Порядок выполнения контрольных заданий

1. На титульном листе укажите факультет, кафедру, курс, номер группы, фамилию, имя и отчество и вариант, в конце работы указываются используемые источники — учебники, словари и учебные пособия.

1. Контрольные задания следует выполнять четким почерком (или в напечатанном виде) с соблюдением полей, оставленных для замечаний, комментария и методических указаний преподавателя.
2. Строго соблюдайте последовательность выполнения заданий.
3. Текст или его фрагменты, предназначенные для письменного перевода, перепишите на левой стороне страницы, а на правой представьте его перевод на русском языке (в напечатанном виде возможно последовательное выполнение: английский текст и перевод).
4. В конце работы поставьте свою личную подпись. Контрольная работа, выполненная не полностью или не отвечающая предъявляемым к ней вышеперечисленным требованиям, возвращается без проверки и не засчитывается.
5. Полученная от преподавателя проверенная контрольная работа с замечаниями и методическими указаниями должна быть переработана (только та часть, где содержатся ошибки или неточности перевода) на отдельном листке, который затем прилагается к контрольной работе.

При подготовке к контрольной работе рекомендуется использовать следующие учебники и учебные пособия:

Английский язык для экономистов: учебник для вузов / *Е.Н. Малюга, Н.В. Ваванова, Г.Н. Куприянова, И.В. Пушнова*. – СПб.: Питер, 2005. – 304 с.

Английский язык для инженеров / *Т.Ю.* *Полякова, Е.В. Синявская, О.И. Тынкова, Э.С. Улановская.* – М.: Высш. шк., 1998.

*Гузеева, К.А.* Справочник по грамматике английского языка. – СПб., 2000. – 288с.

*Качалова, К.Н.* Практическая грамматика английского языка с упражнениями и ключами: учебник / *К.Н.* *Качалова, Е.Е. Израилевич. –* М., 1997. – 675 с.

*Шляхова, В.А.* Английский язык. Контрольные задания для студентов тех. вузов / *В.А.* *Шляхова, Т.Д.* *Любимова. –* М.: Высш. шк., 2000. – 111с. и др.

**Определить вариант контрольной работы можно по первой букве Вашей фамилии:**

**А, Г, Д, И, М, П, Р, Ф, Ш, Ю, Я – вариант 1;**

**Б, Е, З, Й, Н, С, У, Х, Щ – вариант 2;**

**В, Ж, К, Л, О, Т, Ч, Ц, Э – вариант 3;**

**Контрольная №5**

Вариант 1

**Renewable energy**

1. Renewable energy is energy generated from natural resources. In its various forms, it derives directly from the sun, wind, rain, tides, and geothermal heat. Renewable energy is derived from natural processes that are replenished constantly. Each of these sources has unique characteristics which influence how and where they are used.

2. The majority of renewable energy technologies are powered by the sun. The Earth-Atmosphere system is in equilibrium so that heat radiation into space is equal to incoming solar radiation, the resulting level of energy within the Earth-Atmosphere system can roughly be described as the Earth's "climate."

3. The hydrosphere absorbs a major fraction of the incoming radiation. Most radiation is absorbed at low latitudes around the equator, but this energy is dissipated around the globe in the form of winds and ocean currents. Wave motion may play a role in the process of transferring mechanical energy between the atmosphere and the ocean through wind stress. Solar energy is also responsible for the distribution of precipitation which is tapped by hydroelectric projects, and for the growth of plants used to create biofuels.

4. While most renewable energy projects and production is large-scale, renewable technologies are also suited to small off-grid applications, sometimes in rural and remote areas, where energy is often crucial in human development. Some renewable energy technologies are criticized for being intermittent or unsightly, yet the renewable energy market continues to grow. Climate change concerns, coupled with high oil prices, peak oil, and increasing government support, are driving increasing renewable energy legislation, incentives and commercialization.

(Encyclopedia Wikipedia)

***1) Найдите в правой колонке русскоязычные эквиваленты:***

renewable излучение

generate поглощать

replenish равный

radiation извлекать

absorb доля, часть

equal производить

technology пополнять

fraction возобновляемый

application технология, техника

tap применение

***2) Переведите в письменной форме 3, 4 абзацы.***

***3) Define, which statement conforms to the text content.***

a) The Earth «climate» constitutes the resulting level of energy solar radiation.

b) Some renewable energy technologies being criticized, the renewable energy market is increasing.

c) All renewable energy is generated by the Sun.

d) Sources of renewable energy have much in common.

***4) Answer the question*:**

What power do most renewable energy technologies use?

a) Natural processes provide all renewable energy.

b) The sun is power for most renewable energy technologies.

c) People put into practice most renewable energy projects and production.

d) The hydrosphere absorbs a major fraction of the incoming radiation.

***5)*** ***Point out which part of the text (1, 2, 3, 4)******includes the answer to the question:***

Why is renewable energy valuable?

a) 1; b) 3; c) 4; d) 2.

***6) Identify the main idea of the text.***

a) The renewable energy technologies promote people not to live everywhere they want.

b) The Earth climate is affected by the incoming solar radiation.

c) Renewable energy is the kind of energy which is naturally replenished.

d) Renewable energy is vitally important for people.

Вариант 2

**Gravitation**

1. Gravitation is a natural phenomenon by which physical bodies attract with a force proportional to their mass. In everyday life, gravitation is most familiar as the agent that gives weight to objects with mass and causes them to fall to the ground when dropped. Gravitation causes dispersed matter to coalesce, and coalesced matter to remain intact, thus accounting for the existence of the Earth, the Sun, and most of the macroscopic objects in the universe.

2. Gravitation is responsible for keeping the Earth and the other planets in their orbits around the Sun; for keeping the Moon in its orbit around the Earth; for the formation of tides; for natural convection, by which fluid flow occurs under the influence of a density gradient and gravity; for heating the interiors of forming stars and planets to very high temperatures; and for various other phenomena observed on the Earth.

3. Gravitation is one of the four fundamental interactions of nature, along with electromagnetism, and the nuclear strong force and weak force. Modern physics describes gravitation using the general theory of relativity by Einstein, in which it is a consequence of the curvature of spacetime governing the motion of inertial objects. The simpler Newton's law of universal gravitation provides an accurate approximation for most physical situations.

***1) Найдите в правой колонке русскоязычные эквиваленты:***

gravitation ядерный

weight относительность

matter сила

dispersed конвекция

Coalesce материя

convection плотность

density вес

force соединяться

nuclear рассеянный

relativity тяготение

***2) Переведите в письменной форме 2, 3 абзацы.***

***3) Define, which statement conforms to the text content.***

a) Gravitation is explained by the laws of electromagnetism, the nuclear strong force and weak force.

b) Gravitation plays crucial role in the life of the Universe.

c) Gravitation can change the speed of the falling object.

d) Gravitation doesn’t affect natural phenomena on the Earth.

***4) Answer the question*:**

What determines the necessity of gravitation study by scientists?

a) Scientists consider gravitation to be the main motive power of all natural phenomena taking place on the Earth.

b) There exist some theories of gravitation, the modern approach to this phenomena being not based on the earliest study of nature.

c) Gravitation is responsible for keeping the Earth in its orbit around the Sun and for various phenomena observed on the Earth.

d) Scientists believe that gravitation is responsible for the existence of the Earth, the Sun, and most of the macroscopic objects in the universe.

***5) Complete the statement according to the text.***

For the Earth gravitation …

a) is vitally important

b) plays more important role than for other planets

c) was a crucial factor only while its formation

d) allows the objects to attract to each other

***6) Identify the main idea of the text.***

a) It is considered that without gravitation there would be no life on the Earth.

b) Due to gravitation the Earth and the other planets are able to orbit around the Sun.

c) Gravitation is a very important natural phenomenon affecting the life of our universe.

d) Due to gravitation various nature phenomena take place on the Earth.

Вариант 3

**History of robotics**

1. The concept of robots dates back to ancient times, when some myths told of mechanical beings brought to life. Such automata also appeared in the clockwork figures of medieval churches, and in the 18th century some clockmakers gained fame for the clever mechanical figures that they constructed. Today the term automaton is usually applied to these handcrafted, mechanical (rather than electromechanical) devices that imitate the motions of living creatures. Some of the «robots» used in advertising and entertainment are actually automata, even with the addition of remote radio control.

 2. The term robot itself is derived from the Czech word «robota», meaning «compulsory labour». It was first used by the Czech novelist and playwright Karel Chapek to describe a mechanical device that looks like a human but lacking human sensibility, being able of performing only automatic, mechanical operations. Robots as they are known today do not only imitate human or other living forms. True robots did not become possible, however, until the invention of the computer in the 1940s and the miniaturization of computer parts. One of the first true robots was an experimental model designed by researchers at the Stanford Research Institute in the late 1960s. It was capable of arranging blocks into stacks through the use of a television camera as a visual sensor, processing this information in a small computer.

 3. Computers today are equipped with microprocessors that can handle the data being fed to them by various sensors of the surrounding environment. Making use of the principle of feedback, robots can change their operations to some degree in response to changes in that environment. The commercial use of robots is spreading, with the increasing automation of factories, and they have become essential to many laboratory procedures. Japan is the most advanced nation exploring robot technology. Nowadays robots continue to expand their applications.

***1) Найдите в правой колонке русскоязычные эквиваленты:***

device обрабатывать

apply изобретение

remote ответная реакция

mechanical оснащать

design информация

invention устройство

automatic применять

process обращаться

equip механический

data проектировать

handle дистанционный

feedback автоматический

***2) Переведите в письменной форме 2, 3 абзацы.***

***3) Define, which statement conforms to the text content.***

a) The first true robot was created due to development of mechanics.

b) Some centuries ago clockmakers found fame for construction of mechanical figures.

c) Robotics is an equally developed branch of technology in many countries of the world.

d) First people began to mention about mechanical things in the 18th century.

***4) Answer the question:***

What sphere of human activity was the term «robot» used for the first time?

a) It is believed that people have been interested in robotics since ancient times.

b) The Czech novelist and playwright Karel Chapek used the term «robot».

c) It is known that the term «robot» appeared in the works of a man of arts.

d) The term «robot» is of the Czech origin meaning «compulsory labour».

***5) Complete the statement according to the text.***

These days the application of robots is increasing…

a) as there appear new models of robots

b) because people try to automate their working places

c) because robots use the principle of feedback

d) in order to completely replace people at work

***6) The main idea of the text is …***

a) Some countries pay much more attention to the exploration of robot technology.

b) The development of computer technologies affects the development of robotics.

c) During all the period of the history of robotics people have tried to advance this technology.

d) One should differentiate between the terms «automaton» and «robot».