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АНГЛІЙСЬКА МОВА ПРОФЕСІЙНОГО СПРЯМУВАННЯ

Навчально-методичний посібник

Розробник:

Провідний спеціаліст
к.ф.н., доцент Л.В. Потураєва

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ПЕРЕДМОВА

Метою даного посібника є розробка матеріалів для опрацювання питань модулю 2 «Читання наукового тексту» робочої програми та підготовки до першої частини кінцевого іспиту.

Посібник створено на основі науково-популярних текстів, які супроводжуються завданнями на перевірку розуміння змісту, а також на визначення специфіки функціонування лексичних одиниць в наданих текстах.

Завдання включають наступні види:

- множинного вибору
- вибору між вірним та невірним твердженням
- встановлення відповідності між правими та лівими елементами завдання

До групи завдань множинного вибору також входять завдання на доповнення текстів необхідними компонентами. Такі завдання спрямовані на перевірку володіння граматичним матеріалом.

1 ЗАВДАННЯ МНОЖИННОГО ВИБОРУ

1.1 Текст 1

Прочитайте текст та виберіть одну вірну відповідь:

Building Blocks of All Things

One thousand years ago, about 400 B.C., the Greek philosopher Democritus tried to figure out what the world is made up of and how it came to be the way it is. He came to the conclusion that all things are made up of tiny particles, too small to be seen. There are many kinds, he thought, and they are always moving about, sometimes combining, and sometimes separating again.

Democritus deserves tremendous credit for giving us this theory. In the past people believed in many ideas which new knowledge and experience later proved false. But all the discoveries of science in over two thousand years of work and study show that Democritus was right.

Investigations by chemists have shown that every chemical compound, such as salt or water, is made up of many tiny particles called molecules. In solids and liquids, they are packed closely together. In gases, they are spread out thin, in spaces separating the molecules from each other. Each molecule in a compound is the same compound, but it is different from the molecules in another compound. There are thousands of different kinds of molecules, ranging from simple ones found only in living things.

Further study has shown that the molecules themselves are made up of still smaller particles known as atoms. Although there are thousands of different molecules, there are only 103 different kinds of atoms. Those 103 different atoms, known as the chemical elements, are the building blocks out of which all material things are made.

1. Democritus

- a) tried to find out the origin of the world
- b) had a very good figure
- c) died in 400 B.C.
- d) was a physicist

2. Democritus' particles

- a) sometimes stop their movement
- b) can be seen in all things
- c) are the elements of all things
- d) are of one kind

3. Democritus' theory

- a) is not very important for the humanity**
- b) proved to be false after some experiments**
- c) was confirmed in the course of all the humanity development**
- d) helped him to be credited by the banks**

4. Tiny particles called molecules

- a) are packed close in all substances**
- b) are complex in all substances**
- c) are of the same composition in different compounds**
- d) became the subject of chemists' investigation**

5. Which of the following is NOT true according to the text?

- a) molecules consist of atoms**
- b) the composition of a molecule within the same compound is the same**
- c) the number of the kinds of molecules is unlimited**
- d) the number of the kinds of atoms is limited**

1.2 Текст 2

Прочитайте текст та виберіть одну вірну відповідь:

The Discovery of Radioactivity

The discovery of radioactivity was more or less due to a pure accident. Once during the year 1896 Henry Becquerel, professor of physics at the Sorbonne, obtained a preparation of uranium bisulphate for the purpose of studying the phosphorescence of this substance. Meanwhile, his interests were drawn in some other direction, and he threw the material into one of the drawers of his working table.

It happened that in this drawer there was a box containing some unexposed photographic plates, and the ampoule of uranium bisulphate for several weeks. Intending to take some photographs, Becquerel finally opened the drawer, pushed aside the ampoule with the forgotten preparation, and took out the box with the plates. When he developed his photographs, he found out that the plates were badly spoilt as if they had been exposed to light. This was very strange since the plates had been wrapped in thick black paper and never yet been opened. The only object in the drawer that might have been responsible for the damage was the preparation of uranium bisulphate, which had for long rested so close to the plates. He repeated the

experiment with some new plates. But this time he deliberately placed an iron key from one of the drawers between the photographic plate and the hypothetical source of mysterious radiation.

A few days later, a diffuse silhouette of the key began to appear slowly against the darkening background of the negative. Yes, it definitely was a new kind of radiation coming from the atoms of uranium, the radiation that easily penetrated materials non-transparent to ordinary light, but was still unable to pass through the thickness of an iron key.

Preparation – препарат (для научных исследований)

1. Radioactivity was discovered

- a) deliberately**
- b) by chance**
- c) after a long research**
- d) in Belgium**

2. Becquerel kept uranium bisulphate in his working table in order to

- a) discover radioactivity**
- b) clean the table drawers**
- c) study the glow produced by the bisulphate**
- d) prevent an accident**

3. Becquerel took the photographic plates out of the drawer for

- a) taking photographs**
- b) exposing the plates**
- c) developing the photos**
- d) spoiling the photos**

4. The first plates were damaged because

- a) they were exposed to light**
- b) they were wrapped in black paper**
- c) Becquerel opened them**
- d) they were placed near the preparation**

5. A new kind of radiation was able to

a) penetrate into the materials non-transparent to light

b) pass through the thickness of iron

c) diffus

1.3 Текст 3

The Development of the Rocket (1)

Прочитайте текст та виберіть одну вірну відповідь:

Hero of Alexandria (67 AD) is credited with inventing the rocket principle. He was a mathematician and inventor and devised many machines using water, air pressure, and steam, including a fire engine and a fountain. His aeolipile consisted of a metal boiler in which steam was produced, connected by a pipe through a rotating joint, to a pivoted jet system with two opposite jets. The steam issuing from the jets caused the system to rotate. It is not clear if Hero understood the cause of the rotation; but this was the earliest machine to use the reaction principle – the theoretical basis of the rocket.

The real inventor of the rocket was certainly Chinese, and is sometimes said to be one Feng Jishen, who lived around 970 AD. Most dictionaries insist on an Italian derivation of the word meaning a “small distaff”; and this may be correct, although a derivation from the Chinese, meaning “Fire Arrow”, is also plausible.

This invention was the practical result of experiments with gunpowder and bamboo tubes; it became, as it still is, a source of beauty and excitement as a firework. There seems to have been two kinds. One was a bamboo tube filled with gunpowder with a small hole in one end; when the gunpowder was ignited, the tube ran along the ground in an erratic fashion, and made the girls scream. The second, like our modern fireworks, had a bamboo stick attached for stability, and took to the sky to make a beautiful display of light and colour.

1. The general content of the text is

a) the invention of a fire engine

b) the invention of a firework

c) the meaning of the word “rocket”

d) the reaction principle put into practice

2. According to the passage, Hero of Alexandria

a) understood the cause of his jet system rotation

b)designed a rocket

c)built aeolipile

d)was a physicist

3.According to the context, the meaning of the word “plausible” is closest to

a)powerful

b)special

c)probable

d)forceful

4.The word “it” in bold in the third passage refers to

a)gunpowder

b)invention

c)bamboo

d)experiments

5.It may be inferred from the text that the origin of the word “rocket” is

a)Greek

b)Chinese

c)Italian

d)disputable

6.According to the context, the meaning of the word “erratic” is closest to

a)mistaken

b)regular

c)unpredictable

d)even

7.The text shows that a bamboo tube filled with gunpowder

a)excited the girls

b)was attached for stability

c)had holes in one end

d)ignited the gunpowder

1.4 Текст 4

The Development of the Rocket (2)

Прочитайте текст та виберіть одну вірну відповідь:

The rocket was also used as a weapon of oriental wars. Kublai Kahn used it during the Japanese invasion of 1275; by the 1300s rockets were used as bombardment weapons as far west as Spain, brought west by the Mongol hordes, and the Arabs. They were also used against the British army in India in the 1770s. Shortly afterwards, Sir William Congreve, an artillery officer, realized the rocket's potential, and developed a military rocket which was used into the twentieth century. Congreve rockets were used at sea during the Napoleonic Wars, with some success. They appeared at the siege of Fort McHenry in the American War of Independence. At about the same time, rockets came into standard use as signals, to carry lines from ship to ship, and in the rescue of shipwrecked mariners – a role in which they are still used.

The improvement in guns, which came about during the late 1800s, meant that the rocket, with its small payload, was no longer a significant weapon compared with large-calibre shells. The carnage of the First World War was almost exclusively due to high-explosive shells propelled by guns. Military interest in the rocket was limited through the inter-war years, and it was in this period that the amateur adopted a device which had hardly improved over six centuries, and created the modern rocket.

The names of the pioneers are well-known: Goddard, Oberth, von Braun, Tsiolkovsky, Korolev. Some were practical engineers, some were mathematicians and others were dreamers. There are two strands. The first is the imaginative concept of the rocket as a vehicle for gaining access to space, and the second is the practical development of the rocket. It is not clear to which strand (possibly apocryphal) seventeenth century pioneer Wan Hu belongs. He is said to have attached 47 rockets to a bamboo chair, with the purpose of ascending into heaven.

siege - осада

strand – нить; линия

carnage – резня; кровавая бойня

apocryphal - недостоверный

1. It is clear from the text that

- a) rockets were invented as a weapon
- b) a rocket was invented by W. Congreve
- c) rockets have been used in various areas
- d) British army used rockets in India

2. According to the text,

- a) Kublai Kahn bombarded Spain**
- b) British army used rockets in India**
- c) Mongol hordes used rockets against Kublai Kahn**
- d) Congreve's military rockets had been used for more than two centuries**

3. The word "they" in bold in the first passage refers to

- a) signals**
- b) rockets**
- c) lines**
- d) mariners**

4. It may be inferred from the text that in the 1st half of the 20th century

- a) rockets as a weapon became even more popular**
- b) the results of the First World War was due to rockets**
- c) the modern rocket was created**
- d) shells had small payload**

5. The text shows that Wan Hu

- a) was a member of the pioneer organization**
- b) belonged to the first strand**
- c) wanted to get to heaven**
- d) lived in Korolev's times**

1.5 Текст 5

The Development of the Rocket (3)

Прочитайте текст та виберіть одну вірну відповідь:

Konstantin Tsiolkovsky (1857 – 1935), a mathematics teacher, wrote about space travel, including weightlessness and escape velocity, in 1883, and he wrote about artificial satellites in 1895. In a paper published in 1903 he derived the rocket equation, and dealt in detail with the use of rocket propulsion for space travel; and in 1924 he described multi-stage rockets. His writings on space travel were soundly based on mathematics – unlike, for example, those of Jules Verne – and he laid the mathematical foundations of space flight.

Tsiolkovsky never experimented with rockets; his work was almost purely theoretical. He identified exhaust velocity as the important performance parameter; he realized that the higher temperature and lower molecular weight produced by liquid fuels would be important for achieving high exhaust velocity; and he identified

liquid oxygen and hydrogen as suitable propellants for space rockets. He also invented the multi-stage rocket.

Tsiolkovsky's counterpart in the German-speaking world was the Rumanian, Herman Oberth (1894 – 1992). He published his (rejected) doctoral thesis in 1923, as a book in which he examined the use of rockets for space travel, including the design of liquid-fuelled engines using alcohol and liquid oxygen. His analysis was again mathematical, and he himself had not carried out any rockets experiments at the time. His book – which was a best-seller – was very important in that it generated huge amateur interest in rockets in Germany, and was instrumental in the foundation of many amateur rocket societies. The most important of these was Verein fur Raumschiffahrt, to which Oberth contributed the prize money he won for a later book, in order to buy rocket engines.

The people mentioned so far were writers and mathematicians who laid the theoretical foundations for the use of rockets as space vehicles. There were many engineers – both amateur and professional – who tried to make rockets, and who had a usual mixture of success and failure.

1. The text definitely shows that in 1883 Tsiolkovsky wrote about

- a) weightlessness
- b) rocket propulsion
- c) rocket equation
- d) multi-stage rockets

2. It is clear from the text that Tsiolkovsky was everything mentioned below EXCEPT

- a) a theoretician
- b) a mathematician
- c) a writer
- d) a teacher

3. The word “those” in bold in the first passage refers to

- a) space travel b) foundations c) mathematics d) writings

4. Tsiolkovsky's scientific interests lay in the field of

- a) exhaust velocity
- b) liquid oxygen
- c) experiments with rockets
- d) rocket societies

5. According to the context, the meaning of the word “propellant” in the second passage is closest to

- a) motivation b) fuel c) solid d) movement**

6. According to the text, German Oberth’s book

- a) described rocket experiments**
b) was rejected in 1923
c) described the production of alcohol
d) was important for organizing amateur rocket societies

7. According to the context, the meaning of the word “counterpart” in the third passage is closest to

- a) position b) colleague c) enemy d) opponent**

1.6 Текст 6

Прочитайте текст та виберіть одну вірну відповідь:

The Attraction of the Urban Village

Many people dream of leaving the city and moving to the countryside, but in fact we are mostly urban population. Over 80 percent of UK residents, for example, now live in urban areas. Globally, it’s much the same: according to the United Nations, by 2020, well over half of the world’s population will be living in towns and cities.

Increasingly, people are living in towns, but what many really want is a piece of the countryside within the town. Three years ago a survey of 1,000 homeowners in the UK found that many of those who were planning to relocate wanted to live near gyms, shops and restaurants. Today, according to a more recent report, the majority want a crime-free neighborhood, a back garden, and theatre or gallery within reach.

However, what the report does not say is that, people without a high salary cannot afford to buy an ideal house, or indeed any house at all in the city. For those who can, moving to the countryside is an option. In most developed countries, the roads, power supply and communication facilities are adequate for their needs. Indeed, improvements in telecommunications make telecommuting an increasingly attractive proposition.

Those forced to stay behind in urban life are yearning for neighborhoods that are “village like” in feel. Real estate agents even use this term to attract buyers. Interestingly, the idea of urban villages is not a new one. The term was coined 50 years ago, by the American sociologist Herbert Gans in his study of the Italian-American communities of Boston. According to Gans, the communities restructure

urban space to recreate the intimate feel of the Southern Italian villages they came from. He argued that American cities as a whole could be seen as a patchwork of different villages in which non-urban immigrants attempted to shape the city to resemble the places in the old country that they had left behind.

1.It is clear from the text that at present more than 80% of the United Kingdom residents

- a)are moving to the countryside**
- b)are leaving the city**
- c)are living in urban areas**
- d)trust the United Kingdom’s statistics**

2.It can be inferred from the text that

- a)there are 1,000 homeowners in the UK**
- b)the homeowners want a piece of land in the countryside**
- c)the homeowners want to have a gym in their houses**
- d)the survey and a recent report have different information**

3.In the UK, people without a high salary

- a)can afford to buy any house**
- b)cannot afford to buy an ideal house**
- c)have an option of moving to the countryside**
- d)improve telecommuting**

4.The term “village like” was created

- a)50 years ago**
- b)by real estate agents**
- c)by the buyers**
- d)by Italian-American communities**

5.The word “they” in bold in the last line of the text refers to:

- a)cities**
- b) villages**
- c) immigrants**
- d) places**

2 ЗАВДАННЯ ВИБОРУ МІЖ ВІРНИМ ТА НЕВІРНИМ ТВЕРДЖЕННЯМ

Завдання 2

Користуючись змістом тексту, знайдіть пояснення у лівому стовпчику до слів у правому стовпчику, які виділені курсивом у тексті (1 бал)

- | | |
|--|-------------------------|
| 6. A word used to describe a thing or concept | a) patchwork |
| 7. Characteristic of a town or city | b) real estate |
| 8. Distance work based on the Internet connection | c) telecommuting |
| 9. Property in the form of land or buildings | d) term |
| 10. Multicolored mixture | e) urban |

3 ВСТАНОВЛЕННЯ ВІДПОВІДНОСТІ МІЖ ПРАВИМИ ТА ЛІВИМИ ЕЛЕМЕНТАМИ ЗАВДАННЯ

Завдання 3

Знайдіть одну вірну відповідь для доповнення речень (1 бал)

11. You are so disorganized! You.....your things!

a) are always losing b) had always lost c) always lost d) has always lost

12. What.....in Lviv last weekend?

a) you were doing b) did you do c) you did d) did you

13. We.....to Greece twice since last year.

a) have been b) had been c) has been d) were been

14. Would you mind my.....you for dinner?

a) to join b) join c) joined d) joining

15.....to the pharmacy? I need some medicine.

a) Had you gone b) do you go c) Will you be going d) have you gone

16. I wonder if.....to stay.

a) are they going b) they're going c) they going d) their going

17. By the time the boss arrives, we.....all documents to be signed.

a) will be prepare b) will have prepared c) would prepare d) prepared

18.....trying hard, I couldn't meet the deadline.

a) Despite the fact b) Although c) Whereas d) In spite of

19. I must.....my papers at home. I can't find them anywhere.

a) leave b) left c) have left d) has left

20. The professor will.....at the airport by the members of the Committee.

a) meet b) met c) meeting d) be met

21. You.....got the job, if you had applied on time!

a) could b) could have c) had been able to d) were able

22. What about.....part in this seminar in November?

a) taking b) to take c) take d) have taken

23.If you.....come to work earlier, you could have met her.

a)would have b) have c) had d) should have

24.Let's talk him into.....our team – he is so clever!

a)to join b) join c) joined d) joining

25.I don't like.....about.

a)be talked b) being talked c) talked d) have talked