**Контрольное задание**

**вариант 2**

**TEXT 1**

**Задание 1. Письменный перевод текста**

**Microbiology**

Microbiology is the study of microorganisms, or microbes, a diverse group of generally minute, simple life-forms that include bacteria, archaea, algae, fungi, protozoa, and viruses. The field is concerned with the structure, function, and classification of such organisms and with ways of both exploiting and controlling their activities.

The 17th-century discovery of living forms existing invisible to the naked eye was a significant milestone in the history of science, for from the 13th century onward it had been postulated that “invisible” entities were responsible for decay and disease. The word microbe was coined in the last quarter of the 19th century to describe these organisms, all of which were thought to be related. As microbiology eventually developed into a specialized science, it was found that microbes are a very large group of extremely diverse organisms.

Daily life is interwoven inextricably with microorganisms. In addition to populating both the inner and outer surfaces of the human body, microbes abound in the soil, in the seas, and in the air. Abundant, although usually unnoticed, microorganisms provide ample evidence of their presence—sometimes unfavourably, as when they cause decay of materials or spread diseases, and sometimes favourably, as when they ferment sugar to wine and beer, cause bread to rise, flavour cheeses, and produce valued products such as antibiotics and insulin. Microorganisms are of incalculable value to Earth’s ecology, disintegrating animal and plant remains and converting them to simpler substances that can be recycled in other organisms.

*Microbes and disease*

Girolamo Fracastoro, an Italian scholar, advanced the notion as early as the mid-1500s that contagion is an infection that passes from one thing to another. A description of precisely what is passed along eluded discovery until the late 1800s, when the work of many scientists, Pasteur foremost among them, determined the role of bacteria in fermentation and disease. Robert Koch, a German physician, defined the procedure (Koch’s postulates) for proving that a specific organism causes a specific disease.

The foundation of microbiology was securely laid during the period from about 1880 to 1900. Students of Pasteur, Koch, and others discovered in rapid succession a host of bacteria capable of causing specific diseases (pathogens).

**TEXT 2**

**Задание 2. Устный пересказ текста (на родном или английском языке)**

**VIRUSES**

Viruses are agents considered on the borderline of living organisms. They are included in the science of microbiology, come in several shapes, and are widely distributed in nature, infecting animal cells, plant cells, and microorganisms. The field of study in which they are investigated is called virology. All viruses are obligate parasites; that is, they lack metabolic machinery of their own to generate energy or to synthesize proteins, so they depend on host cells to carry out these vital functions. Once inside a cell, viruses have genes for usurping the cell’s energy-generating and protein-synthesizing systems. In addition to their intracellular form, viruses have an extracellular form that carries the viral nucleic acid from one host cell to another. In this infectious form, viruses are simply a central core of nucleic acid surrounded by a protein coat called a capsid. The capsid protects the genes outside the host cell; it also serves as a vehicle for entry into another host cell because it binds to receptors on cell surfaces. The structurally mature, infectious viral particle is called a virion.

With the electron microscope it is possible to determine the morphological characteristics of viruses. Virions generally range in size from 20 to 300 nanometres (nm; billionths of a metre). Since most viruses measure less than 150 nm, they are beyond the limit of resolution of the light microscope and are visible only by electron microscopy. By using materials of known size for comparison, microscopists can determine the size and structure of individual virions.

*Prions*

Even smaller than viruses, prions (pronounced “pree-ons”) are the simplest infectious agents. Like viruses they are obligate parasites, but they possess no genetic material. Although prions are merely self-perpetuating proteins, they have been implicated as the cause of various diseases, including bovine spongiform encephalopathy (mad cow disease), and are suspected of playing a role in a number of other disorders.

**TEXT 3**

**Задание 3. Устный пересказ текста (строго на английском языке)**

**Stonehenge**

Stonehenge is a prehistoric stone circle monument, cemetery, and archaeological site located on Salisbury Plain, about 8 miles (13 km) north of Salisbury, Wiltshire, England. It was built in six stages between 3000 and 1520 BCE, during the transition from the Neolithic Period (New Stone Age) to the Bronze Age. As a prehistoric stone circle, it is unique because of its artificially shaped sarsen stones (blocks of Cenozoic silcrete), arranged in post-and-lintel formation, and because of the remote origin of its smaller bluestones (igneous and other rocks) from 100–150 miles (160–240 km) away, in South Wales. The name of the monument probably derives from the Saxon stan-hengen, meaning “stone hanging” or “gallows.” Along with more than 350 nearby monuments and henges (ancient earthworks consisting of a circular bank and ditch), Stonehenge was designated a UNESCO World Heritage site in 1986.

*Speculation and Excavation*

Stonehenge has long been the subject of historical speculation, and ideas about the meaning and significance of the structure continued to develop in the 21st century. English antiquarian John Aubrey in the 17th century and his compatriot archaeologist William Stukeley in the 18th century both believed the structure to be a Druid temple. This idea has been rejected by more-recent scholars, however, as Stonehenge is now understood to have predated by some 2,000 years the Druids recorded by Julius Caesar.

In 1963 American astronomer Gerald Hawkins proposed that Stonehenge had been constructed as a “computer” to predict lunar and solar eclipses; other scientists also attributed astronomical capabilities to the monument. Most of these speculations, too, have been rejected by experts. In 1973 English archaeologist Colin Renfrew hypothesized that Stonehenge was the centre of a confederation of Bronze Age chiefdoms. Other archaeologists, however, have since come to view this part of Salisbury Plain as a point of intersection between adjacent prehistoric territories, serving as a seasonal gathering place during the 4th and 3rd millennia BCE for groups living in the lowlands to the east and west. In 1998 Malagasy archaeologist Ramilisonina proposed that Stonehenge was built as a monument to the ancestral dead, the permanence of its stones representing the eternal afterlife.

In 2008 British archaeologists Tim Darvill and Geoffrey Wainwright suggested – on the basis of the Amesbury Archer, an Early Bronze Age skeleton with a knee injury, excavated 3 miles (5 km) from Stonehenge – that Stonehenge was used in prehistory as a place of healing. However, analysis of human remains from around and within the monument shows no difference from other parts of Britain in terms of the population’s health.

**Задание 4. Беседа по устной теме «My research»**