Estate Management

enables you to gather, process, and store information on occupancy patterns, property data, and market updates so that you can maintain your competitive advantage. You can access and work with property and tenant information at the level of detail that you need, which gives you the power to increase the return on your investment.

The following features comprise the Real Estate Management system:

Tenant and Lease Information

You set up information about the companies and people with whom you do business in the Address Book system. Each record includes the mailing address, telephone numbers, A/R and A/P control information, and so on. You must enter addresses before you can enter information related to business units, facilities, tenants, and leases.

You also set up information about the tenant leases, such as the tenant name and location, the cost of the space that the tenant occupies, rental terms, and so on. Leases can be as simple or as complex as needed. The system can calculate annualized rent on a rentable or useable area basis. You can set up and maintain coterminous and holdover leases in addition to regular leases and subleases.

Manual Billing. You use manual billing programs to work with invoices that you generate manually or automatically. You can enter taxes and discounts for the entire invoice, or different taxes and discounts for different pay items (for example, materials and labor) on the same invoice.

Receipt Processing. You apply receipts and adjust invoices using the receipt entry program. The Real Estate Management receipts entry program is similar to the Manual Receipts Entry program used in the Accounts Receivable system with the following exceptions:

- Real Estate Management uses lease numbers and billing codes to apply receipts.
- The billing codes can have different priorities, which affect how the system applies payments that do not exactly match invoices. You can apply payments automatically by billing code priority of application.
- Real Estate Management has additional processing options for the receipts entry program that are not used in the Accounts

Receivable system.

- Unapplied receipts can be deposited against billing codes (G/L offsets) other than UC. For example, security deposits can be entered against specific billing codes.
- Security Deposits
- If you require security deposits to cover damages outside of normal wear and tear, enter the amounts required and received in the security deposit applications. Using the security deposit programs, you can issue full and partial refunds, accept security deposits as monthly payments, and track interest that is generated by security deposits. Interest can be simple or compound.
- Tenant Work Orders
- The Tenant Work Order Entry program is similar to other work order entry programs, except that it requires tenant-specific information such as buildings, units, tenants, and leases.
- Recurring Billing
- You set up and generate routine billings on a periodic basis using recurring billing. You can set up billings for weekly, monthly, quarterly, semiannual, or annual cycles. The system also allows numerous other cycles such as 13-period, quarter-days, and irregular month and period combinations. You can set up recurring billings as receivables, payables, or accruals (general ledger only).
- You can also create prorated and catch-up billings. Prorated billings are recurring billings that either start or end within a billing period, as opposed to the beginning or end or a billing cycle. To prorate a billing, the system compares the number of days that the billing was in effect for the period to the total number of days in the period. Catch-up billings include all unbilled periods from the current *ty* period back to either the last billed period or the starting date for the recurring billing.
- Sales Overage
- In many leases with retail tenants, you establish rent that relates to a portion of their reported sales. In return for a lower fixed rent or no fixed rent at all, tenants pay a percentage of their sales to the landlord. This billing process is called sales overage, because the sales usually must be over (exceed) a certain level (breakpoint) before rent is billed. You can change the percentage charged as sales increase. This procedure provides tenants with incentives to increase their sales.

- Sales overage is attractive to tenants, especially start-up businesses or tenants moving to a new location, because the overhead for operation from a higher fixed rent is reduced. The landlord benefits from sales overage because the potential revenue related to the rent is higher and establishing rent as a percentage of sales dollars results in an automatic hedge against inflation.
- Expense Participation
- You can bill tenants a proportion of operating expenses such as common area maintenance, utilities, taxes, and insurance using expense participation. Expense participation can be subject to limits, base exclusions, gross-ups, account exclusions, ceilings, fees, adjustment amounts and factors, and estimated billings. The Real Estate Management system can automatically calculate estimated expense participation amounts. The estimates can be based on budget amounts, actual expense amounts, or a percentage increase of actual expense amounts.
- Escalations
- You can set up leases so that rent amounts or other charges increase (escalate) from year to year. Many commercial leases (retail, office, and industrial) are set up so that the rent amounts increase regularly, based on an index such as the Consumer Price Index (CPI), Porters' Wage, or a user defined index. The calculations for rent increase can also include catch-up billings.

3. Match the following notions with their definitions:

1) a lease	a) are recurring billings that either start or end within a billing period, as opposed to the beginning or end or a billing cycle.
2) the real estate management system	b) include all unbilled periods from the current period back to either the last date for recurring billing.
3) prorated billings	c) the sales usually must be over (exceed) a certain level (breakpoint) before rent is billed.
4) catch-up billings	d) an agreement between a lessee(tenant) and a lessor (owner or property manager) that specifies a period of time and rent that is payable to the lessor.

5) sales overage	e) is a sophisticated property information management system that enables you to manage your leases and financial information with up-to-the-minute processing and billing capabilities.

4. Discuss in pairs the following items:

1. skillfull real estate management as another important success factor in the retail trade.
2. the basis of real estate management.
3. the main features of Real Estate Management System.
4. the procedure providing tenants with incentives to increase their sales.

5. Match the word combinations on the left to the Russian equivalents on the right.

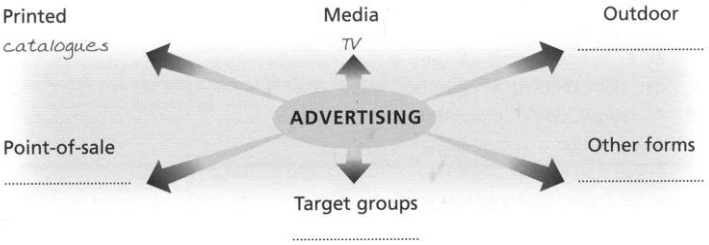
net lease	чистый операционный доход
net worth	чистый доход
net present value	чистый располагаемый доход
net income	чистая стоимость
net operation income	чистая текущая стоимость
net spendable income	чистая аренда

6. Work in pairs and speak on the role of real-estate management in the economic life of your city. Share your opinion with your partners.

ADVERTISING

1. Complete the diagram with the words in the box. Some words can go in more than one category. Add any other words you can think of.

TV	catalogues	kiosks	single people	free samples
professionals	posters		billboards	bus shelters
brochures	sponsorship		banner adverts	leaflets radio
promotional video		the general public		word-of-mouth



2. Work with a partner. Which way (or ways) of advertising do you think is the most suitable for these situations?

- A travel company selling last-minute trips
- A car company launching a new model
- A bank telling customers about a new kind of bank account
- A local politician who wants people to vote for him/her

3. Read the text about advertising. Match the headlines (1-6) with the paragraphs (a-f).

1. Printed advertising. 2. Publicity.
3. How much to spend. 4. The meaning of advertising.
5. Copywriting . 6. TV and Radio.
7. Advertising managers. 8. Who is it for?
9. Advertising agencies.

a) Advertising informs consumers about the existence and benefits of products and services, and attempts to persuade them to buy them. To be effective it must appeal to the consumers' self-interest, arouse their curiosity, and offer them news. The best form of

advertising is free word-of-mouth advertising, which occurs when satisfied customers recommend products or services to their friends, but very few companies rely on this alone.

b) Most companies that advertise extensively have advertising managers, or brand managers. Because these people help to coordinate the company's advertising programme with its sales programme, they must have aptitudes for both advertising and management.

c) Large companies could easily set up their own advertising departments, but some of them tend to hire the services of an advertising agency. A variety of specialists are required in an advertising agency because it develops advertising programmes, prepares advertisements, and places them in media. Those interested in advertising research and fact gathering should know both statistics and consumer psychology. Competence in media planning and evaluation is essential for a career in media. The media buyer must identify and determine the most effective media in which to expose the advertising messages, and purchase space or time in these media.

d) Copywriting requires creative writing skills and ability to visualize ideas. The copywriter is a developer of advertising ideas and messages. Layout, typography, and visualization are essential for those in art, both for print advertising and for TV commercials. Print-production specialists must know printing, photoengraving, and typography. Besides, every agency needs an account executive to be a mediator between an advertiser and an agency who should have accountant background and managerial skills.

e) Before launching an advertising campaign the client company generally decides on its advertising budget, the amount of money it plans to spend in developing its advertising and buying media time or space.

f) They should then understand their customers and find out who they are (their age, interests, lifestyle, income, buying habits). The company decides on the best way to reach them analyzing which newspapers they read or which TV programmes they watch. The set of customers whose needs a company plan to satisfy are known as the target group. The choice of how and where to advertise (newspaper and magazine ads, radio and TV commercials, posters, billboards, point-of-purchase displays in stores, leaflets, brochures, and so on), and in what proportions, is called a media plan.

g) Printed advertising may be found in magazines, newspapers, direct mail, and catalogues. Handbills or fliers are often distributed in public places or door-to-door in selected neighbourhoods. Highway and street billboards reach commuters and travellers. Specific markets can be reached by advertising in selected magazines. Specialized products and services may be advertised in trade magazines, which are devoted to the interests of particular businesses.

h) TV commercials are the most expensive because they reach the most people. Ranging in length from a few seconds to a full minute, spots use live action, animation, or stop-motion techniques. Radio ads cost less than TV ads. Their other advantage is that people can be doing something else – like driving and ironing – while listening; their disadvantage is that words have less impact than pictures.

i) Favourable mentions of a company's products or services, in any medium read, viewed or heard by a company's customers or potential customers, that are not paid for, are called publicity.

4. Read the text again and discuss the questions in pairs.

1. What kinds of advertisements are effective?
2. What is word-of-mouth advertising?
3. What should a company do to launch an advertising campaign?
4. What are fliers? How are they used?
5. What are trade magazines? What is the special value of advertising in them?
6. In what way are TV ads more effective than printed ads?
7. What are the advantages and disadvantages of TV commercials and radio ads?
8. What are the jobs in advertising and what skills should a specialist have to do them?

5. Complete the following collocations:

1. to persuade …….
2. to hire …….
3. to buy …….
4. to launch …….
5. to expose …….
6. to satisfy …….
7. a target …….
8. to reach …….
9. to appeal to …….
10. fact …….

6. Complete the questions with the words from the text. The first letter is given.

1. Is the a…….. on TV, radio, or a newspaper or magazine?
2. Who are the main t……. groups or consumers?
3. What are the main features of the p……?
4. Why does it a…….. to consumers?
5. Do you think the advertising c…….. is a good one? Why/why not?

7. Think of an advertisement which you really like. Then, work with a partner and ask each other the questions in 6.

8. Work with a partner and discuss the following questions.

1. Is advertising a science, an art, or both? Why?
2. What career path would you like to choose? Why?

AUTOMOBILE SERVICE

1. Comment on the following statement: "*The automobile has long since ceased to be a matter of luxury or sport and has become a decisive factor in the economic development of many countries."*

2. Answer the questions.

1. What skills do you need if you want to obtain a position of an automotive engineer? Make a list.

2. What are your plans when you graduate from the university?

3. Make a list of the most important things when choosing a job, eg. earning a lot of money, working for a big company etc.

3. Read the text and make a plan of it.

The word *"automobile"* is not an English one. It consists of two words: *autos* and *mobilis. Autos* is a Greek word meaning "self and *mobilis* is a Latin word meaning "movable". The two words taken together mean "self-moving". Thus, an *automobile* means a self-moving vehicle.

The automobile has long since ceased to be a matter of luxury or sport and has become a decisive factor in the economic development of many countries. In some countries where automobiles are found in millions they are playing the most important part in the solution of many transportation problems.

The development of the car-building industry is also accountable to a large extent for the progress in road maintenance, improvement and construction.

Like most other great human achievements, the motor car is not the product of any particular inventor. One of the earliest attempts to propel a vehicle by mechanical power was suggested by Isaac Newton. But the first self-propelled vehicle was constructed by the French military engineer Cugnot in 1763. It had three wheels, carried two passengers and could run at a maximum speed of four miles per hour.

In 1825 a steam engine was built in Great Britain. The vehicle carried 18 passengers and covered 8 miles per 45 minutes.

The first practical internal combustion engine was built by Etienne Lenouir in 1860. Although, his water-cooled contraption

burned coal gas, was noisy and inefficient it inspired the coming generation of inventors.

In 1897 the first electric car was invented by Werner von Siemens and almost 28% of all American automobiles produced in 1900 were electric. Nevertheless the remaining percentage was given to a standard four-cycle design internal combustion engines.

In the past, automotive engineers were closely associated with the field of mechanical engineering. After all, most automotive engineers dealt with topics such as gasoline and diesel engines, transmissions, suspension systems, chassis, etc. a few ventured off into new developments such as turbine gas engines, continuously variable transmissions and other. Some dealt with plastics and painting systems. The vast majority of knowledge needed by the automotive engineer of the past was mechanical in nature.

The reality of today is that the automotive engineer is expected to know about far more than just mechanical engineering. To attract the brightest and best, the industry needs to project an image of the automobile engineer as someone with skills and knowledge beyond mechanical engineering.

The modern automobile has often been described as a computer on wheels. Electronics control component systems such as the engine, transmission, brakes. A focus is on intelligent vehicle technology, which highlighted the integration of more electronics into the vehicle.

The design engineer must know enough about the manufacturing capability of the supplier. The design engineer must be an early participant in the design team. Competitive quality and cost require that the design specifications match the manufacturing capability. Empty promises are no longer accepted.

Software development is not only necessary to achieve optimum operation of each vehicle computer, but vehicle performance evaluation prior to design is becoming a standard practice. Computer simulation for demonstration compliance with regulations will probably be accepted in the not-too-distant future.

4. Answer the questions.

1. What knowledge was needed by the automotive engineer of the past?

2. What is the reality of today for the automotive engineer?

3. How can we describe the modern automobile?

4. What aspect is the modern automotive technology focused on?

5. What is necessary to achieve optimum operation of a vehicle computer?

6. What is becoming a standard practice in vehicles today?

5. Read the text again and decide if the given statements are true (T) or false (F). Correct the false ones.

1. An *automobile* means a horse-driven vehicle.

2. The first steam-powered vehicle with injection was constructed by the French military engineer Cugnot in 1763.

3. Almost 72% of cars built was given to a standard four-cycle design internal combustion engines.

4. The duty of the automotive engineer of the past was to control the gasoline level in the tank.

5. The modern automobile has often been described as a highly intelligent and complicated device.

6. Fill in the gaps according to the text.

1. The foreign words *autos* and *mobilis* taken together make up an English word ____.

2. The French military engineer Cugnot invented and built the first _____vehicle in 1763.

3. The _____ engineer of the_____ had to obtain a vast majority of knowledge, mostly mechanical in nature.

4. The automotive engineer of a new generation is _____ to _____ about far more than just mechanical engineering.

5. It is important to focus on _____ vehicle _____ , which highlights the integration of more electronics into the vehicle.

7. Give a summary of the text according to the plan you've made in ex.3.

8. Discuss in pairs.

1. What are the essential qualities of an automotive engineer?

2. Do you have the right qualities to be an automotive engineer?

LITERATURE AND THE INTERNET RESOURSES

1. Business and Commerce. Workshop. Neil Wood. OUP, 2003
2. Business Focus. Pre-Intermediate Student Book, OUP, 2004
3. Management and Marketing. Ian Mackenzie. Thomson.
4. Английский язык в рекламе. Л.А. Зайцева. Москва, 2006
5. BFT, 6, 2003.
6.http://en.wikipedia.org/wiki/