

А.Л. КЮРЕГЯН
О.А. РЫБАЛЬЧИК

АНГЛИЙСКИЙ ЯЗЫК.
Практикум для студентов заочного факультета

Самара
Самарский государственный технический университет
2011



МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ

ГОСУДАРСТВЕННОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ
ВЫСШЕГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ
«САМАРСКИЙ ГОСУДАРСТВЕННЫЙ ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ»

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Р е ц е н з е н т : канд. филол. наук, доцент Т.А. Филоненко
(Самарский государственный технический университет);

Кюрегян А.Л.

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Предназначено для работы со студентами заочного факультета Самарского государственного технического университета. Предлагаются задания для самостоятельной работы, устные темы, грамматический справочник и таблица неправильных глаголов.

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ПРЕДИСЛОВИЕ

Иностранный язык всегда являлся неотъемлемой частью подготовки дипломированных специалистов высшими учебными заведениями, а в современном информационно-открытом мире невозможно не оценить значение практического владения иностранным языком. Однако на непосредственное общение преподавателя со студентами заочного отделения отводится очень малое количество учебных часов, а это значит, что для достижения цели, т.е. для овладения определенными языковыми навыками, студенты должны много работать самостоятельно. Данный практикум содержит задания для самостоятельной работы, устные темы, грамматический справочник и таблицу неправильных глаголов, что должно существенно облегчить работу студентов при выполнении заданий и способствовать формированию навыков чтения и перевода. Текстовый материал подобран таким образом, чтобы в процессе достижения цели обучения решались задачи, способствующие повышению общеобразовательного, культурного и профессионального уровня студентов.

Данный практикум имеет следующую структуру:

• в первом семестре студентам предлагается выполнить задание для самостоятельной работы №1, которое состоит из текста по специальности и общеобразовательного текста;

• во втором семестре – задание для самостоятельной работы №2, включающее два текста по специальности.

Задания к каждому тексту разработаны с учётом требований, предъявляемых рабочей программой по данной дисциплине.

Задание для самостоятельной работы № 1

Для того чтобы правильно выполнить задание №1, необходимо усвоить следующие разделы курса:

- имя существительное; единственное и множественное число имен существительных;
- имя прилагательное; степени сравнения прилагательных;
- спряжение глаголов to be, to have, to do в настоящем, прошедшем и будущем времени;
- форма настоящего (Present), прошедшего (Past) и будущего (Future) времен группы Simple, Continuous, Perfect в действительном и страдательном залоге;
- особенности перевода на русский язык пассивных конструкций;
- модальные глаголы: can (could), may, must, should и их эквиваленты;
- основные случаи словообразования;
- придаточные предложения условия;

•различные значения слов **as, because, because of, due to, for, since, both...and, either...or, neither...nor, as well as, as to.**

Задание для самостоятельной работы № 2

Для того чтобы правильно выполнить задание №2, необходимо усвоить следующие разделы курса:

- имя прилагательное; степени сравнения прилагательных;
- форма настоящего (Present), прошедшего (Past) и будущего (Future) времен группы Simple, Continuous, Perfect в действительном и страдательном залоге;
- особенности перевода на русский язык пассивных конструкций;
- модальные глаголы: can (could), may, must, should и их эквиваленты;
- основные случаи словообразования;
- придаточные предложения условия;
- различные значения слов **as, because, because of, due to, for, since, both...and, either...or, neither...nor, as well as, as to;**
- неличные формы глагола: Participle II (Past Participle);
- формы и функции инфинитива; сложное подлежащее; сложное дополнение.

Для специальностей ИТФ

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте и переведите текст.

LASER - TECHNOLOGY FOR THE FUTURE

- 1.Lasers are devices which produce pure intense beams of light or radiation.
- 2.When they were first invented in 1960 nobody quite knew what to do with them.
- 3.At that time they were called "a solution waiting for a problem".
- 4.The beam of a laser can be focused very precisely which means that it can be used in tasks as simple as cutting cloth and piercing

leather, and as delicate and sensitive as destroying a single cell of living tissue.

5.The strength of the laser is such that it can pierce very hard substances such as diamonds and metals.

6.Laser's accuracy as a means of measurement has helped scientists to calculate the speed of light more precisely than ever before, and with the help of laser reflectors placed on the Moon by American astronauts to determine its exact distance from the Earth.

7.Surgeons performing operations have found the laser to be also a surgical knife.

8.Skin blemishes can also be removed by means of a laser.

9.There are suggestions that laser beams may replace cables in telecommunications.

10.One of the most interesting uses is in the world of newspapers.

11.The Los Angeles «Times» is «written» by a helium/neon laser.

12.Finally, a whole new area of optics is being opened by lasers.

II. Найдите соответствия между словосочетаниями в правой и левой колонках:

1.Device	a.Решение
2.Beam	b.Прибор
3.Solution	с.Сила
4.Strength	d.Точность
5.Leacher	e.Луч
6.Diamond	f.Измерение
7.Accuracy	g.Кожа (животных)
8.Measurement	h.Средства
9.Distance	i.Алмаз
10.Knife	j.Нож
11.Means	к.Расстояние
12.Blemish	l.Повреждение, пятно

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to know, to mean, to write, to find

IV. Выберите правильный вариант:

1. The laser _____pierce even diamonds and metals.

a)was

b)can

- c)has
d)were
2. The beam of a laser can also _____ cables in telecommunications.
- a)mean
b)determine
c)use
d)replace
3. Laser _____ a new area of optics.
- a)opens
b)knows
c)removes
d)helps
4. _____ use the laser as a surgical knife.
- a)area
b)helium
c)diamonds
d)surgeons

V. Выберите правильный вариант перевода следующих предложений:

1. Laser's accuracy as a means of measurement has helped scientists to calculate the speed of light.
- a)Учёные точно подсчитали скорость света с помощью лазера.
b)Такое средство измерения как лазер помогло учёным вычислить скорость света.
c)Точность лазера как средства измерения помогла учёным вычислить скорость света.
2. One of the most interesting uses of the laser is in the world of newspapers.
- a)Одним из наиболее интересных путей использования лазера является использование его в газетном мире.
b)Лазер вызвал большой интерес в мире газет.
c)Использование лазера в газетном мире весьма интересно.
3. Skin blemishes can also be removed by means of a laser.
- a)Пятна на коже также можно удалить с помощью лазера.
b)Лазер удаляет дефекты кожи.
c)С помощью лазера удаляются пятна на коже.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

а) в страдательном залоге

б) с модальными глаголами

с) со сказуемым в Present Perfect и Present Continuous Passive

VIII. Прочитайте предложения №4 и №6. Что означает «*as*» в этих предложениях?

IX. Прочитайте предложение № 8. Дайте правильный перевод выражения «*by means of*».

I. Прочитайте и переведите текст.

PETR KAPITSA (1894-1984)

1. P. Kapitza, an outstanding Soviet physicist, was born in Kronshtadt in the family of a general in 1894.

2. He graduated from Petrograd Polytechnic Institute in 1919.

3. Kapitza took great interest in physics while still at the institute.

4. In 1921 Kapitza was sent to England to renew scientific contacts.

5. He worked in the famous Cavendish Laboratory headed by Rutherford.

6. Kapitza was elected a member of the Royal Society for his outstanding scientific work in the production of large magnetic fields.

7. In the middle of 1930s he organized the Institute of Physical Problems near Moscow.

8. It was here that Kapitza concentrated his attention on the research of super low temperature of liquid helium and superconductivity.

9. He showed that helium conducted heat so well because it flowed with remarkable ease.

10. After the Great Patriotic War his scientific activity was directed to space research.

11. In 1950s Kapitza also turned his attention to ball lightning - a phenomenon in which plasma exists for a much longer period than it was supposed.

12. Kapitza was awarded a Nobel Prize for his great contribution to world science in 1978.

13. Today there are few names in the history of physics that can be placed next to his.

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	a. Возглавлять
2. Graduate	b. Возобновлять
3. Send	c. Выбирать
4. Head	d. Течь
5. Renew	e. Родиться
6. Elect	f. Направлять
7. Conduct	g. Существовать
8. Flow	h. Награждать
9. Direct	i. Посылать
10. Exist	j. Проводить
11. Suppose	k. Предполагать
12. Award	l. Заканчивать ВУЗ

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

1. Petr Kapitsa is an outstanding Soviet physicist of the 20th century.
2. Petr Kapitsa studied at Petrograd Polytechnic University.
3. Petr Kapitsa organized Cavendish Laboratory.
4. Cavendish Laboratory was headed by Rutherford.
5. Rutherford organized the Institute of Physical Problems.
6. Petr Kapitsa paid much attention to the research of super high temperature of liquid helium.
7. Ball lightning is the problem Petr Kapitsa concentrated his attention on.
8. There are only few physics who could be as great as Petr Kapitsa.

IV. Ответьте на вопросы.

1. When and where was Petr Kapitsa born?
2. What institute did Petr Kapitsa graduate from?
3. What was he elected for?
4. Was Petr Kapitsa elected a member of the Royal Society?
5. What did Petr Kapitsa organize?
3. What did Petr Kapitsa concentrate his attention on?

4. What was Petr Kapitsa awarded a Nobel Prize for?
5. Are there many scientists as great as Petr Kapitsa?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

NATURAL RADIOACTIVITY

1. The cathode ray tubes, developed in 1880, resulted in the discovery of the electron.
2. In 1895 Rontgen discovered that the cathode ray tube also emitted invisible rays.
3. These rays were capable of penetrating opaque substances and were called X-rays because of their unknown nature.
4. In the following year Becquerel investigated several fluorescent substances as possible sources of similar penetrating rays.
5. Becquerel found uranium compounds to give off penetrating rays.
6. He called this production of radiations from uranium compounds radioactivity.
7. Marie Sklodowska-Curie and her husband Pierre Curie investigated this new property of radioactivity and tested all other known elements for radioactive properties.
8. In 1910 Marie Curie succeeded in isolating the pure element called radium.
9. Chemically speaking, radium acts like other elements of similar atomic weight.
10. The other properties of radium associated with the radioactivity, however, are very striking.
11. Rutherford studied the radiations given off by radium.
12. Under the influence of a magnetic field the rays were deflected in such a way that three types of radiation could be observed.
13. Rutherford named the rays "alpha", "beta", and "gamma", and found that they were given off from all radioactive elements.

II. Найдите соответствия между словами в правой и левой колонках:

1. Ray	a. Вещество
2. Discovery	b. Источник
3. Substance	c. Вес

4. Nature	d. Луч
5. Source	e. Трубка
6. Compound	f. Поле
7. Weight	g. Природа
8. Field	h. Производство
9. Tube	i. Сложное соединение
10. Production	j. Открытие

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to write, to strike, to have, to speak, to find, to give

IV. Выберите правильный вариант:

1. The production of radiation from uranium compounds is _____ radioactivity.

- a) discovered
- b) developed
- c) called
- d) associated

2. The _____ of X-rays was not known.

- a) weight
- b) nature
- c) substance
- d) cathode

3. M. Curie succeeded _____ isolating radium.

- a) in
- b) on
- c) with
- d) by

4. Rutherford studied the radiation that radium _____.

- a) given off
- b) will give off
- c) give off
- d) gave off

V. Выберите правильный вариант перевода следующих предложений:

1. Becquerel investigated several substances as possible sources of penetrating rays.

- a) Беккерель исследовал несколько веществ на наличие проникающих лучей.

- b)Беккерель исследовал проникающие лучи в качестве источников получения нескольких веществ.
- с)Беккерель исследовал несколько веществ в качестве возможных источников проникающих лучей.
2. Three types of radiation are observed under the influence of the magnetic field.
- a)Под влиянием магнитного поля наблюдаются три типа радиации.
- b)Три типа радиации влияют на магнитное поле.
- с)Наблюдение за магнитным полем выделяет три типа радиации.
3. The cathode ray tubes developed in 1880 resulted in the discovery of the electron.
- a)Результатом открытия электрона явилось открытие катодной трубки.
- b)Разработка электрона привела к изобретению лучевой трубки.
- с)Катодная лучевая трубка, разработанная в 1880 году, привела к открытию электрона.

VI. Найдите в тексте и переведите предложения:

- a)в страдательном залоге
- b)с модальными глаголами
- с)со сложным дополнением.

VII. Прочитайте предложения № 1,2,3,4. Найдите причастие I, II в этих предложениях.

VIII. Прочитайте предложение №8. Как переводится выражение «*to succeed in*»?

IX. Прочитайте предложение №11. Как переводится глагол «*to give off*»?

I. Прочитайте и переведите текст.

DRILLING ACCIDENTS

1. Drilling accidents are associated with unexpected blowouts of liquid and gaseous hydrocarbons from the well as a result of encountering zones with abnormally high pressure.
2. No other situations but tanker oil spills can compete with drilling accidents in frequency and severity.
3. Broadly speaking, two major categories of drilling accidents should be distinguished.

4. One of them is known to cover catastrophic situations involving intense and prolonged hydrocarbon gushing.
5. These occur when the pressure in the drilling zone is so high that usual technological methods of well muffling do not help.
6. Lean holes have to be drilled to stop the blowout.
7. The abnormally high pressure is most often encountered during exploratory drilling in new fields.
8. The probability of such extreme situations is relatively low.
9. The other group of accidental situations includes regular, routine episodes of hydrocarbon spills and blowouts during drilling operations.
10. The main causes of tanker accidents that lead to large oil spills include running aground and into shore reefs, collisions with other vessels, and fires and explosions of the cargo.
11. Both large drilling accidents and large tanker catastrophes occur relatively rarely.
12. The frequencies of such incidents as well as the oil volumes released in large spills differ from year to year.
13. The analysis of the statistics and circumstances of such events indicates that they can hardly be avoided.
14. Although the rate of tanker accidents has declined for over the past two decades, we should be prepared to deal with them in the future.

II. Найдите соответствия между словами в правой и левой колонках:

1. Accident	a. Жидкость
2. Blowout	b. Давление
3. Liquid	c. Вероятность
4. Pressure	d. Обстоятельство
5. Drilling	e. Частота
6. Probability	f. Столкновение
7. Collision	g. Выброс
8. Frequency	h. Скважина
9. Circumstance	i. Бурение
10. Well	j. Несчастный случай

III. Переведите глаголы и дайте их 2 и 3 формы:
To be, to deal, to lead, to have, to speak, to do, to give

IV. Выберите правильный вариант:

1. Tanker accidents _____ to large oil spills.

- a) deal
- b) lead
- c) run
- d) occur

2. _____ with other vessels is the cause of tanker accidents.

- a) drilling
- b) reefs
- c) explosions
- d) collisions

3. To stop the blowout _____ must be drilled.

- a) lean holes
- b) accidental situations
- c) high pressure
- d) shore reefs

4. Two major categories of drilling accidents _____.

- a) are usually distinguished
- b) is usually distinguished
- c) was usually distinguished
- d) will usually be distinguished

V. Выберите правильный вариант перевода следующих предложений:

1. Statistic analysis shows that these accidents can hardly be avoided.

- a) Статистический анализ показывает, что эти аварии трудно избежать.
- b) Статистический анализ показал, что эти аварии неизбежны.
- c) Статистический анализ показывает, что эти аварии вряд ли можно избежать.

2. No other situations can compete with drilling accidents in frequency and severity.

- a) Никакие другие ситуации не могут соперничать с авариями во время бурения по частоте и сложности.
- b) Ни эти ситуации, ни другие не соперничают с авариями во время бурения по численности и сложности.
- c) Никакие ситуации не идут в сравнение с ситуациями, которые складываются во время бурения по частоте и сложности.

3. Drilling accidents are associated with unexpected blowouts of hydrocarbons from the well

а) Неожиданные аварии во время бурения связаны с выбросами углеводородов из скважины.

б) Аварии во время бурения, связанные с выбросом углеводородов из скважины, всегда неожиданны.

с) Аварии во время бурения связаны с неожиданными выбросами углеводородов из скважины.

VI. Найдите в тексте и переведите предложения:

d) в страдательном залоге

e) с модальными глаголами

f) со сложным дополнением.

VII. Прочитайте предложение №4. Найдите в нём конструкцию «сложное подлежащее».

VIII. Прочитайте предложение №12. Как переводится выражение «*as well as*»?

Для специальностей ФТФ

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте и переведите текст.

INERTIA

1. One of the fundamental characteristics of matter is inertia, the Latin word "inertia" means «laziness».

2. You have, of course, observed that bodies do not change their state of rest or motion until some other body forces them to do so.

3. Anyone knows that an object at rest tends to stay at rest until a force is applied to make it move.

4. This example illustrates the inertia of a body.

5. All bodies have inertia.

6. Thus, all bodies will remain at rest until they are set in motion by a force (that is by machine, man, moving air etc.).

7. But it is also known that any object once it is in motion will continue to move because of its inertia.

8. It will not stop by itself.

9. To stop the moving object a force must be applied by some other object.

10. For example a ball will remain motionless unless it is set in motion by some force.

11. However, being once set in motion it will travel at a uniform speed and in a straight line for an indefinite period of time unless it is stopped or forced to change the rate of its speed or the direction of its passage.

12. So we see that any object will remain motionless or will move in a straight line because of its inertia.

13. Both the state of rest and the state of motion in a straight line can only be changed due to some force applied by another body.

II. Найдите соответствия между словосочетаниями в правой и левой колонках:

1. Matter	a. Потеря скорости, остановка
2. Inertia	b. Состояние
3. Motion	c. Лень
4. Force	d. Движение
5. Body	e. Инерция
6. Object	f. Сила
7. Rest	g. Предмет
8. State	h. Тело
9. Stall	i. Вещество
10. Laziness	j. Покой

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to make, to mean, to write, to set, to see

IV. Выберите правильный вариант:

1. An object is in the state of rest until other body _____ it to move.

- a) tends
- b) forces
- c) has
- d) knows

2. All bodies _____ inertia.

- a) has
- b) must
- c) have

d)set

3. If a body is in motion, it moves because of _____ inertia.

a)his

b)her

c)their

d)its

4. A force must be applied _____ some object for the other object to move.

a)by

b)in

c)on

d)with

V. Выберите правильный вариант перевода следующих предложений:

1. Inertia makes objects remain motionless or move in a straight line.

a)Движение по прямой или состояние покоя согласуется с законом инерции.

b)Остановка движения или движение по прямой - это объект изучения законов инерции.

c)Инерция заставляет предметы оставаться без движения или двигаться по прямой.

2. It is known that any object is in motion because of its inertia.

a)Известно, что любой объект находится в движении из-за инерции.

b)Любой известный объект движется из-за инерции.

c)Инерция, как известно, заставляет все предметы двигаться.

3. One of the basic characteristics of matter is inertia.

a) Материя характеризуется инерцией.

b) Основой одной из характеристик материи является инерция.

c) Одной из основных характеристик материи является инерция.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

a)со сказуемым в Present Perfect

b)со сказуемым в Future Simple

c)с модальными глаголами.

VIII. Прочитайте предложение №11. Как переводится слово «*unless*» в этом предложении? Какой частью речи является это слово?

IX. Прочитайте предложение №3. Как переводится слово «*until*»? Какой частью речи является это слово?

I. Прочитайте и переведите текст.

MIKHAIL LOMONOSOV (1711-1765)

1.The great Russian scientist, outstanding poet and enlightener Lomonosov was born in the village of Denisovka (now Lomonosovo) far off in the North on November 19, 1711.

2.He was very young when he easily mastered reading and writing.

3.His longing for knowledge was so great that at the age of 19 he left his father's home and started on foot for Moscow.

4.He experienced great want and countless hardships during his student years both in Moscow and later on in Germany where he had been sent to complete his education.

5.Studying at the academy he got only 3 copecks a day that scholarship was his only means of living.

6.He mastered natural science as well as history, philosophy and engineering.

7.In addition to the Russian language he had a good knowledge of foreign languages namely German, French, Greek and last but not least Latin which was the international language of science at that time.

8.At the age of 35 Lomonosov was already an experienced professor and an academician.

9.Lomonosov founded Moscow University and wrote his odes as well as numerous books on the Russian language and literature, on physics and so on.

10.Lomonosov organized the first chemical laboratory in our country and built the first glass-making factory in Russia.

11.As a materialist Lomonosov studied physical properties of bodies on the basis of the molecular and atomic theory.

12.He developed the kinetic theory of gases, the molecular kinetic theory of heat and first discovered the law of conservation of matter and momentum.

13.He also found that light, heat and electricity are different forms of motion.

14.As a result, many of his discoveries became invaluable contribution to the world science.

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	a.Получать
2. Master	b.ОСНОВЫВАТЬ
3. Experience	с.Находить
4. Get	d.Разрабатывать
5. Found	e.Становиться
6. Develop	f.Родиться
7. Discover	g.Покидать
8. Find	h.Переживать
9. Become	i.Овладевать
10. Leave	j.Открывать

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

- 1.Lomonosov was born in Moscow.
- 2.Lomonosov went to Moscow when he was 19.
- 3.Lomonosov's scholarship was 3 copecks a week.
- 4.Lomonosov mastered different sciences.
- 5.The Latin language was very important at that time.
- 6.Lomonosov became an experienced professor and academician when he was 45.
- 7.The first physical laboratory was organized by Lomonosov.
- 8.Lomonosov contributed much to the world science.

IV. Ответьте на вопросы.

1. When and where was Lomonosov born?
2. Why did he start for Moscow?
3. Was his life during student years easy?
- 6.Where did he study?
- 7.What sciences did Lomonosov master?
6. What languages did he know?
7. What did Lomonosov found?
8. What theory did Lomonosov develop and what law did he discover?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

COMMON WORDS WITH SPECIAL MEANINGS IN PHYSICS

1. Some of the most important terms in physics are words which we use in a more general sense in everyday life.
2. In physics their meaning is very specific and exact.
3. We often use such words as "energy", "work", "speed", "force", and "power".
4. When these words are used in physics, they refer to very definite things, which can be measured with great accuracy and represented in standard units.
5. For example in physics «energy» is defined as «capacity to do work».
6. Again, "work" is both an everyday word and a scientific term.
7. If a student studies English for three hours he may grow tired, however, he will not be performing any work in the sense in which this term is used in physical science.
8. Similarly, «speed» as we use this word in common speech means «rapid movement», but in physics speed is the exact measure of the rate of motion.
9. In addition it is necessary to point out that one and the same word may also have different meanings in different branches of science and engineering.
10. For instance, the term "unit" is often understood as a determinate quantity adopted as a standard of measurement.
11. Engineers deal with units of time, of heat, of current, of resistance etc.
12. In mathematics this word may be replaced by the cardinal number "one".

II. Найдите соответствия между словосочетаниями в правой и левой колонках:

1. Term	a. Сила
2. Energy	b. Мощность
3. Speed	c. Термин
4. Force	d. Энергия

5.Power	е.Значение
6.Work	f.Точность
7.Meaning	g.Скорость
8.Science	h.Движение
9.Unit	і.Работа
10.Movement	ј.Количество
11.Quantity	к.Единица
12.Accuracy	l.Наука

III. Переведите глаголы и дайте их 2 и 3 формы:
To understand, to deal, to mean to be, to know, to find

IV. Выберите правильный вариант:

1. In physics speed is the measure of the _____ rate.

- a)unit
- b)work
- c)motion
- d)power

2. Energy _____ defined as capacity to do work.

- a)is
- b>were
- c)will
- d)are

3. Some words are _____ as terms in everyday speech.

- a)using
- b)used
- c)uses
- d)have used

4. The word "unit" is replaced by the word «one» _____ mathematics.

- a)with
- b)on
- c)in
- d)by

V. Выберите правильный вариант перевода следующих предложений:

1. In physics all measurements must be done with great accuracy.

- a) Все физические измерения должны быть очень точными.
- b) В физике все измерения должны быть сделаны с большой аккуратностью.
- c) В физике все измерения должны выполняться с большой точностью.
2. The term "unit" is a determinate quantity adopted as a standard of measurement.
- a) Определённое количество вещества является единицей измерения этого вещества
- b) Термин «единица» - это определённое количество, принятое в качестве критерия измерения.
- c) Термин «единица» представляет собой стандарт для измерения определённого количества вещества.
3. Studying English a student doesn't perform any work in the sense of physical science.
- a) Изучая английский язык, студент не выполняет никакой работы с точки зрения физики.
- b) Изучая английский язык, студент не работает физически.
- c) В смысле физической науки, никакая работа не производится студентом во время изучения английского языка.

VI. Найдите в тексте и переведите предложения:

- a) в страдательном залоге
- b) с модальными глаголами
- c) со сказуемым в Future Continuous
- d) условные предложения.

VII. Прочитайте предложение №6. Что означает «*both...and*» в этом предложении? Переведите его на русский язык.

VIII. Прочитайте предложения № 8 и № 10. Что означает «*as*» в этих предложениях? Переведите их.

I. Прочитайте и переведите текст.

CENTRE OF GRAVITY

1. We know gravity to act on every particle of a body so that its weight is actually distributed throughout the body.
2. But a solid body has one point supported by a single upward force.
3. In other words the whole weight of a body acts as though it were concentrated at a single point, and this point is called the center of gravity.

- 4.The location of the center of gravity of a uniform body is known to depend on its size.
- 5.Generally speaking, the location of the center of gravity of any body is found by means of experiments.
- 6.A book lying on a table is expected to keep its position without any difficulty as one knows it to be in a state of equilibrium.
- 7.To make a pen stand on end is not easy at all.
- 8.Boxes, chairs, tables, books, lamps, and all common objects differ in their tendency to keep a given position their stability depends on their shape, weight and position.
- 9.Everyday experience shows us that heavy objects are more stable than light ones and in addition the larger the base of the object, the more stable it is.
- 10.The stability of an object is the greatest when its center of gravity is at the lowest level.
- 11.That is why to increase the stability of a motorcar its designer tries to keep the center of gravity as low as possible.

II. Найдите соответствия между словами в правой и левой колонках:

1.Gravity	a.Вес
2.Particle	b.Конструктор
3.Weight	c.Сила
4.Solid	d.Сила притяжения
5.Force	e.Частица
6.Point	f.Уровень
7.Equilibrium	g.Твёрдое тело
8.Level	h.Положение
9.Designer	i.Точка
10.Position	j.Равновесие
11.Object	k.Предмет

III. Переведите глаголы и дайте их 2 и 3 формы:

To speak, to know, to mean, to keep, to be, to lie, to make

IV. Выберите правильный вариант:

1. A book lying on a table _____ its position without any difficulty.

- a)keeps
- b)makes

c)differs

d)knows

2. Experience shows us that heavy objects are _____ stable than light ones.

a)the most

b)the least

c)less

d)more

3. Can you make a pen _____ on its end?

a)stood

b)stand

c)stands

d)standing

4. The weight of a body concentrates _____ a single point and this point is called the center of gravity.

a)in

b)on

c)at

d)by

V. Выберите правильный вариант перевода следующих предложений:

1. The location of the center of gravity of a uniform body is known to depend on its size.

a)Известный центр тяжести располагается в центре тела и зависит от его размера.

b)Положение известного центра тяжести зависит от размера тела.

c)Положение центра тяжести тела, как известно, зависит от его размера.

2. The weight of a body acts as though it were concentrated at a single point.

a)Вес тела действует на это тело так, как если бы он был сконцентрирован в одной точке.

b)Сконцентрированный в одной точке, вес тела воздействует на него.

c)Действие веса тела зависит от его концентрации в одной точке.

3. The stability of the positioned body depends on its shape, weight, and size.

a)Форма, вес и размер тела зависят от стабильности его положения.

б) Стабильность положения тела зависит от его формы, веса и размера.

с) Стабильное положение тела не зависит от его формы, веса и размера.

VI. Найдите в тексте и переведите предложения:

а) в страдательном залоге

б) со сложным дополнением

с) со сложным подлежащим

VII. Прочитайте предложения № 2,6,8. Найдите причастие I, II в этих предложениях.

VIII. Прочитайте предложения, в которых есть прилагательные в сравнительной и превосходной степени, а также конструкцией «*чем...тем*» и переведите их на русский язык.

IX. Найдите предложение, в котором глагол «*to make*» переводится «*заставлять*».

Для специальностей ЭТФ

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте текст.

SAFETY DEVICES

1. Electricity can be dangerous if it is carelessly used.

2. A faulty installation or a defective piece of equipment can cause a serious fire, and there is also the danger of an electric shock with possible fatal consequences.

3. Many precautions are sure to be taken, and safety devices should be used to minimize these dangers; insulation, earthing, fuses are among the most common safety devices.

4. Insulation is the covering of a conductor with a non-conducting material to prevent it from touching another conductor.

5. The materials are used according to the nature of the conductor and the condition in which it is used.

6. The conductor has to withstand extremes of temperature and resist corrosion.

7. Any part of electrical apparatus having a metal body or frame, especially portable appliances such as electric irons, kettles and power tools, must be earthed as a safety measure.

8. Earthing is brought about by connecting the metal body or frame directly to earth with a thick conductor.

9. The most common safety device, and the one which is used in every household installation, is the ordinary fuse.

10. This is simply a piece of wire to be connected in series in the circuit.

11. The fuse should be of such a resistance, that it will melt and, therefore, break the circuit, if the current, flowing in the circuit, exceeds a certain amount.

12. It is very important that fuse wire of the correct amperage be used.

II. Найдите соответствия между словами в правой и левой колонках:

1. Installation	a. Пожар
2. Equipment	b. Изоляция
3. Fire	c. Заземление
4. Precaution	d. Оборудование
5. Insulation	e. Предохранитель
6. Earthing	f. Прибор
7. Fuse	g. Мера предосторожности
8. Conductor	h. Цепь, схема
9. Device	i. Установка
10. Circuit	j. Проводник

III. Переведите глаголы и дайте их 2 и 3 формы:

To become, to withstand, to be, to take, to bring, to have, to break

IV. Выберите правильный вариант:

1. Insulation _____ the conductor from touching another conductor.

- a) withstands
- b) installs
- c) prevents
- d) connects

2. Earthing is the connection of metal part of a device to earth _____ a thick conductor.

- a) of
- b) in
- c) on

- d)with
3. Many precautions are used to _____ the danger of an electric shock.
- a)minimize
 - b)bring
 - c)earth
 - d)take
4. Any _____ of electrical apparatus must be earthed
- a)kettle
 - b)corrosion
 - c)part
 - d)danger

V. Выберите правильный вариант перевода следующих предложений:

1. Insulation is the covering of a conductor with a non-conducting material to prevent it from touching another conductor.

a)Покрытие проводника изоляционным материалом препятствует его соприкосновению с другим проводником.

b)Изоляция – это покрытие проводника непроводящим материалом, для того, чтобы препятствовать его соприкосновению с другим проводником.

c)Чтобы препятствовать соприкосновению проводников необходимо покрыть их непроводящим материалом, то есть изолировать.

2. The materials are used according to the nature of the conductor and the condition in which it is used.

a)Материалы, используемые в соответствии с природой проводника необходимы для условий, в которых он используется.

b)Природа и условия проводника должны соответствовать материалам.

c)Материалы используются в соответствии с природой проводника и условиями, в которых он используется.

3. Electricity can be dangerous if it is carelessly used.

a)Электричество может привести к опасным последствиям при неосторожном использовании.

b)Небрежное использование электричества может быть опасно.

c)Электричество может быть опасно, если им пользоваться неосторожно.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

а) в страдательном залоге

б) с модальными глаголами

с) с условными предложениями.

VIII. Прочитайте предложение №7. Как переводится слово «*any*» в данном предложении?

IX. Прочитайте предложение №9. Как переводится слово «*one*» в данном предложении?

I. Прочитайте и переведите текст.

NIKOLAI IVANOVICH LOBACHEVSKY (1792-1856)

1. N.I. Lobachevsky is a great Russian mathematician and the creator of non-Euclidean geometry.

2. He was born on December 1, 1792 in Nizhni Novgorod in a poor family. When N. Lobachevsky was a child his father died and the family moved to Kazan.

3. There the boy learned at the gymnasium from 1802 to 1807 and in 1807 he entered Kazan University.

4. At the University N.I. Lobachevsky spent the next forty years of his life as a student, professor and rector.

5. Lobachevsky became interested in mathematics when he was still a schoolboy and he remained true to this science all his life long.

6. Lobachevsky did a lot to make Kazan University a first-rate educational institution of that time.

7. At the same time he made extensive researches into mathematics.

8. On February 23, 1826 a great event took place at Kazan University.

9. N.I. Lobachevsky presented a paper "A Brief Outline of the Principles of Geometry".

10. That day a new geometrical system the so-called non-Euclidean geometry was born.

11. In the paper he attacked the theory which was the basis of geometry for 2,000 years and made a real revolution in mathematics.

12. In the years that followed Lobachevsky wrote a number of works in the field of algebra and mathematical analysis.

13. But they were recognized only twelve years after his death.

13. Lobachevsky's ideas greatly influenced the development not only of geometry and other mathematical sciences, but also mechanics, physics and astronomy.

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	a. Поступать
2. Move	b. Проводить
3. Enter	c. Происходить
4. Spend	d. Представлять
5. Take place	e. Следовать
6. Remain	f. Родиться
7. Present	g. Влиять
8. Follow	h. Переезжать
9. Recognize	i. Признавать
10. Influence	j. Оставаться

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

1. Lobachevsky is the creator of geometry.
2. Lobachevsky studied at Moscow University.
3. Lobachevsky was the rector of Kazan University.
4. All his life Lobachevsky was interested in physics.
5. The so-called non-Euclidean physics was born when Lobachevsky presented his paper "A Brief Outline of the Principles of Geometry".
6. Lobachevsky made a revolution in geometry.
7. Lobachevsky's works were recognized during his life.
8. Lobachevsky's ideas influenced mechanics, astronomy and physics.

IV. Ответьте на вопросы.

1. What is Lobachevsky?
2. When and where was Lobachevsky born?
3. What university did Lobachevsky enter in 1807?
4. What did Lobachevsky do at Kazan University?
5. What sciences was Lobachevsky interested in?
6. What science was born due to Lobachevsky's research?
7. Were Lobachevsky's works recognized during his life?
8. What sciences did Lobachevsky's ideas influence?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

KINDS OF CURRENT

1. There are two kinds of current namely direct and alternating.
2. A direct current flows in one direction and at a steady value.
3. Thus, the current which would flow in a circuit containing a battery would be a direct current.
4. A *direct current* (abbreviated DC) in a wire is one in which free electrons always move in one direction.
5. A direct current does not change in magnitude.
6. It is measured by the quantity of electricity which passes any section of the conductor in one second.
7. We know an alternating current to reverse, *i. e.* to flow in alternate directions at regular intervals of time.
8. An electric current which flows back and forth at regular intervals is called an *alternating current* (abbreviated AC).
9. When this current rises from zero to a maximum returns to zero increases to a maximum but in an opposite direction, and finally, returns to zero again, we say that it has completed a cycle.
10. The number of cycles completed in one second is called the *frequency* of the current.
11. Thus, a current which rises to a maximum in each direction 50 times a second makes 50 cps (cycles per second) or has a frequency of 50 Hz.
12. The standard frequency of electrical current in Russia is known to be 50 Hz.
13. The frequency of radio waves is in the order of one million cycles per second.

II. Найдите соответствия между словами в правой и левой колонках:

1. Kind	a. Направление
2. Current	б. Цепь, контур
3. Direction	с. Величина
4. Circuit	d. Цикл

5.Wire	е.Провод
6.Magnitude	f.Частота
7.Quantity	g.Волна
8.Conductor	h.Вид
9.Cycle	і.Количество
10.Frequency	ј.Ток
11.Wave	к.Проводник

III. Переведите глаголы и дайте их 2 и 3 формы:
To be, to know, to mean, to write, to find

IV. Выберите правильный вариант:

- Direct current _____ in a circuit containing a battery.
 - changes
 - knows
 - reverses
 - flows
- Direct and alternating _____ two kinds of current.
 - is
 - are
 - was
 - will
- The number of cycles in one second is the _____ of the current.
 - frequency
 - magnitude
 - quantity
 - direction
- Direct current flows _____ one direction only.
 - in
 - on
 - by
 - with

V. Выберите правильный вариант перевода следующих предложений:

- There are two kinds of current, namely, direct and alternating.
 - Название двух видов тока - постоянный и переменный.

b) Существует два вида тока - прямой и переменный.

c) Существует два вида тока, а именно, постоянный и переменный.

2. We know an electric current to flow in alternate directions at regular intervals of time.

a) Как мы знаем, противоположные направления позволяют переменному току протекать в равные промежутки времени.

b) Мы знаем, что электрический ток течёт в переменных направлениях через равные промежутки времени.

c) Мы знаем, что протекание тока в различных направлениях является характерной чертой переменного тока.

3. The standard frequency of electrical current in Russia is known to be 50 Hz.

a) Стандартная частота электрической энергии в России, как известно, 50 Гц.

b) За стандартные частоты в России приняты 50 Гц.

c) Известный стандарт частоты в России - 50 Гц.

VI. Найдите в тексте и переведите предложения:

a) в страдательном залоге

b) со сказуемым в Present Perfect

c) со сложным дополнением

d) со сложным подлежащим.

VII. Прочитайте предложение № 4. Что означает слово «one» в этом предложении?

VIII. Прочитайте предложение № 6. Что означает «any» в этом предложении?

I. Прочитайте и переведите текст.

ELECTRIC MEASURING INSTRUMENTS

1. Studying electric circuits requires an accurate quantitative measurement of potential, or voltage, and current strength, or amperage.

2. The electricity forced to move along a conductor, produces various effects, such as: it sets up a magnetic field around its conductors, it produces heat, and it causes chemical changes.

3. The magnitude of any of these effects is known to be used as a quantitative measure of the amount of current entering into the action.

4. When the currents to be detected and measured are very small, one should use a galvanometer.
5. The first usable galvanometer had some disadvantages one of them was the lack of sensitivity.
6. The basic measuring instrument, which indicates any value of current strength, is the ammeter.
7. In an ammeter an armature coil rotates between the poles of a permanent magnet.
8. A voltmeter is designed in order to measure the potential difference between two points in a current.
9. Its action is similar to that of an ammeter, both of them have armatures that move when electric current is sent through their coils.
10. However, in spite of some similarities between a voltmeter and an ammeter, there are also important differences.
11. A voltmeter must have very high resistance, an ammeter, on the other hand, must have low resistance.

II. Найдите соответствия между словами в правой и левой колонках:

1. Circuit	a. Величина
2. Measurement	b. Катушка
3. Amperage	c. Цепь, контур
4. Magnitude	d. Полюс
5. Coil	e. Ток
6. Pole	f. Сопротивление
7. Current	g. Амперметр
8. Ammeter	h. Измерение
9. Lack	i. Сила тока в амперах
10. Resistance	j. Отсутствие

III. Переведите глаголы и дайте их 2 и 3 формы:

To set, to know, to send, to begin, to have, to be, to go

IV. Выберите правильный вариант:

1. _____ quantitative measurement is necessary for studying electric circuits.
 - a) small
 - b) potential
 - c) accurate

d)similar

2. A galvanometer should be used if the currents _____ are small.

a)to be designed

b)to be measured

c)to be seen

d)to be sent

3. The action of _____ is similar to the action of an ammeter.

a)resistance

b)armature

c)current

d)voltmeter

4. Ammeters and voltmeters have some _____, though they also have some differences.

a)similarities

b)disadvantages

c)measurements

d)fields

V. Выберите правильный вариант перевода следующих предложений:

1. The disadvantage of the first galvanometers was the lack of sensitivity.

a)Отсутствие чувствительности было преимуществом первых гальванометров.

b)Первые гальванометры были слишком чувствительны, что и было их недостатком.

c)Недостатком первых гальванометров было отсутствие чувствительности.

2. When the current to be measured is very small, one should use a galvanometer.

a)Гальванометр необходим для измерения малого тока.

b)Когда величина тока, которую нужно измерить, очень мала, необходимо использовать гальванометр.

c)Для измерения небольшой величины тока требуется гальванометр.

3. A voltmeter is designed in order to measure the potential difference.

a)Разность потенциалов измеряется вольтметром.

б) Чтобы измерить разность потенциалов нужно использовать вольтметр.

с) Вольтметр спроектирован для того, чтобы измерять разность потенциалов.

VI. Найдите в тексте и переведите предложения:

а) в страдательном залоге

б) с модальными глаголами

с) со сложным подлежащим.

VII. Прочитайте предложения № 2,3,6. Найдите причастие I, II в этих предложениях.

VIII. Прочитайте предложение №8. Как переводится выражение «*in order to*»?

IX. Прочитайте предложение №9. Как переводится слово «*that*»? Какие функции оно выполняет в данном предложении?

Для специальностей ТЭФ

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте и переведите текст.

WHAT DO THE WORDS “HOT”, “COLD”, AND “TEMPERATURE” MEAN?

1. The words “hot”, “cold”, and “temperature” are associated in our minds with the subject of heat and most of our ideas about hot or cold result from our everyday experiences with heated or cooled objects.

1. However, “hot” and “cold” are very general terms.

2. Calling a summer day “extremely hot” is an ordinary thing with us.

3. We generally forget that the actual temperature is certainly not so high as that which is caused by a “hot fire” in a fireplace.

4. If you have ever entered the cellar of a large building after being out on a hot summer day, you have probably thought the cellar a very cool place.

5. On the other hand if you reenter that same cellar after being out on a cold day in winter, you will find that the temperature in the cellar is much warmer than in the street.

6. The actual temperature in such a cellar probably does not vary more than a few degrees from summer to winter, but it seems "cool" at one time and "warm" at another.

7. As we have already seen our temperature sensations are unreliable indeed.

8. The temperature of a body is not a measure of the quantity of energy that this body contains, as some people think it is rather a measure of the intensity of the molecular motion.

9. For a given object the temperature is proportional to rather than equal to this amount of energy.

II. Найдите соответствия между словами в правой и левой колонках:

1. Mind	a. Термин
2. Experience	b. Градус
3. Term	c. Разум
4. Fire	d. Количество
5. Cellar	e. Опыт
6. Degree	f. Мера
7. Sensation	g. Огонь
8. Measure	h. Подвал, погреб
9. Quantity	i. Движение
10. Motion	j. Чувство, восприятие

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to forget, to think, to find, to do, to see, to give

IV. Выберите правильный вариант:

1. It is a usual thing for us _____ a summer day extremely hot.

- a) to enter
- b) to see
- c) to cause
- d) to call

2. We feel that in winter the temperature in the cellar _____ warmer than outdoors.

- a) were
- b) is
- c) has
- d) will

3. The temperature of a body is _____ of the intensity of the molecular motion.

- a) a measure
- b) a cellar
- c) an object
- d) an amount

4. Every day life gives us an _____ of hot and cold objects.

- a) summer
- b) measure
- c) temperature
- d) experience

V. Выберите правильный вариант перевода следующих предложений:

1. Calling a summer day "extremely hot" is an ordinary thing with us.

- a) Мы обычно называли летний день «очень жарким».
- b) Назвать летний день «очень жарким» - обычное дело для нас.
- c) Название летнего дня «очень жаркий» - характерно для нас.

2. The temperature of a body is not a measure of the quantity of energy that this body contains.

- a) Температура тела – это не количество энергии, содержащееся в нём.
- b) Температура тела измеряется количеством энергии, которое это тело содержит.
- c) Температура тела – это не мера количества энергии, которую это тело содержит.

3. The temperature of a body is a measure of the intensity of the molecular motion.

- a) Температура тела – это мера интенсивности движения молекул.
- b) Температура тела измеряет интенсивность молекулярного движения.
- c) Температура тела измеряется интенсивностью движения молекул.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

- a) в страдательном залоге
- b) со сказуемым в Present Perfect

с) условные предложения.

VIII. Прочитайте предложение №6. Найдите прилагательное в сравнительной степени. Как переводится «*much*» перед прилагательным в сравнительной степени?

IX. Прочитайте предложение №8. Найдите прилагательное с отрицательной приставкой. Переведите его.

I. Прочитайте и переведите текст.

ALBERT EINSTEIN (1879-1955)

1. Albert Einstein is known all over the world as a brilliant theoretical physicist and the founder of the theory of relativity.

2. He is perhaps the greatest scientist of the 20th century.

3. He was born in 1879 in a small German town.

4. The Einstein family soon moved to Munich where Albert went to school.

5. Neither his parents nor his school teachers thought much of his mental abilities.

6. In 1895 Albert failed the entrance examination to a technical college in Zurich.

7. A year later however he managed to pass the exam and entered the college.

8. After graduating from the college Einstein started to work at the Swiss Patent Office in Bern.

9. In 1905 he wrote a short article in a science magazine.

10. This was his "Special Theory of Relativity" which gave the world the most famous equation relating mass and energy, the basis of atomic energy.

11. Later he became a professor in several European universities and in 1914 moved to Berlin as a member of the Prussian Academy of Sciences.

12. After ten years of hard work he created his "General Theory of Relativity".

13. In 1921 Einstein received the Nobel Prize for Physics.

14. In 1939 Albert Einstein wrote a letter to President Roosevelt at the request of several prominent physicists outlining the military potential of nuclear energy and the dangers of a Nazi lead in this field.

15. His letter greatly influenced the decision to build an atomic bomb.

16. After the war he spoke out passionately against nuclear weapons and repression.
17. Einstein died in 1955.
18. The artificial element einsteinium has been named in his honor.

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	a. Думать
2. Know	b. Сдать экзамен
3. Move	c. Провалиться (на экзамене)
4. Think	d. Родиться
5. Fail	e. Переехать
6. Manage	f. Создавать
7. Graduate	g. Справляться
8. Create	h. Получать
9. Receive	i. Влиять
10. Influence	j. Заканчивать ВУЗ
11. Pass	k. Знать

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

1. Albert Einstein is the greatest practical physicist in the world.
2. Albert Einstein was born in Germany.
3. Albert Einstein was a very bright pupil at school.
4. Albert entered the technical college in Zurich at once.
5. Albert Einstein worked in Bern after the graduation from the college.
6. Albert Einstein is a creator of "General Theory of Relativity".
7. Albert Einstein was a designer of an atomic bomb.
8. An artificial chemical element was named in his honor.

IV. Ответьте на вопросы.

1. When and where was Albert Einstein born?
2. Was he a bright student at school?
3. When did Albert Einstein enter the college?
4. What did his "Special Theory of Relativity" give the world?
5. Is Albert Einstein a Nobel Prize Winner?
6. What did Albert Einstein write to President Roosevelt?
7. What did Albert Einstein speak out against?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

SOLAR ENERGY

1. Most of the energy used on the Earth even in some converted form, such as coal and oil, stems from the Sun.
2. Indeed, oil, coal, and natural gas are fuels that release energy received from the Sun millions of years ago.
3. Hydroelectric energy is known to be electricity produced from the energy of falling water.
4. Water is lifted from the sea in the course of the hydrological cycle which is driven by the Sun.
5. No fuel is required since the energy comes from the Sun.
6. We know the Sun to be important to us as a laboratory in which we can study hot gases in a magnetic field.
7. It is clear today that the supply of coal, oil, and natural gas will soon become inadequate for our needs.
8. It is natural that scientists began their search for new sources of energy.
9. There is an increasing interest in obtaining energy from the Sun.
10. There are devices that give off an electrical signal when struck by sunlight.
11. The device employed for converting solar energy into useful power is the solar cell.
12. The cell is energized not by heat but by light.
13. But solar cells are still expensive to use them for general commercial purposes.
14. They proved to be an ideal source of power for artificial satellites.

II. Найдите соответствия между словами в правой и левой колонках:

1. Coal	a. Нефть
2. Oil	b. Поле
3. Fuel	c. Уголь
4. Sea	d. Учёный
5. Field	e. Источник
6. Scientist	f. Море

7. Search	g. Прибор
8. Source	h. Элемент
9. Device	i. Цель
10. Cell	j. Спутник
11. Purpose	k. Поиск
12. Satellite	l. Топливо

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to begin, to know, to drive, to come, to fall, to become

IV. Выберите правильный вариант:

- Oil, natural gas, coal are _____.
 - fuels
 - fields
 - energy
 - sources
- Scientists _____ new sources of energy.
 - stop
 - search for
 - become
 - strike
- The device used for converting solar energy _____ the solar cell.
 - is
 - were
 - are
 - have
- Light _____ the cell.
 - increases
 - energizes
 - proves
 - becomes

V. Выберите правильный вариант перевода следующих предложений:

- We know the Sun to be important to us as a laboratory.
 - Мы сознаём значимость солнечных лабораторий.
 - Мы знаем, что солнце важно для нас как лаборатория.
 - Важность солнца как лаборатории известна всем.
- It is natural that scientists began their search for new sources of energy.

- а) Естественно, что учёные начали поиск новых источников энергии.
 - б) Начало поиска этими учёными новых источников энергии – естественно.
 - с) Учёные начали поиск новых естественных источников энергии.
3. No fuel is required since the energy comes from the Sun.
- а) Энергия, идущая от солнца, не требует топлива.
 - б) Солнечная энергия не требует топлива.
 - с) Не требуется никакого топлива, так как энергия исходит от солнца.

VI. Найдите в тексте и переведите предложения:

- а) в страдательном залоге
- б) с модальными глаголами
- с) со сложным подлежащим.

VII. Прочитайте предложения № 1,2,3,11. Найдите причастие I, II в этих предложениях.

VIII. Прочитайте предложения №9, №10 и переведите их, обращая внимание на оборот *there is/are*. Как переводится предложение с этим оборотом?

IX. Прочитайте предложение №5. Как переводится «*since*» в этом предложении?

I. Прочитайте и переведите текст.

WATER TURBINES

1. A great amount of energy is unceasingly wasted in the waterfalls and rivers of the world.
2. Running water has been called white coal.
3. White coal is considered to be an important source of energy.
4. Take the Kuibyshev and Volgograd hydroelectric stations as an example.
5. They utilize only 1/3 of energy resources; nevertheless, they generate more electric energy than all the power stations of Italy taken together.
6. All this great supply of power will be utilized for the further development of our industry, transport, and agriculture.
7. But how is waterpower transformed into electric energy?

8. The old way of utilizing water pressure was by means of a water wheel.
9. The modern method is to use a specialized type of water wheel called a *turbine* and its installation requires complex constructions.
10. The water passes through a turbine, and the turbine is connected to a dynamo for producing electric current.
11. Having given up all its energy the water flows away through another channel called the *tail-race* (*отводящий канал водяной турбины*).
12. The power available depends on two things namely the quantity of water called the *flow* and the *height* the water falls.
13. There are two types of turbines: the reaction turbine and the impulse turbine.
14. The reaction turbine is utilized for high heads and small flow.

II. Найдите соответствия между словами в правой и левой колонках:

1. Water fall	a. Энергия
2. Source	b. Водопад
3. Power	c. Источник
4. Supply	d. Колесо
5. Development	e. Поставка, снабжение
6. Wheel	f. Развитие
7. Installation	g. Дамба
8. Dam	h. Высота
9. Current	i. Установка
10. Height	j. Ток

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to build, to take, to flow, to fall, to give

IV. Выберите правильный вариант:

1. White coal _____ the name of running water.
 - a) are
 - b) is
 - c) were
 - d) will
2. Water power is _____ into electric energy.
 - e) produced

- f)generated
- g)required
- h)transformed

3. A specialized type of water _____ is called a turbine.
- a)wheel
 - b)complex
 - c)flow
 - d)dynamo
4. The power of hydroelectric station depends on two things; they are the _____ and the _____.
- a)electricity and current
 - b)turbine and wheel
 - c)power and energy
 - d)flow and height

V. Выберите правильный вариант перевода следующих предложений:

1. The modern method is to use a specialized type of water wheel called turbine.

- a)Водяное колесо, называемое турбиной, использует новый метод.
- b)Новый метод заключается в использовании водяного колеса или турбины.
- c)Современный метод заключается в том, чтобы использовать специальный тип водяного колеса, называемый турбиной.

2. The water passes through a turbine, and the turbine is connected to a dynamo for producing electric current.

- d)Вода проходит через турбину, а соединение турбины с динамо-машиной вызывает электрический ток.
- e)Вода проходит через турбину с тем, чтобы выработать электрический ток при соединении с динамо-машиной.
- f)Вода проходит через турбину, а турбина соединяется с динамо-машиной для выработки электрического тока.

3. White coal is considered to be an important source of energy.

- a)Белый уголь является важнейшим источником энергии.
- b)Важнейшим источником энергии считается белый уголь.
- c)Считается, что белый уголь является важным источником энергии.

VI. Найдите в тексте и переведите предложения:

- a)в страдательном залоге

b)со сказуемым в Present Perfect Passive

c)со сложным дополнением

d)со сложным подлежащим.

VII. Прочитайте предложение № 8 и переведите выражение «*by means of*».

VIII. Прочитайте предложение № 6 и переведите слово «*further*».

Для специальностей ХТФ

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте и переведите текст.

PLASTICS AS METAL REPLACEMENT

- 1.Today plastics are referred to as materials of great importance for no other group of materials is able to offer such a unique combination of properties.
- 2.By alloying, modifying, as well as by changing the structure of polymers chemists and technologists are able to produce different kinds of plastics.
- 3.Metal replacement by plastics is often due to the economic factors only.
- 4.The use of plastics enables the manufacturers to eliminate many expensive machining and finishing processes.
- 5.Moreover, plastics parts can be mass-produced at a lower cost compared to metal parts.
- 6.Although plastics do not possess the high strength of steel, they are suitable for many purposes.
- 7.Plastics can be reinforced by incorporating fibrous materials such as glass fiber, nylon, and at last, pure carbon fibers.
- 8.It is known that carbon plastics open up vast new possibilities in the engineering field.
- 9.Some of the latest aircraft engines use blades made of such plastics.
- 10.These plastics are able to withstand much higher temperatures than metals.
- 11.There exist plastics which have high mechanical strength and are able to withstand the extremes of pressures.
- 12.It gives them a great advantage over metals.

13. Generally speaking, in every branch of industry, from power transmission to communications and from spaceships to domestic appliances, plastics are playing a vitally important role.

II. Найдите соответствия между словами в правой и левой колонках:

1. Property	a. Замена
2. Chemist	b. Цель
3. Replacement	c. Свойство
4. Manufacturer	d. Возможность
5. Purpose	e. Производитель
6. Possibility	f. Химик
7. Blade	g. Космический корабль
8. Branch	h. Лопасть
9. Transmission	i. Отрасль
10. Spaceship	j. Передача

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to speak, to know, to begin, to withstand, to hold, to have

IV. Выберите правильный вариант:

1. Some aircraft engines are made _____ plastics.

- 1) in
- 2) with
- 3) by
- 4) of

2. Some plastics withstand much _____ temperatures _____ metals.

- a) the highest _____ of
- b) the higher _____ than
- c) high _____ with
- d) higher _____ than

3. Plastics can _____ very high temperatures.

- a) produce
- b) withstand
- c) transmit
- d) reinforce

4. Plastics are suitable for many _____.

- a) materials
- b) temperatures

c) purposes

d) extremes

V. Выберите правильный вариант перевода следующих предложений:

1. Only plastics are able to offer a unique combination of properties.

a) Только пластмассам предлагается уникальная комбинация свойств.

b) Только предложенные свойства пластмасс – уникальны.

c) Только пластмассы могут предложить уникальное сочетание свойств.

2. Chemists are able to produce different kinds of plastics by changing the structure of polymers.

a) Производство различных видов пластмасс химиками происходит путём изменения структуры полимеров.

b) Химики могут производить различные виды пластмасс изменяя структуру полимеров.

c) Химики могут производить полимеры, изменяя структуру пластмасс.

3. High mechanical strength gives plastics a great advantage over metals.

a) Высокая механическая прочность даёт преимущество металлам над пластмассами.

b) Большое преимущество металлов над пластмассами из-за их высокой механической прочности очевидно.

c) Высокая механическая прочность даёт большое преимущество пластмассам над металлами.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

a) с модальными глаголами и их эквивалентами

b) в страдательном залоге

c) с прилагательными в сравнительной и превосходной степени.

VIII. Прочитайте предложение №2. Как переводится выражение «*as well as*»?

IX. Прочитайте предложение №3. Как переводится выражение «*due to*»?

I. Прочитайте и переведите текст.

MARIE CURIE AND THE DISCOVERY OF RADIUM

1. Marie Curie was born in Warsaw on November 7, 1867.
 2. Her father was a teacher of science and mathematics in a school, and it was from him that little Marie Sklodowska (her Polish name) learned her first lesson in science.
 3. In 1891 she went to Paris to continue her studies at the Sorbonne.
 4. She worked for two Master's degrees - one in physics, the other in mathematics.
 5. Among many scientists with whom Marie met and worked in Paris was Pierre Curie.
 6. When he met Marie he was famous throughout Europe for his discoveries in magnetism.
 7. Soon they married.
 8. By that time Marie had already had her Master's degree in physics and mathematics and wished to obtain a Doctor's degree.
 9. Marie Curie examined every known chemical substance.
 10. She repeated her experiments again and again and found that one mineral emitted much more powerful rays than uranium discovered by the French scientist Becquerel.
 11. So she could only decide that this mineral must have contained a new element.
 12. This seemed unthinkable.
 13. Scientists declared that every element had already been known to them.
 14. However, all Marie's experiments proved that the mineral contained some new and unknown element.
 15. There was no other explanation for the powerful rays, which it emitted.
1. Scientists called the property giving out such rays "radioactivity" and Marie Curie decided to call the new element "radium".

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	а.Открывать
2. Meet	б.Испускать
3. Wish	с.Повторять
4. Obtain	д.Родиться
5. Examine	е.Знакомиться

6. Repeat	f.Казаться
7. Emit	g.Желать
8. Discover	h.Доказывать
9. Decide	i.Содержать
10. Contain	j.Решать
11. Seem	к.Получать
12. Prove	l.Исследовать

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

2. Marie Curie was born in Paris.

3. Marie's father was a teacher.

4. Pierre Curie was famous for his discoveries in electricity.

5. Marie Curie repeated her experiments very often.

6. Uranium was discovered by Pierre Curie.

7. Scientists knew that there were a lot of unknown elements.

8. A new element emitted powerful rays.

9. A new element was called "polonium".

IV. Ответьте на вопросы.

1. When and where was Marie Curie born?

2. Where did she continue her education?

3. What sphere did Marie Curie work in?

4. Whom did Marie Curie marry?

5. Did Marie examine all the elements?

6. What rays did one mineral emit?

7. What did Marie's experiments prove?

8. What was the property to give out powerful rays called?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

ISOTOPE PRODUCTION

1. About 1907 scientists discovered that two samples of an element, which behaved exactly alike chemically, differed in their physical structures.

2. Scientists called such chemically alike—but physically unlike—substances "isotopes".
3. The great majority of isotopes found in nature do not emit radiation and are called *stable isotopes*.
4. Stable isotopes occur in nature mixed with other isotopes of the same element.
5. The separation of isotopes from one another when they are mixed is a necessary part of the production of both stable isotopes and radioisotopes.
6. Since 1931 scientists have designed more and more powerful apparatus for speeding up electrically charged particles.
7. Cyclotron is known to be one of the best apparatus.
8. Cyclotron requires a lot of time to produce necessary quantities of the new isotopes.
9. We know most radioisotopes to be made today in nuclear reactors by bombarding stable, nonradioactive isotopes with neutrons.
10. The production and separation of isotopes is a very complicated and expensive process, but it is carried out because of the increasing uses of radioisotopes in industry and medicine.
11. The radiation emitted by radioisotopes is being utilized in a variety of ways.
12. Radioisotopes are widely used for tracing complicated chemical reactions, for measuring or testing industrial products, and for generating electric power for spaceships.

II. Найдите соответствия между словами в правой и левой колонках:

1. Sample	а. Ядро
2. Substance	б. Природа
3. Nature	в. Разделение
4. Separation	г. Частица
5. Production	е. Большинство
6. Apparatus	ф. Вещество
7. Particle	г. Количество
8. Quantity	д. Образец
9. Majority	и. Производство
10. Nucleus	ж. Прибор

III. Назовите три формы глаголов и переведите их:

To be, to make, to know, to find, to do, to hold, to speak

IV. Выберите правильный вариант:

1. Isotopes behave alike chemically but _____ in their physical structure.

- a) differ
- b) emit
- c) design
- d) produce

2. The cyclotron needs much time to produce the required quantity _____ the new isotopes.

- a) in
- b) on
- c) of
- d) for

3. The best _____ of the apparatus of this kind is the cyclotron.

- a) found
- b) occurred
- c) emitted
- d) known

4. Cyclotron is used for _____ up charged particles.

- a) speeding
- b) increasing
- c) producing
- d) separating

V. Выберите правильный вариант перевода следующих предложений:

1. The production and separation of isotopes is a very complicated and expensive process.

- a) Комплектация и дороговизна процесса зависят от производства и отделения изотопов.
- b) Сложность и стоимость процесса – основные вопросы производства и выделения изотопов.
- c) Производство и разделение изотопов – это очень сложный и дорогостоящий процесс.

2. Scientists design more powerful apparatus for speeding up electrically charged particles.

- a) Учёные проектируют более мощные установки для ускорения электрически заряженных частиц.

б) Проекты более мощных приборов, сделанные учёными, увеличивают скорость электрически заряженных частиц.

с) Электрически заряженные частицы ускоряются при помощи мощных приборов, сконструированных учёными.

3. The separation of isotopes from one another is a very necessary part of the production of both stable isotopes and radioisotopes.

а) Для производства изотопов необходимо отделить стабильные изотопы от радиоизотопов.

б) Как стабильный изотоп, так и радиоизотоп производятся путём отделения одного от другого.

с) Отделение изотопов один от другого является необходимой частью производства как стабильных, так и радиоизотопов.

VI. Найдите в тексте и переведите предложения:

а) в страдательном залоге

б) со сказуемым в Present Perfect

с) со сложным подлежащим

д) со сложным дополнением.

VII. Прочитайте предложение №5. Как переводится выражение «*bothand*»?

VIII. Прочитайте предложение №10. Как переводится выражение «*because of*»?

I. Прочитайте и переведите текст.

CORROSION

1. During a year almost 200 million tons of metal objects are considered to be destroyed by corrosion.

2. Considering that about 600 million tons of metal a year are produced in the world, it is easy to understand the losses of objects without which our life could not be imagined.

3. The situation is very serious, because not only metal is destroyed, but also a great amount of articles, instruments and tools, whose cost exceeds many times the cost of the metal used for their manufacture, are also destroyed.

4. Combating the corrosion of metals has now become a key problem in all industrialized countries.

5. The scientific and technical achievements in the field of raising the

corrosion resistance of construction materials are the basis of technical progress in different branches of industry, an indicator of the country's economic potential.

6. A large amount of "anti-corrosion" work is being carried out.

7. Gas pipelines, metal structures, the bodies of atomic reactors and ships etc. have been reliably protected against corrosion.

8. Russia exports special equipment and some kinds of technology designed to weaken corrosion.

9. More and more anti-corrosion varnishes, paints, insulating materials are sold every year.

II. Найдите соответствия между словами в правой и левой колонках:

1. Loss	a. Стоимость
2. Amount	b. Оборудование
3. Cost	c. Количество
4. Manufacture	d. Предмет
5. Resistance	e. Ключ
6. Equipment	f. Инструмент
7. Varnish	g. Потеря
8. Article	h. Сопротивление
9. Tool	i. Производство
10. Key	j. Лак

III. Переведите глаголы и дайте их 2 и 3 формы:

To become, to understand, to have, to be, to cost, to feel, to sell.

IV. Выберите правильный вариант:

1. Metal articles _____ by corrosion are very expensive.

- a) destroying
- b) are destroyed
- c) destroyed
- d) will destroy

2. The scientific achievements _____ the basis of technical progress.

- a) is
- b) are
- c) was
- d) will

3. Nowadays a key problem is _____ the corrosion.

- a) raising
- b) considering
- c) designing
- d) combating

4. Special equipment to weaken corrosion is _____ in Russia.

- a) designed
- b) protected
- c) destroyed
- d) become

V. Выберите правильный вариант перевода следующих предложений:

1. During a year almost 200 million tons of metal objects are considered to be destroyed by corrosion.

- a) В течении года были рассмотрены 200 млн тонн металлических предметов, разрушенных коррозией.
- b) Считается, что почти 200 млн тонн металлических предметов разрушаются коррозией в течении года.
- c) Считается, что разрушение коррозией 200 тонн металлических предметов произошло в течении года.

2. Creation of corrosion resistant material is a key problem of all industrialized countries.

- a) Все индустриально развитые страны стараются преодолеть проблему коррозии.
- b) Создание коррозионных материалов — это ключевая проблема индустриальных стран.
- c) Создание материалов, противостоящих коррозии — это ключевая проблема индустриально развитых стран.

8. A large amount of “anti-corrosion” work is being carried.

- a) Был проведён большой объём “антикоррозийной” работы.
- b) Большой объём “антикоррозийной” работы начал производиться.
- c) “Антикоррозийная” работа выполняется в большом объёме.

VI. Найдите в тексте и переведите предложения:

- a) в страдательном залоге
- b) со сказуемым в Present Perfect
- c) со сложным подлежащим.

VII. Прочитайте предложения № 4, 8, 9. Найдите причастие I, II в этих предложениях.

- VIII. Найдите предложения, в которых есть прилагательные и наречия в сравнительной степени, и переведите их на русский язык.
- IX. Прочитайте предложение № 3. Найдите двойной союз и переведите предложение.

Для специальностей МиАТ

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте и переведите текст.

MOTION

1. Never before have motion and moving things been so important as they are today.
2. Not only fast moving trains, but also trams, automobiles, airplanes, and the cinema (that is, moving pictures) play an important part in our daily life.
3. The physics of things at rest is much simpler than that of things in motion.
4. Motion means change of place or position with respect to the position of some other object or objects that we assume as being at rest.
5. We say "assume as being at rest" because, as you know of course no object is really quite motionless.
6. If houses are at rest relative to the earth's surface, the earth itself is not motionless.
7. It revolves on its axis and around the sun and the sun in its turn moves relative to the stars which too are in a state of motion.
8. A man sitting in a tram may seem motionless to his fellow-passengers; in reality, all are moving rapidly with respect to any man in the street.
9. The most common type of motion is motion in a straight line.
10. However, not all objects move in a straight line.
11. In order to be of use in machine construction motions must of course be completely controlled.

II. Найдите соответствия между словами в правой и левой колонках:

1. Motion	а. Изменение
-----------	--------------

2.Rest	b.Поверхность
3.Change	с.Польза
4.Earth	d.Состояние
5.Surface	е.Ось
6.Axis	f.Покой
7.State	g.Земля
8.Use	h.Движение

III. Переведите глаголы и дайте их 2 и 3 формы:

To sit, to write, to know, to mean, to flow, to be, to give

IV. Выберите правильный вариант:

1. We don't know any object that is quite _____.

a)physics

b)fast moving

c)motionless

d)fellow-passenger

2. One can't say that all objects _____ in a straight line.

a)mean

b)control

c)revolve

d)move

3. Motion must be controlled _____ of use in machine construction.

a)to be

b)to change

c)to have

d)to seem

4. We assume some objects to be _____.

a)with respect

b)in turn

c)at rest

d)of course

V. Выберите правильный вариант перевода следующих предложений:

1. Motion and moving objects have never been so important before as they are today.

a)Движение и движущиеся объекты никогда не были важны.

- б)Сегодня, как и ранее, не было ничего важного в движении и движущихся объектах.
- с)Ранее движение и движущиеся объекты никогда не были так важны, как сегодня.
2. The physics of things at rest is much simpler than that of things in motion.
- а)Физика вещей, находящихся в состоянии покоя, значительно проще, чем физика вещей, находящихся в движении.
- б)Физическое состояние вещей в покое проще, чем в движении.
- с)Вещи, находящиеся в покое, физически проще, чем они же в движении.
3. The most common type of motion is motion in a straight line.
- а)Прямолинейное движение – просто.
- б)Наиболее распространённый тип движения - это движение по прямой линии.
- с)Движение по прямой линии рассматривается как простое движение.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

- а)со сказуемым в Present Perfect
- б)со сказуемым в Present Continuous
- с)с модальными глаголами.

VIII. Найдите слово с отрицательным суффиксом и переведите предложение.

IX. Найдите предложение с прилагательным в сравнительной степени и переведите его.

I. Прочитайте и переведите текст.

JAMES WATT (1736-1819)

1. James Watt was a Scottish inventor and mechanical engineer known for his improvements of the steam engine.
2. Watt was born on January 19, 1736, in Greenock, Scotland.
3. He worked as a mathematical-instrument maker from the age of 19 and soon became interested in improving the steam engine which was used at that time to pump out water from mines.

4. Watt determined the properties of steam, especially the relation of its density to its temperature and pressure and designed a separate condensing chamber for the steam engine that prevented large losses of steam in the cylinder.
5. Watt's first patent in 1769 covered this device and other improvements on steam engine.
6. At that time he also patented several other important inventions including the rotary engine for driving various types of machinery.
7. He retired from the firm in 1800 and devoted himself entirely to research work.
8. The centrifugal governor (регулятор) which he invented in 1788, and which automatically regulated the speed of an engine, is of particular interest today.
9. It embodies the feedback principle of a servomechanism linking output to input which is the basic concept of automation.
10. The watt, the unit of power, was named in his honor.
11. Watt was also a well-known civil engineer.
12. In 1767 he invented an attachment that adapted telescopes for use in the measurement of distances.
13. Watt died in August 1819.

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	a. Конструировать
2. Determine	b. Препятствовать
3. Design	c. Приспосабливать
4. Prevent	d. Посвящать
5. Include	e. Уходить в отставку
6. Retire	f. Определять
7. Devote	g. Воплощать
8. Invent	h. Рождаться
9. Embody	i. Включать
10. Adapt	j. Изобретать

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

1. James Watt is the inventor of locomotive.
2. James Watt is a mathematician.

3. James Watt improved the design of steam engine.
4. James Watt took out his first patent in 1769.
5. He patented many of his inventions.
6. He left the firm in 1800.
7. Since 1800 he devoted himself to theoretical work.
8. A fly ball governor is no longer used now.

IV. ОТВЕТИТЕ НА ВОПРОСЫ.

1. When and where was James Watt born?
2. What is James Watt famous for?
3. Was he young when he started working as a mathematical-instrument maker?
4. What did James Watt determine?
5. What inventions did James Watt patent?
6. What did James Watt devote his life to after retiring from the firm?
7. What is a unit of power?
8. What did James Watt invent in 1767?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

THE WHEEL, STEAM CARRIAGES AND RAILWAYS

1. We know the wheel to be one of mankind's earliest and greatest inventions.
2. Without it there could be no industry, little transportation or communication, only crude farming, no water or electric power.
3. Nobody knows when the wheel was invented.
4. At first, all wheels were solid discs.
5. The problem to be solved was to make the wheels lighter and at the same time keeping them strong.
6. At first, holes were made in the wheels.
7. Then wheels with spokes were made.
8. Finally, the wheel was covered with iron and then with rubber.
9. In the West the first steam carriage was invented in France.
10. The three-wheeled machine had the front wheel driven by a two-cylinder steam engine and carried two people along the road at a walking pace.

11. The steam engine appeared in 1763.

12. The rapid spread of railways in the United Kingdom was due largely to George Stephenson, who was an enthusiast as well as a brilliant engineer.

13. He demonstrated a locomotive that could run eighteen kilometres an hour and carry passengers cheaper than horses carry them.

14. In Russia the tsar's government showed little interest in railway transportation.

15. Yet at that very time in the Urals a steam locomotive was actually in use.

16. It had been invented and built by the Cherepanovs, father and son, both skilful mechanics and serfs (крепостные).

II. Найдите соответствия между словами в правой и левой колонках:

1. Invention	a. Спица
1. Spoke	b. Человечество
3. Rubber	c. Железо
4. Steam	d. Изобретение
5. Spread	e. Распространение
6. Government	f. Резина
7. Mankind	g. Отверстие
8. Power	h. Пар
9. Hole	i. Правительство
10. Iron	j. Энергия

III. Назовите три формы глаголов:

To be, to keep, to drive, to begin, to run, to build, to do

IV. Выберите правильный вариант:

1. It is unknown when the wheel was _____.

a) covered

b) spread

c) kept

d) invented

2. The three-wheel machine carried two people _____ walking pace.

a) at

b) on

c) in

- d) of
2. George Stephenson _____ a talented engineer.
- a) were
 - b) can
 - c) was
 - d) had

3. It was in 1763 when the steam engine _____.
- a) kept
 - b) appeared
 - c) covered
 - d) driven

V. Выберите правильный вариант перевода следующих предложений:

1. One of mankind's earliest inventions, as we know, was the wheel.
- a) Первым, что изобрело человечество, как мы знаем, было колесо.
 - b) Как известно, единственным ранним изобретением человечества было колесо.
 - c) Одним из самых ранних изобретений человечества, как мы знаем, было колесо.
2. The problem to be solved was to make the wheels lighter.
- a) Проблема, которую надо было решить, состояла в том, чтобы сделать колесо легче.
 - b) Сделать колесо легче – было решённой проблемой.
 - c) Решить проблему создания колеса было легко.
3. The rapid spread of railways in the United Kingdom was due largely to George Stephenson.
- a) Д. Стивенсон в значительной мере повлиял на распространение железных дорог в Соединённом Королевстве.
 - b) Быстрое распространение железных дорог в Соединённом Королевстве произошло, в основном, благодаря Д. Стивенсону.
 - c) Быстрое распространение железных дорог в Соединённом Королевстве повлияло на изобретения Д. Стивенсона.

VI. Найдите в тексте и переведите предложения:

- a) в страдательном залоге
- b) модальными глаголами
- c) со сложным подлежащим.

VII. Прочитайте предложения № 5, 10. Найдите причастие I,II в этих предложениях.

VIII. Прочитайте предложение №13. Дайте правильный перевод выражений *due to* и *as well as*.

IX. Найдите прилагательные сравнительной и превосходной степенях. Переведите их.

I. Прочитайте и переведите текст.

THE EARLY DAYS OF THE AUTOMOBILE

1. One of the earliest attempts to propel a vehicle by mechanical power was suggested by Isaac Newton.

2. In 1825 a steam engine was built in Great Britain.

3. We know a vehicle to have carried 18 passengers and covered 8 miles in 45 minutes in the 19th century.

4. From 1860 to 1900 was the period of the application of gasoline engines to motorcars in many countries.

5. By that time motorcars had got a standard shape and appearance.

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

7. The cars of that time are known to be very small, two-seated ones, with no roof, driven by an engine placed under the seat.

8. After World War I it became possible to achieve greater reliability of motorcars, brakes became more efficient.

9. Constant efforts were made to standardize common components.

10. Multi-cylinder engines came into use, and most commonly used were four-cylinder engines.

11. Gradually, vehicles driven by internal combustion engine were developed.

12. Huge capital began to flow into the automobile industry.

13. From 1908 to 1924 the number of cars in the world was reported to have risen from 200 thousand to 20 million.

14. No other industry had ever developed at such a rate.

15. Like most other great human achievements, the motorcar is not the product of any single inventor.

II. Найдите соответствия между словами в правой и левой колонках:

1. Attempt	a. Пар
2. Vehicle	b. Двигатель
3. Steam	c. Попытка
4. Engine	d. Внешний вид
5. Application	e. Средство передвижения
6. Shape	f. Надёжность
7. Appearance	g. Тормоз
8. Reliability	h. Форма
9. Brake	i. Крыша
10. Roof	j. Применение
11. Rate	k. Скорость

III. Переведите глаголы и дайте их 2 и 3 формы:

To begin, to become, to show, to drive, to take, to know, to build

IV. Выберите правильный вариант:

1. Vehicles driven by internal combustion engine were _____ at the end of the 19th century.

- a) begun
- b) become
- c) taken
- d) developed

2. First cars were _____ two-seated cars without roof

- a) small
- b) common
- c) possible
- d) big

3. Huge capital _____ to flow into the automobile industry in the 19th century.

- a) begin
- b) began
- c) are beginning
- d) begun

4. At the beginning of the 20th century cars _____ standard shape and appearance.

- a) began
- b) got
- c) came
- d) drove

V. Выберите правильный вариант перевода следующих предложений:

1. No other industry had ever developed at such a rate.

- a) Никакая промышленность не развивается с такой скоростью.
- b) Другие отрасли промышленности не развиваются с такой скоростью.
- c) Никакая другая отрасль промышленности не развивалась с такой скоростью

2. A car is not the product of any single inventor.

- a) Машина не была изобретена кем-то одним.
- b) Машина – это не продукт какого-либо одного изобретателя.
- c) Машина производится кем-то одним.

3. Huge capital began to flow into the automobile industry.

- a) Огромные капиталовложения начали поступать в автомобильную промышленность.
- b) Потоки капитала начали вливаться в автомобильную промышленность.
- c) Денежные поступления в автомобильную промышленность были огромны.

VI. Найдите в тексте и переведите предложения:

- a) в страдательном залоге
- b) со сложным подлежащим
- c) со сложным дополнением
- d) с инфинитивом цели.

VII. Прочитайте предложение №7. Как переводится «*ones*» в данном предложении?

VIII. Прочитайте предложение №15. Как переводится слово «*like*» в данном предложении?

Для специальностей ФАИТ

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте и переведите текст.

ROBOT TECHNOLOGY

1. Robots are machines of special type.

2. They replace man wherever he is to do hard, monotonous, or hazardous work.

3.Many of them are fitted with artificial intellect systems, special programming devices and electronic controllers.

4.The idea of robot technology was born in the forties, when the foundations of atomic power engineering — the basis of technological progress — were laid.

5.Research into radioactive materials is becoming even more complicated, new problems arise in atomic power engineering and space technology.

6.This calls for newer manipulators and devices to be handled by an operator.

7.The analysis of these ideas and their solutions show two entirely different approaches.

8.The first one is to bring the operator as close to the object as possible, the other requires remote control.

9.Both approaches have already found practical application not only in atomic power engineering, but in underwater exploration as well.

10.Our research and design organizations create robots for assembly operations, especially for assembling various electronic circuits.

11.Mention should be made that robots are in wide use for performing welding and painting.

12.Robot technology emerged at the junction of two sciences — machine mechanics and control theory.

13.Further progress requires a wide application of modern control machines and systems, handled by scientists specializing in the theory of working processes, biology, and physics.

II. Найдите соответствия между словами в правой и левой колонках:

1. Machine	a.Космос
2. Device	b.Метод, подход
3. Space	c.Покраска
4. Approach	d.Применение
5. Application	e.Соединение
6. Power engineering	f.Механизм
7. Welding	g.Теплоэнергетика
8. Painting	h.Прибор
9. Junction	i.Сварка
10. Circuit	j.Контур (цепь)

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to bring, to become, to have, to show, to find, to arise

IV. Выберите правильный вариант:

1. Robots are said to be machines _____ special type.
 - a)in
 - b)of
 - c)off
 - d)on
2. A lot of robots are _____ with man-made intellect systems.
 - a)given
 - b)fitted
 - c)found
 - d)laid
3. Many approaches _____ used in atomic power engineering.
 - a)was
 - b)has
 - c)am
 - d)are
4. Today robots are used for assembling _____ electronic circuits.
 - a)different
 - b)further
 - c)monotonous
 - d)atomic

V. Выберите правильный вариант перевода следующих предложений:

1. The analysis of these ideas and their solutions show two different approaches.
 - a)Анализ этих двух различных методов был обдуман и разрешен.
 - б)Анализ этих идей и их решение демонстрируют два различных метода.
 - с)Эти идеи и решения анализируют два различных метода.
2. Robots designed by our research organizations are used for assembling various electronic circuits.
 - а)Организации, создающие роботов, часто используют их для сборки различных электронных цепей.
 - б)Роботы, создаваемые нашими исследовательскими организациями, используются для сборки различных электронных схем.

с)Роботы, используемые для сборки различных электронных цепей, создаются нашими исследовательскими организациями.

3. Robots are considered to replace man when he is to do hard, monotonous, or hazardous work.

а)Полагают, что роботы заменят человека, когда он должен выполнять тяжёлую, монотонную или опасную работу.

б)Роботы полагают, что они должны заменить человека, когда ему необходимо выполнить тяжёлую, монотонную или опасную работу.

с)Роботов рассматривают как замену человеку, когда он должен выполнить тяжёлую, монотонную или опасную работу.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

а)в страдательном залоге

б)со сказуемым в Present Perfect

с)со сказуемым в Present Continuous.

VIII. Какое предложение начинается словами «*Следует упомянуть...*».

IX. Найдите предложения, в которых есть прилагательные в сравнительной степени, и переведите их на русский язык.

I. Прочитайте и переведите текст.

SIR ISAAC NEWTON (1642-1727)

2.Isaac Newton is universally recognized as one of the greatest scientists of all times.

3.Isaac Newton was born in 1642.

4.At the age of 19 he entered Cambridge University where he displayed remarkable ability in science.

5.At 26 Newton became a professor at the University.

6.His main interests were mathematics, electrical mechanics and physical optics.

7.At twenty-two he began studying the theory of gravity.

8.Newton showed that the motions of the planets were the natural result of universal laws of nature.

9.His great work the "Principia" was published in 1687.

- 10.The laws of gravity enabled him to explain many mysteries of the structure of the universe.
- 11.Newton showed how the mass of the sun could be calculated from the speed and distance of any planet.
- 12.He found the true size and shape of the Earth.
- 13.The "Principia" created a wave of interest all over Europe and made many scientists become angry.
- 14.Most of them could not believe that great planets were hanging in empty space and were kept in their orbits by an unseen power of the sun.
- 15.Newton proved that mechanical laws acting on the earth are connected with mechanical laws of the whole universe.
- 16.Newton discovered the three most important laws of motion, but they are only part of Newton's contribution to physical science.

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	a.Создавать
2. Become	b.Верить
3. Begin	c.Родиться
4. Explain	d.Становиться
5. Create	e.Начинать
6. Find	f.Доказывать
7. Believe	g.Держать
8. Hang	h.Находить
9. Keep	i.Объяснять
10. Prove	j.Висеть

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

- 2.Newton is one of the greatest scientists of all times.
- 3.Newton studied in Oxford.
- 4.Newton was interested in optics.
- 5.The laws of gravity couldn't explain the mysteries of the universe.
- 6.European scientists agreed with Newton's opinion about laws of gravitation.
- 7.Mechanical laws acting on the earth are connected with mechanical laws of the whole universe.
- 8.Newton discovered the most important laws of Chemistry.

9. Newton contributed much to world's science.

IV. Ответьте на вопросы.

1. When was Newton born?
2. Where did Newton study?
3. Did Newton become a professor of Cambridge University?
4. How could the mass of the sun be calculated?
5. Did Newton find the true size and shape of the earth?
6. When was the "Principia" published?
7. What law did Newton prove?
8. What was Newton's contribution to the world's science?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

ELECTRONICS

1. To separate electronics from the concepts of electricity is extremely difficult.
2. The field of electricity is generally concerned with magnetism, light, heating and the production of electricity by generators and chemical action.
3. Electronics usually deals with the application of electricity in communications in radio, television and other devices where vacuum tubes and transistors are employed.
4. We know the vacuum tube and the transistor to be the major components of various electronic devices.
5. However, the vacuum tube is ideal in many situations where electrical energy is readily available and where heat is no problem.
6. A more recent invention — the transistor — is known to have replaced the vacuum tube in many situations.
7. The transistor operates on a minimum amount of electrical energy, it emits very little heat and has a long life.
8. The transistor is tiny compared to the size of the vacuum tube of equivalent energy output.
9. Several recent developments in the field of electronics have led to better ways to communicate efficiently over long distances.

10.The laser permits man to beam extremely coherent and concentrated energy with almost no loss of intensity.

11.Lasers are known to have been used for transmitting power radio waves and other waves used in communication.

II. Найдите соответствия между словами в правой и левой колонках:

1.Application	a.Изобретение
2.Device	b.Тепло
3.Vacuum tube	c.Применение
4.Invention	d.Размер
5.Amount	e.Прибор, устройство
6.Heat	f.Энергия
7.Size	g.Количество, объём
8.Loss	h.Электронная лампа
9.Power	i.Волна
10.Wave	j.Потеря

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to deal, to know, to have, to flow, to lead, to give

IV. Выберите правильный вариант:

1. Vacuum tubes and transistors _____ components of various electronic devices.

a)is

b)was

c)are

d)will

2. The transistor _____ the vacuum tube.

a)replaced

b)had

c)transmitted

d)knew

3. _____ are used for transmitting power.

a)lasers

b)electricity

c)fields

d)energy

4. Transistors are the main components of different electronic

- _____.
- a)energy
 - b)operations
 - c)amount
 - d)devices

V. Выберите правильный вариант перевода следующих предложений:

1. Electricity is generally connected with magnetism, light, heating.

- a)Магнетизм, свет, нагревание неразрывно связаны с электричеством.
- b)Связь электричества с магнетизмом, светом, нагреванием неразрывна.
- c)Электричество обычно связано с магнетизмом, светом, нагреванием.

2. It is extremely difficult to separate electronics from the concept of electricity.

- a)Понятие электричества неотделимо от электроники.
- b)Крайне трудно отделить электронику от понятия электричества.
- c)Сложность заключается в отделении понятия электричества от понятия электроники.

3. The transistor is tiny compared to the size of the vacuum tube.

- a)Транзистор очень мал по сравнению с размером электронной лампы.
- b)Небольшой размер транзистора сравним с размером электронной лампы.
- c)Размеры транзистора и электронной лампы очень малы.

VI. Найдите в тексте и переведите предложения:

- a)в страдательном залоге;
- b)со сказуемым в Present Perfect;
- c)со сложным дополнением;
- d)со сложным подлежащим.

VII. Прочитайте предложение №8. Как переводится «*compared*» в этом предложении?

VIII. Прочитайте предложение №9. Найдите прилагательное в сравнительной степени; есть ли ещё прилагательные в сравнительной степени в этом тексте?

I. Прочитайте и переведите текст.

FROM THE HISTORY OF COMPUTERS

2. A computer is known to be a device that has the ability to accept, store, and process enormous quantities of data in an extremely short time.
3. Much has been written about the early history of computing.
4. Mention should be made that Charles Babbage now recognized as the father of computing was working on the first of his mechanical calculating machines in the early 1820s long before the first electrical telegraph message was transmitted.
5. The modern history of digital computers began in 1939 with the work done by Howard Aiken.
6. Early computers performed many useful functions.
7. The second development was the construction of the machine in 1946 that was the forerunner of the first generation of electronic digital computers.
8. In 1947 electronic computers were so large and consumed so much electrical power that they produced more heat than processed information.
9. They were employed mainly for scientific and experimental work.
10. Then in 1950 there appeared "stored-programme" machines holding programming instructions in the main memory of the computer.
11. They could store and process more information, and did it faster.
12. Today it is possible to obtain a computer with great processing capability.
13. Now they process thousands of calculations per second.
14. There are two main classes of computing equipment: analogue and digital.
15. They work on different principles and yield different results.
16. The computer has become an integral part of the organization of all types of business.

II. Найдите соответствия между словами в правой и левой колонках:

1. Ability	b. Функция
2. Quantity	c. Развитие
3. Function	d. Создание

4.Development	е.Способность
5.Construction	ф.Энергия
6.Forerunner	г.Тепло
7.Generation	h.Оборудование
8.Power	і.Предшественник
9.Heat	ј.Вычисление
10.Equipment	к.Количество
11.Calculation	l.Поколение

III. Переведите глаголы и дайте их 2 и 3 формы:

To become, to write, to know, to begin, to flow, to hold, to give

IV. Выберите правильный вариант:

1. Charles Babbage is _____ as the father of computing.

- a)constructed
- b)consumed
- c)processed
- d)recognized

2. In 1946 the _____ of an electric digital computers was constructed.

- a)ability
- b)forerunner
- c)consumer
- d)developer

3. First computers produced _____ heat _____ processed information.

- e)as ...as
- f)the ...the
- g)so ... so
- h)more ... than

4. Computers work _____ different principles.

- a)in
- b)with
- c)on
- d)by

V. Выберите правильный вариант перевода следующих предложений:

1. The work done by H. Aiken began the modern history of digital computers.

- a) Началом истории цифровых компьютеров является работа Г. Эйкена
 - b) Работа, выполненная Г. Эйкеном, начала современную историю цифровых компьютеров
 - c) Аналоговые компьютеры начались с работы, сделанной Г. Эйкеном
2. Early computers performed many useful functions.
- a) Многие функции первых компьютеров были полезными
 - b) Вначале компьютеры выполняли полезные действия
 - c) Первые компьютеры выполняли много полезных действий
3. Today computers store and process more information, and did it faster.
- a) В наше время компьютеры накапливают и обрабатывают больше информации, и делают это быстрее
 - b) Сегодняшние компьютеры быстро обрабатывают много информации
 - c) Всё больше информации хранят и обрабатывается современными компьютерами

VI. Найдите в тексте и переведите предложения:

- a) в страдательном залоге
- b) со сказуемым в Present Perfect Passive
- c) со сложным подлежащим.

VII. Прочитайте предложения № 3, 4, 9, 11. Найдите причастие I, II в этих предложениях.

VIII. Найдите предложения, в которых есть прилагательные и наречия в сравнительной степени, и переведите их на русский язык.

IX. Прочитайте предложение № 3 и переведите словосочетание «*Mention should be made...*».

Для специальностей ФПП

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте и переведите текст.

NATURAL RESOURCES AND INDUSTRIAL CHEMISTRY

1. The history of man is largely the history of man's struggle for natural resources.

- 2.The rapid increase in the world's population with its enormous demand for food, energy, and manufactured products makes chemical industry a very important factor of our civilization.
- 3.At present a high standard of living makes great demand for mineral resources.
- 4.The natural sources of many materials are quickly exhausted, so new chemical products have to be developed.
- 5.Chemical industry is directed to the conversion of natural raw materials of the earth, sea and air into products, which are of vital importance for people's life.
- 6.Chemical industry deals with every kind of raw material.
- 7.Combining and rearranging the molecules, chemists can create substances with definite characteristics.
- 8.Chemical industry ranges so widely that it is difficult to define its scope.
- 9.Chemistry concerns with all forms of matter from metals to paper.
- 10.It reaches almost every sphere of science and technology.
- 11.A simple chemical product, sulfuric acid for example, is absolutely essential for the production of concrete, steel, some metals, textiles, paper, and many medicines.
- 12.In its turn these above mentioned substances are essential for the construction of airplanes, railroads, automobiles, telephones, etc.

II. Найдите соответствия между словами в правой и левой колонках:

1. Struggle	a.Население
2. Population	b.Уровень
3. Demand	c.Борьба
4. Standard	d.Преобразование
5. Resource	e.Вещество
6. Conversion	f.Потребность, спрос
7. Substance	g.Ресурс
8. Concrete	h.Лекарство
9. Acid	i.Кислота
10. Medicine	j.Бетон
11. Scope	k.Масштаб
12. Source	l.Источник

III. Переведите глаголы и дайте их 2 и 3 формы:

To make, to have, to teach, to become, to know, to hurt, to go

IV. Выберите правильный вариант:

1. The _____ industry converts natural raw materials into products.

- a) sulfuric
- b) natural
- c) mineral
- d) chemical

2. It _____ difficult to define the scope of chemical industry.

- a) is
- b) are
- c) am
- d) were

3. Our standard of living _____ great demand for mineral resources.

- a) are
- b) concerns
- c) ranges
- d) makes

4. The world's population increases _____.

- a) rapidly
- b) directly
- c) naturally
- d) chemically

V. Выберите правильный вариант перевода следующих предложений:

1. It is known that chemistry deals with all forms of matter, from metals to paper.

- a) Известные разделы химии имеют дело со всеми формами вещества от металла до бумаги.
- b) Все формы веществ от бумаги до металла связаны с химией.
- c) Известно, что химия имеет дело со всеми формами вещества, от металла до бумаги.

2. Rearranging the molecules chemists create substances with definite characteristics.

- a) Перераспределение молекул ведёт к созданию веществ с определёнными свойствами.
- b) Химики перераспределяют молекулы и создают вещества с определёнными свойствами.

с) Перераспределяя молекулы, химики создают вещества с определёнными характеристиками.

3. The history of man is largely the history of man's struggle for natural resources.

а) История человека – это, в основном, история его борьбы за природные ресурсы.

б) Борьба за природные ресурсы составляет основу борьбы человека за выживание.

с) История человечества – это история борьбы с природными ресурсами.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

а) в страдательном залоге

б) с модальным глаголом и его эквивалентами

с) с существительными в притяжательном падеже.

VIII. Найдите в тексте предложение, которое начинается со слов «*В свою очередь*» и переведите его до конца.

IX. Прочитайте предложение №7. Как переводится выражение *in combining*?

I. Прочитайте и переведите текст.

**THE FIRST RUSSIAN WOMAN-SCIENTIST (Sophia Kovalevskaya)
(1850-1891)**

1. The great Russian mathematician Sophia Kovalevskaya lived and worked in the second half of the 19th century.

2. It was the period of Russia's progress in science and culture.

3. Sophia was born in Moscow on February 15, 1850 in a well-off family but spent her childhood in a village.

4. When Sophia was eight an experienced teacher taught her arithmetic, grammar, literature, geography and history.

5. The girl showed an unusual gift in mathematics and at the age of twelve puzzled her teacher when she gave a new solution to a difficult unsolved problem.

6. In 1867 Sophia wanted to continue her studies in St. Petersburg where her family spent winters but the tsarist Government didn't allow women to study.

7. The only way out for her was to go abroad.

8. Sophia Kovalevskaya studied at Heidelberg University; she attended lectures and did a lot of research and practical work.

9. In 1871 S. Kovalevskaya went to Berlin and during four years wrote three dissertations and Hettingen University awarded her the Degree of Doctor of Philosophy.

10. In 1883 she accepted the offer of Stockholm University and was elected professor of mechanics

11. In her numerous scientific works Kovalevskaya solved the problems which many scientists couldn't solve during many years.

12. When Kovalevskaya became a world-famous scientist she won recognition in her own country.

13. In 1889 she was elected a Corresponding member of the Russian Academy of Sciences.

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	a. Давать
2. Spend	b. Озадачивать
3. Give	c. Решать
4. Attend	d. Принимать
5. Award	e. Выигрывать
6. Puzzle	f. Посещать
7. Solve	g. Награждать
8. Accept	h. Избирать
9. Win	i. Проводить
10. Elect	j. Родиться

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

1. Sophia Kovalevskaya lived at the beginning of the 19th century.

2. Sophia Kovalevskaya was taught only mathematics.

3. Sophia Kovalevskaya was a very talented girl.

4. Sophia Kovalevskaya studied at Moscow University.

5. In Berlin Sophia Kovalevskaya wrote three dissertations.

6. Sophia Kovalevskaya was elected professor of mathematics.
7. Sophia Kovalevskaya solved the problems that couldn't be solved for many years.
8. Sophia Kovalevskaya was elected a Corresponding member of the Russian Academy of Sciences at the end of the 19th century.

IV. ОТВЕЬТЕ НА ВОПРОСЫ.

1. When and where was Sophia Kovalevskaya born?
2. What period was it in Russia?
3. What was Sophia Kovalevskaya taught when she was eight?
4. How did the girl puzzle her teacher?
5. Why couldn't Sophia Kovalevskaya continue her education in Russia?
6. What did Sophia Kovalevskaya write when she studied and worked in Berlin?
7. Was Sophia Kovalevskaya a professor of Stockholm University?
8. When did Sophia Kovalevskaya win the recognition in Russia?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

WHEAT PRODUCTS

1. A large number of different cereals can enter into the manufacture of flour.
2. It may be made from rye, barley, corn etc., but the foremost of all these is wheat.
3. Wheat flour is known to be used in all bakery products.
4. Some wheats give a high yield and are distinguished for excellent baking quality.
5. Durum wheat is used for the manufacture of the best grades of macaroni goods.
6. Long ago German travelers learned how to make noodles during their visits to Asia.
7. In the fifteenth century the Italians learned from Germans how to make noodles.
8. Macaroni was first made by hand.

9. A small macaroni industry developed first in Italy, and the first mechanical devices for the manufacture of macaroni products had appeared there by 1800.

10. Now large and complex machines are used to make macaroni of uniform high quality under carefully controlled conditions.

11. Bread. To form dough flour, water, yeast and salt with any other ingredients, such as fat, and yeast activators must be mixed in mixers.

12. Then the dough is cut into accurately weighed pieces, and they are shaped into the form of a loaf.

13. The baking process is the last and at the same time the most important step in the production of bread.

14. The final processing of baked bread includes its cooling, slicing, and wrapping.

II. Найдите соответствия между словами в правой и левой колонках:

1. Rye	a. Ячмень
2. Barley	b. Мука
3. Corn	c. Рожь
4. Wheat	d. Урожай
5. Flour	e. Лапша
6. Yield	f. Пшеница
7. Grade	g. Тесто
8. Noodles	h. Дрожжи
9. Dough	i. Сорт
10. Yeast	j. Зерно

III. Переведите глаголы и дайте их 2 и 3 формы:

To make, to know, to learn, to be, to do, to cut, to give

IV. Выберите правильный вариант:

1. In bakery products wheat flour is _____.

- a) manufactured
- b) used
- c) developed
- d) learned

2. Flour can be produced from different _____.

- a) devices
- b) noodles

- c)yeast
 - d)cereals
3. Italy is the country where macaroni industry was first _____.
- a)manufactured
 - b)distinguished
 - c)developed
 - d)entered
4. The conditions for macaroni manufacturing _____ carefully controlled.
- a)are
 - b)has
 - c)was
 - d)is

V. Выберите правильный вариант перевода следующих предложений:

1. The final processing of baked bread includes its cooling, slicing, and wrapping.

a)Процессы охлаждения, нарезки и упаковки являются частью процесса выпекания хлеба.

b)Финальным процессом выпекания хлеба является его охлаждение, нарезка и упаковка.

c)Окончательная обработка выпеченного хлеба включает в себя его охлаждение, нарезку и упаковку.

2. The baking process is the last and at the same time the most important step in the production of bread.

a)Процесс выпекания - это последний, и, в то же время, наиболее важный этап в производстве хлеба.

b)Последний процесс, процесс выпекания, является в то же время наиболее важным этапом в производстве хлеба.

c)Процесс выпекания длится долго и является самым важным этапом в производстве хлеба.

3. Dough is cut into accurately weighed pieces, and they are shaped into the form of a loaf.

a)Нарезанные кусочки теста взвешиваются и из них формируются буханки.

b)Тесто разрезается на одинаковые по весу части и им придаётся форма буханки.

c)Точно разрезанные одинаковые куски теста формируют буханки.

VI. Найдите в тексте и переведите предложения:

- а) в страдательном залоге
- б) с модальными глаголами
- с) со сложным подлежащим.

VII. Прочитайте предложения № 4, 10, 14. Найдите причастие I, II в этих предложениях.

VIII. Прочитайте предложения №10, №11. Переведите предложения, обращая внимание на инфинитив цели.

IX. Найдите предложение с прилагательным в превосходной степени. Переведите его.

I. Прочитайте и переведите текст.

BIOCHEMISTRY

1. The chemistry of life, or "biochemistry" as chemists call it is an area in which the classical fields of chemistry and biology meet.

2. Biochemistry is the study of the structures and reactions of the thousands of compounds involved in life process.

3. Biochemistry is considered to be the most complex area of chemistry.

4. Living things represent the most efficient compact chemical "factories" ever known.

5. When we compare the nervous system to man-made electronic computers the efficiency and complexity of the biological systems become even more impressive.

6. A computer can perform mathematical operations millions of times faster than a person, but think of some of the things the nervous system can do.

7. For example, it can cause your arm to reach out and touch an object.

8. As to the storage capacity the brain really wins out.

9. The largest computers have storage capacity of about one million "words", but some experts believe the brain to store up all the signals it receives.

10. The chemical processes of our bodies involve enormously complex sequences of reactions.

11. Great progress has been made in our understanding of the processes that occur in the body.

12.The first half of the last century was termed the Golden Age of Physics, because so many discoveries in understanding the structure of molecules, atoms, and nuclei were made.

13.By the same virtue we may be in the midst of a Golden Age in Biochemistry.

14.The next few years of research may bring much increased understanding of chemical processes in cells.

II. Найдите соответствия между словами в правой и левой колонках:

1. Field	a.Сложность
2. Study	b.Мозг
3. Efficiency	с.Ядро
4. Complexity	d.Открытие
5. Capacity	e.Область
6. Brain	f.Объём
7. Discovery	g.Исследование
8. Nucleus	h.Понимание
9. Research	i.Эффективность
10. Understanding	j.Середина
11. Midst	k.Клетка
12. Cell	l.Изучение

III. Переведите глаголы и дайте их 2 и 3 формы:

To become, to meet, to know, to do, to bring, to win, to make

IV. Выберите правильный вариант:

1. Biochemistry is an area in which different _____ of chemistry and biology meet.

- a)study
- b)fields
- c)system
- d)things

2. Biochemistry _____ a very complex area of chemistry.

- a)have
- b)are
- c)am
- d)is

3. The beginning of the last century was _____ the Golden Age of Physics

- a) discovered
- b) named
- c) increased
- d) involved

4. A computer performs operations _____ than a person.

- a) faster
- b) more
- c) less
- d) slow

V. Выберите правильный вариант перевода следующих предложений:

1. Biochemistry is considered to be the most complex area of chemistry.

- a) Считается, что биохимия является наиболее сложной областью химии.
- b) Биохимики рассматривают комплексные области химии.
- c) Рассмотрение биохимии относится к наиболее сложным областям науки.

2. During the first half of the last century great discoveries in the structure of molecules, atoms, and nuclei were made.

- a) Начиная с первой половины прошлого века, производились открытия структуры молекул, атомов и ядра.
- b) Изучение структуры молекул, атомов и ядра продолжилось в первой половине прошлого века.

c) В течение первой половины прошлого века были сделаны значительные открытия в структуре молекул, атомов и ядер.

3. Biochemistry studies the structures and reactions of compounds taking place in life process.

- a) Происходящие в структуре и реакциях жизненные процессы изучаются биохимией.
- b) Изучение структуры и реакций соединений, происходящих в жизненных процессах – основная задача биохимии.
- c) Биохимия изучает структуру и реакции соединений, происходящих в жизненных процессах.

VI. Найдите в тексте и переведите предложения:

- a) в страдательном залоге
- b) с модальными глаголами
- c) со сложным дополнением

d)со сложным подлежащим.

VII. Прочитайте предложение №5. Как переводится *man-made*?

VIII. Найдите прилагательные в сравнительной и превосходной степенях. Переведите их.

Для специальностей ИЭФ

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте и переведите текст.

PRINCIPLES OF TAXATION

- 1.Tax is a compulsory levy on individuals and companies by the state to meet the expenses of the government.
- 2.Taxes are levied in almost every country of the world primarily to raise revenue (money that a business or organization receives over a period of time, especially from selling goods or services) for government expenditures.
- 3.The 18th-century philosopher Adam Smith attempted to systematize the rules that should govern a rational system of taxation.
- 4.In his books he set down three general canons.
- 5.1). The subjects of every state ought to contribute towards the support of the government in proportion to their respective abilities that is in proportion to the revenue which they respectively enjoy under the protection of the state.
- 6.2). The tax, which each individual is bound to pay, ought to be certain and not arbitrary.
- 7.The time of payment, the manner of payment, the quantity to be paid ought all to be clear and plain to the contributor and to every other person.
- 8.3). Every tax ought to be levied at the time or in the manner in which it is most likely to be convenient for the contributor to pay it.
- 9.Although they need to be reinterpreted from time to time these principles especially the first retain remarkable relevance.
- 10.Taxes should be based on the individual's ability to pay known as the ability-to-pay principle and the benefit principle.

11. The idea of three principles is that there should be some equivalence between what the individual pays and the benefits he derives from governmental activities.

II. Найдите соответствия между словами в правой и левой колонках:

1. Levy	a. Доход
2. Expense	b. Время
3. Revenue	c. Распределение
4. Subject	d. Сбор (налогов)
5. Support	e. Подчинённый
6. Quantity	f. Удобство
7. Relevance	g. Расход
8. Distribution	h. Поддержка
9. Burden	i. Выгода, польза
10. Benefit	j. Количество

III. Назовите три формы глаголов:

To be, to meet, to know, to pay, to flow, to set, to give

IV. Выберите правильный вариант:

2. It was Adam Smith who _____ the taxation system.

- a) attempted
- b) systematized
- c) contributed
- d) paid

3. Every _____ ought to pay taxes.

- a) manner
- b) principle
- c) time
- d) individual

4. _____ is money that organization gets from selling goods or services.

- a) revenue
- b) service
- c) goal
- d) ability

5. A tax payer should know the time of _____ - and the manner of _____.

- a) activity

- b)benefit
- c)idea
- d)payment

V. Выберите правильный вариант перевода следующих предложений:

1. Adam Smith systematized the rules that governed a rational system of taxation.

- a) А. Смит создал рациональную систему налогообложения.
- b) А. Смит систематизировал правительственную систему рационального налогообложения.
- c) А. Смит систематизировал правила, которые управляли рациональной системой налогообложения.

2. Tax is a compulsory sum of money taken from individuals and companies by the state.

- a) Сумма денег обязательно взимается государством с физических лиц и компаний и называется налогом.
- b) Налог - это обязательная сумма денег, взимаемая государством с физических лиц и компаний.
- c) Государство взимает определённую сумму с физических лиц и компаний в качестве налога.

3. The tax which each individual must pay ought to be certain and not arbitrary.

- a) Каждый индивидуальный налог должен быть определённым, а не произвольным.
- b) Каждый человек должен оплатить определённый, а не произвольный налог.
- c) Налог, который каждому человеку необходимо заплатить, должен быть определённым, а не произвольным.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

- a)с модальными глаголами
- b)в страдательном залоге
- c)с существительными в притяжательном падеже.

VIII. Перечислите все модальные глаголы, которые встречаются в тексте, и переведите их на русский язык.

IX. Прочитайте предложение № 8 и переведите выражение «*is likely to be convenient*».

I. Прочитайте и переведите текст.

ANDREI SAKHAROV (1921-1989)

1. Andrei Dmitrievich Sakharov an outstanding scientist and public figure was born on the 21st of May, 1921 into the family of teachers.
2. He graduated from Moscow University in 1942.
3. In 1953 he defended his Doctorate thesis and was elected member of the Academy of Sciences.
4. Sakharov played a decisive role in developing the Soviet hydrogen bomb.
5. While working on the bomb he came to the conclusion that any atomic and nuclear weapon should be banned.
6. In 1966 he took part in his first human rights demonstration - a one-minute silent protest in Pushkin Square.
7. A year later he wrote a letter to Communist Party leader Leonid Brezhnev defending imprisoned dissidents.
8. He fought courageously for human rights in the former USSR and in 1975 he was awarded the Nobel Peace Prize.
9. His international reputation as a scientist kept him out of jail but in 1980 he was deprived of all his titles and orders and exiled to the city of Gorky.
10. In Gorky he continued to work for peace, justice and human rights.
11. It was Michail Gorbachev who helped A. Sakharov to return to Moscow.
12. He was given back all his titles and 3 years later he was elected deputy of the Supreme Soviet.
13. Sakharov died in 1989.
14. He is remembered by everybody as an outstanding humanist, one of the best representatives of humankind who could teach and inspire, and who foresaw the changes that are taking place now.

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	a. Защищать
2. Graduate from	b. Принимать участие
3. Defend	c. Запрещать
4. Elect	d. Вдохновлять
5. Take place	e. Лишать
6. Ban	f. Заканчивать ВУЗ
7. Fight	g. Бороться

8. Award	h.Предвидеть
9. Deprive	i.Выбирать
10. Exile	j.Награждать
11. Foresee	k.Рождаться
12. Inspire	l.Ссылать

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

- 1.It was war when Andrei Sakharov graduated from the University.
- 2.Andrei Sakharov defended his Doctorate during the war.
- 3.Andrei Sakharov took part in developing hydrogen bomb.
- 4.Andrei Sakharov took part in anti-war demonstrations.
- 5.Andrei Sakharov was taken to jail.
- 6.Andrei Sakharov was exiled to Nizhni Novgorod.
- 7.Andrei Sakharov was given back all his titles when he was in Gorky.
- 8.Andrei Sakharov was the deputy of the Supreme Soviet.

IV. Ответьте на вопросы.

- 1.When and where was Andrei Sakharov born?
- 2.Where did he study?
- 3.Was Andrei Sakharov elected a member of the Academy of Sciences?
- 4.What role did Sakharov play in developing hydrogen bomb?
- 5.What demonstration did Andrei Sakharov take part in?
- 6.Why was he awarded the Nobel Peace Prize?
- 7.Why was he kept out of jail?
- 8.Is he remembered by everybody?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

BANKS AND ITS CLASSES

- 1.Bank is an institution that deals with money and its substitutes and provides other financial services.
- 2.Banks accept deposits, make loans and derive a profit from the difference in the interest rates.
- 3.They also have the power to create money.

- 4.The two major classes of banks are commercial and central banks.
- 5.Commercial banks accept savings deposits, they are known to make loans and other investments and offer financial services that facilitate the exchange of funds among individuals and institutions.
- 6.In addition to the profit, derived from the difference in the interest rates, commercial banks charge fees for various services.
- 7.Central banks are involved in the issue of money and maintain the country's foreign currency reserves.
- 8.Central banks maintain the accounts of other banks supervising their activities.
- 9.Central banks act as bankers to governments, as the designers of monetary and credit policies, and as lenders of last resort to commercial banks in the case of a financial crisis.
- 10.Central banks are also considered to play a significant psychological role as guarantors of the monetary system.
- 11.Central banks may be nationalized organizations subjected to government control, but some of them can have independence from governmental supervision.

II. Найдите соответствия между словами в правой и левой колонках:

1.Institution	a.Прибыль
2.Deposit	b.Полномочие
3.Loan	с.Плата
4. Profit	d.Счёт
6.Power	e.Вклад
7.Fee	f.Учреждение, заведение
8.Account	g.Обмен
9.Lender	h.Независимость
9. Independence	i.Заём
10. Exchange	j.Кредитор

III. Назовите три формы глаголов:

To be, to deal, to know, to have, to flow, to hold, to make

IV. Выберите правильный вариант:

1. Banks _____ some financial services.

- a)providing
- b)provides
- c)shall provide

- d)provide
2. For different services fee is _____ by commercial banks.
- a)given
 - b)maintained
 - c)charged
 - d)supervised
3. Some central banks can have _____ from the supervision of the government.
- a)independence
 - b)activity
 - c)reserve
 - d)account
4. Commercial banks _____ financial services.
- a)drive
 - b)charge
 - c)offer
 - d)play

V. Выберите правильный вариант перевода следующих предложений:

1. Central banks may be subjected to government control.
- a)Центральные банки могут быть предметом правительственного контроля.
 - b)Центральные банки могут подвергаться контролю правительства.
 - c)Центральные банки контролируются правительством.
2. Central banks supervise the activities of other banks.
- a)Другие банки действуют в интересах других банков.
 - b)Руководство деятельностью других банков производится центральным банком.
 - c)Центральные банки руководят деятельностью других банков.
3. Central banks are also known to make loans and other investments.
- a)Центральные банки, как известно, также предоставляют займы и другие инвестиции.
 - b)Центральные банки предоставляют займы и другие инвестиции.
 - c)Предоставление займов и других инвестиций проводится, как известно, коммерческими банками.

VI. Найдите в тексте и переведите предложения:

- a)в страдательном залоге

- b)с модальными глаголами
- с)со сложным подлежащим.

VII. Прочитайте предложения № 6, 8, 11. Найдите причастие I, II в этих предложениях.

VIII. Найдите предложение с существительным в притяжательном падеже и переведите его на русский язык.

IX. Прочитайте предложение № 9 и дайте правильный перевод союза «as». Как ещё можно перевести этот союз?

I. Прочитайте и переведите текст.

MANAGEMENT PROBLEMS

1. There is no doubt that as the size of the firm increases, management problems become more complex.
2. It becomes increasingly difficult to carry out the management functions of coordination, control, communication and maintenance of morale in the labour force.
3. COORDINATION. Large organizations must be subdivided into many specialized departments (production planning, sales, purchasing, personnel, accounts etc.).
4. As these departments multiply and grow in size, the task of coordinating their activities becomes more and more difficult.
5. CONTROL. Essentially, management consists of two basic activities: the taking of decisions and seeing that these decisions are carried out.
6. This latter function is that of control.
7. The large firm usually has an impressive hierarchy of authority (managing director, director, head of division, head of department, foreman, and so on); but, in practice, the problem of seeing that "everyone is doing what they are supposed to be doing, and doing it well" is a very difficult task.
8. COMMUNICATION. The transfer of information in industry and commerce is a two-way process.
9. It is not simply a matter of passing orders down the line; subordinates must be able to feed back their difficulties and problems.

10. There must not only be a vertical line of communication, information must also move laterally, because one section of the firm must know what the other sections are doing.

11. Keeping everyone informed of what is required of him or her, and of what is happening elsewhere in the firm is a very severe test of management's abilities.

II. Найдите соответствия между словами в правой и левой колонках:

m. Doubt	a. Вид деятельности
n. Size	b. Решение
o. Accounts department	c. Сомнение
4. Activity	d. Размер
5. Decision	e. Мастер
6. Hierarchy	f. Подчинённый
7. Authority	g. Бухгалтерия
8. Foreman	h. Способность
9. Subordinate	i. Иерархия
10. Ability	j. Руководство

III. Назовите три формы глаголов:

To be, to become, to grow, to have, to see, to do, to know

IV. Выберите правильный вариант:

1. Large firms are usually _____ into many departments.

- a) carried
- b) supposed
- c) subdivided
- d) informed

2. Management consists _____ two activities.

- a) in
- b) from
- c) on
- d) of

3. _____ is one of the management functions.

- a) task
- b) director
- c) control
- d) section

4. _____ is a two-way process.

- a) coordination

- b)communication
- c)control
- d)division

V. Выберите правильный вариант перевода следующих предложений:

1. Management consists of two basic activities: the taking of decisions and seeing that these decisions are carried out.

- a)Управление состоит из двух основных видов деятельности: принятия решений и наблюдения за тем, как эти решения выполняются.
- b)Активность менеджмента представлена двумя видами: принятием решений и их выполнением.
- c)Два вида активного управления состоит в принятии решений и их проверки.

2. There is no doubt that as the size of the firm increases, management problems become more complex.

- a)Несомненно, что так размер фирмы увеличивается, появляется целый комплекс проблем управления.
- b)Нет сомнений, что по мере роста фирмы, проблемы менеджмента становятся всё более комплексными.
- c)Нет сомнений, что по мере увеличения размера фирмы, проблемы управления становятся более сложными.

3. The transfer of information in industry and commerce is a two-way process.

- a)Передача информации в промышленности и торговли – это двусторонний процесс.
- b)Трансформация информации в промышленности и торговле – это двусторонний процесс.
- c)Процесс передачи информации в промышленности и торговле идёт в двух направлениях.

VI. Найдите в тексте и переведите предложения:

- a)со сказуемым в Present Continuous
- b)в страдательном залоге
- c)с модальными глаголами.

VII. Прочитайте предложение № 6. Как переводится слово «*that*» в этом предложении.

VIII. Найдите предложения с прилагательными в сравнительной и превосходной степени. Переведите их.

Для специальностей НТФ

I семестр

Задание для самостоятельной работы № 1.

I. Прочитайте и переведите текст.

INVENTORS AND THEIR INVENTIONS

1. Over the centuries man's way of life was changed by a relatively small number of discoveries and inventions.
2. But changes have come more and more often since the steam engine was invented in 1765 by James Watt.
3. In just two hundred years, man advanced from horse power and candle light to aeroplanes and neon lamps.
4. Our ideas about travel have changed completely since Gottlieb Daimler and Charles Benz built their first petrol engine in 1885, and the Wright Brothers made the first flight in 1903.
5. In 1897 Rudolf Diesel invented a new internal combustion engine.
6. It is known as a diesel, and it began a transport revolution in cars, trains, and ships.
7. Charles Rolls was a British aristocrat and businessman who was especially interested in cars.
8. Once he met another enthusiast Henry Royce a famous car engineer.
9. They decided to design the most comfortable and reliable car.
10. At the beginning of the 20-th century it was a fantasy.
11. But in 1907 they managed to create the world - famous Rolls – Royce car.
12. Samuel Colt who was an American designed and patented a pistol in 1836.
13. It had a revolving barrel and could fire 6 bullets one after another.
14. Samuel Finley Morse was a portrait painter who became an inventor.
15. For 12 years he tried to perfect the telegraph and succeeded in inventing the telegraphic dot-and-dash alphabet known as Morse code, that is used nowadays all over the world.

II. Найдите соответствия между словами в правой и левой колонках:

1. Discovery	а.Сила, мощь;
2. Invention	б.Ствол, дуло (оружия)
3. Steam	с.Полёт
4. Engine	д.Пар
5. Power	е.Пуля
6. Petrol	ф.Горение
7. Flight	г.Открытие
8. Combustion	h.Двигатель
9. Barrel	і.Изобретение
10. Bullet	ј.Бензин

III. Переведите глаголы и дайте их 2 и 3 формы:

To be, to have, to build, to make, to know, to begin, to meet

IV. Выберите правильный вариант:

1. Discoveries and inventions _____ the life of a man.

a)tried

b)succeeded

c)changed

d)began

2. An internal combustion engine was _____ by Rudolf Diesel

a)invented

b)invents

c)inventing

d)invent

3. The _____ of a car was a fantasy at the beginning of the 20-th century.

a)designing

b)discovering

c)changing

d)knowing

4. It was _____ who invented the steam engine.

a)Rudolf Diesel

b)James Watt

c)Samuel Morse

d)Henry Royce

V. Выберите правильный вариант перевода следующих предложений:

1. S. Morse succeeded in inventing telegraphic alphabet.
 - a) Успех С. Морзе заключался в изобретении телеграфного алфавита.
 - b) С. Морзе преуспел в изобретении телеграфного алфавита.
 - c) С. Морзе успешно изобрёл телеграфный алфавит.
2. The invention of steam engine gave birth to a large number of other discoveries and inventions.
 - a) Изобретение бензинового двигателя породило большое число открытий и изобретений.
 - b) Изобретение парового двигателя дало толчок к дальнейшим открытиям и изобретениям.
 - c) Изобретение парового двигателя породило большое количество других открытий и изобретений.
3. Morse code was not the only one in America at that time.
 - a) Азбука Морзе была не единственной в Америке в то время.
 - b) В Америке существовала только азбука Морзе.
 - c) Одна азбука, которая существовала в Америке в то время, была азбука Морзе.

VI. Найдите в тексте существительные во множественном числе и переведите их.

VII. Найдите в тексте и переведите предложения:

a) со сказуемым в Present Perfect

b) в страдательном залоге.

VIII. Прочитайте предложение №11. Как переводится глагол “*succeed in*”?

IX. Найдите предложения с прилагательными в сравнительной и превосходной степени. Переведите их.

I. Прочитайте и переведите текст.

JAMES CLERK MAXWELL (1831-1879)

1. James Clerk Maxwell, the great physicist and mathematician was born in Edinburgh, Scotland on November 13, 1831.
2. After school he entered the University of that city.
3. Then he attended the University of Cambridge and graduated from it in 1854.

4. At the University Maxwell took great interest in mathematics and optics.
5. For two years after the University he lectured, made experiments in optics and studied much himself.
6. In 1856 he became professor of natural philosophy and in 1860 professor of physics and astronomy at King's College, London.
7. In 1871 Maxwell became professor of experimental physics at Cambridge.
8. He organized a laboratory which made Cambridge world-known.
9. This was a very fruitful period of Maxwell's life.
10. He studied the problems of electromagnetism, molecular physics, optics, mechanics and others.
11. Maxwell wrote his first scientific work when he was fifteen.
12. His most outstanding investigations however are in the field of the kinetic theory of gases and electricity.
13. Maxwell is the founder of the electromagnetic field and the electromagnetic theory of light.
14. In 1873 he published his famous work on electricity and magnetism, he also wrote his classic "Matter and Motion", a small book on a great subject.
15. Maxwell's works on the kinetic theory of gases, the theory of heat, dynamics and the mathematical theory of electricity and magnetism are monuments to his great genius.

II. Найдите соответствия между словами в правой и левой колонках:

1. Be born	a. Интересоваться
2. Enter	b. Посещать
3. Attend	c. Читать лекции
4. Take interest	d. Родиться
5. Lecture	e. Поступать
6. Become	f. Заканчивать ВУЗ
7. Publish	g. Становиться
8. Graduate	h. Публиковать

III. Согласитесь (Yes, it is true) или опровергните (No, it is false) данные утверждения. Если они не соответствуют тексту, дайте правильный вариант:

1. Maxwell is a great physicist and mathematician.

2. Maxwell studied at Edinburg University.
3. Maxwell made experiments in mathematics.
4. In 1856 Maxwell became professor of physics.
5. In Oxford Maxwell organized a laboratory.
6. Maxwell wrote his first scientific work when he was 16.
7. Maxwell's most outstanding investigations are in the field of the kinetic theory of gases.
8. Maxwell was interested in the problems of electricity and magnetism.
9. Maxwell's book is "Matter and Motion".

IV. ОТВЕЬТЕ НА ВОПРОСЫ.

1. What is Maxwell?
2. When and where was he born?
3. Where did Maxwell study?
4. What University did Maxwell graduate from?
5. What did Maxwell organize in Cambridge?
6. What sciences did Maxwell take interest in?
7. How old was Maxwell when he wrote his first scientific work?
8. Is Maxwell the founder of the electromagnetic theory of light?
9. What is Maxwell's famous work?
10. What theories are the monuments of Maxwell great genius?

II семестр

Задание для самостоятельной работы № 2.

I. Прочитайте и переведите текст.

OIL

1. Petrol stations with their lines of pumps are among the commonest sights along our main roads today.
2. Without petrol commerce and industry would soon come to a standstill (тупик).
3. Traffic in our great cities would stop, and millions of workers would be unable to get to or from their work.
4. Petroleum is known to be the name of the mineral oil that comes from under the ground, and from which petrol is obtained.
5. From this crude oil we obtain the various fuels that drive ships, aircrafts, and many forms of land transport.
6. Oil usually lies thousands of feet below the earth's surface.

7. There are many ways of discovering this underground oil, but the only way to be certain that it exists is to make a deep hole called a bore-hole (буровая скважина) or a well through the rock, earth, and sand.

8. The steel framework over the well is called a derrick.

9. Bore-holes are often very deep.

10. Many oilfields are hundreds of miles from the sea.

11. As petroleum is needed in all parts of the world and has to be transported across the oceans, it is carried from oilfields to the sea in pipelines that may go for very large distances.

12. The crude oil may be stored in the tanks, from which ships called oil-tankers carry it to many countries.

13. The oil fuel used in diesel engines is much cheaper than petrol.

14. Tractors that burn diesel oil are used in almost all countries today for many kinds of agricultural work.

II. Найдите соответствия между словами в правой и левой колонках:

1. Petrol	a. Нефть
2. Pump	b. Топливо
3. Petroleum	c. Бензин
4. Traffic	d. Земля
5. Fuel	e. Насос
6. Surface	f. Трубопровод
7. Earth	g. Движение
8. Pipeline	h. Двигатель
9. Engine	i. Скала, порода
10. Rock	j. Буровая вышка
11. Derrick	k. Поверхность

III. Переведите глаголы и дайте их 2 и 3 формы:

To come, to drive, to lie, to get, to make, to burn, to have

IV. Выберите правильный вариант:

1. Petrol is _____ from mineral oil.

- a) called
- b) come
- c) obtained
- d) needed

2. Petroleum _____ transported across the oceans.

- a) will

- b) are
- c) were
- d) is

3. Crude oil is _____ in the tanks.

- a) stored
- b) got
- c) burnt
- d) existed

4. Petrol is _____ from petroleum.

- a) discovered
- b) transported
- c) stored
- d) obtained

V. Выберите правильный вариант перевода следующих предложений:

1. Making a bore-hole is necessary to be sure of the existence of oil.

- a) Бурение скважин необходимо, чтобы убедиться в существовании нефти.
- b) Чтобы убедиться в существовании нефти, необходимо проводить буровые работы.
- c) Существование нефти необходимо при бурении скважин.

2. Without petrol commerce and industry would soon come to a standstill.

- a) Бензин способствует развитию торговли и промышленности.
- b) При отсутствии бензина торговля и промышленность скоро зашли бы в тупик.
- c) Без бензина ситуация в торговле и промышленности вскоре стала бы тупиковой.

3. The crude oil is carried to many countries by oil tankers.

- a) Танкеры доставляют сырую нефть во многие страны.
- b) Транспортировка сырой нефти во многие страны производится танкерами.
- c) Добытая нефть транспортируется во многие страны нефтеналивными баржами.

VI. Найдите в тексте и переведите предложения:

- a) в страдательном залоге
- b) с модальными глаголами
- c) с существительными в притяжательном падеже
- d) со сложным подлежащим.

VII. Прочитайте предложение №13. Найдите прилагательное в сравнительной степени и дайте превосходную степень этого прилагательного.

VIII. Прочитайте предложение №3. Найдите прилагательное с отрицательной приставкой.

I. Прочитайте и переведите текст.

NATURAL GAS IN THE MARINE ENVIRONMENT

1. The word "petroleum" comes from Latin and means "rock oil".
2. It is used to identify two closely related compounds - natural gas, also known as methane, and oil.
3. Both substances sometimes seep to the surface through cracks in the earth.
4. Natural gas is closely related to crude oil.
5. Both substances are thought to have formed in the earth's crust as a result of transformation of organic matter due to the heat and pressure of the overlying rock.
6. All oil deposits contain natural gas, although natural gas is often found without oil.
7. Gas hydrocarbons can also be produced as a result of microbial decomposition of organic substances and, less often, due to reduction of mineral salts.
8. Many of these gases are released into the atmosphere or hydrosphere, or they are accumulated in the upper layers of the earth's crust.
9. The composition of natural gas varies.
10. It depends on the origin, type, genesis, and location of the deposit, geological structure of the region, and other factors.
11. The deeper the location of gas deposit, the higher the number of methane homologues.
12. In gas condensate fields, the content of methane homologues is usually considerably higher than the level of methane.
13. In gases associated with oil, the content of methane homologues is comparable with the content of methane.
14. Large amount of gases associated with oil is dissolved in this oil.

15. During oil extraction, as the pressure goes down, gases come to the surface of the oil.

16. They are released in the environment in volumes of 30-300 m³ for every ton of extracted oil.

II. Найдите соответствия между словами в правой и левой колонках:

1. Rock	a. Земная кора
2. Oil	b. Месторасположение
3. Surface	c. Горная порода
4. Crack	d. Минеральное масло, нефть
5. Crust	e. Осадок, отложение
6. Matter	f. Углеводород
7. Deposit	g. Поверхность
8. Hydrocarbon	h. Окружающая среда
9. Location	i. Вещество
10. Environment	j. Трещина

III. Переведите глаголы и дайте их 2 и 3 формы:

To come, to find, to go, to get, to make, to think, to have

IV. Выберите правильный вариант:

1. Oil and natural gas are _____ in the earth's crust.

- a) had
- b) formed
- c) gone
- d) varied

2. The composition of natural gas depends _____ many factors.

- a) of
- b) on
- c) in
- d) from

3. Crude oil and natural gas _____ closely related.

- a) is
- b) am
- c) are
- d) be

4. Heat and pressure play an important role in the transportation of _____.

- a) organic matter

- b) large amount
- c) every ton
- d) related compounds

V. Выберите правильный вариант перевода следующих предложений:

1. Gases associated with oil are dissolved in this oil.

- a) Газы, связанные с нефтью растворяются в этой нефти.
- b) Связь газов с нефтью ведёт к их растворению в этой нефти.
- c) Растворение в нефти соединяет газы.

2. Natural gas or methane and oil are two closely related compounds.

- a) Природный газ или метан и нефть – это два родственных соединения.
- b) Природный газ или метан и нефть располагаются близко в соединениях.
- c) Природный газ или метан и нефть – это два тесно связанных соединения.

3. Both substances are formed as a result of transformation of organic matter.

- a) Образование обоих веществ ведёт к преобразованию органического вещества.
- b) Оба вещества образуются в результате преобразования органического вещества.
- c) Преобразование органического вещества является результатом образования обоих веществ.

VI. Найдите в тексте и переведите предложения:

- a) с прилагательными в сравнительной степени
- b) в страдательном залоге
- c) со сложным подлежащим.

VII. Прочитайте предложения № 2, 13, 14, 16. Найдите причастие II в этих предложениях.

VIII. Есть ли в тексте предложения:

- a) с перфектным инфинитивом
- b) модальными глаголами

IX. Прочитайте предложения №5, 7. Как переводится предлог «*due to*» в этих предложениях.

УСТНЫЕ ТЕМЫ

I СЕМЕСТР

My Biography

My name is... . I am..... years old. I was born on(the fifteenth of May) in 19... . I went to school at the age of seven and left it in 19..... After finishing school I served in the Army (worked at a plant, factory, at the office). Now I am a first – year student of Samara State Technical University, Correspondence department. In six years I'll be an engineer.

My family is (not) large. I have my father, mother, (sister, brother). I am single. (I am married)

I have a daughter (a son). Her (his) name is... She (he) is ... years old.

I don't have much free time, but when I have it I like to watch TV, read books and newspapers or log in the Internet.

Words:

1. to be born - родиться
2. at the age – в возрасте
3. to serve – служить
4. single – одинокий
5. married – замужний (женатый)

My Daily Routines

My every day activities are quite routine. My working day begins at 7 o'clock in the morning. I get up, wash, brush my teeth. Then I have breakfast. After breakfast I leave for work.

I work (not) far from home. Usually I get to my office (plant, factory) on foot (by bus, by car, on foot). It takes me ... minutes to get there.

My working day begins at 8 a.m. and is over at 5 p.m. At midday I have a break. During the break I have lunch in the canteen or in the café.

After work I go home. On my way home I do some shopping. In the evening I have dinner. After dinner I watch TV, read books and newspapers or log in the Internet.

I usually go to bed late.

As a rule I have no much free time on weekdays. So by the end of the week I get very tired. I try to stay at home and do some work about the house. Sometimes I go to see my friends.

Words:

1. usually - обычно

2. to get up – вставать
3. to wash – умываться
4. to clean one's teeth – чистить зубы
5. to have breakfast (lunch, dinner) – завтракать (обедать, ужинать)
6. to leave – уходить
7. far – далеко
8. to get to – добираться
9. on foot (by bus) – пешком (на автобусе)
10. It takes me ... minutes to get there. – Мне требуется ..., чтобы добраться туда.
11. to be over – заканчиваться
12. a break – перерыв
13. a canteen – столовая
14. to watch TV – смотреть телевизор
15. to do shopping – делать покупки
16. to do work about the house – делать работу по дому
17. to go to see smb. – навестить кого-либо
18. to go to bed – ложиться спать
19. to get tired – устать

Samara

Our town was founded in 1586. At first it was a small wooden fortress called Samara.

Due to its favourable geographical position the town developed quickly. By the end of the 19th century Samara became one of the main commercial centres on the Volga.

In 1935 Samara was named after V.V.Kuibyshev, who proclaimed the Soviet power in our town.

During the Great Patriotic War Samara became the second capital of our country. The Soviet government lived and worked here. Many plants and factories from Moscow and western regions of the Soviet Union were evacuated to our town.

Now the town is one of the largest in Russia. It's a great industrial, commercial and educational centres on the Volga. It occupies the territory of 330, square kilometres. Its population is over 1.5 million people.

In 1990 the historical name of Samara was returned to our town.

Words:

1. to be founded – БЫТЬ ОСНОВАННЫМ
2. a wooden fortress- деревянная крепость

3. due to - благодаря
4. favourable - благоприятный
5. to develop - развиваться
6. main – главный , основной
7. commercial – торговый, коммерческий
8. to be named after – быть названным в честь
9. to proclaim - провозглашать
10. government - правительство
11. to evacuate- эвакуировать
12. educational center – образовательный центр
13. to occupy - занимать
14. population - население
15. to return – возвращать

II СЕМЕСТР

Our University

Our University was founded in 1930. At first it was called Samara Industrial (later Politechnical) Institute. There were only 3 departments in it: Mechanical, Chemical and Electrical-Engineering.

Now the University is one of the largest in the Volga region. There are 11 departments in it now. I study at the Correspondence department.

More than 10 thousand students from our country and foreign countries attend lectures and tutorials every day. The academic year is divided into 2 terms. At the end of each term students take exams. They conduct research work in labs equipped with modern instruments . There is a good library at our University which has books both in Russian and in foreign languages. Many well-known scientists lecture at our University.

In 1980 the Politechnical Institute was awarded the Order of the Labour Red Banner for its scientific achievements.

In 1992 our institute became the State Technical University

Words:

1. to be founded – быть основанным
2. department - факультет
3. to attend – посещать, присутствовать
4. academic year – учебный год
5. tutorials – практические занятия
6. a term - семестр

- 7.to take exams – сдавать экзамены
- 8.a scientist - учёный
- 9.achievements - достижения
- 10.to award - награждать
- 11.the Order of the Labour red Banner – орден трудового красного знамени
- 12.to conduct research work- проводить научно - исследовательскую работу
- 13.to equip - оборудовать
- 14.modern – современный

Great Britain.

In the west of the continent of Europe lie 2 large islands called the British Isles.

Great Britain consists of 4 parts: England, Scotland, Wales and Northern Ireland.

The population of Great Britain is about 60 million people. Today Britain is a highly developed industrial country. The main branches of industry are textile, metal-working, ship-building and electronics.

London is the capital of Great Britain, its political, economic and cultural centre. London is more than 20 centuries old.

Great Britain is a constitutional monarchy. Its government is King or Queen and the Parliament. It consists of the House of Commons and the House of Lords. Now the Queen of Great Britain is Elizabeth II. Prime Minister is usually the leader of the party that has the majority in the House of Commons.

There are several political parties in Great Britain now, but the main and the oldest parties are the Labour and the Conservative ones.

Words:

- 1.an island - остров
- 2.to consist of – состоять из
- 3.a branch - отрасль
- 4.metal-working - металлообрабатывающая
- 5.ship-building- кораблестроение
- 6.century - век
- 7.monarchy - монархия
- 8.the House of Commons – палата общин
- 9.leader - лидер
- 10.majority - большинство
- 11.several - несколько

12.Labour party – лейбористская партия

13.Conservative party – консервативная партия