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МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ  
РОССИЙСКОЙ ФЕДЕРАЦИИ

Федеральное государственное автономное  
образовательное учреждение высшего образования

«СЕВЕРО-КАВКАЗСКИЙ ФЕДЕРАЛЬНЫЙ УНИВЕРСИТЕТ»

*Пятигорский институт (филиал) СКФУ*

### **Методические рекомендации**

По выполнению практических работ обучающихся по дисциплине  
**«Иностранный язык в сфере профессиональной коммуникации»**  
для студентов направления подготовки 43.03.01 - Сервис

(ЭЛЕКТРОННЫЙ ДОКУМЕНТ)

Методические указания по выполнению практических работ рассмотрены и утверждены на заседании кафедры лингвистики и межкультурной коммуникации

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И. о. зав. кафедрой ЛиМК

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СПИСОК РЕКОМЕНДУЕМОЙ ЛИТЕРАТУРЫ

## ВВЕДЕНИЕ

Методические указания предназначены для студентов 1 курса очной формы обучения, которыми они могут пользоваться при подготовке к практическим занятиям. Практические занятия это планируемая учебная, учебно-исследовательская, а также научно-исследовательская работа студентов, которая выполняется в аудиторное время под руководством преподавателя. В составе методических указаний к практическим занятиям предусмотрены рекомендации по подготовке к практическому занятию. При выполнении работы студенты могут использовать не только методические указания по решению задач, но и другие материалы учебно-методического комплекса.

Дисциплина «Иностранный язык в сфере профессиональной коммуникации» ориентирована на:

- \* развитие навыков понимания устной речи общей и деловой тематики, включая понимание речи носителей языка и восприятие речи с медиа-источников;
- \* понимание особенностей стилей общения в рамках деловых ситуаций и ситуаций повседневного общения;
- \* преодоление языкового барьера и улучшение навыков разговорного английского языка;
- \* повышение грамотности устной и письменной речи;
- \* расширение активного словарного запаса по тематике общего и профессионального английского языка по профилю подготовки;
- \* повышение общего уровня владения языком.

Таким образом, целью освоения дисциплины «Иностранный язык в сфере профессиональной коммуникации» является формирование у студентов компетенции УК-4 как основы профессиональной подготовки для реализации своих способностей в деловом общении на иностранном языке и готовности использовать их в профессиональной деятельности.

Процесс изучения дисциплины направлен на формирование компетенции УК-4 (Способность осуществлять деловую коммуникацию в устной и письменной формах на государственном языке Российской Федерации и иностранном(ых) языке(ах))

В результате освоения дисциплины обучающийся должен

Знать:

- лексику профессиональной направленности;
- нормы употребления лексики английского языка в профессиональной сфере;
- особенности грамматики профессионального английского языка;

Уметь:

- осуществлять профессиональную коммуникацию в устной и письменной формах на английском языке;
- читать и переводить специальную литературу для пополнения профессиональных знаний;

Владеть:

- навыками профессионального общения на английском языке;
- способами пополнения профессиональных знаний из оригинальных источников на английском языке.

## СОДЕРЖАНИЕ ПРАКТИЧЕСКИХ ЗАНЯТИЙ

### Раздел 1. The development of the Automobile industry. Развитие автомобильного промышленности.

#### Практическое занятие №1

**Тема занятия: The history of the Automobile. История автомобильного транспорта.**

**Цель:** Формирование коммуникативных компетенций, овладение лексикой и грамматикой.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

**The history of the Automobile.**

1. 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. He built a steam-driven engine which had three wheels, carried two passengers and run at maximum speed of four miles. The supply of steam lasted only 15 minutes and the carriage had to stop every 100 yards to make more steam.

2. In 1825 a steam engine was built in Great Britain. The vehicle carried 18 passengers and covered 8 miles in 45 minutes. However, the progress of motor cars met with great opposition in Great Britain.

3. In Russia there were cities where motor cars were outlawed altogether. When the editor of the local newspaper in the city of Uralsk bought a car, the governor issued these instructions to the police: «When the vehicle appears in the streets, it is to be stopped and escorted to the police station, where its driver is to be prosecuted».

4. From 1860 to 1900 was a period of the application of gasoline engines to motor cars in many countries. The first to perfect gasoline engine was N. Otto who introduced the four-stroke cycle of operation. By the time motor cars got a standard shape and appearance.

In 1896 a procession of motor cars took place from London to Brighton to show how reliable the new vehicles were.

The cars of that time were very small, two-seated cars with no roof, driven by an engine placed under the seat. Motorist had to carry large cans of fuel and separate spare tyres, for there were no repair or filling stations to serve them.

After World War 1 it became possible to achieve greater reliability of motor cars, brakes became more efficient. Multi-cylinder engines came into use; most commonly used are four-cylinder engines.

5. Gradually the development of vehicles driven by internal combustion engine – cars, as they had come to be known, led to the abolition of earlier restrictions. Huge capital began to flow into the automobile industry.

From 1908 to 1924 the number of cars in the world rose from 200 thousand to 20 million; by 1960 it had reached 60 million!

6. There are about 3,000 Americans who like to collect antique cars. They have several clubs such as Antique Automobile Club. Collectors can also advertise in the magazine published by their clubs. The best collection-100 old cars of great rarity – is in possession of William Harrah. He is very influential in his field. The value of his collection is not only historical but also practical: photographs of his cars are used for films and advertisements.

**Лексические единицы по теме:**

a magic wheel, the first traces, flying mechanical marvels, a machine moving under its own power, a jet of steam, to be constructed, to make up, to employ the muscular energy of the passengers, steam pressure, a double-walled boiler, vertical cylinders, a similar mechanism, regular public service.

### **Вопросы и задания:**

#### **1.Переведите на русский язык следующие слова и словосочетания:**

Vehicle, mechanical power, self-propelled, was constructed, a steam-driven engine, wheels, passengers, motor cars, issued, prosecuted, of gasoline engines, introduced the four-stroke cycle of operation, two-seated cars, efficient, international combustion engine, abolition, automobile industry, collect antique cars, advertisements.

#### **2. Закончите предложения, выбрав их из текста**

- 1) In ..... a steam engine was built in Great Britain.
- 2) From 1860 to 1900 was a period of the application...
- 3) The cars of that time were very small...
- 4) Multi-cylinder engines came into use, most commonly used are...
- 5) The best collection-100 old cars of great rarity –...

#### **3.Закончите предложения, используя следующие слова и выражения:**

**the piston, cranks and gears, 3 miles per hour, Greek and Roman bas-reliefs, passengers.**

1. This vehicle weighed 5 tons and had a maximum speed of around... .
2. The first name in the story of these public vehicles-powered by engines much improved in comparison with those of the first years of the century-is that of Jules Griffith, designer and constructor of a bus which was the first ever to be put into regular public service for the transport of ... .
3. In essence, this consisted of a piston moving in a cylinder, at one end of which was introduced caused the movement of ... .
4. In 1472 ,Roberto Valturio described a machine designed for war purposes which was to be moved by means of large windmills transmitting their motion through... .
5. They speak of fantastic carts capable of moving themselves along roads, and of flying mechanical marvels; while mythical chariots drawn by invisible horses may be seen in... .

#### **4. Составьте предложения из следующих слов и словосочетаний:**

1. two vertical cylinders ,suspended ahead of the single front wheel ,a double-walled boiler, from which steam passed to, and which moved pistons connected de con-rods, it had, and cranks to the single wheel.
2. out of which ,this consisted of, issued a jet of steam, anticipating the principle of, a hollow sphere, a modern jet engine.
3. it is possible, such an engine in the studies of Christian Huygens who,– although as a purely theoretical exercise-, internal combustion engine in history, to find the first idea of, in 1678 described, the first.
4. an Italian scientist from Pesaro, the first person, to consider using steam to propel a vehicle, was, who had invented, actuated by steam pressure, and who later, a similar mechanism for locomotion, suggested the possibility of using, perhaps, Giovanni Battista della Porta, a water pump.
5. through the centuries, of the idea and the dream, go back, which was to become, we, one of the man's greatest adventures, must, to find the first traces.

#### **5.Задайте 10 вопросов к тексту.**

#### **6. Собеседование по теме.**

### **Практическое занятие №2**

**Тема занятия: Ford Motor Company. Компания “Ford Motor”.**

**Цель:** Формирование коммуникативных компетенций, овладение лексикой и грамматикой.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

### **Ford Motor Company**

The founding of the Ford Motor Company was to have an importance in the field of motor cars, not only from the point of view of mass production, but above all because it highlighted, right from its beginning, the philosophy of the car for the masses. It's interesting to note that the same year of 1903 saw the birth of two companies – one in the Old World and one in the New – each representing a profoundly different technical, social, and economic evolution. On the one hand was the virtual creation of Rolls-Royce, which was to signify the standard of absolute perfection, and on the other the founding of Ford, which was to represent the opposite end of the scale – big- volume manufacture of products of low price and Spartan character. The Ford Motor Company was founded on the 16<sup>th</sup> June of 1903 with a capital of 150,000 dollars. Henry Ford became Vice-President and also assumed the post of Chief Engineer and General Manager. Among the shareholders were the Dodge brothers, ex-mechanics, who had opened a workshop in Detroit after having for some years manufactured bicycles which used ball bearings of their own design.

The beginning was not easy. There was strong competition from such established companies as, Oldsmobile, Reo and Packard. Ford distinguished his models in a way which was unique in those days when other manufacturers were applying names intended to impress the public with the power of their engines or with some other characteristic that would appeal to the motorist's taste. He gave them single letters. Model "A" of 1904 and model "B" and "C" of 1905 and etc. 1908, the year that introduced one of the most famous cars ever, the Ford model "T", the "Lizzie" for millions of Americans –the tin Lizzie, as it was called by rivals in its early days, until its great commercial success made such criticism ridiculous. Its official birthday was 1<sup>st</sup> October, 1908. That date represented the culmination of months of hard work by everyone in the organization. The most interesting technical features were in the ignition and transmission. Ignition was by means of a simple form of flywheel magneto. The revolutionary transmission system of the model "T" was the work of Ford's own designers. It consisted of a simple and robust two- speed gearbox without the conventional clutch- made possible by the low maximum speed, power, and engine rpm of 1,500-which Ford had wisely insisted upon to ensure long engine life. The gear change was by foot pedal and quite foolproof. The model "T" was sold at \$500 until 1916, when a series of reductions brought the price down to \$400. These were the irresistible factors which explain this commercial and mechanical phenomenon which reached sales of 15,000,000 units in almost 20 years when no other manufacturer could match such sales, and such growth.

**Лексические единицы по теме:**

to highlight, perfection, to assume, a shareholder, a workshop, to appeal, a rival, ridiculous, flywheel, magneto, robust, foolproof, irresistible.

**Вопросы и задания:**

**1. Прочтите второй абзац и найдите в тексте синонимы к следующим словам:**

simple-	give away -
outstanding-	gain-
funny-	fascinating-
well-known-	
cut-	

**2. Прочтите второй абзац и найдите в тексте антонимы к следующим словам:**

easy-	interesting-
strong-	robust-
single-	conventional-
early-	low-

unique-

**1<sup>st</sup> October 1908, the organization, quite foolproof, easy, to \$400.**

1. The beginning was not... .
2. Its official birthday was... .
3. That date represented the culmination of months of hard work by everyone in ...
4. The gear change was by foot pedal and ... .
5. The model “T” was sold at \$500 until 1916, when a series of reductions brought the price down ...

1 strong competition, from such established companies as, there was, Oldsmobile, Reo and Packard.

2. when a series of reductions, was sold at \$500 until 1916, brought the price down to \$400, the model “ T”.
3. That date, by everyone in the organization, represented the culmination of months of hard work.
4. quite foolproof ,the gear change, was by foot pedal and.
5. in the ignition ,the most interesting technical features and transmission ,were.

The Ford Motor Company was founded on the 16<sup>th</sup> June of 1903 with a capital of 150,000 dollars.

Henry Ford became President and also assumed the post of Chief Engineer and General Manager.

The revolutionary transmission system of the model “T ” was the work of Duryea’s own designers.

The most interesting technical features were in the ignition and transmission.

That date represented the culmination of years of hard work by everyone in the organization.

**6. Найдите в тексте слова, которые соответствуют следующим определениям и в соответствии с прочитанным текстом письменно составьте с ними предложения:**

a gradual development;

the highest degree of perfection;

the owner of one or more shares in a company;

a room or building in which manufacturing or other forms of manual work are carried on;

a small electric generation in which the magnetic field is produced by a permanent magnet.

**7. Каждое слово в английском языке имеет несколько значений, которые зависят от контекста и ситуации, в которых оно применяется, также оно может быть как глаголом, так и существительным, поэтому вам предлагаются следующие задания:**

- пользуясь англо-русским словарем, изучите статьи о словах «impress » и «scale»;
- выпишите сложные слова и производные, приведенные в статьях,
- укажите количество определений, приведенных в статьях;

**8.Соедините слова левой колонки с подходящим определением в правой и составьте свои предложения с этими словами:**

price a position to which a person is appointed or elected;

post the final, highest, or decisive point,

**culmination** the act or an instance of making an unfavourable or severe judgment, comment, etc.;

criticism      the sum in money or goods for which anything is or may be bought or sold;

transmission the act or process of transmitting.

**9. Письменно кратко изложите содержание текста на английском языке.**



### **Практическое занятие №3**

**Тема занятия: General Motors Corporation. Корпорация “General Motors”.**

**Цель:** Формирование коммуникативных компетенций, овладение лексикой и грамматикой.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

#### **General Motors Corporation.**

The second big American motor company, General Motors – for long the largest and most powerful commercial organization in the world – was founded in 1908, the result of the patient, tenacious work of another outstanding individual, William Crapo Durant. He, like Ford, had begun in the early years of the 20<sup>th</sup> century but the aims and methods of the two men were quite different. Ford was in essence a technician, with clear, precise commercial ideas stemming from a real passion for the motor car. Durant was a business man who, like others of the time, had seen the future possibilities of the car and who had decided to reach the highest levels of the boom whose advent he foresaw so clearly.

David Dunbar Buick decided to build motor cars. His prototype for a light car created interest, it had a well-balanced engine, a pleasing appearance, and certain good technical details, notably pushrod-operated overhead valves. The financial aspects of the company, however, were not equally good. The Buick Manufacturing Company, in fact, became the Buick Motor Car Company after only one year. It was in this way that Durant, in November, 1904, was able to get his hands on the Buick business. The impulse that Durant gave to the Buick business is shown by the production figures, they passed from 28 machines, in 1904, through 626 in 1905, to 2,300 in 1906. Durant did not waste any time. He went so far as to found the new company first, with the grandiose title of International Motor Company, and then sent his emissaries to talk to the major competitors. Ford, obviously the prime objective of this larger scale operation, gave a decisive ‘no’. Reo and Maxwell-Briscoe also refused. Durant changed his tactics at once and on 16<sup>th</sup> September, 1908, founded a second company- General Motors with an initial capital of \$ 12,500,000. This company was given the task of acquiring motor companies which found themselves in difficulty, including those manufacturing accessories. The first companies absorbed by General Motors had already been previously incorporated by the International Motor Co. They were Dow, Ewing Automobile, Carter Car Company and others forgotten today. Next Durant bought the Briscoe Company, on 28<sup>th</sup> July, 1909, he bought Cadillac for \$ 3,400,000. Five years later, in 1915 Durant was once triumphantly at the head of General Motors, thanks to his success with a new name- Chevrolet. He was finally to leave the company in 1920 when another crisis made GM shares fall from \$400 a share to \$12 even after this he was to figure largely in the activities of other new makes-Durant, Dort, Star and Mason- until the crisis of 1929 finally pushed him into obscurity. He died a largely forgotten man in 1947.

**Лексические единицы по теме:**

outstanding individual, the aim, a real passion, foresee, a valve, the grandiose title, emissary, to acquire, to absorb, incorporated, obscurity, to push.

**Вопросы и задания:**

**1. Закончите предложения, используя следующие слова и выражения:**

**any time, equally good, only one year, the motor car, motor cars.**

1. Ford was in essence a technician, with clear, precise commercial ideas stemming from a real passion for ... .

2. Durant did not waste ... .

3. David Dunbar Buick decided to build ... .

4. The financial aspects of the company, however, were not ... .

5. The Buick Manufacturing Company, in fact, became the Buick Motor Car Company after ... .

**2. Составьте предложения из следующих слов и словосочетаний:**

1 in this way, in November, 1904, get his hands on ,the Buick business, It was, that Durant, was able to.

2. He, a largely forgotten man, in 1947, died.

3. This company ,the task of acquiring motor companies, including those manufacturing accessories, was given ,which found themselves in difficulty.

4. through 626 in 1905, to 2,300 in 1906, that Durant gave to, the Buick business, they passed from 28 machines, in 1904, the impulse, is shown by the production figures.

5. had begun in the early years of the 20<sup>th</sup> century, like Ford, but the aims and methods of the two men, he, were quite different.

**3..Письменно переведите абзац:**

David Dunbar Buick decided to build motor cars. His prototype for a light car created interest, it had a well-balanced engine, a pleasing appearance, and certain good technical details, notably pushrod-operated overhead valves. The financial aspects of the company, however, were not equally good. The Buick Manufacturing Company, in fact, became the Buick Motor Car Company after only one year. It was in this way that Durant, in November, 1904, was able to get his hands on the Buick business. The impulse that Durant gave to the Buick business is shown by the production figures, they passed from 28 machines, in 1904, through 626 in 1905, to 2,300 in 1906. Durant did not waste any time. He went so far as to found the new company first, with the grandiose title of International Motor Company, and then sent his emissaries to talk to the major competitors.

**XIV. Согласитесь или не согласитесь со следующими высказываниями. Обоснуйте свое мнение, пользуясь текстом.**

Durant was in essence a technician, with clear, precise commercial ideas stemming from a real passion for the motor car.

David Dunbar Buick decided to build motor cars.

It was in this way that Durant, in November, 1904, was able to get his hands on the Ford business.

Ford, obviously the prime objective of this larger scale operation, gave a decisive 'yes'.

The financial aspects of the company, however, were equally good.

**4.Найдите в тексте слова, которые соответствуют следующим определениям и в соответствии с прочитанным текстом письменно составьте с ними предложения:**

an arrival or coming, especially one which is awaited;

an agent or messenger sent on a mission;

a supplementary part or object, as of a car, appliance, etc;

a piece of tactics, tactical move;

to see or know beforehand;

**5.Каждое слово в английском языке имеет несколько значений, которые зависят от контекста и ситуации, в которых оно применяется, также оно может быть как глаголом, так и существительным, поэтому вам предлагаются следующие задания:**

-пользуясь англо-русским словарем, изучите статьи о словах « to pass » и «leave»;

-выпишите сложные слова и производные, приведенные в статьях,

- укажите количество определений, приведенных в статьях;

-выпишите из текста предложения с данными словами и укажите, какое из значений они имеют в данном контексте.

**6.Соедините слова левой колонки с подходящим определением в правой и составьте свои предложения с этими словами:**

1.prototype

1. the act of producing

2.production

2. a person or thing that serves as an example of a type

3. competitor

3. the state or condition of being possible

- 4.possibility                                      4. a person, group, team, firm that vies or competes  
5. operation                                      5. the act, process, or manner of operating  
7. **Задайте 10 вопросов к тексту.**

#### **Практическое занятие №4**

**Тема занятия: Объектный инфинитивный оборот. Complex Object.**

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и профессионального английского языка.

**знать:** - особенности грамматики профессионального английского языка;

**уметь:** читать и переводить специальную литературу для пополнения профессиональных знаний;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

**Объектный Инфинитивный Оборот** — это сочетание дополнения (существительное в общем или местоимение в объектном падеже) и инфинитива.

**Объектный Инфинитивный Оборот** стоит после сказуемого главного предложения, выраженного глаголами:

- а) физического восприятия (**e.g.:** to see, to hear, to watch, to notice, to feel)
- б) желания (**e.g.:** to want, to wish, to expect, should/would like)
- в) умственного восприятия (**e.g.:** to consider, to find)
- г) принуждения, разрешения, просьбы (**e.g.:** to order, to advise, to tell, to make (заставлять), to have (заставлять), to allow, to let)

**Примечание: 1)** после глаголов физического восприятия, а также после глаголов **to make, to let, to have** инфинитив употребляется без частицы **“to”**;

**2)** после глагола **to help** инфинитив может употребляться без или с частицей **“to”**.

**Перевод:** придаточным предложением с союзами **«чтобы», «что», «как»**.

**Пример:** I want you to translate this text at home.

Я хочу, **чтобы вы перевели** этот текст дома.

#### **for + инфинитив**

Инфинитив может иметь собственное подлежащее с предлогом **«for»** (**«for - construction»**), если подлежащее инфинитива не является подлежащим всего предложения.

Эта конструкция переводится придаточным предложением с союзом **«чтобы»** или инфинитивом, если она стоит после безличного предложения.

**Вопросы и задания:**

**1. Переведите предложения на русский язык, обращая внимание на объектный инфинитивный оборот, выделенный жирным шрифтом.**

- 1. I want my family to be united.
- 2. I never expected you to help me so much.
- 3. We don't really expect you to pass the exam.
- 4. **Would you like to go** now?
- 5. She didn't allow us to smoke in the room.
- 6. Everybody considered her to be very reliable.
- 7. We found them to have gone.
- 8. The doctor advised me to take a course of antibiotics.
- 9. I never heard her sing.
- 10. We saw the child take a step then fall.
- 11. I'll have you do that.
- 12. The chief told his secretary to type the letter at once.
- 13. Can you help me carry the case?

**2. Замените методом подбора части предложения на русском языке соответствующими частями на английском языке, данными под буквами a-f.**  
**Образец:** 6- f ( I'd like you to feel comfortable.)

1. We expected (что Том опоздает).
2. Would you like me (чтобы я пошел) here ?
3. He doesn't want (чтобы кто-нибудь знал).
4. Do you want (чтобы мы пошли) with you ?
5. I want (чтобы ты сказал) the truth.
6. I'd like (чтобы вы чувствовали себя) comfortable.

a you to tell  
b me to go 32  
c anybody to know  
d Tom to be late  
e us to come  
f you to feel

**3. Выберите правильный вариант.**

**Образец:** I saw the boy *to cross/cross* the road.

I saw the boy *cross* the road.

1. The customs officer made the woman *to open/open* her case.
2. Stuffy weather makes me *feel/to feel* tired.
3. Have you ever heard her *sing/to sing*?
4. **I saw the boy *to cross/cross* the road.**
5. Let me *introduce/to introduce* you to the team.
6. Let me *to carry/carry* your bag for you.
7. I have never seen you *to ride/ride* a bike.

**4. Переведите предложения на русский язык.**

1. **For evil to succeed** it is only necessary **for the good to do nothing**.
2. We bought a cage **for John to keep** his hamster in.
3. Their task is **for the team to win**.
4. It is difficult **for me to keep up** a friendship.
5. It was better **for his family to change** the place of living.
6. We sent a special invitation **for her to come** to the party.
7. That was **for him to find out**.
8. He waited **for her to speak**.
9. The best thing **for you to do** is to leave.
10. That is a very good book **for you to read**.

**5. Переведите предложения на английский язык с объектным инфинитивным оборотом.**

1. **Чтобы быть там во время, мы должны поторопиться.**
2. Он был слишком уставшим, **чтобы помочь нам.**
3. У вас есть что-нибудь, **что нужно вносить в декларацию?**
4. Это хороший дом, **который можно купить.**
5. Я попросил моего друга **помочь мне.**
6. Он хороший друг, **которого можно пригласить.**
7. Он был первым, **кто пришел .**
8. Он **уйдет последним.** (to leave)
9. Я хочу, **чтобы ты запомнил.**
10. Я хочу, **чтобы тебя запомнили**
11. Я видел, **как он вынул ручку из кармана.**
12. Я чувствовал, **что он курит.**
13. Он чувствовал, **что они скоро вернутся.**
14. Они думают, **что он хороший водитель.**

15. Он приказал, чтобы принесли еще одну бутылку вина.
16. Известно, что он придет завтра.
17. Говорили, что она придет завтра.
18. Ему велели помочь матери.
19. Говорили, что он помогает матери.
20. Кажется, что он знает этого человека.

### **Практическое занятие №5**

**Тема занятия:** The first Motor Companies in Great Britain. Первые автомобильные компании в Великобритании.

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и профессионального английского языка.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

#### **The first Motor Companies in Great Britain**

In 1903 the first car to be built by John Siddeley appeared. At a much later date to be honored by knighthood, and later to become lord Kenilworth, he was an engineer whose original ideas were to have considerable influence on the European motor industry. He had started with the Wolseley Company in 1899, where Lord Austin also worked to great effect, and in 1903 the first of his designs was produced. This was a car with a vertical single cylinder, water-cooled engine having a three-speed gearbox and rear transmission by chains. Later Siddeley founded his own company, which was to win international fame in the period from 1919 onwards for producing cars with two outstanding characteristics – high quality and competitive price. They were some of the first examples in Europe to exploit the use of light alloys. The big Siddeley Special of the pre-second war era was a notable example of this technique. In 1903 another English firm, Standard, launched a 6 hp single-cylinder with an inclined steering column and cardan shaft transmission. It had a three-speed gearbox, drum brakes acting on the rear wheels, and suspension by semi-elliptical springs front and rear. Only a limited number of this type was built

The Austin firm was founded in 1905. Herbert Austin was born in 1886 at Little Missenden in Buckinghamshire, and at 18 emigrated to Australia, where he worked in a foundry. Back in England, Austin built several prototype cars, largely with his own hands, a light tricycle in 1895 and the following year a light car. Austin began his own production of motor cars at the Longbridge works, Birmingham, in 1906, with the founding of the Austin Motor Company. His first car was a 25/30 hp four – cylinder, then followed a variety of types, so much so that by 1908 there were no fewer than 17, ranging in hp from 17 to 50. In 1909 he introduced a single-cylinder 7 hp- one of the first utility cars- and in 1922 the famous Austin Seven.

In 1904 the Vauxhall Iron Works, beside the Thames in London, produced a 6 hp light car of modest performance – top speed under 20 mph – but which exhibited a number of interesting features. It had a horizontal single-cylinder engine of 1,029 cc with an automatic inlet valve and a carburetor whose air intake was preheated from the exhaust pipe and manifold. Variation of speed was not obtained by controlling a carburetor butterfly throttle but by varying tension of the automatic inlet valve spring. Cooling was by water with tubular radiator and water pump, ignition was by battery and coil, with a hand advance control. The car had two forward speeds and reverse, and the gear lever was mounted on the steering column. This novel little car incorporated a free-wheel device in the wheel hubs.

In 1906 and 1907 Daimler of Coventry introduced two new luxury models, the 35 hp and the Open Tourer. The former had an engine of about nine litres with side-valves and high tension ignition, a four- speed gearbox, final drive by chain, and semi-elliptical suspension. The Open

Tourer had similar mechanical characteristics but a 10,604 cc engine of 45 hp rating. These were to become famous and successful models.

**Лексические единицы по теме:**

a commercial tractor, the embryonic industry, electricity, a steam lorry, to reappear, electric vehicles, practical application, short distance, "electric tandem", to cover, to introduce, a single carburetion, indication, the basic elements, to create.

**1. Закончите предложения, используя следующие слова и выражения:**

**a hand advance control, by chains, the steering column, of light alloys, successful models.**

1. This was a car with a vertical single cylinder, water-cooled engine having a three-speed gearbox and rear transmission ... .
2. They were some of the first examples in Europe to exploit the use ... .
3. Cooling was by water with tubular radiator and water pump, ignition was by battery and coil, with ... .
4. The car had two forward speeds and reverse, and the gear lever was mounted on ... .
5. These were to become famous and ... .

**2. Составьте предложения из следующих слов и словосочетаний:**

1. competitive price, later Siddeley, which was in the period from 1919, onwards for producing cars, high quality and, founded his own company, to win international fame, with two outstanding characteristics –.
2. Austin, his own production of motor cars, at the Longbridge works, Birmingham, in 1906, the Austin Motor Company, began, with the founding of.
3. The car, and the gear lever, was mounted on the steering column, had two forward speeds and reverse.
4. This novel, incorporated a free-wheel device, little car, in the wheel hubs.
5. Only a limited number was built, of this type.

**3. Письменно переведите абзац:**

The Austin firm was founded in 1905. Herbert Austin was born in 1886 at Little Missenden in Buckinghamshire, and at 18 emigrated to Australia, where he worked in a foundry. Back in England, Austin built several prototype cars, largely with his own hands, a light tricycle in 1895 and the following year a light car. Austin began his own production of motor cars at the Longbridge works, Birmingham, in 1906, with the founding of the Austin Motor Company. His first car was a 25/30 hp four – cylinder, then followed a variety of types, so much so that by 1908 there were no fewer than 17, ranging in hp from 17 to 50. In 1909 he introduced a single-cylinder 7 hp- one of the first utility cars- and in 1922 the famous Austin Seven.

**4. Согласитесь или не согласитесь со следующими высказываниями. Обоснуйте свое мнение, пользуясь текстом.**

Herbert Austin was born in 1886 at Little Missenden in Buckinghamshire, and at 18 emigrated to Australia, where he worked in a factory.

In 1903 the first car to be built by John Siddeley appeared.

They were some of the first examples in the USA to exploit the use of light alloys.

In 1903 another English firm, Standard, launched a 6 hp single-cylinder with an inclined steering column and cardan shaft transmission.

Later Siddeley founded his own company, which was to win international

fame in the period from 1819 onwards for producing cars with two outstanding characteristics – high quality and competitive price.

**5. Найдите в тексте слова, которые соответствуют следующим определениям, и в соответствии с прочитанным текстом письменно составьте с ними предложения:**

the order, dignity, or rank of a knight;

a period of time considered as being of a distinctive;

a practical method, skill, or art applied to a practical task;

a passage, valve, or part through which a substance, for example a fluid, enters a device or machine;

the act of stretching or the state or degree of being stretched.

**6.Соедините слова левой колонки с подходящим определением в правой и составьте свои предложения с этими словами:**

- |          |  |
|----------|--|
| 1.chain  | 1.a thing or a quantity taken in;  |
| 2. front | 2. the back or hind part;  |
| 3. rear  | 3.a flexible length of metal links, used for confining, connecting, pulling, etc.; |
| 4.intake | 4. the act of quality of acting or moving fast, rapidly.                           |
| 5. speed | 5.that part or side that is forward, prominent, or Most often seen or used.        |

**7.Будьте готовы к собеседованию по теме.**

### **Практическое занятие №6**

**Тема занятия: Complex Subject. Субъектный инфинитивный оборот.**

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и профессионального английского языка.

**знать:** - особенности грамматики профессионального английского языка;

**уметь:** читать и переводить специальную литературу для пополнения профессиональных знаний;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

**Субъектный Инфинитивный Оборот** — это сочетание подлежащего и инфинитива.

**Сказуемое между ними обычно:**

**1** - в пассивном залоге (Passive Voice)

**e.g:** is said (говорят), is known (известно), is believed (считают, полагают), is expected (ожидают, ожидается), is reported (сообщают, сообщается).

**2** - выражено глаголами: seem (кажется), happened (случилось так, что), appeared (оказалось, что), proved (оказалось, что), is likely (вероятно), is unlikely (вряд ли).

**Перевод:**

**1 способ** - Начинается со сказуемого. Его чаще переводят в 3 лице множественного числа.

Все остальное переводят придаточным предложением с союзом «что».

(He **is said to ...** - Говорят, что он...)

**2 способ** - Все предложение переводят простым предложением с вводным словом.

(He **is said to ...** - Он, говорят...)

**Пример: He is said to be the best student in the group.**

1) Говорят, что он является лучшим студентом в группе.

2) Он, говорят, является лучшим студентом в группе.

**Вопросы и задания:**

**1. Переведите предложения на русский язык, обращая внимание на субъектный инфинитивный оборот, выделенный жирным шрифтом.**

1. This old man is said **to be** 100 years old.
2. She is said **to work** long hours every day.
3. The strike is expected **to end** soon.
4. The man is believed **to be wearing** a black sweater and blue jeans.
5. Three people are reported **to have been injured** in the accident.
6. The Moscow State University is known **to be** the oldest one in the country.
7. The plane is supposed **to arrive** at 9.30.
8. The students were supposed **to translate** all the text.
9. He is sure **to be** the best student in the group.

10. **The thieves** are likely **to have got** in through the window.
11. **You** are unlikely **to meet** them at the conference.
12. **I** seem **to have lost** the tickets.
13. **Our new flat** appeared **to be** rather large and comfortable.
14. **This project** proved **to be completed** on schedule.

**2. Переведите части предложения с помощью субъектного инфинитивного оборота.**

1. Считают, что она the best singer.
2. Известно, что он the best writer.
3. Видели, как он вошел the house.
4. Предполагалось, что я встречу him.
5. Говорят, он вернулся at last.
6. Сообщают, что он пишет a new novel.
7. Он, говорят, пишет poems.
8. Ожидается, что корабль прибудет in two days.

**3. Перепишите предложения, подчеркните инфинитив. Переведите предложения на русский язык.**

Example: **To solve** the problem is very important. Решить эту проблему – очень важно.

1. The problems to be solved are of great importance.
2. To make this experiment you should use the new device.
3. They seem to have made a mistake in their measurements.
4. To study this phenomenon requires much knowledge.

**4. Перефразируйте следующие предложения, употребив субъектный инфинитивный оборот. Напишите их и переведите на русский язык.**

Example: It is expected that the experiment will be over soon. – The experiment is expected to be over soon. – Предполагают, что эксперимент скоро закончится.

1. It is reported that the research has been carried out successfully.
2. It is said that optical technology is cost-effective and versatile.
3. It was thought that the chemicals convey important information to the brain.
4. It is expected that the new method will appear in future.

**5. Переведите предложения ,в которых субъектный инфинитивный оборот употребляется :**

A) THE VERBS *to see / hear / notice / think / consider / believe / expect / suppose / know / say / report / announce* IN THE PASSIVE:

1. He was thought to be an honest man.
2. Moscow is known to be on of the largest cities in the world.
3. The performance is expected to be a great success.
4. He is supposed to have finished the translation.
5. He is known to be working at a new project.
6. She is known to be a talented mathematician.
7. She is supposed to be engaged to him.
8. He is believed to be a great scientist.
9. He is thought to live in Moscow.
10. This experiment is said to have been completed.
11. She is said to have written a good article.
12. The expedition is thought to have reached the Nile.
13. The state of his health is considered to be normal.
14. This fruit is known to be grown in Africa.
15. The student is known to have been studying English for three years.

B) THE VERBS *to seem / appear / prove / turn out / happen* IN THE ACTIVE:

1. Many tourists appeared to know English.
2. This task turned out to be very difficult.
3. Everybody seems to like him.
4. The boy seemed to be sleeping.
5. The student appear to this subject well.
6. he didn't prove to be a good student.
7. He happened to know her cousin.
8. I happened to be there.
9. She doesn't seem to know the rule.
10. They seem to be tired.
11. he seems to have been translating something for two hours.
12. She seemed to be speaking to herself.
13. She appeared to be a good teacher.
14. Nobody appears to have mentioned his name.
15. Her house turned out to be in the center of the city.

C) THE WORD GROUPS *to be likely / unlikely / certain / sure* :



1. She is unlikely to improve the situation. 2. The article is likely to be published in August. 3. These books are sure to be useful. 4. This problem is sure to be decided soon. 5. They are likely to have accepted her offer. 6. Ann is sure to come tomorrow. 7. This woman is sure to be very ill. 8. He is certain to agree with you. 9. She is unlikely to explain her behavior. 10. Jane is sure to return soon. 11. He is certain to call me in the evening. 12. The question is likely to be discussed today. 13. They are sure to bring all necessary books. 14. I am likely to miss the train. He is unlikely to have hidden my things.

#### **6. Переделайте сложные предложения в предложения с субъектным инфинитивным оборотом:**

**Example :** *It is said that she has gone away.*

*She is said to have gone away.*

A) 1. It is said that the actors have arrived. 2. It is supposed that the experiment was completed last week. 3. It is expected that they have been working for a month. 4. It is considered that he is the best student in the group. 5. It is believed that the situation will change. 6. It is reported that she is returning on Monday. 7. It is thought that she has written a good report. 8. It is believed that he is making new experiments. 9. It is supposed that she is a woman of forty. 10. It is known that he wants to leave the city. 11. It is heard, that she is a famous actress. 12. It is announced that everybody has agreed to come. 13. It is supposed that children are at school. 14. It is known that this article is written by an expert. 15. It is expected that everybody will get a 5.

B) 1. It seemed that he understood the question. 2. It appeared that Tom was talking to her. 3. It doesn't seem that you understand the problem. 4. It happened that he was at the conference. 5. It seems that you don't believe me. 6. It happened that she was at home. 7. It turned out that the work was not easy. 8. It appears that they know everything. 9. It turned out that the weather forecast was correct. 10. It seemed that he didn't recognize me. 11. It seemed that she was speaking to herself. 12. It happened that his parent had come. 13. It turned out that he lived far away. 14. It proves that he is a good person. 15. It seems that you are sleeping.

C) 1. It is sure that he will come. 2. It is unlikely that they will get married. 3. Certainly, she will get a 5. 4. It is likely that they are here. 5. I am sure that I have been here before. 6. It is unlikely that he will agree. 7. It is sure that he will help you. 8. Certainly, they have seen us there. 9. It is unlikely that he noticed me. 10. It is certain that he is a real friend. 11. It is likely that she is an actress. 12. It is sure that he lives here. 13. Certainly, he is a rich man. 14. Surely, he studies with us. 15. I am sure that I have never seen that person ever before.

#### **7. Переведите слова в скобках:**

1. He is thought (был) a very good student. 2. They are expected (пришлют) a reply today. 3. The new instrument is supposed (поможет) scientists solve many problems. 4. The results of the experiments are believed (были) very good. 5. She is known (интересовалась) in the subject. 6. He seemed (пришел) in time for the lecture. 7. She proved (закончила) her article last month. 8. It seems (шел дождь) all the day. 9. They turned out (жили) there. 10. He happened (встречал) her several times. 11. You are sure (получишь) a good mark. 12. They are unlikely (сдадут) the exam. 13. She is certain (посетит) you. 14. I am likely (сделаю) everything in time. 15. The goods are unlikely (будут доставлены).

#### **8. Переведите с русского на английский:**

A) 1. Говорят, что он закончил новый роман. 2. Предполагается, что это открытие очень важно. 3. Считается, что он лучший специалист. 4. Сообщают, что погибло 10 человек. 5. Известно, что он крупный математик. 6. Ожидается, что договор будет подписан. 7. Сообщают, что экспедиция уже вернулась. 8. Не ожидали, что снег выпадет в ноябре. 9. Говорят, что он в Москве. 10. Предполагалось, что мы встретимся в 7. 11. Считается, что сейчас хорошая погода для урожая. 12. Известно, что Китай - очень населенная страна. 13. Думали, что это он сделал. 14. Ожидают, что самолет прибудет вечером. 15. Видно было, как они скрылись.

В) 1. Кажется, он много знает. 2. Оказалось, что он большой специалист. 3. Оказалось, что он прав. 4. Кажется, дождь начинается. 5. Оказалось, что они живут рядом. 6. Он, кажется, очень добрый человек. 7. Она оказалась одной из самых способных. 8. Кажется, кто-то идет. 9. Они, оказывается, уже были здесь. 10. Оказалось, что все получили пятерки.

С) 1. Вероятно, эту проблему будут обсуждать. 2. Наверное, мы встретим их там. 3. Он непременно получит премию. 4. Этот вопрос вряд ли будет интересен. 5. Похоже, она не придет. 6. Я точно увижу тебя завтра. 7. Товары, вероятно, будут доставлены в срок. 8. Маловероятно, что они закончат свою работу. 9. Вряд ли он примет участие в конференции. 10. Он, по-видимому, устал. 11. Я, скорее всего, буду дома в это время. 12. Этот опыт, наверное, будет успешным. 13. Я точно ничего не видел. 14. Скорее всего данный дом был построен недавно. 15. Ему наверняка понравится новая работа.

Д) 1. Говорят, что экспедиция собрала интересный материал. 2. Вряд ли он сделал это. 3. Полагают, что это изобретение может помочь нам. 4. Она оказалась опытным преподавателем. 5. Я случайно встретил ее на улице. 6. Он, кажется, уехал на юг. 7. Как сообщают, конференция будет завтра. 8. Как известно, это вещество поглощает световые лучи. 9. Она, наверное, не любит музыку. 10. Предполагается, что в нашем городе построят новый дом. 11. Ожидается, что в этом году зима наступит рано. 12. Студенты, наверное, получили стипендию. 13. Все, казалось, были удивлены. 14. Известно, что у нее другое мнение.

## **Раздел 2 Automobile production. Автомобильное производство.**

### **Практическое занятие №7.**

**Тема занятия: Different kind of land transport. Виды наземного транспорта.**

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и делового английского языка.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

### **Теоретическая часть:**

#### **Different kind of land transport**

What was the reaction of the people after the invention of the steam engine?

In Washington the story is told of the Patent Office who in the early thirties of the last century suggested that the Office be closed because «everything that could possibly be invented had been invented». People experienced a similar feeling after the invention of the steam engine.

But there was a great need for a more efficient engine than the steam engine, for one without a huge boiler, an engine that could quickly be started and stopped. This problem was solved by the invention of the internal combustion engine.

Who introduced the first cheap motor car?

The first practical internal combustion engine was introduced in the form of a gas engine by the German engineer N. Otto in 1876.

Since then motor transport began to spread in Europe very rapidly. But the person who was the first to make it really popular was Henry Ford, an American manufacturer who introduced the first cheap motor car, the famous Ford Model «T».

When did diesel-engine Lorries become general?

The rapid development of the internal combustion engine led to its use in the farm tractors, thereby creating a revolution in agriculture. The use of motor vehicles for carrying heavy loads developed more slowly until the 1930s when diesel-engined Lorries became general.

The motor cycle steadily increased in popularity as engines and tyres became more reliable and roads improved. Motor cycles were found well suited for competition races and sporting events and were also recognized as the cheapest form of fast transport.

When were the trams introduced first?

Buses were started in Paris in 1820. In 1828 they were introduced in London by George Shillibeer, a coach builder who used the French name Omnibus which was obtained from the Latin word meaning «for all». His omnibuses were driven by three horses and had seats for 22 passengers. Then in the 20<sup>th</sup> century reliable petrol engines became available, and by 1912 the new motor buses were fast replacing horse-driven buses.

Trams were introduced in the middle of the 19<sup>th</sup> century. The idea was that, as the rails were smoother than the roads, less effort was needed to pull a tram than a bus. The first trams were horse-drawn but the later trams were almost all driven by electricity. The electric motor driving the tram was usually with electric current from overhead wires. Such wires are also used by trolleybuses, which run on rubber tyres and do not need rails.

Another form of transport used in London, Paris, Berlin, Moscow, St.Petersburg, Kiev and some other crowded cities is the underground railway.

London's first underground railway of the «tube» type was opened in 1863, the Moscow underground in 1935.

What do the longest oil pipe-lines connect?

The pipe-lines, which were in use by the ancient Romans for carrying water supplies to their houses, are now mainly used to transport petroleum. The first pipe-line of this kind was laid in Pennsylvania, the United States, in 1865.

Some of the longest oil pipe-lines connect oil-fields in Iraq and near the Persian Gulf with ports on the Mediterranean coast. A famous Pipe-line Under the Ocean was laid across the English Channel in 1944.

What are the cableways used for?

A form of transport which is quite common in some mountainous parts of the world, especially in Switzerland, is the aerial cableway. Cableways are used at nearly all winter sport centers to pull or carry skiers to the top of the slopes. Cableways are used by many Alpine villages which lie high up the mountain-sides for bringing up their supplies from the valley below.

#### **Лексические единицы по теме:**

A technician, a specialist in automobile industry, the production of the automobile, designing, working out the technology of manufacturing processes, laboratory tests, road tests, mass production, high efficiency, long service life, driving safety, ease of maintenance, rigid quality control, rapid acceleration, smooth-acting clutch, silent gearbox, dependable brakes, dependable steering system, the automobile construction college, up-to-date demands (requirements).

#### **Вопросы и задания:**

##### **1. Распределите правильно слова, в соответствии с развитием транспорта**

Omnibus, cableway, steam engines, pipe-lines, motor cars, diesel engines

##### **2. Найдите в правой колонке русские эквиваленты английских слов и словосочетаний:**

Invention of the steam engines усилие

efficient engine дизельный двигатель

internal combustion engine. омнибус

motor transport изобретение парового двигателя

The rapid development бензин для транспорта

diesel-engine троллейбусы

Trams продуктивный двигатель

Omnibuses связь с нефтяной сферой

horse-driven buses. двигатель внутреннего сгорания

Effort моторный транспорт

The electric motor трамвай

trolleybuses, лошадиная сила  
pipe-lines электрический мотто  
transport petroleum. трубопровод  
connect oil-fields бензин

### **3. Закончите предложения, выбрав их из текста**

1. People experienced a similar feeling after the....
2. The first practical internal combustion engine was introduced in the form of a gas engine by...
3. The use of motor vehicles for carrying heavy loads developed more slowly until...
4. The first trams were horse-drawn but the later trams were...
5. The first pipe-line of this kind was laid...
6. A form of transport which is quite common in some mountainous parts of the world, especially in Switzerland, is...

### **4. Задайте вопросы к предложениям.**

1. I study at the automobile construction college.
2. After graduating from the college I'll become a specialist in automobile construction.
3. I'll deal with manufacturing automobiles.
4. The production of the automobiles comprises the following phases: designing, working out technological processes, laboratory and road tests and mass manufacturing.
5. The automobile must meet up-to-date requirements.
6. The car must have high efficiency, long service life, pleasant appearance and driving safety.
7. The car must have smooth-acting clutch, silent gearbox, dependable braking and steering systems, dependable ignition system.

### **5. Найдите данные слова в тексте и уточните их значения по контексту:**

module, robot, to identify, manipulator, electro physical, electrochemical, unique, rotor, line, productivity, to reserve, criteria, to optimize, vacuum, plasma, component, nitride, carbide, titanium, apparatus.

### **6. Найдите в тексте эквиваленты для следующих русских словосочетаний:**

срок службы, передовые методы, электрофизическая обработка, модуль станка, система проектирования, составы из твердых сплавов, методы вакуумной плазмы, упрочнение деталей машин, гибкое производство, полностью автоматизированное производство

### **7. Определите какие выражения правдивы, а какие нет:**

1. There are two main trends in modern machine-building: automation and raising of the reliability of machines.
2. The creation of «unmanned» industries is included into automation.
3. Machine modules and robots are not suited for «unmanned industries».
4. Automation and raising of the reliability of machines require new technologies.
5. Advanced technologies are applied in most branches of engineering.
6. The service life of machine parts can't be increased by strengthening treatment.
7. Hard alloy compounds are employed for coating components.
8. The process of designing can also be automated. This gives the advantage of optimizing solutions in design and technology.

### **8. Будьте готовы к собеседованию по теме.**

## **Практическое занятие №8**

### **Тема занятия: Infinitive. Инфинитив.**

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и профессионального английского языка.

**знать:** - особенности грамматики профессионального английского языка;

**уметь:** читать и переводить специальную литературу для пополнения профессиональных знаний;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

### Теоретическая часть:

Инфинитив (**the Infinitive**) – это неличная форма глагола, которая называет действие. Инфинитив является основной (или I) формой глагола и представляет глагол в словаре. Признаком инфинитива является частица **to**: **to help** – помогать, **to read** – читать. Инфинитив употребляется без частицы **to** в следующих случаях:

1) После глаголов **shall, will**. **He will write to his parents tomorrow**. Завтра он напишет своим родителям.

2) После модальных глаголов (кроме глагола **ought**). **She can ski and skate**. Она умеет кататься на коньках и на лыжах.

3) После глаголов чувственного восприятия **feel, see, hear, watch** и др. **We saw him enter**. Мы видели, как он вышел.

4) После глаголов **let** (разрешать), **have, make** (заставлять). **What makes you think so ?** Что заставляет тебя так думать ? **Let me take this book, please**. Пожалуйста, разрешите мне взять эту книгу.

5) После выражений **had better** (лучше), **would rather** (лучше бы). **You had better go now**. Лучше уйди / иди сейчас. **I must see you at once**. Мне надо сейчас же встретиться с тобой.

В современном английском языке инфинитив имеет следующие формы.

	Active	Passive
Indefinite	to write	to be written
Continuous	to be writing	--
Perfect	to have written	to have been written
Perfect Continuous	to have been writing	--

Инфинитив в форме действительного залога обозначает действие, произведённое лицом, выраженным в предложении подлежащим, а в страдательном залоге – действие, направленное на это лицо. **I like to help**. Я люблю помогать. **I like to be helped**. Я люблю, когда мне помогают.

Инфинитив в **Indefinite Active** обозначает действие, не уточняя характер его протекания. Инфинитив в **Continuous Active** подчёркивает длительность действия. **She likes to write letters**. Она могла писать письмо. **She must be still writing**. Она, должно быть, всё ещё пишет.

Неперфектный инфинитив выражает действие, одновременное с действием глагола-сказуемого (или следующее за ним).

Перфектный инфинитив выражает действие, предшествующее действию, выраженному глаголом-сказуемым. **I am glad to study at the University**. Я рад, что учусь в университете. **I am glad to have studied at the University**. Я рад, что учился в университете.

#### Функции инфинитива:

В предложении инфинитив может быть:

а) Подлежащим. **To walk in the garden was very pleasant**. Гулять в саду было очень приятно. **To read a lot is to know much**. Много читать – много знать.

б) Обстоятельством цели. **To read the book I went to the reading-hall**. Чтобы прочитать эту книгу, я пошёл в читальный зал.

в) Определением. Инфинитив в функции определения переводится на русский язык тремя способами:

1. Придаточным определительным предложением с модальным сказуемым. **He is going to take part in the conference to be held in Moscow**. Он собирается принять участие в конференции, которая должна состояться в Москве.

2. Неопределённой формой глагола. **I have nothing to sky**. Мне нечего сказать.

3. Личной формой глагола, если определение относится к порядковому числительному. **She was the first to come**. Она пришла первой.

г) Дополнением. He was glad to have been given a new job. Он был рад, что ему дали новую работу. I decided to read this book. Я решил прочитать эту книгу.

д) Частью сказуемого (часто модального). You may come in. Вы можете войти. We ought to leave early in the morning. Мы должны уехать рано утром. My wish is to read much. Моё желание – много читать.

### **Вопросы и задания:**

#### **1. Переведите следующие предложения, обращая внимание на инфинитив в функции подлежащего.**

1. Today it's common to see terminals that include telephones, PCs and larger computers. 2. To know a foreign language is necessary for the computer specialist 3. It is important to realize that video RAM (VRAM) must meet higher performance specifications than regular RAM. 4. It is necessary to define the tasks of this program. 5. To help our comrades is our duty. 6. To solve this problem is extremely important. 7. It is important to remember that disk drives are mechanical devices. 8. To introduce a microprocessor that is not downwardly compatible with previous models is very risky. 9. To study this program requires much knowledge. 10. New computer systems have such good audio systems that it is possible to listen to music while you work, have the computer tell you when the printer needs paper, play games that include sound, or compose music on the computer.

#### **2. Найдите в следующих предложениях инфинитив в функции сказуемого.**

##### **Переведите предложения.**

1. The purpose of the computer is to transform data into information. 2. Using computers has both positive and negative effects on our lives. Our goal is to take advantage of the positives and either reduce the negatives or deal with their results in the best way for you. 3. The biggest challenge in making a workgroup effective is to ensure that its members can communicate more easily among themselves. 4. One important task performed by the operating system is to control the execution (running) of programs. 5. Information must be relevant, timely, accurate, concise and complete in order to be useful. 6. Procedures are the steps that you must follow to accomplish a specific computer-related task. 7. Computers may displace workers by automating tasks that people used to perform or by enabling fewer workers to perform tasks more efficiently. 8. You can use software to instruct computer hardware to do a variety of tasks that involve processing data. 9. The transistor was to change the way computers were built. 10. The first step in developing a program is to define the program.

#### **3. Найдите и переведите предложения, в которых инфинитив выступает в функции дополнения.**

1. You need to understand some fundamental concepts about how computer systems are set up and how they work. 2. Computers consist of hardware, the physical parts of the computer, and software, the programs that tell the computer what to do. 3. You must transfer the information to a storage device, such a disk drive, if you want to keep the information permanently. 4. Computers also ease your daily activities by brewing your coffee, printing your newspaper, and helping you write your letters and pay your bills. 5. Only in the 1950s it became business to produce and consume computer languages. 6. When a modem attempts to establish a connection, it automatically negotiates the modem on the other end. 7. Windows and the graphical user interface made it possible to create value-added files – spreadsheets with charts, word processing files that used different fonts and sophisticated formatting. 8. Most users want to use applications with which they are already familiar, and there is no reason not to do so in a networked computing environment.

#### **4. Переведите предложения, обращая внимание на особенности перевода инфинитива в функции определения.**

1. The capability to process data can be used in a variety of ways. 2. A useful model to describe the relationship between data and information is called the systems model. 3. Efforts to pack more transistors on one chip have led to such a development as Intel's Pentium Pro microprocessor. 4. Multiprogramming is the capability of a computer to switch between

programs requested by different users and to execute the programs concurrently. 5. The instructions to start the computer are stored in read-only memory chips, which are not volatile. 6. When an organization wants to offer communications services to others, it submits a tariff to the government. The tariff is a list of services and charges for the services to be offered. 7. Bandwidth refers to the capacity of a communications channel to carry data or information.

## **Практическое занятие №9**

**Тема занятия: The car components.Строение автомобиля.**

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и профессионального английского языка.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

**The car components.**

This is a pre level in automotive repair before proceeding to the next level of repairing a car. In this pre level is about to know the car components and the use of those components. This is the most basic level and the most important part to know before touching any tools in automotive repair. I am about to explain a few basic car components such as below:-

1. Spark Plug-The use of spark plug is to bring a sparks in firing system of the engine before the combination of fuel to make the engine starts.
2. Battery-To start the engine a car must have a battery just like a remote control items which has this component too.
3. Starter motor- This component is a mechanism to make the gearbox flywheel spinning in order to on the engine.
4. Firing distributor-In order to distribute the sparks, engine must have this as well as the spark plug cable before the engine can run. There 2 types of firing distributor which are electronic and non electronic firing distributor.
5. Plug cable-It is an important part to make the sparks distributed to all the spark plug and the engine can run on their own consistently.
6. Ignition coil-this is a mechanism to keep the sparks energy and it goes along with distributor to spread the sparks all over the engine using a plug cable.

All above are the basic components of firing system in any vehicle engine.

Now we move to the fuel system of a car. It is very important to know that fuel is a main component also in engine system, without fuel the engine cannot even run and the rest of engine components also cannot play their role.

1. Fuel pump-To spread the fuel to carburator or injector we need this component to suck fuel from the fuel tank.
2. Fuel filter- To filter fuel from dust or any tiny items from fuel tank after reaching a fuel pump.
3. Fuel tank-It is tank to keep the fuel and always located at the bottom of a car.
4. Fuel injection-as a new technology in automotive fuel system after carburator this component acts as an injector to maintain the ratio of air and fuel in keeping the idle system of the engine to run.
5. Carburator-the old fuel system now being replaced by fuel injector and the role still the same.

**Лексические единицы по теме:**

a pre level, repair, the car components, tool, a battery, to spin, ignition coil, to spread, fuel pump, to suck, fuel tank, fuel injection, the idle system, spark plug, firing system of the engine, like a remote control items, gearbox flywheel, firing distributor, plug cable, fuel filter, to be about.

**Вопросы и задания:**

**1. Найдите в правой колонке русские эквиваленты английских слов и словосочетаний:**

1. mechanical engineer а) долгий срок службы
2. to deal (with) б) запустить в массовое производство
3. designing cars в) подвергать испытаниям
4. to put into mass production г) плавное сцепление
5. long service life д) отвечать современным требованиям
6. driving safety е) иметь дело
7. to meet up-to-date demands ж) надёжные тормоза и рул. упр-я
8. smooth-acting clutch и) безопасность езды
9. silent gearbox й) бесшумная коробка передач
10. dependable brakes and steering system к) инженер-механик
11. to subject to test л) конструирование автомобилей

**2. Закончите предложения, используя следующие слова и выражения:**

a fuel pump, and non electronic firing distributor, engine system, their own consistently, the fuel tank.

There 2 types of firing distributor which are electronic ... .

2. It is an important part to make the sparks distributed to all the spark plug and the engine can run on ... .

3. It is very important to know that fuel is a main component also in ... .

4. To spread the fuel to carburator or injector we need this component to suck fuel from ... .

5. To filter fuel from dust or any tiny items from fuel tank after reaching ... .

**3. Составьте предложения из следующих слов и словосочетаний:**

1. In this pre level, those, to know, and, the use, of, components, is, the car components, about.

2. fuel, tiny, from dust, any, items, from fuel tank, reaching a fuel pump, to filter, or, after.

3. it, always, tank, the fuel, at the bottom, and, located, of a car, is, to keep.

4. we, to the fuel system, now, move, of a car.

5. a mechanism, this, is to make, the gearbox flywheel, in order to, on the engine, component, spinning.

**4. Согласитесь или не согласитесь со следующими высказываниями. Обоснуйте свое мнение, пользуясь текстом.**

To start the engine a car must have a fuel tank just like a remote control items which has this component too.

Ignition coil-this is a mechanism to keep the sparks energy and it goes along with distributor to spread the sparks all over the engine using a plug cable.

It is very important to know that fuel is a main component also in engine system, without fuel the engine can even run and the rest of engine components also cannot play their role.

This is the most basic level and the most important part to know before touching any tools in automotive repair.

Fuel injection-as a new technology in automotive fuel system after battery this component acts as an injector to maintain the ratio of air and fuel in keeping the idle system of the engine to run.

**5. Найдите в тексте слова, которые соответствуют следующим определениям и в соответствии с прочитанным текстом письменно составьте с ними предложения:**

any substance burned as a source of heat or power, such as coal or petrol;

a device for spraying fuel into the combustion chamber of an internal-combustion engine;

the electrical discharge itself;

a power-driven instrument; machine tool;

any device for compressing, driving, raising, or reducing the pressure of a fluid, esp by means of a piston or set of rotating impellers.

**6. Соедините слова левой колонки с подходящим определением в правой и составьте свои предложения с этими словами:**



- |             |  |
|-------------|--|
| 1. radiator | 1. a device for slowing or stopping a vehicle, wheel, shaft, etc., or for keeping it stationary, esp by means of friction.   |
| 2. brake    | 2. a device for cooling an internal-combustion engine consisting of thin-walled tubes through which water passes.  |
| 3. starter  | 3. an open structure that gives shape and support to something, such as the transverse stiffening ribs of a ship's hull or an aircraft's fuselage or the skeletal beams and uprights of a building |
| 4. frame    | 4. the hinged metal part of a motor vehicle body that provides access to the engine, or to the luggage space in a rear-engined vehicle   |
| 5. bonnet   | 5. a device for starting an internal-combustion engine, usually consisting of a powerful electric motor that engages with the flywheel .   |

### 7. Ответьте на вопросы по тексту

1. What department do you study at?
2. What will you become after graduating from the college?
3. What should automobile specialists know?
4. What phases does the production of the automobile comprise?
5. What requirements must modern automobiles meet?
6. Why are automobile units and mechanisms subjected to laboratory and road tests?
7. What qualities are required of the automobile?
8. Why is it important for the specialists in automobile industry to know computing methods?
9. What must you know before touching any tools in automotive repair?
10. How many types of firing distributor do you know? What are they?
11. What does go along with distributor to spread the sparks all over the engine using a plug cable?
12. What is a main component in engine system? Why do you think so?
13. What do we need to spread the fuel to carburetor or injector ?
14. What is a new technology in automotive fuel system after carburetor?
15. Do you agree that to start the engine a car must have a battery.

### 8. Будьте готовы к собеседованию по теме.

### Практическое занятие №10

**Тема занятия: Principle of Operation of the Four-Stroke Petrol Engine. Принцип работы четырехтактного бензинового двигателя.**

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и делового английского языка .

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

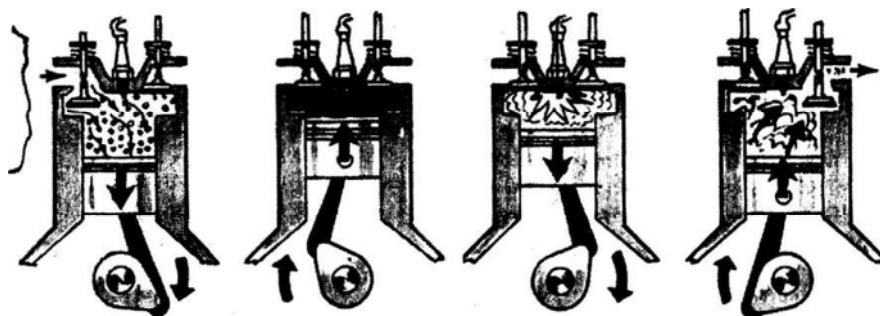
**Теоретическая часть:**

#### Principle of Operation of the Four-Stroke Petrol Engine

The internal combustion engine is called so because fuel is burned directly inside the engine itself. Most automobile engines work on a 4-stroke cycle. A cycle is one complete sequence of 4 strokes of the piston in the cylinder. The operating cycle of the four-stroke petrol engine includes: inlet stroke (intake valve opens), compression stroke (both valves closed), power stroke (both valves closed), exhaust stroke (exhaust valve is opened).

To describe the complete cycle, let's assume that the piston is at the top of the stroke (top dead center) and the inlet and the exhaust valves are closed. When the piston moves down the inlet valve opens to intake a charge of fuel into the cylinder. This is called the inlet (intake) stroke. On reaching the lowest position (bottom dead center) the piston begins to move upward into the closed upper part on the cylinder, (the inlet valve is closed and the mixture is compressed by the rising piston. This is called the compression stroke. As the piston again reaches the top dead center the spark plugs ignite the mixture, both valves being closed during its combustion. As a result of burning mixtures the gases expand and great pressure makes the piston move back down the cylinder. This stroke is called the power stroke. When the piston reaches the bottom of its stroke, the exhaust valve is opened, pressure is released, and the piston again rises. It lets the burnt gas flow through the exhaust valve into the atmosphere. This is called the exhaust stroke which completes the cycle. So the piston moves in the cylinder down (intake stroke), up (compression stroke), down (power stroke), up (exhaust stroke).

The heat released by the fuel is transformed into work so that the reciprocating movement of the pistons is converted into rotary movement of a crankshaft by means of connecting rods.



1 - intake 2 - compression 3 - power 4 - exhaust

#### Principle of Operation of the Four-Stroke Petrol Engine

##### Лексические единицы по теме:

to yield, displacement, to vibrate, the torque, rub, rob, detriment, novelty, chainsaw, a crankpin, a stroke, combustion chambers, a smoother-running engine, even number indicate, domestic lawn mower, marine diesels, connecting rod, exhaust outlet, fuel inlet, a power stroke, fuel injector.

##### Вопросы для интервью:

1. What main parts is the automobile made up of?
2. What is the function of the engine?
3. What systems does the engine include?
4. What does the chassis consist of?
5. What units does the power transmission comprise?
6. What assemblies does the running gear consist of?
7. What has the body?

##### Вопросы и задания:

1. Найдите в тексте абзацы, где идет речь о такте впуска, о такте сжатия, о рабочем ходе, о такте выпуска и переведите их на русский язык.

2. Выберите правильные по смыслу ответы на вопросы.

1. Why is the engine called the internal combustion engine?
2. What stroke is called the inlet one?
3. What is a compression stroke?
4. What takes place in the cylinder on power stroke?
5. What takes place on the exhaust stroke?
6. By means of what is the reciprocating movement of the pistons converted into rotary movement of a crankshaft?

1.a) the spark plugs ignite the mixture, both valves are closed during its combustion;

b)the exhaust valve is opened and the residual gas flows through the exhaust valve into the atmosphere.

2.On the exhaust stroke

a)the spark plugs ignite the mixture, both valves are closed during its combustion;

b)the exhaust valve is opened and the residual gas flows through the exhaust valve into the atmosphere.

3/ It is done

a)by means of pistons;

b)by means of the connecting rods.

**3. Закончите предложения, выбрав правильный по смыслу вариант окончания.**

1.The internal combustion engine is called so because fuel is burned...

1. a)outside the engine;

2. b)inside the engine.

2.On the inlet stroke

1. a)the intake valve opens;

2. b)the intake valve is closed;

3. c)the intake and the exhaust valves are closed.

**4. Переведите русские предложения на английский язык, а затем разыграйте диалоги в парах.**

1. • -Не знаю, что случилось с моей машиной.

• -Let me trace the fault.

• -Пожалуйста. Ты опытный водитель?

• -Yes, I am. I have been driving a car for fifteen years now. May be you have run out of fuel?

• -Бак почти полный.

• -When did you have your plugs checked?

• -Вчера. Карбюратор тоже в порядке.

• -В таком случае давай поедem до ближайшей ремонтной станции.

• -Good idea. They will have the car fixed.

2. • - Когда тебе починили машину?

• -Last month. The engine is in good condition now. It was well greased.

• -Хорошо. Мне тоже надо чинить машину. Ослабли тормоза (The brakes are slack.)  
Аккумулятор разрядился (The battery has run down.)

• -It can be easily done.

• -Я рад это слышать.

3. • - Какую машину ты хочешь купить?

• -I want a second-hand car. Could you help me?

• -С большим удовольствием.

• -I hear there are good cars on sale 42nd Street.

• -Я знаю этот магазин. Давай поедem туда.

• -Good idea. If I choose a car there, I won't have to bother any more.

• -Совершенно верно.

**5.Будьте готовы к собеседованию по теме.**

### **Раздел 3. The Modern Machine-Building. Современное машиностроение.**

#### **Практическое занятие №11**

**Тема занятия: Trends in the Modern Machine-Building. Тенденции в современном машиностроении.**

**Цель:** Формирование коммуникативных компетенций, овладение лексикой и

грамматикой.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

### **Trends in the Modern Machine-Building Industry**

The scientific and technological progress will continue in engineering along two main headlines. Firstly, it is automation, including the creation of “unmanned” industries. Secondly, raising the reliability and extending the service life of machines.

This certainly requires new technology. The machine modules on a large scale are well suited for “unmanned” industries.

Intense work is being carried out on new robots. What we need is not merely manipulators which can take up a workpiece and pass it on, but robots which can identify objects, their position in space, etc.

We also need machines that would trace the entire process of machining. Some have been designed and are manufactured. Modern engineering thinking has created new automated coal-digging complexes and machine systems, installations for the continuous casting of steel, machine-tools for electrophysical and electrochemical treatment of metals, unique welding equipment, automatic rotor transfer lines and machine-tool modules for flexible industries.

New technologies and equipment have been designed for most branches of engineering.

In the shortest time possible the engineers are to start producing new generations of machines and equipment which would allow manufacturers to increase productivity several times and to find a way for the application of advanced technologies.

Large reserves in extending service life for machines can be found in the process of designing. At present, advanced methods have been evolved for designing machines proceeding from a number of criteria. Automatic design systems allow for an optimizing of the solutions in design and technology when new machines are still in the blueprint stage.

A promising reserve in increasing the life of parts is strengthening treatment. In recent years new highly efficient methods have been found.

First and foremost of them is the vacuum plasma methods for coating components with hard alloy compounds, such as nitrides and carbides of titanium, tungsten and boron. Methods have been designed for reinforcing machine parts most vulnerable to wear and tear, such as in grain harvesters, to make them last several times longer.

Thus, it is not merely quantity engineers and scientists are after, rather it is a matter of major characteristics. In other words, this is a matter of quality, and not of the mere number of new machines, apparatuses and materials

**Лексические единицы по теме:**

module, robot, to identify, manipulator, electro physical, electrochemical, unique, rotor, line, productivity, to reserve, criteria, to optimize, vacuum, plasma, component, nitride, carbide, titanium, apparatus.

**Вопросы для интервью:**

1. What main units does the chassis consist of?
2. Where is the engine located?
3. Where is the flywheel fixed?
4. Where is the clutch placed?
5. What is the gearbox designed for?
6. By what shaft is the power transmitted to the back axle?
7. What does the rear axle do?
8. What is the function of the differential?
9. What purpose is the steering system designed for?
10. What is the function of the brakes?

### **Вопросы и задания:**

#### **1. Найдите в тексте эквиваленты для следующих русских словосочетаний:**

срок службы, передовые методы, электрофизическая обработка, модуль станка, система проектирования, составы из твердых сплавов, методы вакуумной плазмы, упрочнение деталей машин, гибкое производство, полностью автоматизированное производство

#### **2. Определите какие выражения правдивы, а какие нет:**

1. There are two main trends in modern machine-building: automation and raising of the reliability of machines.
2. The creation of «unmanned» industries is included into automation.
3. Machine modules and robots are not suited for «unmanned industries».
4. Automation and raising of the reliability of machines require new technologies.
5. Advanced technologies are applied in most branches of engineering.
6. The service life of machine parts can't be increased by strengthening treatment.
7. Hard alloy compounds are employed for coating components.
8. The process of designing can also be automated. This gives the advantage of optimizing solutions in design and technology.

#### **3. Переведите на английский язык следующие предложения (при выполнении задания вы можете обращаться к тексту).**

1. Основными узлами шасси являются: трансмиссия, ходовая часть и рулевой механизм.
2. Радиатор расположен в передней части автомобиля.
3. Маховик крепится на задней части двигателя.
4. Сцепление соединяет двигатель с коробкой передач.
5. Коробка передач предназначена для изменения скорости движения автомобиля.
6. Усилие передается карданным валом.
7. Главная передача снижает высокие обороты двигателя до невысоких оборотов ведущих колес.
8. Дифференциал позволяет ведущим колесам вращаться с разной скоростью при повороте автомобиля.
9. Рулевой механизм предназначен для изменения направления движения автомобиля.

#### **4. Прочтите диалог и разыграйте его в парах.**

##### **Transmission Mechanism**

**Teacher:** Let's speak about the transmission mechanism. What main units does the transmission include?

**Student:** The transmission is the entire mechanism between the engine and the rear wheels. It includes the clutch, gearbox, cardan shaft, rear axle, final drive and differential.

**T.:** What does the clutch connect?

**S.:** The clutch connects the engine with the gearbox.

**T.:** And what does the gearbox do?

**S.:** The gearbox changes the speed of the car.

**T.:** What does the differential enable?

**S.:** The differential enables the driving wheels to move at different speeds when turning the car.

**T.:** For what purpose is the steering system used?

**S.:** The steering system is used for changing the direction of the car movement.

**T.:** And what is the function of the brakes?

**S.:** Brakes are used to slow or stop the car.

**T.:** That's right. You know the subject very well.

#### **5. Переведите текст на русский язык, пользуясь словарем.**

##### **Basic Troubles of Transmission Mechanism**

The transmission of the engine torque to the driving wheels of the automobile must be smooth. There should be no vibration in the operation of transmission mechanism within the range of travelling speeds.

The indications of malfunctions in the transmission mechanism components are as follows:

- complete disengagement of the clutch;
- difficult engagement or self-demeshing of gears;

What to do in these cases:

- 1.Check the free travel of the clutch pedal and adjust it.
- 2.Check the oil level in the gearbox housing and wash breather channel.
- 3.Check to see that all the fastening bolts are securely tightened and that the trunnion crosses fit properly the bearings, and the bearings, in turn, the universal-joint forks.

**6.Будьте готовы к собеседованию по теме.**

## **Практическое занятие №12**

**Тема занятия: Environmentally Friendly Cars. Экологически чистые автомобили.**

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и профессионального английского языка.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

### **Environmentally Friendly Cars**

Many of the world's cities lie under a permanent blanket of smog. People are concerned about global warming, and fuel prices just keep going up and up. In recent years car manufacturers have been put under pressure to invent a vehicle that is both cheaper to run and better for the environment.

One of the first ideas which car manufacturers tried, was to replace engines which run on fossil fuels with electric motors. Unfortunately, these vehicles had several drawbacks and they didn't sell very well. The problems were that the batteries of these electric cars ran out very quickly and took a long time to recharge.

Car manufacturers have improved the concept so that environmentally friendly cars can now be efficient and economical as well. The hybrid car, which has both an electric motor and a traditional petrol engine, comes in. The electric motor never needs to be recharged and it is much better for the planet than a traditional car.

In a hybrid car, the engine is controlled by a computer which determines whether the car runs on petrol, electricity, or both. When the car needs maximum power, for example, if it is accelerating or climbing a steep hill, it uses all of its resources, whereas at steady speeds it runs only on petrol. When slowing down or braking, the electric motor recharges its batteries.

Hybrid cars are made using materials such as aluminium and carbon fibre, which makes them extremely light. Hybrid cars are better for the environment because they use far less petrol than normal cars, so they produce less pollution.

Of course, hybrid cars aren't perfect; they still run on fossil fuel and so pollute the environment to some extent. However, they may be the first step along the road to cleaner, 'greener' cars. Car manufacturers are already working on vehicles which run on hydrogen. The only emission from these cars is harmless water vapour. These are still some way in the future, though, as designers need to think of cheap and safe ways of producing, transporting and storing hydrogen, but at last, it looks like we might be heading in the right direction.

**Лексические единицы по теме:**

Emission, density, to accelerate, fuel tank, transmission, release, to handle, a steep hill, the accelerator pedal, extra power, smog pollution, a conventional car, greenhouse gases, to move the car along on the freeway, to go up, to store, basic function, the average power requirement.

**Вопросы для интервью:**

- 1.What takes place in the combustion chamber during the intake stroke?
- 2.What takes place in the cylinder during the compression stroke?

3. What takes place in the combustion chamber during the power stroke?
4. What takes place in the combustion chamber during the exhaust stroke?
5. What advantages do diesel engines offer?

**Вопросы и задания:**

**1. Сопоставьте слова (выражения) из левого столбика с их переводом из правого**

- |                                  |                                    |
|----------------------------------|------------------------------------|
| a) environmentally friendly cars | 1. водород                         |
| b) global warming                | 2. углеродное волокно              |
| c) keep going up and up          | 3. никогда не требует перезарядки  |
| d) have been put under pressure  | 4. ископаемое топливо              |
| e) fossil fuel                   | 5. гибридный автомобиль            |
| f) electric motor                | 6. продолжают подниматься          |
| g) drawbacks                     | 7. были подвергнуты давлению       |
| h) the hybrid car                | 8. безвредные для окружающей среды |
| i) never needs to be recharged   | автомобили                         |
| j) carbon fibre                  | 9. глобальное потепление           |
| k) hydrogen                      | 10. безопасный водяной пар         |
| l) harmless water vapour         | 11. недостатки                     |
|                                  | 12. электродвигатель               |

**2. Найдите эквиваленты данных выражений на английском**

- 1 -- работать на ископаемом топливе --
- 2 -- длительное время для перезарядки --
- 3 -- традиционный автомобиль --
- 4 -- при замедленном движении или торможении --
- 5 -- невероятно легкий --
- 6 -- гораздо меньше бензина --
- 7 -- до определенной степени --
- 8 -- первый шаг на пути к --

**3. Закончите предложение одним из предложенных вариантов**

1. Car manufactures are trying to invent a new vehicle because

- a) today's cars produce too much poisonous gas;
- b) today's cars produce too much power;
- c) today's cars moves too fast.

2. Vehicles which ran on electric motors

- a) moved too slowly
- b) were not very popular;
- c) had to have their engines replaced.

3. The electric motor in hybrid cars

- a) doesn't need to recharge its batteries;
- b) had its own petrol engine;
- c) takes a long time to be recharged.

4. The computer in a hybrid car

- a) helps the car to go up hills;
- b) keeps the car running at a steady speed;
- c) decided how the car should be powered in any given time.

5. Hybrid cars are better for the powered in any given time.

- a) they use different fuels;
- b) the electric motor is smaller than a normal engine;
- c) they produce less harmful gases.

**4. Исправьте ошибки в предложениях**

1. Car manufacturers are trying invent a vehicle that is better for the enviroment.
2. One of a first ideas was to use electric motors.

- 3.Cars can now to be efficient and economical.
- 4.In hubrid cars engines are controlled from a computer.
- 5.Hybrid cars use far least petrol than traditional cars.
- 6.Cars with electric motors are harmlesser to the environment than traditional cars.
- 5.Будьте готовы к собеседованию по теме.**

### **Практическое занятие №13**

**Тема занятия: Hybrid-Electric Cars. Гибридно-Электрические Автомобили.**

**Цель:** Формирование коммуникативных компетенций, овладение лексикой и грамматикой.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

#### **Hybrid-Electric Cars.**

Hybrids are a hot subject today, but they are the most complex vehicles to correctly design and the most complex to adequately discuss. It looks the go-anywhere family sedan of year 2010 and beyond will likely be some form of hybrid vehicle. The idea of a hybrid- electric vehicle naturally evolves from the inherent limitations of the storage battery. As first conceived, a hybrid vehicle would employ an onboard means of generating electricity in order to augment the limited energy available from the battery. The vehicle might then run on battery energy alone when range is within the capability of the battery's energy stores, then use the genset when range requirements exceed the energy stores of the battery .Although simple in concept, the task of achieving significant improvements in energy efficiency depends on the correct integration of subsystems within a sophisticated control strategy that continuously monitors and balances the energy flow onboard the vehicle. When approached as a system, a hybrid power system is no longer a simple battery-electric system augmented by a genset. Instead it is an integrated, self-adapting propulsion system that may ultimately utilize batteries( or ultracapacitors) as an energy reservoir for load leveling, rather than in their traditional role of supplying total vehicle motive power. Much of the research today is oriented toward developing the most effective control strategy, the best bias between subsystems, and the correct combination of subsystem types needed to achieve maximum efficiency with a minimum of hardware, mass, and manufacturing costs. There are lots of possible configurations with a hybrid vehicle. On a fundamental level, a hybrid combines an energy storage system, an energy conversion system, and a vehicle propulsion system.

What makes it a "Hybrid"? Any vehicle is a hybrid when it combines two or more sources of power. In fact, many people have probably owned a hybrid vehicle at some point. For example, a moped is a type of hybrid because it combines the power of a gasoline engine with the pedal power of its rider. Hybrid vehicles are all around us. Most of the locomotives we see pulling trains are diesel-electric hybrids. Cities like Seattle have diesel-electric buses- these can draw electric power from overhead wires or run on diesel when they are away from the wires. Giant mining trucks are often diesel-electric hybrids. Submarines are also hybrid vehicles- some are nuclear-electric and some are diesel-electric. Any vehicle that combines two or more sources of power that can directly or indirectly provide propulsion power is a hybrid. Hybrids are normally divided into the subtypes of either series or parallel, which refers to the way in which the engine supplies power to the propulsion system. In the series hybrid, a heat engine powers a generator, which either charges the battery or supplies power directly to the propulsion circuit and thereby reduces demand on the battery. In a parallel hybrid, the heat engine delivers mechanical power directly to the drive train, and the generator is eliminated. With this type, either the battery-electric system or the heat engine may be used to propel the vehicle, or they may be used simultaneously for maximum power. In comparison, the series hybrid is less complex because



the interface with the drive train is electrical rather than mechanical. But originally, the parallel hybrid was preferred design because of the large size, high mass, and limited power of existing gensets. With a parallel hybrid it was possible to obtain more power from a smaller, lighter package. Today, due to lighter, smaller, and more powerful gensets that have been developed, the emphasis has shifted to the series hybrid.

**Лексические единицы по теме:**

the genset, subsystem, to achieve, hardware, mass, wire, truck, submarine, rider, a hybrid, to obtain, the emphasis, circuit

**Вопросы и задания:**

**1. Догадайтесь о значении данных слов и выражений, обращая внимание на фонетическое и графическое сходство:** complex, sedan, naturally, generating electricity, battery, range, control strategy, electric system, utilize, an energy reservoir, traditional role, a minimum, configuration, combination, maximum, a moped, pedal, locomotive, diesel, parallel, a generator, electrical, mechanical.

**2. Закончите предложения, используя следующие слова и выражения:** the wires, of hybrid vehicle, a genset, lighter package, eliminated.

1. It looks the go-anywhere family sedan of year 2010 and beyond will likely be some form...
2. When approached as a system, a hybrid power system is no longer a simple battery-electric system augmented by ...
3. Cities like Seattle have diesel-electric buses- these can draw electric power from overhead wires or run on diesel when they are away from ...
4. In a parallel hybrid, the heat engine delivers mechanical power directly to the drive train, and the generator is ...
5. With a parallel hybrid it was possible to obtain more power from a smaller ...

**3. Составьте предложения из следующих слов и словосочетаний:**

1. it combines, vehicle, when, two or more sources of power, any, is a hybrid.
2. we, the locomotives, see, are diesel-electric hybrids, most of, pulling trains.
3. vehicles, are, all, us, hybrid, around.
4. the series, is, because, with the drive train, is, rather than mechanical, in comparison, hybrid, less complex, the interface, electrical.
5. It, the go-anywhere family sedan, and beyond, will, of hybrid vehicle, looks, of

**4. Согласитесь или не согласитесь со следующими высказываниями. Обоснуйте свое мнение, пользуясь текстом.**

The idea of a hybrid- electric vehicle naturally evolves from the inherent limitations of the storage battery.

A moped isn't a type of hybrid because it combines the power of a gasoline engine with the pedal power of its rider.

Hybrid vehicles are all around us.

In comparison, the series hybrid is most complex because the interface with the drive train is electrical rather than mechanical.

Hybrids are seldom divided into the subtypes of either series or parallel, which refers to the way in which the engine supplies power to the propulsion system.

**5. Найдите в тексте слова, которые соответствуют следующим определениям, и в соответствии с прочитанным текстом письменно составьте с ними предложения:**

- a vehicle that is powered by an internal-combustion engine and another source of power such as a battery;
- a place where a great stock of anything is accumulated;
- the act or process of packing or packaging;
- a person or thing that rides, esp a person who rides a horse, a bicycle, or a motorcycle;
- a type of internal-combustion engine in which atomized fuel oil is sprayed into the cylinder and ignited by compression alone.

**6.Соедините слова левой колонки с подходящим определением в правой и составьте свои предложения с этими словами:**

- |                |  |
|----------------|--|
| 1. subject     | 1. any phenomenon associated with stationary or moving electrons, ions, or other charged particles;                  |
| 2. electricity | 2. the quality or state of being efficient; competence; effectiveness;   |
| 3. efficiency  | 3. of, concerned with, or involving the nucleus of an atom;  |
| 4. nuclear     | 4. a vessel, esp one designed for warfare, capable of operating for protracted periods below the surface of the sea; |
| 5. submarine   | 5. any branch of learning considered as a course of study.   |

**7.Ответьте на вопросы:**

- How does hybrid look like?
- What does hybrid combine?
- When can we see hybrids?
- What makes it a "Hybrid"?
- Where can we see diesel-electric buses?
- Why are the submarines also hybrid vehicles?
- Do you agree that a moped is a type of hybrid? Give reasons for your answers.
- Using information you gained from the text comment on the any vehicle that combines two or more sources of power.
- Do you think that the hybrids is very convenient? Why do you think so?

**6.Будьте готовы к собеседованию по теме.**

## Практическое занятие №14

**Тема занятия: The Participle. Причастие.**

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и профессионального английского языка.

**знать:** - особенности грамматики профессионального английского языка;

**уметь:** читать и переводить специальную литературу для пополнения профессиональных знаний;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

### ПРИЧАСТИЕ I

Причастие I (**Participle I**) – неличная форма глагола, обладающая свойствами глагола, прилагательного и наречия. Соответствует формам причастия и деепричастия в русском языке.

Формы причастия

	active	passive
Indefinite	asking	being asked
Perfect	having asked	having been asked

**Participle I Indefinite** обозначает действие, одновременное с действием глагола-сказуемого. **While translating difficult texts we use a dictionary.** Переводя трудные тексты, мы пользуемся словарём.

**Participle I Perfect** обозначает действие, предшествующее действию, выраженному глаголом-сказуемым. **Having read the book I returned it to the library.** Прочитав книгу, я вернул её в библиотеку.

### Функции причастия I

В предложении причастие I (**Participle I**) может быть:

1. Определением. В этой функции употребляется только **Participle I Indefinite**, которое соответствует русскому причастию настоящего времени в той же функции. **A smiling girl.** Улыбающаяся девочка. **A swimming man.** Плывущий человек. **The men building our house with me are my friends.** Люди, строящие наш дом вместе со мной, -- мои друзья. **The house being built in our street is a new building of school.** Дом, строящийся на нашей улице -- это новое здание школы.

2. Обстоятельством. В этой функции **Participle I Indefinite Active** чаще всего стоит в начале предложения и переводится на русский язык деепричастием несовершенного вида. **Translating the article he consulted the dictionary.** Переводя статью, он пользовался словарём.

Перед таким причастием в функции обстоятельства часто стоят союзы **when** или **while**. Такие словосочетания переводятся либо деепричастным оборотом (или деепричастием) с опущением союза, либо придаточным предложением, которое начинается с союзов "когда", "в то время как". **While translating the article the student consulted the dictionary.** Переводя статью, студент пользовался словарём. / **Когда студент переводил статью, он пользовался словарём.**

**Participle I Indefinite Passive** переводится на русский язык обстоятельством придаточным предложением. **Being built of wood the bridge could not carry heavy loads.** Так как мост был построен из дерева, он не мог выдержать больших нагрузок.

**Participle I Perfect Active** переводится деепричастием совершенного вида. **Having built a house he began building a greenhouse.** Построив дом, он начал строить парник.

**Participle I Indefinite Passive** в функции обстоятельства (времени, причины) переводится обстоятельством придаточным предложением. При этом в качестве подлежащего русского придаточного предложения употребляется подлежащее английского предложения. **Having been built of concrete, the house was cold in winter.** Так как дом был построен из бетона, зимой в нём было холодно.

3. Частью сказуемого. **Participle I Indefinite Active** может быть частью сказуемого. **They are playing chess.** Они играют в шахматы.

## ПРИЧАСТИЕ II

Причастие II (**Participle II**) – неличная форма глагола (III основная форма глагола), имеет одну неизменяемую форму со страдательным значением и обозначает действие, которое испытывает на себе лицо или предмет. Оно соответствует в русском языке причастию страдательного залога.

Причастие II правильных глаголов имеет ту же форму, что и **Past Indefinite**, и образуется при помощи прибавления суффикса **-ed** к основе глагола **to ask – asked, to help – helped.**

Подобно причастию I, причастие II обладает свойствами глагола, прилагательного и наречия. Как и глагол, оно обозначает действие. Время действия, обозначаемое причастием II, определяется временем действия глагола-сказуемого или контекстом. **The book discussed yesterday was interesting.** Книга, обсуждавшаяся вчера, была интересной. **The books discussed at the lessons are always interesting.** Книги, обсуждаемые на уроках, всегда интересны.

### Функции причастия II

В предложении причастие II может быть:

а) Определением. **Last time is never found again.** Потерянное время никогда не вернётся (дословно – не найти). **A written letter lay on the table.** Написанное письмо лежало на столе. **They are reconstructing the house built in the 18<sup>th</sup> century.** Они реставрируют здание, построенное в 18 веке.

б) Обстоятельством. Перед причастием II в функции обстоятельства могут стоять союзы **if, unless, when**. В таком случае английское причастие переводится обстоятельством придаточным предложением, в котором подлежащее то же, что и в главном предложении. **If built of the local stone, the road will serve for years.** Если

построить дорогу (Если дорога построена) из местного камня, она будет служить долгие годы.

### Вопросы и задания:

#### 1. Образуйте *Participle I* или *Participle II* от глаголов в скобках.

1. Why have you got that ... (worry) expression on your face? Are you in trouble?
2. The teacher was ... (disappoint) with the test results.
3. Jack's answer was ... (disappoint).
4. I went to the exhibition of French art last week and I was very much ... (impress).
5. We saw a lot of ... (fascinate) paintings.
6. I was so ... (excite) that I couldn't say a word.
7. The trip to the mountains was so ... (excite) — we enjoyed every minute of it.
8. I'm ... (bore) — I have nothing to do.
9. The lecture was so ... (bore) that a few listeners fell asleep.
10. We liked the Room of Horrors but some of the tricks were rather ... (frighten).
11. It was raining so heavily that the little puppy got ... (frighten) and hid under the bed.
12. Little John's questions were ... (surprise).
13. We were ... (surprise) at the news.
14. The boy ... (translate) the story is the best pupil in our class.
15. The girl ... (wash) the window is my sister.
16. ... (do) his homework Tom looked through the window several times.
17. The work ... (do) was very interesting.
18. Everything ... (write) on the blackboard is correct.
19. ... (write) the letter Olga thought about her summer holidays.

#### 2. Перепишите предложение, используя причастие вместо придаточного предложения.

##### ПРИМЕР

The old castle **which was built five hundred years ago** belongs to the university. Старый замок, *который был построен 500 лет назад*, принадлежит университету.

= The old castle, **built five hundreds ago**, belongs to the university. Старый замок, *построенный 500 лет назад*, принадлежит университету.

1. The holidaymakers who were wearing light clothes walked along the beach.
2. The lands that were discovered by Columbus were rich in gold.
3. The children who were excited by the news shouted "Hoorah" three times.
4. The hedges that divided the fields were getting yellow.
5. The young lady who was standing at the door looked very attractive.
6. The two banks which were connected by a bridge were high and looked dangerous.
7. Betty Smith heard the noise of a child who was crying.
8. He entered the yard and smelt something that was burning.

#### 3. Переведите предложения с причастием. Назовите причастие Present Participle I, Perfect Participle I, Past Participle.

1. The girl riding the horse is my sister.
2. She hurt herself (while) riding a bicycle.
3. Going to the club, I met some of my friends.
4. Leaving the house, I noticed someone in the garden.
5. Arriving at the station, we hurried to the information bureau.
6. The pictures exhibited there are very expensive.
7. Not knowing what to do, I turned to Jack for advice.
8. I often think of my friends living in Paris.
9. I went to bed, not being able to work.
10. The story written by him is rather thrilling.

#### 4. Перефразируйте предложения одним из двух способов.

##### ПРИМЕР 1

Holding up a picture, the teacher asked us if we recognized the man. = The teacher held up a picture **and** asked us if we recognized the man.

**Держа картину** в руке, учителя спросил нас, узнаем ли мы этого человека. = Учитель держал картину в руке **и** спросил нас, узнаем ли мы этого человека.

#### **ПРИМЕР 2**

Opening the door, Mike found the room full of people. = **When** Mike opened the door, he found the room full of people.

**Открыв дверь**, Майк увидел, что в комнате полно людей. = **Когда** Майк открыл дверь, он увидел, что в комнате полно людей.

1. Walking in the forest, the children suddenly saw a wolf.
2. People stood on the bridge, watching the boats on the river.
3. The pupils remained silent for a minute or two, thinking about the teacher's question.
4. Looking for his ticket in all his pockets, Tom discovered that he had lost it.
5. The crowd moved slowly forward, forcing the soldiers back.
6. Taking the dictionary, he looked up the unknown word.
7. Seeing clouds of smoke over the building, the girl cried, «Fire! Fire!»
8. Crossing the wide field, the frightened animal escaped into the forest.

#### **5. Перефразируйте предложения с действительным причастием Perfect Participle I, подчеркивая предшествование.**

**ПРИМЕР.** Having come home, he remembered her warning. = **After he had come** home, he remembered her warning.

1. Having gone there twice, I didn't want to go there again.
2. Having left the house, I suddenly remembered that I had left behind the umbrella.
3. Having shown us his new picture, he left.
4. He knew the city very well, having lived in Paris for a long time.
5. Having written the book, he could relax.

#### **6. Переведите следующие предложения на английский язык.**

1. Лицо, нарисованное на бумаге, похоже (look like) на тебя.
2. Его не видели вчера в школе.
3. Ему следует позвонить.
4. Человек, сидящий в кресле, мой отец.
5. Письмо было отправлено вчера.
6. Мальчики, идущие в школу, мои друзья.
7. Мальчики идут в школу.
8. Человек, посланный тобой, только что пришел.
9. Восхищенный пейзажем, я стоял на берегу озера.

### **Практическое занятие №15**

**Тема занятия: Internal combustion engines. Двигатель внутреннего сгорания.**

**Цель:** Формирование коммуникативных компетенций, овладение лексикой и грамматикой.

**знать:** нормы употребления лексики английского языка в профессиональной сфере;

**уметь:** читать и переводить тексты профессиональной направленности на иностранном языке;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть:**

**Internal combustion engines.**

Internal combustion engines can contain any number of combustion chambers (cylinders), with numbers between one and twelve being common, though as many as 36 (Lycoming R-7755) have been used. Having more cylinders in an engine yields two potential benefits: first, the engine can have a larger displacement with smaller individual reciprocating masses, that is, the mass of each piston can be less thus making a smoother-running engine since the engine tends to

vibrate as a result of the pistons moving up and down. Doubling the number of the same size cylinders will double the torque and power. The downside to having more pistons is that the engine will tend to weigh more and generate more internal friction as the greater number of pistons rub against the inside of their cylinders. This tends to decrease fuel efficiency and robs the engine of some of its power. For high-performance gasoline engines using current materials and technology—such as the engines found in modern automobiles, there seems to be a break-point around 10 or 12 cylinders after which the addition of cylinders becomes an overall detriment to performance and efficiency. Although, exceptions such as the W16 engine from Volkswagen exist.

Most car engines have four to eight cylinders with some high performance cars having ten, twelve—or even sixteen, and some very small cars and trucks having two or three. In previous years, some quite large cars such as the DKW and Saab 92, had two-cylinder or two-stroke engines.

Radial aircraft engines (now obsolete) had from three to 28 cylinders; an example is the Pratt & Whitney R-4360. A row contains an odd number of cylinders so an even number indicates a two- or four-row engine. The largest of these was the Lycoming R-7755 with 36 cylinders (four rows of nine cylinders), but it did not enter production.

Motorcycles commonly have from one to four cylinders, with a few high performance models having six; although, some 'novelties' exist with 8, 10, or 12.

Snowmobiles usually have one to four cylinders and can be both 2 stroke or 4 stroke, normally in the in-line configuration however there are again some novelties that exist with V-4 Engines

Small portable appliances such as chainsaws, generators, and domestic lawn mowers most commonly have one cylinder, but two-cylinder chainsaws exist.

Large reversible two cycle marine diesels have a minimum of three to over ten cylinders. Freight diesel locomotives usually have around 12 to 20 cylinders due to space limitations as larger cylinders take more space (volume ) per kwh, due to the limit on average piston speed of less than 30 ft/sec on engines lasting more than 40000 hours under full power.

#### **Лексические единицы по теме:**

to yield, displacement, to vibrate, the torque, rub, rob, detriment, novelty, chainsaw, a crankpin, a stroke, combustion chambers, a smoother-running engine, even number indicate, domestic lawn mower, marine diesels, connecting rod, exhaust outlet, fuel inlet, a power stroke, fuel injector.

#### **Вопросы для интервью:**

1. How many cylinders can internal combustion engine contain?
2. What tends to decrease fuel efficiency and robs the engine of some of its power?
3. How many cylinders do motorcycles have?
4. What small portable appliances do you know?
5. What are the key components in a typical four-stroke engine?
6. What is known as a stroke?
7. Do you agree that freight diesel locomotives usually have around 12 to 20 cylinders? Give reasons for your answers.
8. Using information you gained from the text speak about radial aircraft engines?
9. Do you think that doubling the number of the same size cylinders will double the torque and power. Why do you think so?

#### **Вопросы и задания:**

##### **1. Закончите предложения, используя следующие слова и выражения:**

**a power stroke, the torque and power, over ten cylinders, its power, a two- or four-row engine.**

1. Doubling the number of the same size cylinders will double... .
2. This tends to decrease fuel efficiency and robs the engine of some of... .
3. A row contains an odd number of cylinders so an even number indicates ... .
4. Large reversible two cycle marine diesels have a minimum of three to ... .
5. This is also known as... .

**2. Составьте предложения из следующих слов и словосочетаний:**

a row, an even number, an odd number of cylinders, so, indicates, a two- or four-row engine, contains.

exceptions, as, the W16 engine, Volkswagen, exist, although, such, from.

by the piston, is known, a single, sweep of the cylinder, in an upward or downward motion, as a stroke.

snowmobiles, cylinders, have, one to four, and can be both 2 stroke or 4 stroke, usually.

this, decrease, and robs, of some of its power, the engine, . tends to, fuel efficiency.

**3. Согласитесь или не согласитесь со следующими высказываниями. Обоснуйте свое мнение, пользуясь текстом.**

Radial aircraft engines (now obsolete) had from three to 36 cylinders; an example is the Pratt & Whitney R-4360.

The downward stroke that occurs directly after the air-fuel mix passes from the carburetor or fuel injector to the cylinder, where it is ignited.

Small portable appliances such as chainsaws, generators, and domestic lawn mowers most commonly have four cylinder.

For a two-stroke engine, there may simply be an exhaust outlet and fuel inlet instead of a valve system.

For high-performance gasoline engines using current materials and technology—such as the engines found in modern automobiles, there seems to be a break-point around 4 or 12 cylinders after which the addition of cylinders becomes an overall detriment to performance and efficiency.

**4. Найдите в тексте слова, которые соответствуют следующим определениям, и в соответствии с прочитанным текстом письменно составьте с ними предложения:**

the chamber in a reciprocating internal-combustion engine, pump, or compressor within which the piston moves;

a disc or cylindrical part that slides to and fro in a hollow cylinder. In an internal-combustion engine it is forced to move by the expanding gases in the cylinder head and is attached by a pivoted connecting rod to a crankshaft or flywheel, thus converting reciprocating motion into rotation;

the quality of being new and fresh and interesting;

a short cylindrical bearing surface fitted between two arms of a crank and set parallel to the main shaft of the crankshaft;

something that improves or promotes.

**5. Соедините слова левой колонки с подходящим определением в правой и составьте свои предложения с этими словами:**

- |               |  |
|---------------|--|
| 1. motorcycle | 1. an enclosed space in which combustion takes place, such as the space above the piston in the cylinder head of an internal-combustion engine or the chambers in a gas turbine or rocket engine in which fuel and oxidant burn; |
| 2. snowmobile | 2. a hand-operated or power-operated machine with rotary blades for cutting grass on lawns;  |
| 3. chainsaw   | 3. a two-wheeled vehicle, having a stronger frame than a bicycle, that is driven by a petrol engine, usually with a capacity of between 125 cc and 1000 cc;  |

- |                        |  |
|------------------------|--|
| 4. domestic lawn mower | 4. a small open motor vehicle for travelling on snow, steered by two skis at the front and driven by a track underneath; |
| 5. combustion chamber  | 5. a motor-driven saw, usually portable, in which the cutting teeth form links in a continuous chain.                    |

6. Будьте готовы к собеседованию по теме.

### Практическое занятие №16

**Тема занятия: Gerund .Герундий.**

**Цель:** овладение основами делового общения на иностранном языке в устной и письменной форме, расширение активного словарного запаса по тематике общего и профессионального английского языка.

**знать:** - особенности грамматики профессионального английского языка;

**уметь:** читать и переводить специальную литературу для пополнения профессиональных знаний;

**Актуальность темы:** обусловлена необходимостью овладением ОК-5

**Теоретическая часть: Gerund .**

Герундий имеет свойства как глагола, так и существительного. Подобной неличной формы в русском языке нет. Как существительное он может выполнять в предложении функции подлежащего, дополнения, определения и обстоятельства с предлогом. Как глагол может иметь после себя прямое дополнение и определяться наречием, иметь перфектную форму, категорию залога, а также выражать действие как процесс.

Герундий образуется от основы глагола с помощью суффикса **-ing**. **To translate – translating, to read – reading.**

	active	passive
Indefinite	writing	being written
Perfect	having written	having been written

Формы герундия совпадают с формами **Participle I** и **Perfect Participle**. Однако, это разные формы глагола, отличающиеся и по значению и по синтаксическим функциям. Формы **Indefinite Gerund** обозначают действия, одновременные с действием, выраженным глаголом-сказуемым.

**He likes inviting friends to his place.** Он любит приглашать друзей к себе.

**He likes being invited to his friends.** Он любит, когда его приглашают к себе его друзья.

Перфектные формы герундия (**Perfect Gerund**) обозначают действия, предшествующие действию, выраженному глаголом-сказуемым.

**He is proud of having invited this man to his place.** Он гордится тем, что пригласил этого человека к себе.

**He was proud of having been invited to the party.** Он гордился тем, что его пригласили на вечер.

Функции герундия

**В предложении герундий может быть:**

а) Подлежащим. **Smoking is not allowed here.** Курить (Курение ) здесь не разрешается.

б) Определением. **There are different ways of obtaining this substance.** Существуют различные способы получения этого вещества.



в) Именной частью сказуемого. **His hobby is driving a car.** Его хобби – вождение (водить) машину (ы).

г) Прямым дополнением. **The car needs repairing.** Машина нуждается в ремонте (Машину нужно ремонтировать).

В вышеприведённых функциях герундий переводится существительным или инфинитивом.

д) Предложным дополнением. **They spoke about their travelling.** Они говорили о своём путешествии (том, как они путешествовали).

В данной функции герундий переводится существительным или придаточным предложением.

е) Обстоятельством. **Learning rules without examples is of little use.** Изучение правил (изучать правила) без примеров приносит мало пользы.

**I like reading.** Я люблю чтение (читать).

**Think before answering.** Подумай прежде чем ответить.

**By doing that you'll save a lot of time.** Делая это, ты сэкономишь много времени.

**I am tired of waiting.** Я устал от ожидания (устал ждать).

**The floor of the room needs painting.** Пол этой комнаты нуждается в покраске (нужно покрасить).

**Everybody laughed on hearing his answer.** Все рассмеялись, услышав (когда услышали) его ответ.

**Thank you for coming.** Спасибо за то, что вы пришли.

**He is proud of having won in the tournament.** Он гордится тем, что победил в турнире.

**She is sorry for being late.** Она сожалеет, что опоздала.

**He ran without stopping.** Он бежал, не останавливаясь.

**Before going to bed, she locked the door.** Прежде чем лечь спать, она заперла дверь.

В данной функции герундий переводится существительным с предлогом, деепричастием, придаточным предложением.

### **Вопросы и задания:**

#### **1. Прочитайте и переведите предложения, в которых герундий употребляется в роли:**

##### **1) подлежащего:**

1. Computer-aided testing is determined by the aims of educational procedure. 2. Learning rules without examples is of little use. 3. Knowing English is helpful for any programmer. 4. Learning to use a computer is important for every educated person. 5. Manipulating this matrix requires about 80 million separate multiplications. 6. Reading is to the mind what exercise is to the body. (R. Steel). 7. Defining problems precisely requires patience. 8. Getting several viewpoints is vital. 9. Carrying out experiments is a must with every scientist. 10. Measuring resistance is necessary in many experiments. 11. Programming a computer involves analyzing the problem to be solved and a plan to solve it.

##### **2) именной части составного сказуемого:**

1. Our aim is studying information science. 2. We started improving the device. 3. Computer-managed learning is processing and storing students' exam results, registering and timetabling. 4. The main requirement is observing the rules. 5. The main point of a transformer is providing the change of voltage. 6. It is worth (while) discussing this phenomenon. 7. The world is a fine place and worth fighting for. 8. It is no use considering these writings. 9. Today we cannot help witnessing a tendency in science to direct the collective efforts of a research team at the achievement of a common goal. 10. The primary function of the office is handling the information. 11. Programmers begin solving a problem by developing an algorithm. 12. Businesses first began using computer systems and setting up computer departments in the 1950s.

##### **3) прямого дополнения:**

1. We expected being given further assistance. 2. They discussed improving the program. 3. I like using BASIC and Pascal. 4. The device needed retesting before the experiment. 5. He remembers being shown this project. 6. He who likes borrowing dislikes paying. 7. The scientists' names deserve mentioning. 8. Computer teaching programs often involve breaking a learning task down into a series of subtasks. 9. He preferred changing the course of actions. 10. It is no good arguing about this issue. 11. Would you mind answering one more question. 12. Avoid mixing these two substances. 13. Simulating an expedition, a discovery, an exploration involves making decision and cooperation. 14. For many people, computer literacy means simply knowing which key to press. 15. Very few people who have tried word processing would consider going back to a paper-and-pencil method.

**4)дополнения с предложом:**

1. He insisted on adopting a new plan. 2. They succeeded in solving the problem. 3. I am sure of having debugged the program. 4. Computers are used to assist in teaching and learning. 5. Some people might object to making sacrifices now in order to satisfy demands of others in future. 6. They insisted on postponing the discussion. 7. I think of trying another approach. 8. The book aims at acquainting the readers with modern achievements in information technologies. 9. Silicon resembles carbon in forming a series of volatile hydrates. 10. Up to the present time, several writers have succeeded in finding exact solution of the fundamental differential equation in certain particular cases.

**5)определения:**

1. The idea of using symbols instead of words was very helpful. 2. Output devices are devices for giving information back to human beings. 3. Every teacher must study the language of educational computing. 4. In Middle Ages multiplication and division were both performed by the method of successive doubling numbers. 5. The device has the merit of being suitable for many purposes. 6. Memory is the process of selective forgetting. 7. He had early opportunity of becoming well acquainted with experimental work. 8. There is no necessity of making any corrections. 9. There is some reason for questioning this assumption. 10. Having a source code is a way of achieving independence.

**6)обстоятельства:**

1. Without knowing the result we can't draw a conclusion. 2. In considering the development of computers we must point out the oldest forms of mechanical devices for calculation. 3. After writing an equation the next step is to find the values of unknowns. 4. In designing computers experts have developed new techniques. 5. In CAL (Computer Assisted Learning) programs are designed to encourage knowledge by finding out and learning rather than by drill and practice. 6. After being discussed at the seminar many problems of educational computers became clear to us. 7. He can't solve this problem without being given this program. 8. The ability of the device to place max poles while preserving others is clearly attractive.

**2. Переведите предложения, обращая внимание на роль герундия в предложении:**

1. Upon switching off the current the pressure dropped. 2. We have modified the network while retaining the SFS property. 3. Besides being useful in general interpolation technique, the procedure can be effectively used to approximate the first coefficients of F. 4. The new opportunities may make life on this planet much more worth living. 5. They were against postponing the meeting and for going on with the discussion of this problem. 6. The purpose of the method is determining system stability. 7. We succeeded in building a flexible system. 8. He preferred changing the course of actions. 9. The main requirement is observing the rules.

**3. Переведите предложения, определяя, какой частью речи является –ing форма (причастие I, герундий, отглагольное существительное).**

1. In solving these equations you must be very careful with the signs. 2. Everything must have a beginning. 3. Swallow all your learning in the morning, but digest it in company in the evening (Ph. Chesterfield). 4. Submitting to one wrong brings to another. 5. We obtained these values in terms of the following formula. 6. This procedure is finding increasing use. 7. A man should be viewed as a free, rational being possessing a free will. 8. The problem, however, is in not

dividing the structure finely enough. 9. Fortran has become a widely accepted programming language of the coding of mathematical applications. 10. Two results obtained using the protocol showed an interesting effect worth presenting and discussing here. 11. A system analyst spends much of a working day interviewing people.

**4. Переведите предложения, определяя различие между зависимыми и независимыми герундиальными оборотами. Обращайте особое внимание на предлоги, вводящие герундиальные обороты.**

1. Lobachevsky's having created a new geometry different from that of Euclid was a new stage in the development of mathematical science. 2. His having proved the advantages of the new system is very important. 3. The computer's being used in different spheres of our life is shown in the table above. 4. I know of Pascal's having built an adding machine at the age of 19. 5. Your having graphed the flowchart helped you to show the structure of the program. 6. Pride is therefore pleasure arising from a man's thinking too highly of himself. (B. Spinoza). 7. There is only one corner of the universe you can be certain of improving, and that's your own self. (A. Huxley). 8. I knew nothing of having completed the experiment. 9. They succeeded in getting reliable information on dealing with this type of error. 10. This is a result of our not having specified input or output variables for the network.

**5. Укажите в каждом из следующих предложений те признаки, по которым вы находите герундий. Переведите предложения.**

1. We account for the incompleteness of a reaction by its being reversible. 2. Einstein's being awarded the Nobel prize in physics soon became widely known. 3. Adding more turns makes the magnetic field stronger. 4. To a large extent the skilled analyst's productivity may be attributed to his having acquired, through many repetitions, the necessary technique. 5. There are several precautions to be observed in making such experiments. 6. The explosion resulted from the substance being volatile. 7. We know of computers' being used in many fields of human activity. 8. There is no hope of our getting a complete analysis of the measurements within 8 days. 9. He is responsible for the program not having been corrected in time. 10. The mistake resulted from the device not having been mended before the test.

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## **Приложение 1.**

### **Словарь технических терминов**

#### **А**

Appearance - появление

Advertisement - объявление

Abolition - отмена

Automobile industry – автомобильная промышленность

Advantage - преимущество

Adjustment – порядок

Accelerate - ускорять

Acceleration - акселерация

Available – имеющий в распоряжении

Admission stroke – доступ такта

#### **В**

Battery - батарея

Body - кузов

Braking systems – тормозная система

Burns out – выгорать, сжигать

#### **С**

Carbon fibre – углеродное волокно

Collect antique cars –коллекционировать антикварные машины

Construct - конструировать

Clutches - сцепление

Carburetor engines –коорбюраторный двигатель

Compression - компрессия

Cooling system – система охлаждения

Cooler drops – холодная капля

Circulation - циркуляция

Crankshaft – коленчатый вал двигателя

Cardan - кардан

Control - контроль

Corrosion -коррозия

Comfortable - удобный

Conveniences - удобства

Connect - связывать

Cableway –канатная дорога

Combustion mixture –горючая смесь

Channel –канал

Cheap - дешевый

Carbon - карбон

Condition – условия, состояние

Conveying energy – передавать энергию  
Combination types –комбинированный тип  
Convert – конвертировать, преобразовать

## **D**

Determine - определять  
Diesel engine –дизельный двигатель  
Design - дизайн  
Distributor - распределитель  
Differential - дифференциал  
Dependable brakes – устойчивые тормоза  
Dimension - величина  
Distribution - распределение  
Drawbacks - недостатки

## **E**

Escort - сопровождать  
Efficient –эффективный  
Emission – выделение, испускание  
Engine - двигатель  
Endure high overloads – тяжёлая нагрузка  
Ensuring - обеспечение  
Enrich – обогащать  
Environment – окружающая среда  
Environmentally friendly cars - безвредные для окружающей среды автомобили  
Exhaust stroke – выхлопная труба  
Electric - электрический  
Effort - усилие  
Energy - энергия

## **F**

Four-cylinder engines – четырёх цилиндровый двигатель  
Fuel economy – экономия топлива  
Fuel pump – топливная помпа  
Fuel System – топливная система  
Fan - вентилятор  
Frequently -частотность  
Formation – формация  
Fossil fuels – ископаемое топливо  
Functions -функции

## **G**

Gasoline engines –газовый двигатель  
Gas turbine – газовая турбина  
Gear box – коробка передач  
Gasoline vapor - выхлоп  
General - общий  
Gravity -гравитация  
Gear oil pump –топливный насос  
Generator – генератор  
Global warming – глобальное потепление

## **H**

Highest load –самая высокая нагрузка  
Heated inner walls – отопление стен  
Heater -отопление

Hydraulic – гидравлический  
 Hydrogen - водород  
 Horse-driven buses – лошадиные силы автобуса  
**I**  
 Issue -выпуск  
 Introduce -представлять  
 Internal-Combustion engines – двигатель внутреннего сгорания  
 Initial starting –начальный запуск  
 Invention – изобретение  
 Invent - изобретать  
 Instrument – инструменты  
 Indicate -указывать  
 Intermittent -  
 Inject – инжектор  
 Improve - улучшать  
**J**  
 Jacket - чехол  
**K**  
 Kinetic energy – кинетическая энергия  
**L**  
 Lubricating property – смазочные устройства  
 Liquid -жидкость  
 Lubricating systems – система смазки  
 Laboratory tests – лабораторные тесты  
 Long service life – долгий срок службы  
 Lorry -грузовик  
**M**  
 Mode formation – метод формации  
 Manufacturing cars –производство автомобилей  
 Mass production – массовое производство  
 Method - метод  
 Material - материал  
 Motor cycles -цикл  
 Multi-cylinder engines  
 Motor car - автомобиль  
 Mixture –смешивание  
**N**  
 Normal - нормальный  
**O**  
 Outlawed -  
 Operation - операция  
 Omnibuses - омнибус  
 Oil - масло  
 Obtain - получать  
 Offer - предлагать  
 Optimal solutions – оптимальное решение  
**P**  
 Process - процесс  
 Prevent -предотвращать  
 Portion –доля, порция  
 Plug – вилка, вставлять  
 Pressure -давление

Pulls the gasoline – спускать бензин  
Pump - помпа  
Power train – силовая передача  
Power plants – силовая установка  
Propeller - пропеллер  
Pushes down - нажимать  
Put into mass production – запустить в массовое производство  
Pipe-line - трубопровод  
Petrol engines –бензинный двигатель  
Power stroke – рабочий ход поршня  
Piston –поршень

## **Q**

Quality – качество

## **R**

Range - ряд  
Reduction - снижение  
Redirect - поворот  
Road tests – дорожные тесты  
Requirement - требование  
Rigid quality control –качественный контроль  
Rapid in acceleration – ускорение  
Reliable -надёжный  
Rotate – вращать  
Run out – работать на

## **S**

Steam engine – паровой двигатель  
Speed - скорость  
Seat - место  
System - система  
Source of current – источник  
Suction stroke – секция хода  
Safety - безопасность  
Splash -брызги  
Speedometer - спидометр  
Steering system – рулевая система  
Stroke engine –ход двигателя  
Simultaneously - симуляция  
Subdivided - разделено

## **T**

Torque – крутящий момент  
Thermodynamic – термодинамик  
Turbine - турбина  
Transport - транспорт  
Trams - трамвай  
Trolleybuses - троллейбус  
Timing gears – легкая передача  
Transmission - трансмиссия

## **U**

Use - использовать

## **V**

Vehicle – транспортное средство  
Valve - клапан

## **W**

Wheels -колесо

Weight - вес

Water supply – поставка воды

Way - путь

Widespread –широко распространенный

## **Z**

Zone –зона

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