**САМОСТОЯТЕЛЬНАЯ РАБОТА № 1 ПО ТЕМЕ «Устройство автомобиля»**

**по учебному предмету «Иностранный язык в профессии»**

**1. Переведите слова:**

1. безопасность управления

2. производство автомобиля

3. запустить в массовое производство

4. легковой автомобиль

5. грузовой автомобиль

**2. Закончите предложения, выбрав соответствующее по смыслу окончание:**

1. The automobile is made up of...

a) fuel, cooling, lubricating and electric systems

2. The engine is …

b) a frame with axles, wheels and springs

3. The engine includes …

c) three basic parts

4. The running gear consists of …

d) a hood, fenders and accessories

5. The body has …

e) the source of power that makes the wheels rotate and the car

move

**3. Употребите предлоги *in, of, for, to, between:***

1. The frame provides a firm structure … the body.

2. It connects the engine … the gears … the gearbox.

3. The basic principal operation … the clutch is a frictional force acting … two discs

4. To secure the several speeds … the car the clutch shaft is mounted.

5. Most braking systems … use today are hydraulic.

**4. Выберите правильный вариант ответа:**

1. I thought that ... people at the next table are very rude to ... waiter.
2. –, the b) *–*, a c) the, the
3. There is ... amazing scenery all around ... hotel.

a) an, the b) *–*, the c) the, the

1. My sister Jane stayed at ... wonderful guest house in ... south of France.
2. a, *–* b) a, the c) the, the
3. Barry caught that seal fish...
4. hisself b) oneself c) himself d) itself
5. The rain is … heavier now.
6. some b) somewhat c) something d) someone

**5. Поставьте глагол в правильной форме:**

1. My problem might not seem like a problem, but it (be).

2. I (have) a cup of coffee at my local shopping centre with my best friend and there was this woman.

3. At first I thought it (be) a joke.

4. I (get) up late, and was wearing jeans and a sloppy jersey.

5. Anyway, my dad came with me to the agency and they took loads of photos and now they (offer) me a contract.

**6. Выберите правильный ответ:**

1. „wow“

\_\_\_

a) they are hurt

2. „mmm“

\_\_\_

b) they want someone to be quiet

3. „ouch“

\_\_\_

c) they suddenly see or understand something

4. „ah“

\_\_\_

d) they are impressed

5. „ssh“

\_\_\_

e) they dislike something

6. „yuck“

\_\_\_

f) they taste something delicious

**7. Вставьте слова *transmission, body, slower, power, industry:***

1. The engine is the source of … and makes the car move.

2. The … carries the power from the engine to the wheels.

3. The … has the hood, fenders, the heater and so on

4. The automobile … in our country has been developed since 1916.

5. Diesel oil is … burning, but it produces more power.

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

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

a) outside the engine;

b) inside the engine.

2. On the inlet stroke..............

a) the intake valve opens;

b) the intake valve is closed;

c) the intake and the exhaust valves are closed.

3. On the compression stroke..........

a). the intake valve opens;

b).the intake valve is closed;

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

4. On the power stroke ......

a).the intake valve opens;

b) the intake valve is closed;

c) the intake and the exhaust valves are closed.

5. On the exhaust stroke .........

a).the exhaust valve opens;

b).the intake valve is closed;

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

**9. Прочитайте текст, ответьте на вопросы:**

The automobile is made up of three basic parts: the power plant, or the engine, the chassis and the body.

The engine is the source of power that makes the wheels rotate and the car move. It includes fuel, cooling, lubricating and electric systems. Most automobile engines have six or eight cylinders.

The chassis includes a power train (power transmission), a running gear, steering and braking systems as well.

The power train carries the power from the engine to the car wheels.

The power transmission, in turn, contains the clutch, gearbox, propeller or cardan shaft, final drive, differential, rear axle and axle shafts. The running gear consists of a frame with axles, wheels and springs.

The body has a hood, fenders and accessories: the heater, stereo tape recorder, windshield wipers, conditioner, speedometer and so on.

1.What main parts is the automobile made up of?

2.What systems does the engine include?

3.What does the chassis consist of?

4.What has the body?

**10. Переведите предложения на русский язык**

1. Ever since cars and BMW motorcycles are perceived by the market not only as a sport.

2. Excellent design, powerful engines and high performance displays brand products to the world level.

3. Vintage cars today - the pearl of many collections.

4. Mercedes cars are popular, as in the new versions, and with the mileage.

5. This can significantly reduce cash costs and find a rare item.

**Key**

1. driving safety

2. manufacturing car

3. put into mass production

4. car

5. truck

1. c 2. e 3. a 4. b 5. D

1. for 2. to, in 3. of, between 4. of 5. in

1. c 2. b 3. b 4. c 5. B

1. is

2. was having

3. was

4. had got

5. have offered

1. d 2. f 3. A 4. c 5. b 6. E

1. power

2. transmission

3. body

4. industry

5. slower

1. b 2. a 3. b 4. c 5. A

1. The automobile is made up of three basic parts.

2. The includes engine is fuel, cooling, lubricating and electric systems.

3. The chassis includes a power train, a running gear,steering and braking systems.

4. The body has a hood, fenders and accessories: the heater, stereo tape recorder, windshield wipers, conditioner, and speedometer.

1. С тех самых пор авто и мотоциклы BMW воспринимаются рынком не иначе, как спортивные.

2. Отличный дизайн, мощные двигатели и высокое качество исполнения выводит продукцию бренда на мировой уровень.

3. Ретро-автомобили сегодня – жемчужины многих коллекций.

4. Автомобили Мерседес пользуются популярность, как в новых версиях, так и с пробегом.

5. Это позволяет существенно сократить денежные расходы и найти редкую деталь

**САМОСТОЯТЕЛЬНАЯ РАБОТА ПО ТЕМЕ № 2 «Компоненты автомобиля»**

**ВАРИАНТ I**

**Part I (часть I)**

**1. Read the text and do the following exercise (Прочтите текст и выполните следующие упражнения):**

COMPONENTS OF THE AUTOMOBILE

1. Basically, the automobile consists of three parts: the power plant, or the engine, the chassis and the body. To these may be added the accessories: the heater, lights, radio, speedometer and other devices.

2. The power plant, or engine is the source of power that makes the wheels rotate and the car move. It includes electric, fuel, cooling and lubricating systems. Most automobile engines have six or eight cylinders.

3. The chassis consists of a power train, frame with axles, wheels and springs. The chassis includes brakes and steering system.

4. The power train carries the power from the engine to the car wheels and contains the clutch, gearbox, propeller or cardan shaft, differential and the final drive.

5. The clutch is a friction device connecting (or disconnecting) the engine crankshaft to the gears in the gearbox. It is used for freeing the gearbox from the engine and is controlled by the clutch pedal.

6. Brakes are important mechanisms of the car. They are used to slow or stop the car. Most braking systems in use today are hydraulic. They are operated by the brake pedal. When the driver pushes down on the brake pedal, they are applied and the car stops.

**2. Translate into Russian in writing paragraphs 1, 3, 5, 6. (Переведите на русский язык в письменной форме абзацы 1, 3, 5, 6.)**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3. Find the right column of Russian equivalents of English words and phrases. (Найдите в правой колонке русские эквиваленты английских слов и словосочетаний):**

|  |  |  |
| --- | --- | --- |
|  | 1. body | a. тормоза срабатывают |
|  | 2. car wheels | b. силовая передача |
|  | 3. power train | c. главная передача |
|  | 4. power plant | d. коленчатый вал двигателя |
|  | 5. springs | e. нажимать на педаль |
|  | 6. steering system | f. силовая установка |
|  | 7. clutch | g. колеса автомобиля |
|  | 8. final drive | h. рама с осями |
|  | 9. engine crankshaft | i. топливная система |
|  | 10. push down the pedal | j. рулевая система |
|  | 11. brakes are applied | k.сцепление |
|  | 12. frame with axles | l. вспомогательные устройства (аксессуары) |
|  | 13. fuel system | m. система смазки |
|  | 14. lubricating system | n. кузов |
|  | 15. accessories | o. рессоры |

**4. Find appropriate answers to the questions and write them in the order in which the questions are asked. (Найдите соответствующие ответы на вопросы и напишите их в той последовательности, в которой заданы вопросы):**

|  |  |  |
| --- | --- | --- |
| **Your answer** | **Questions** | **Answers** |
|  | 1. What are the main basic parts of the automobile? | a. The clutch, gearbox, cardan shaft and the final drive. |
|  | 2. What does the chassis consist of? | b. Freeing the engine from the gearbox. |
|  | 3. What units does the power train contain? | c. The power plant, the chassis and the body. |
|  | 4. What is the function of the clutch? | d. A power train, frame with axles, wheels and springs. |
|  | 5. Why are brakes needed? | e. To slow or stop the car. |

**5. Complete the sentences by selecting the appropriate option end. (Закончите предложения, выбрав соответствующий вариант окончания):**

|  |  |  |
| --- | --- | --- |
| **Your answer** | **Beginning of the sentence** | **End of the sentence** |
|  | 1. The mechanism used for stopping the car is ... | a) gearbox; |
|  | 2. The mechanism used for changing the speed is .... | b) speedometer. |
|  | 3. The instrument measuring the speed of the car | c) brakes. |

**Part II (часть II)**

**ТЕСТ ПО ГРАММАТИКЕ АНГЛИЙСКОГО ЯЗЫКА**

**Grammar test**

|  |  |
| --- | --- |
| **1. Употреби правильный глагол.**The police \_\_\_\_\_\_\_ for witnesses.a) are lookingb) is looking | **9. Выберите  глагол в правильной форме.**Nikita Mikhalkov \_\_\_\_\_\_ a lot of films.a) madeb) have madec) has made |
| **2. Подберите нужное определительное  местоимение.**Some people like football, \_\_\_\_\_ hate it.a) otherb) othersc) another | **10. Выберите  глагол в правильной форме.**You look tired. – I \_\_\_\_ computer games all night.a) have been playingb) playedc) was playing |
| **3. Образуй наречие от прилагательного: slow**a) slowb) slownessc) slowly | **11. Выберите  глагол в правильной форме.**He became successful after he \_\_\_\_\_\_ his first novel.a) has writtenb) had writtenc) wrote |
| **4. Вставьте необходимый предлог**I`m looking\_\_\_\_ a tall man with fair hair and blue eyes.a) forb) atc) to | **12. Выберите  глагол в правильной форме.**We saw you last night. You \_\_\_\_\_\_\_ for a bus at the bus stop.a) waitedb) were waitingc) have waited |
| **5. Вставьте артикль, если необходимо.**Did you see \_\_\_\_ film yesterday? It`s very interesting.a) theb) ac)  - | **13. Выберите верное правильное местоимение**Our teacher asked \_\_\_\_\_\_ to do the task.a) both of usb) neither of us |
| **6. Вставь подходящее наречие**It`s  \_\_\_ cold for me to go out.a) toob) enough | **14. Напиши предложение, расставив слова в предложении в правильном порядке.**likes/Jane/for her granny/buying/some flowers.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **7. Вставь подходящее слово**When Bob was 16, he was a fast runner, he \_\_\_\_\_ run 100 meters  in 10 seconds.a) managed tob) couldc) can | **15. Задайте разделительный вопрос к данному предложению.**You are going to pass examination in History, \_\_\_\_\_\_\_ ?a) don`t youb) aren`t youc) are you |
| **8. Закончите предложение, вставив нужный модальный глагол .**Where`s Jane? I don`t know, she \_\_\_\_\_\_\_\_ in the cinema.a) must beb)could be | **16. Употребите глагол в правильной форме**Iʼd \_\_\_\_\_ to live in a skyscraper.a) to likeb) likingc) like |

**ВАРИАНТ 2**

**Part I (часть I)**

**1. Read the text and do the following exercise (Прочтите текст и выполните следующие упражнения):**

THE ENGINE

1. The engine is the source of power that makes the car move. It is usually called an internal combustion engine because gasoline is burned within its cylinders or combustion chambers. Most automobile engines have six or eight cylinders.

2. The operating cycle of the four-stroke engine that takes place in the engine cylinder can be divided into four strokes. The upper limit of the Piston movement is called the top dead centre. The lower limit of piston Movement is called the bottom dead centre. A stroke is the piston movement from the top dead centre to the bottom dead centre, or from the bottom dead centre to the top dead centre. In other words, the piston completes a stroke each time it changes the direction of its motion.

3. Where the entire cycle of events in the cylinder requires four stroked (two crankshaft revolutions), the engine is called a four-stroke cycle engine. The four strokes are: intake, compression, power and exhaust.

4. Two-cycle engines have also been made, and in such engines tin! entire cycle of events is completed in two strokes or one revolution of the crankshaft.

5. On the intake stroke the intake valve is opened. The mixture of; and vaporized gasoline is delivered into the cylinder through the inlet valve.

On the compression stroke the inlet valve is closed so that the mixture can be compressed.

On the power stroke both valves (inlet and exhaust) are closed in order to rise pressure during the mixture combustion.

On the exhaust stroke the exhaust valve is opened to exhaust the residual gas.

**2. Translate into Russian in writing paragraphs 2, 5. (Переведите на русский язык в письменной форме абзацы 2, 5.)**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3. Find the right column of Russian equivalents of English words and phrases. (Найдите в правой колонке русские эквиваленты английских слов и словосочетаний):**

|  |  |  |
| --- | --- | --- |
|  | 1. internal combustion engine | a. поршень |
|  | 2. combustion chamber | b. верхняя мертвая точка |
|  | 3. stroke | c. четырехтактный двигатель |
|  | 4. piston | d. коленчатый вал |
|  | 5. top dead centre | e. отверстие клапана |
|  | 6. bottom dead centre | f. двигатель внутреннего сгорания |
|  | 7. four-stroke cycle engine | g. нижняя мертвая точка |
|  | 8. two-cycle engine | h. топливная система |
|  | 9. crankshaft | i. такт впрыска *(топлива)* |
|  | 10. intake stroke | j. двухтактный двигатель |
|  | 11. valve opening | k. камера сгорания |
|  | 12. fuel system | l. ход, такт *(поршня)* |
|  | 13. power stroke | m. выхлоп |
|  | 14. exhaust | n нижний предел |
|  | 15. the lower limit | o. рабочий ход поршня |

**4. Find appropriate answers to the questions and write them in the order in which the questions are asked. (Найдите соответствующие ответы на вопросы и напишите их в той последовательности, в которой заданы вопросы):**

|  |  |  |
| --- | --- | --- |
| **Your answer** | **Questions** | **Answers** |
|  | 1. What is the top dead centre? | a. When the entire cycle of events is completed in two strokes. |
|  | 2. What is the bottom dead centre? | b. The lower limit of the piston movement. |
|  | 3. When is the engine called a four-stroke cycle engine? | c. The upper limit of the piston movement. |
|  | 4. When is the engine called a two-cycle engine? | d. When the entire cycle of events in the cylinder is completed in four strokes. |
|  | 5. What kind of strokes can the events in the engine cylinder be divided into? | e. Intake, compression, power and exhaust strokes. |

**5. Complete the sentences by selecting the appropriate option end. (Закончите предложения, выбрав соответствующий вариант окончания):**

|  |  |  |
| --- | --- | --- |
| **Your answer** | **Beginning of the sentence** | **End of the sentence** |
|  | 1. An internal combustion engine is called so because gasoline is burned.... | a) on the intake stroke |
|  | 2. The four-cycle engine requires.... | b) inside the combustion chamber; |
|  | 3. The mixture of air and gasoline is delivered into the cylinder.... | c) two strokes of piston movement |

**Part II**

**ТЕСТ ПО ГРАММАТИКЕ АНГЛИЙСКОГО ЯЗЫКА**

**Grammar test**

|  |  |
| --- | --- |
| **1. Употреби правильный глагол:**My family \_\_\_\_\_\_\_ to move to Liverpool.a) have decidedb) has decided | **9. Выберите  глагол в правильной форме.**Anna Netrebko \_\_\_\_\_\_ many soprano parties.a) sangb) have sungc) has sung |
| **2. Подберите нужное определительное  местоимение.**Have you got any \_\_\_\_\_\_ slippers?a) otherb) othersc) another | **10. Выберите  глагол в правильной форме.**She \_\_\_\_\_\_\_\_\_\_ the piano for 10 years.a) has been playingb) playedc)was playing |
| **3. Образуй наречие от прилагательного:** **cheap**a) cheapb) cheaplyc) cheapness | **11. Выберите  глагол в правильной форме.**When we arrived at the cinema the film \_\_\_\_ already\_\_\_\_.a) has startedb) had startedc) have started |
| **4. Вставьте необходимый предлог**I go \_\_\_\_\_ a walk almost every evening.a) forb) atc) to | **12. Выберите  глагол в правильной форме.**Kostya`s father \_\_\_\_\_\_\_\_ on a wet rock and broke his nose.a)slippedb) was slippingc) has slipped |
| **5. Вставьте артикль, если необходимо.**I like\_\_\_\_\_ detective stories.a)  theb)  ac)  – | **13. Выберите верное правильное местоимение**The last task is difficult for us, because \_\_\_\_\_\_\_\_\_ is good at Maths.a) both of usb) neither of us |
| **6. Вставь подходящее наречие**Is it warm\_\_\_\_\_\_ to swim?a) toob) enough | **14. Напишите предложение, расставив слова в предложении в правильном порядке.**will be meeting/tomorrow /My friends and I/ at the tennis court.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **7. Вставь подходящее слово** In the last race Alex \_\_\_\_\_\_\_\_\_ beat everybody.a) managed tob) couldc) can | **15. Задайте разделительный вопрос к данному предложению.**My little sister is playing with her doll now, \_\_\_\_\_\_\_?a) doesn`t sheb) isn`t shec) is she |
| **8. Закончите предложение, вставив нужный модальный глагол**She \_\_\_\_\_\_ a rock music fan.a) must beb) could be | **16. Употребите глагол в правильной форме**Iʼd \_\_\_\_  to listen to the birds.1. to like
2. like
3. liking
 |

**Эталоны правильных ответов**

|  |  |
| --- | --- |
| **Вариант I****Часть I** | **Вариант II****Часть I** |
| **Задание 2** | **Задание 2** |
| 1. В принципе, автомобиль состоит из трех частей: электростанции или двигателя, шасси и кузова. К этому можно добавить вспомогательные устройства (аксессуары): обогреватель, свет, радио, спидометр и другие устройства.3. Шасси состоят из трансмиссии, рамы с осями, колес и рессор. Шасси включают тормоза и рулевое управление.5. Сцепление – фрикционное устройство, подключающее коленчатый вал двигателя к шестерне в коробке передач. Это используется для освобождения коробки передач от двигателя и контролируется педалью сцепления. | 2.  Рабочий цикл четырехтактного двигателя, который находится в цилиндре двигателя, может быть разделен на четыре такта. Верхний предел движения поршня называется верхней мертвой точкой. Нижний предел движения поршня называется нижней мертвой точкой. Удар – это движение поршня с верхней мертвой точки к нижней мертвой точке, или с нижней  мертвой точки к верхней мертвой точке. Другими словами, поршень совершает удар каждый раз и тем самым изменяет направление своего движения.5. На такте впуска открывается впускной клапан. Смесь из испаряющегося бензина поступает в цилиндр через впускной клапан. На такте сжатия впускной клапан закрыт так, что смесь может быть сжата. На такте оба клапана (впуска и сжатия) закрыты для того, чтобы повысить давление текущей смеси сгорания. На такте выпуска впускной клапан открывается, чтобы источить остаточный газ. |
| **Задание 3** | **Задание 3** |
| **1. n** | **6. j** | **11. a** | **1. f** | **6. g** | **11. e** |
| **2. g** | **7. k** | **12. h** | **2. k** | **7. c** | **12. h** |
| **3. b** | **8. c** | **13. i** | **3. o** | **8. j** | **13. l** |
| **4. f** | **9. d** | **14. m** | **4. a** | **9. d** | **14. m** |
| **5. o** | **10. e** | **15. l** | **5. b** | **10. i** | **15. n** |
|  |  |  |  |
| **Задание 4** | **Задание 5** |  | **Задание 4** | **Задание 5** |  |
| **1. c** | **1. c** |  | **1. c** | **1. b** |  |
| **2. d** | **2. a** |  | **2. b** | **2. c** |  |
| **3. a** | **3. b** |  | **3. d** | **3. a** |  |
| **4. b** |  |  | **4. a** |  |  |
| **5. e** |  |  | **5. e** |  |  |
|  |  |  |  |  |  |
| **Часть II** | **Часть II** |
| **1. a** | **9. c** |  | **1. a** | **9. c** |  |
| **2. b** | **10. a** |  | **2. a** | **10. a** |  |
| **3. c** | **11. b** |  | **3. b** | **11. b** |  |
| **4. a** | **12. b** |  | **4. a** | **12. a** |  |
| **5. a** | **13. a** |  | **5. c** | **13. b** |  |
| **6. a** | **14.**Jane likes buying some flowers for her granny. | **6. b** | **14.** My friends and I will be meeting at the tennis court tomorrow. |
| **7. b** | **15.b** |  | **7. a** | **15.b** |  |
| **8. b** | **16. c** |  | **8. b** | **16. b** |  |

***Самостоятельная работа №3. «Развитие автомобильного транспорта»***

The early days 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 international 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.

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 –…

***Самостоятельная работа № 4. «Виды наземного транспорта»***

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 international 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 then 20thcentury 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 19th 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 bellow.

**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 трамваи

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…

***Самостоятельная работа № 5. «Автомобильное производство***»

Automobile production

Specialists in automobile industry deal with designing and manufacturing cars, so they should know that the production of the automobile comprises the following phases:

1. Designing
2. Working out the technology of manufacturing processes
3. Laboratory tests
4. Road tests
5. Mass production

Why is it necessary to know all these facts?

It is important to know them as before the automobile (car or truck) is put into mass production, it should be properly designed and the automobile must meet-up-to-date requirements.

What are these requirements?

The automobile must have high efficiency, long service life, driving safety, ease of maintenance and pleasant appearance.

In order to obtain all these qualities engineers should develop up-to-date methods of designing cars, using new types of resistant to corrosion light materials. Also it is important to know computer science because it is intended to shorten the time between designing and manufacturing. Computers offer quick and optimal solutions of problems.

But before the car is put into mass production all its units and mechanisms are subjected to tests, first in the plant’s laboratory, then the car undergoes a rigid quality control in road tests. Only then the car is put into mass production. Why are these tests required? What qualities are required of the automobile? The modern automobile must be rapid in acceleration, must have smooth acting clutch, silent gearbox, dependable brakes and steering system, as well as pleasant appearance. Also it must be comfortable and have all conveniences.

**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. Ответьте на вопросы по тексту**

1. What phases does the production of the automobile comprise?
2. What requirements must the automobile meet?
3. Why are cars subjected to road tests
4. What qualities are required of the automobile?
5. Why is it important for the specialists in automobile industry to know computing methods?

**3. Закончите предложения, выбрав соответствующий вариант окончания:**

1. **The cars are subjected to road tests in order…**
	1. to shorten the time between designing and manufacturing
	2. to meet up-to-date requirements
	3. to work out new technological processes
2. **The car must have the following units….**
	1. high efficiency, long service life, driving safety and pleasant appearance
	2. smooth acting clutch, silent gearbox, dependable brakes and steering system
3. **The car must have the following qualities**….
	1. high efficiency, long service life, driving safety and pleasant appearance
	2. smooth acting clutch, silent gearbox, dependable brakes and steering system

***Самостоятельная работа № 6. «Знакомство с авто****»*

***Acquaintance with cars***

Dialogue А

**Nick:**Hullo, Boris!

**Boris:**Hullo, Nick. How are things?

**N**.: Perfectly well, thank you. I entered the automobile construction college.

**В**.: That's nice, what will you become after graduating from the college?

**N**.: I'll become a technician and deal with manufacturing new cars.

**В**.: Why did you choose this profession?

**N**.: I enjoy learning about a car. I enjoy working with metal. And most of all I enjoy being able to construct cars. В.: Do you enjoy the course?

**N**.: Yes, of course.

**В**.: Tell me about your profession in detail, please?

**N**.: With great pleasure. As you know an automobile must be safe, have smooth acting clutch, silent gears, excellent brakes and steering system. And in order to achieve these qualities a lot of work must be done.

**В**.: Thank you very much for your information. I believe you like your profession very much.

**N.**: Oh, yes, very much, indeed.

Dialogue В

**Anton:** Where do you study?

**Boris:** I study at the automobile construction college.

**A**: Whom does the college train?

**B**: It trains specialists for the automobile industry.

* 1. **A**: Why did you decide to become a technician?
	2. **B**: I enjoy working with machines. I enjoy learning about a car. I understand every part of it.
		1. **A**: What can you tell me about the car?

**B**: Well, the car of today must be rapid in acceleration; it must have dependable clutch, brakes, and steering system, be stable on the road and have pleasant appearance.

**A**: Do you enjoy the course?

**B:** Yes, very much. I have learned a lot of things. For example, I know that the production of the car comprises five phases.

**A:** What are they?

**B**: They are designing, working out the technology, laboratory tests, road tests, mass production.

**A:** And why are laboratory and road tests needed?

**B**: The cars are subjected to tests in order to meet up-to-date de­mands.

**A**: And what are these demands?

**B:** They are high efficiency, long service life, driving safety, ease of maintenance and so on.

**A:** I think you will become an expert in automobile engineering.

**B:** I'll try. The cooperative plan of an academic program with practice at a plant will help me to become a good specialist.

***1.*Найдите в тексте диалога английские эквиваленты следующих русских слов и выражений и запишите их в виде мини-словаря:**

Учусь в автомобилестроительном колледже, техник, люблю работать с машинами, современный автомобиль, надежные тормоза, плавное сцепление, приятный внешний вид, массовое производство автомобилей, стендовые испытания, отвечать современным требованиям, долгий срок службы, легкость техобслуживания, надежность, быстро разгоняться (приёмистость), подвергаться жестким дорожным испытаниям

**2. Составьте из двух диалогов один. Используйте лексику из упр.1.**

**3.** **Закончите предложения, подобрав соответствующие по смыслу слова (или словосочетания), приведенные ниже.**

1. I study at
2. After graduating from the college I shall become
3. I shall deal with
4. All specialists must know that the production of the automobile comprise …….
5. It is necessary to know these facts because the automobile of today must meet …
6. The modern automobile must have ….….
7. In road tests the automobile undergoes …….

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).

***4.*Ответьте на вопросы.**

* 1. 1. What college do you study at?
	2. 2. What will you become after graduating from the college?
	3. 3. What will you deal with?
	4. 4. What phases does the production of the automobile comprise?
	5. 5. Why are the cars subjected to laboratory and road tests?
	6. 6. What qualities must the car have?
	7. 7. What units must the car have?

***5.*Переведите предложения на английский язык.**

1. Я учусь в электротехническом колледже .

2. После окончания колледжа я стану специалистом автомобильной промышленности.

3. По моему мнению, каждый специалист должен знать, что автомобиль должен пройти стендовые и дорожные испытания.

4. Эти испытания необходимы, чтобы автомобиль отвечал современным требованиям.

5. Современный автомобиль должен обладать следующими качествами: быть приёмистым, иметь плавное сцепление, бесшумную коробку передач, надежные тормозную и рулевую системы, быть легким в управлении.

6.Двигатель автомобиля также должен иметь небольшой расход топлива и быть экологичным.

***Самостоятельная работа № 7. «Тенденции в современном машиностроении»***

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

**1. 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.

**2. 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

**3. 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.

***Самостоятельная работа № 9. «Экологически чистые автомобили****»*

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 an 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.

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

|  |  |
| --- | --- |
| a) environmentally friendly carsb) global warmingc) keep going up and upd) have been put under pressuree) fossil fuelf) electric motorg) drawbacksh) the hybrid cari) never needs to be rechargedj) carbon fibrek) hydrogenl) harmless water vapour | 1.водород2.углеродное волокно3.никогда не требует перезарядки4.ископаемое топливо5.гибридный автомобиль6.продолжают подниматься7.были подвергнуты давлению8. безвредные для окружающей среды автомобили9.глобальное потепление10.безопасный водяной пар11.недостатки12.электродвигатель |

**2. Найдите эквиваленты данный 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.

**Словарь технических терминов**

**A**

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

**B**

Battery - батарея

Body - кузов

Braking systems – тормозная система

Burns out – выгорать, сжигать

**C**

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, преображать

**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 загрузка

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 загрузка

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 - переворот

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