**КОНТРОЛЬНОЕ ЗАДАНИЕ № 1**

**Для того чтобы правильно выполнить задание № 1, необходимо усвоить следующие грамматические темы:**

1. **Имя существительное. Множественное число. Артикли и предлоги как показатели имени существительного. Притяжательный падеж имени существительного. Существительное в функции определения и его пере­вод на русский язык.**
2. **Имя прилагательное. Степени сравнения имён прилагательных. Конструкции типа the more ... the less.**
3. **Числительные.**
4. **Местоимения: личные, притяжательные, вопросительные, указа­тельные, неопределённые и отрицательные.**
5. **Форма настоящего (Present), прошедшего (Past) и будущего (Future) времени группы Indefinite действительного залога изъявительного наклонения. Спряжение глаголов to be, to have в Present, Past и Future In­definite. Повелительное наклонение и его отрицательная форма.**
6. **Простое предложение: прямой порядок слов повествовательного предложения в утвердительной и отрицательной формах; обратный поря­док слов вопросительного предложения.**
7. **Оборот there is (are).**
8. **Основные случаи словообразования.**

**Используйте следующий образец выполнения к заданию 1.**

**грамматическая функция окончания -s**

**The students attend lectures and seminars.**

**students, lectures - множественное число**

**seminars от имён существит.**

**Студенты посещают лекции и семинары. a student, a lecture, a seminar**

1. **He lectures on history.**

**Он читает лекции по истории.**

**lectures - 3-е лицо единственного числа от глагола to lecture в Present Indefinite.**

1. **My brother’s son is a student.**

**Сын моего брата - студент.**

**В слове brother’s -‘s окончание притяжательного падежа имени су­ществительного в единственном числе.**

**My brothers’ sons are students.**

**Сыновья моих братьев - студенты.**

**Слово brothers’ - форма притяжательного падежа имени существи­тельного a brother во множественном числе.**

Вариант 3

1. **Перепишите следующие предложения. Определите по граммати­ческим признакам, какой частью речи являются слова, оформленные окончанием -s и какую функцию это окончание выполняет, т. е. служит ли оно:**

**а) показателем 3 -го лица единственного числа глагола в Present In­definite;**

**б) признаком множественного числа имени существительного;**

**в) показателем притяжательного падежа имени существительного (см. образец выполнения).**

**Переведите предложения на русский язык.**

1. **Frosts and storms make life hard in the Far North.**
2. **Professor N. lectures on history.**
3. **Chicago is the nation’s second largest city.**
4. **Перепишите следующие предложения и переведите их, обращая внимание на особенности перевода на русский язык определений, выра­женных именем существительным.**
5. **Forest areas of our country are very great.**
6. **Chicago is the world’s largest railroad terminal.**
7. **The highest population density in Russia is in Moscow.**
8. **Перепишите следующие предложения, содержащие разные фор­мы сравнения, и переведите их на русский язык.**
9. **The thicker the wire the less its resistance.**
10. **The weather today is worse than it was yesterday.**
11. **Moscow is the largest city in our country.**
12. **Перепишите и письменно переведите предложения на русский язык, обращая внимание на перевод оборота there + be и неопределённых и отрицательных местоимений.**
13. **There are more than 100 elements known to science.**
14. **There appeared some new methods of separating the molecules of pol­ymers.**
15. **My school friend has no ability to mathematics.**
16. **Перепишите следующие предложения, определите в них видо­временные формы глаголов и укажите их инфинитив; переведите предло­жения на русский язык.**
17. **The student made no mistakes in his translation.**
18. **Plasma is the fourth state of matter.**
19. **We shall investigate the structure of a new substance in our laboratory.**
20. **Перепишите и письменно переведите текст.**

**Пояснения к тексту:**

1. **inland - внутрь, вглубь**
2. **trading post - фактория**
3. **fur trappers - охотники на пушного зверя**

**CHICAGO**

**Chicago is the nation’s second largest city, the most important Great Lakes port and the world’s largest railroad terminal. It lies about 800 miles in­land from the Atlantic and for centuries was known only to Indians as a small trading post for fur trappers. But after the opening of the Eerie canal in 1825 Chicago soon became a harbour and started to grow rapidly.**

**The construction of railroad in the 1840s still furthered its unprecedented growth. Chicago soon turned into the largest grain and meat market of the country. This encouraged the farmer to grow more wheat and raise more cattle. Thus the gigantic transportation system with Chicago at the center helped the conversion of farming into an industry which, in turn, gave impetus to the ap­pearance of countless inventions. In the 35 years between the end of the Civil war and the end of the century, the U.S. Patent Office granted more than half-a- million patents. And so Chicago became a major industrial city with a perma­nent labour force.**

**After 1850 housing posed the most serious urban problem. The extremely high cost of urban territory spurred the architects to build upward. They tried to find a new form of their buildings. Soon a “race to the skies” was on in all the great cities of America, and the words “skyscraper” and “skyline” entered the language. The first building of this kind was erected in 1883. Thus the sky­scraper was Chicago’s contribution to American architecture.**

**However, all efforts to relieve radically the overcrowding in Chicago slums practically failed for the population continued to grow rapidly and by 1950 reached 3,620,000.**

**Chicago in our days is not only a major industrial city but also an important cultural center. It has nearly 100 institutions of higher learning as well as a num­ber of interesting museums, picturesque parks, good recreational and sport facili­ties. Among the famous skyscrapers are the 100-story John Hancock Center and the 110-story Sears Tower, which rank as the world’s tallest building.**

1. **Прочитайте 3, 4 абзацы текста и письменно ответьте на вопросы.**
2. **What spurred the architects to build upward?**
3. **What words entered the language after 1850?**
4. **What was Chicago’s contribution to American architecture?**
5. **Were the efforts to relieve the overcrowding in Chicago a success?**
6. **What was the population in Chicago in 1950?**

**КОНТРОЛЬНОЕ ЗАД**АНИЕ **№ 2**

**Для того чтобы правильно выполнить задание № 2, необходимо усвоить следующий грамматический материал английского языка:**

1. **Видовременные формы глагола:**

**а) активный залог - формы Indefinite (Present, Past, Future); формы Continuous (Present, Past, Future); формы Perfect (Present, Past, Future);**

**б) пассивный залог - формы Indefinite (Present, Past, Future).**

**Особенности перевода пассивных конструкций на русский язык.**

1. **Модальные глаголы и их эквиваленты (can, may, must)**
2. **Простые неличные формы глагола: Participle I, Participle II в функ­ции определения и обстоятельства. Gerund - герундий, простые формы.**

**Используйте следующие образцы выполнения упражнений.**

**Образец выполнения 1 (к заданию I)**

**a) Lobachevsky’s geometry had revolutionized mathematics and the phi­losophy of science.**

**а) Геометрия Лобачевского произвела коренное изменение в матема­тике и философии науки.**

**had revolutionized - Past Perfect Active от глагола to revolutionize**

**б)These data are often referred to.**

**б) На эти данные часто ссылаются.**

**are referred to - Present Indefinite Passive от глагола to refer to.**

**Образец выполнения 2 (к заданию II)**

1. **The changes affecting the composition of materials are called chemical changes.**

**Изменения, влияющие на состав материалов, называются химиче­скими изменениями.**

**affecting - Participle I, определение.**

**called - Participle II, составная часть видовременной формы Present Indefinite Passive от глагола to call.**

**When heated to the boiling point water evaporates.**

**Когда воду нагревают до точки кипения, она испаряется. (При нагревании до точки кипения вода испаряется.)**

**(When) heated - Participle II, обстоятельство.**

**Вариант 3**

**I. Перепишите следующие предложения, подчеркните в каждом из них глагол-сказуемое и определите его видовременную форму и залог. Переведите предложения на русский язык.**

1. **Scientists have found ways of measuring the sizes and positions of bod­ies in the Universe.**
2. **The laboratory assistant was writing down all the data during the exper­iment.**
3. **The launching of Sputnik 1 was followed by many achievements in science and engineering.**
4. **Mendeleev was appointed Rector when he was 35 years old.**
5. **Перепишите следующие предложения, подчеркните Participle I и Participle II и установите функции каждого из них, т. е. укажите, является ли оно определением, обстоятельством или частью глагола-сказуемого. Переведите предложения на русский язык.**
6. **These reactions convert hydrogen into helium, giving off a great amount of light and heat.**
7. **Soils containing too much sand or clay are of less value in agriculture.**
8. **Plastics articles are often difficult to repair if broken.**
9. **The amount of heat generated depends on the quality of fuel used.**
10. **Перепишите следующие предложения, подчеркните в каждом из них модальный глагол или его эквиваленты. Переведите предложения на русский язык.**
11. **These new materials had to withstand much higher temperatures than metals.**
12. **Laser light can be used to transmit power of various types.**
13. **This equipment should be tested in various conditions.**
14. **The consequences of the pollution of the atmosphere by different prod­ucts are to be carefully studied.**
15. **Перепишите и письменно переведите текст.**

**Пояснения к тексту:**

1. **Meitner - Майтнер**
2. **doctorate - докторская степень**
3. **then available - доступные в то время**
4. **illustrious - прославленный, известный**
5. **productive - плодотворный.**

**LISE MEITNER**

**In 1938, an Australian physicist named Lise Meitner announced the split­ting of the atom in the laboratory. That announcement confirmed once again the beginning of the Atomic Age. At that time Lise Meitner was one of the few persons in the world who had a thorough understanding of atomic energy and the uses which could be made of this great power.**

**Lise Meitner, the daughter of a lawyer, was born in Vienna on the 17th of November 1878. She grew interested in science when she read of the Curies discovery of radium. The example of Marie Curie showed that a woman was able to achieve something in science. Lise Meitner became the first woman in the history of the University of Vienna who earned her doctorate in physics.**

**In 1906 she went to the University of Berlin to continue her studies by attend­ing the theoretical lectures of Max Planck and by doing experimental work. Then she began her research in the new field of radioactivity. She focused her attention on the behavior of beta radiation from radioactive elements, experimenting with the primitive methods then available for measuring and analyzing radioactivity.**

**In 1938 she left Germany for Sweden. Lise Meitner declined to work on the development of the atom bomb remaining in Sweden throughout the war. She was concerned with the properties of new radioactive isotopes, produced by the cyclotron. Her career was illustrious and productive (she published more than 135 scientific papers), but throughout her life she remained a shy person, with a deep interest in music. Her devotion to science had been total. She never married. In 1960 she moved to Cambridge, England, where she died in 1968.**

1. **Письменно ответьте на вопросы к тексту.**
2. **What was Lise Meitner?**
3. **What did she do in 1938?**
4. **Did she work on the development of atom bomb?**
5. **What was she concerned with?**
6. **What kind of person was she?**

**КОНТРОЛЬНОЕ ЗАД**АНИЕ **№ 3**

**Чтобы правильно выполнить задание 3, необходимо усвоить следу­ющий грамматический материал английского языка:**

1. **Грамматические функции и значения слов that, one, it.**
2. **Пассивный залог (the Passive Voice) видовременных форм Indefi­nite, Continuous, Perfect.**
3. **Функции глаголов to be, to have, to do.**
4. **Простые неличные формы глагола.**

**Инфинитив в функции:**

**а) подлежащего,**

**б) составной части сказуемого,**

**в) определения,**

**г) обстоятельства цели.**

1. **Бессоюзное подчинение в определительных и дополнительных придаточных предложениях.**

**Используйте образец выполнения к заданию 1:**

**Present Perfect Passive**

**The main question has already been discussed.**

**Главный вопрос уже обсудили.**

**Present Indefinite Passive**

**His scientific work is much spoken about.**

**О его научной работе много говорят.**

Вариант 3

1. **Перепишите следующие предложения, определите в каждом из них видовременную форму и залог глагола-сказуемого (см. образец). Пе­реведите предложения на русский язык.**
2. **The radar has been used for the automatic control of ground transport.**
3. **Today plastics are being widely used instead of metals.**
4. **The construction of the dam has been completed this month.**
5. **The alloys were experimented upon in our lab.**
6. **Перепишите следующие предложения и переведите их на русский язык, обращая внимание на разные значения слов it, that, one.**
7. **It is the number of electrons within the atom that determines the prop­erties of a substance.**
8. **The territory of Moscow is larger than that of London.**
9. **In London one must get used to the left-side traffic.**
10. **Перепишите предложения и переведите их на русский язык, об­ращая внимание на различные значения глаголов to be, to have, to do.**
11. **Some substances do not conduct heat**
12. **These computers will have to perform millions of operations per second.**
13. **He was asked to make a report.**
14. **You are to present the results of your research in a week.**
15. **Перепишите следующие предложения и переведите их на рус­ский язык, обращая внимание на бессоюзное подчинение.**
16. **I think he has made a mistake in his calculations.**
17. **The heat a body contains is the kinetic energy of its molecules.**
18. **Перепишите следующие предложения и переведите их на русский язык, обращая внимание на функцию инфинитива.**
19. **They promised to supply us with the necessary equipment.**
20. **The experiment to be carried out is of great importance for our research.**
21. **To convert chemical energy into electrical energy we must use an elec­trical cell.**
22. **The task of the computer is to operate flexible line properly.**
23. **Перепишите и письменно переведите текст.**

**Пояснения к тексту:**

1. **self-taught engineer - инженер-самоучка**
2. **crossing - переправа**
3. **a span - пролёт, to span - перекрывать**

**ON BRIDGE BUILDING**

**The history of Russian bridge building is closely connected with the name of Kulibin, one of the most talented self-taught engineers. From his early child­hood Kulibin showed a keen interest in all kinds of mechanical devices. To acquire skill and knowledge became the boy’s greatest desire. But books were difficult to obtain in the provincial town where he lived and there was no one to instruct him in mechanics. The difficulties which he had to overcome seemed irresistible. But in spite of all that he succeeded in going to Petersburg where he was appointed mechanic to the Academy of sciences and since then spent all his free time and all his money on new inventions.**

**In Petersburg Kulibin undertook a very difficult engineering problem - to design a bridge across the Neva as there was not a single permanent bridge in this city to provide a crossing at any season of the year. Kulibin was the first to think of spanning the river with an arched bridge. According to his plan the bridge was to have a single span to leave a free water way for ships and barges. It was a daring idea: arched bridges of similar construction had been built be­fore but no engineer dared even to think of constructing a bridge with a three hundred meter span.**

**After the model was completed it had to be submitted to a special com­mission set up by the Academy of Sciences and invaded by foreign scientists and specialists at the time of Catherine II. They considered themselves to be much superior to Russian people whose intellect and talent they utterly ignored.**

**In spite of general disbelief the testing of the model was a success. No fail­ure resulted even when a weight much greater than the maximum load was applied to the bridge. In spite of the favourable conclusion no practical result followed.**

1. **Письменно ответьте на вопросы к тексту.**
2. **What commission did the model have to be submitted?**
3. **What specialists invaded the Academy of sciences at the time of Cathe­rine II?**
4. **Did they consider themselves much superior to Russian people?**
5. **Was the testing of the model a success?**
6. **Did practical result follow?**

**КОНТРОЛЬНОЕ ЗАД**АНИЕ **№ 4**

**Чтобы правильно выполнить задание 4, необходимо усвоить следу­ющий грамматический материал английского языка:**

1. **Сложные формы инфинитива (Passive Infinitive, Perfect Infinitive). Обороты, равнозначные придаточным предложениям: объектный инфи­нитивный оборот, субъектный инфинитивный оборот.**
2. **Причастия (Participle 1, II). Независимый (самостоятельный) при­частный оборот.**
3. **Условные предложения.**

Вариант 3

1. **Перепишите и письменно переведите на русский язык следующие предложения. Помните, что объектный и субъектный инфинитивные обо­роты соответствуют придаточным предложениям.**
2. **The Sun and stars are proved to be able to produce great quantities of energy by means of certain nuclear reactions.**
3. **For the experiment we need several electrical devices to be connected in series.**
4. **Lasers are known to have found wide application in medicine.**
5. **Перепишите и письменно переведите на русский язык следующие предложения. Обратите внимание на перевод зависимого и независимого (самостоятельного) причастных оборотов.**
6. **Measurements of solar radiation reaching the Earth each day make it possible to calculate the surface temperature of the Sun.**
7. **Having built a new automobile plant, we increased the output of cars and buses.**
8. **Knowledge being the most valuable wealth of our times, the infor­mation theory became of great importance for the national economy.**
9. **Перепишите и письменно переведите на русский язык следую­щие сложные предложения. Обратите внимание на перевод условных предложений.**
10. **If the gathered data had been presented in time, the results of the exper­iments would have been different.**
11. **If you had answered six questions in the competition, you would have won the first prize.**
12. **It would be impossible to carry on a careful study of the process with­out the new device.**
13. **Перепишите и письменно переведите текст.**

**Пояснения к тексту.**

1. **digital - цифровой**
2. **to result in - заканчиваться, приводить к чему-либо**
3. **prospects - перспективы**

**COMPUTERS**

**The first machine for mathematical computation was built in 1822 by the mathematician Charles Babbage. From the description of this machine we know him to understand clearly all the fundamental principles of modern digital computers. Babbage was born in England in 1792. He taught himself mathe­matics so well that when he went to Cambridge he found that he knew algebra better than his teacher. Babbage constructed a model of a computer and devoted the rest of his life to developing an universal computing machine. But he was not understood by his contemporaries.**

**Two generations of engineers worked hard to construct a modern com­puter. Their attempts resulted in the development of computing machines which transformed the whole course of scientific achievements. If you looked at the machines which people had used up to 1946, you would notice that they were not so perfect as the ones available today.**

**Having invented computers engineers began to use them in industrial auto­matic processes. They are known to carry out several thousand arithmetic opera­tion in one second. If there had been no computers space flights and many other achievements of modern science and technology would have been impossible.**

**We often hear that the increasing flood of information will be one of the problems of the 21-st century. The computers may help to solve it too.**

**As the electronic computer has opened great prospects for further devel­opment of science and technology, it may be spoken of as one of the most im­portant inventions of our time.**

**V. Письменно ответьте на вопрос к тексту:**

**Why may a computer be spoken of as one of the most important inven­tions of our time?**

ТЕКСТЫ ДЛЯ ПЕРЕВОДА СО СЛОВАРЕМ Направление 080100.62

Направление 190600.00 «Эксплуатация транспортно-технологических машин и комплексов»

**TEXT 3. CHASSIS**

**Пояснения к тексту:**

**unit - узел, блок, агрегат**

**gear - шестерня**

**power transmission - силовая**

**gearbox - коробка передач передача**

**tractive effort - тяговое усилие**

**running gear - ходовая часть**

**driving wheels - ведущие колеса**

**steering system - система рулевого управления**

**steering system - рулевая система**

**transmission - передача**

**the steering mechanism - трансмиссия, ходовая часть и рулевой механизм shaft - вал**

**car springs - рессоры автомобиля**

**flywheel - маховик**

**rear axle - задний мост**

**clutch - сцепление**

**final drive - главная передача**

**friction device - фрикционное устройство**

**axle shafts - полуоси**

**crankshaft - коленчатый вал**

**The main units of the chassis are: the power transmission, the running gear and the steering mechanism. The power transmission includes the whole mechanism between the engine and the rear wheels. This entire mechanism consists of the clutch, gearbox, propeller (cardan) shaft, rear axle, final drive, differential and axle shafts.**

**At the front end of the car is the engine. On the back of it is the flywheel. Behind the flywheel is the clutch. The clutch is a friction device connecting the engine with the gears of the gearbox. The main function of the gearbox is to change the speed of the car.**

**The power is always transmitted by the cardan shaft to the live back axle. The final drive reduces the high speed of the engine to the low speed of the driving wheels. The differential enables the driving wheels to turn at different speeds which is necessary when turning the car. The foundation of the automo­bile is the frame to which different chassis units are attached.**

**The rear axle is capable of moving up and down about the frame. The rear axle is an important part of the transmission. It carries the greater portion of the weight of the car.**

**The steering mechanism is designed for changing the direction of the car. The brakes are used for stopping the car, for decreasing its speed and for holding the car position.**

**transmission, the running gear and the steering mechanism**