English Entrance Test

Duration - 90 minutes / Продолжительность – 90 минут

Maximum score – 100 points / Максимальная оценка – 100 баллов

Variant 1

Section 1 READING

Task 1. ***(7 points / 7 баллов)***

*Choose the most suitable heading from the list **1-8** for each part **A-G.** There is one extra heading which you do not need to use. You can use each number only **once**. Fill in the table below. /Установите соответствие между заголовками 1–8 и текстами A–G. В задании один заголовок лишний. Используйте каждую цифру только один раз. Занесите свои ответы в таблицу.*

1. The Winner of the Race
2. A Bright Helper
3. First Experiment
4. Previous Research
5. A Groundbreaking New Invention
6. One of the Rivals is Shooting Forward
7. Competitor Appears
8. Back in the Game

A. In 1884, a young scientist named Nikola Tesla left his job in Europe and came to the United States. The rookie found a job assisting inventor and businessman Thomas Edison on his work with electricity. But before long, the brilliant young Tesla struck on his own.

B. In his New York laboratory, Tesla began investigating ways to make wireless lighting possible. He made his first big solo play when he invented the Tesla coil in 1891. The device harnessed and converted electricity into a form that would leave the coil in an electrical arc. Tesla had created technology that would transmit electricity without any wires.

C. Scientists including Heinrich Hertz and David Hughes had started working on radio technology, but they hadn't managed to develop a practical, usable system. Hertz became the first person to send and receive radio waves. The electromagnetic radio waves, later called Hertzian waves, became a key development and were used by future radio inventors.

D. Tesla believed that his Tesla coil might work for radio power too. In 1893, he decided to test his new device. Sending a signal through an antenna and large city water pipes, Tesla walked around the city with a receiver in a wooden box to test his invention. He put the box on the ground in places all around the city and listened for a signal through the receiver. He could detect sounds more than a mile from his laboratory!

E. However, Tesla was not the only player in the radio game. Guglielmo Marconi, a young Italian inventor, started experimenting with radio waves in 1894 after reading every scientific journal and article he could find about the topic – including those on Tesla's inventions. Marconi's wireless communication system was working and even succeeding in sending signals about a mile away.

F. Tesla and Marconi seemed to be neck and neck in the race to develop a basic radio. But in 1895, a fire destroyed Tesla's lab, and he lost ten years' worth of work. As Tesla was recovering, Marconi moved to England, where he found teammates and money to help with his research. With the extra funding, Marconi improved technology until he could transmit through walls and distances of almost 9 miles. In 1897, he was granted a patent of his wireless system in England.

G. By the time Tesla began inching ahead in the race to send a long-distance broadcast, Marconi

was trying to send signals between England and The U.S. but was unsuccessful. But finally, on December 12 he received a wireless signal. Newspapers announced the success of his trans-Atlantic radio transmission. In 1904, Marconi was granted a U.S. patent for his radio technology.

A	B	C	D	E	F	G

Task 2. ***(12 points / 12 баллов)***

Read the text carefully and complete the gaps ***A-F*** *with the parts of sentences 9-**15**. There is one extra part. Fill in the table below. / Прочитайте текст и заполните пропуски A–F частями предложений, обозначенными цифрами 9–15. Одна из частей в списке 9–15 — лишняя. Занесите цифру, обозначающую соответствующую часть предложения, в таблицу.*

The Great Pyramid

The year is 2570 B.C. It's early morning on a rocky desert plain in Egypt. As the sun rises, thousands of workers hurry toward a giant, half-completed pyramid that looms on the sky like a mountain. Soon, teams of men are pulling on ropes to haul huge blocks of stone toward the pyramid. The men are singing as they work.

Other workers can be seen high on the pyramid's sloping sides. Against the huge structure, they **A _____.** These men are the skilled stonemasons who **B_____.** Under the hot desert sun, the grueling construction work will continue hour after hour until sunset.

One day, years from now, **C _____.** Then the Great Pyramid will tower over the desert for all eternity.

The Great Pyramid of Giza is one of the largest man-made structures on Earth. Built from about 2.3 million blocks of limestone, the pyramid's base covers an area the size of ten football fields. When the pyramid was first built, it stood 147 m tall – the height of a 40-story building. At some time in the past, however, **D _____,** and now it's 139 m tall.

Today, around 4,500 years after it was built**, E _____,** but it still stands. So, how were the ancient Egyptians able to build this huge structure without the use of high-tech tools – and what was its purpose?

The ancient Egyptians were skillful builders who created palaces, temples, and other buildings. Some of the most complex structures were tombs. These were graves, rooms, or buildings in which dead bodies were placed.

In ancient Egypt, people believed that after death, their spirits lived on in the afterlife. In order for this to happen, however, a person needed their body. The dead body was preserved as a mummy by embalmers. Then it was placed in a tomb, where **F _____.**

The Great Pyramid was built as the final resting place of the ancient Egyptian king Pharaoh Khufu. Like all pharaohs, as soon as he came to power, Khufu ordered the building of his tomb.

9) it would be safe for all time
10) the Great Pyramid has been battered by time
11) the tip of the pyramid was removed
12) look like tiny ants
13) are working without a break
14) precisely guide each giant block of stone into position
15) the enormous structure will finally be finished

A	B	C	D	E	F

Task 3. ***(21 points / 21 балл)***

*Read the text and do tasks **16-22**. For each question choose the answer **(A-D)** which you think fitsbest. Fill in the table below with corresponding letters. / Прочитайте текст и выполните задания 16–22. В каждом задании обведите букву A-D, соответствующую выбранному вами варианту ответа. Занесите свои ответы в таблицу.*

A Father of Seismology

By the middle of the 1800s, scientists were conducting studies with sound waves. They described how such waves form and how they travel. Once scientists realised that earthquakes produce elastic waves through the ground, people began investigating the properties of these waves.

The family of Irish engineer Robert Mallet owned a foundry where metal supports for bridges, railroad stations, and buildings were produced. In the 1840s, Mallet devised and tested out a method to investigate elastic waves through the ground by using material from one of the family's foundries. On a beach near Dublin, Ireland, he buried a barrel of gunpowder. He lit a fuse to the barrel while he waited with a stopwatch at a safe distance. He also watched a primitive device to show ground movement. It had a crosshair sight above a drop of mercury. The mercury would move with any ground vibration, showing that the wave had arrived at his location.

His experiments showed that elastic waves moved at different rates through a variety of materials. They moved slower through sand and faster through rock, such as granite. Mallet's work was the first to measure the speed of elastic waves as they travelled through different substances.

Mallet went to Naples, Italy, to observe the aftereffects of an earthquake that hit in December 1857. His report said, "When the observer first enters upon one of those earthquakes-shaken towns, he finds himself in the midst of utter confusion." However, Mallet looked for patterns in the destruction. He concluded the first movement of the ground would be away from the direction of the earthquake, so objects would fall away from the center. He thought cracks in buildings would also point out the location. Scientists now know that waves produced by earthquakes are very complex, so the direction is not necessarily shown by how debris falls. Also, cracks in buildings are affected more by building materials and techniques than the direction of the earthquakes. Still, Mallet's work represented an early effort to collect detailed data about earthquake effects.

Mallet collected magazine and newspaper articles as well as books about earthquakes. He catalogued and mapped earthquakes recorded around the world. His maps were the first to show earthquake-prone areas, and they look much like maps we have today that show where earthquakes and volcano erruptions occur.

He thought earthquakes were produced by volcanoes, noting they often occurred in the same areas. He also thought each quake started from a single point, and he used his observations of the Naples earthquake to estimate it began 10 km under the surface of the earth.

Mallet made a significant impact on the study of earthquakes with the report he wrote on the Naples quake. He coined the term "seismology" in 1858. He also introduced the term "epicentre".

16. In the 19th century, researchers

A) were more interested in studying sound waves
B) did not know much about elastic waves
C) decided to study volcanoes for the first time
D) did not know how elastic waves travelled

17. During his experiment, Robert Mallet
A) organised a small explosion
B) travelled to another city
C) used his knowledge of chemistry
D) used an already tested method

18. In Italy, Mallet was
A) staying in Naples for a vacation
B) trying to understand the logic of the earthquakes' effects
C) helping to restore destroyed towns
D) collecting data on building techniques

19. The direction of the earthquake
A) can be identified by the analysis of the debris
B) has no direct connection with the direction of objects' fall
C) was not studied until Mallet conducted his research
D) cannot be identified

20.Mallet' s maps were
A) based on his observations
B) the prototypes of modern maps
C) based on various literary sources
D) not reliable

21. Mallet believed that
A) volcanoes provoked earthquakes
B) there was no connection between volcanoes and earthquakes
C) all earthquakes began from the same point
D) earthquakes began underground

22. The last paragraph states that seismology
A) was invented in the 19th century
B) did not have its name until the 19th century
C) was not studied until the 19th century
D) was not a science until the 19th century

16	17	18	19	20	21	22

Section 2

GRAMMAR AND VOCABULARY

Task 4. *(14 points / 14 баллов)*

Read the text below. Change the form of the words given in capitals at the end of each line to fit in the gap in the same line. Fill in the table below with your answers. / Прочитайте приведённый ниже текст. Преобразуйте слова, напечатанные заглавными буквами в конце строк, обозначенных номерами 1–7, так, чтобы они грамматически соответствовали содержанию текста. Заполните пропуски полученными словами.

The Greatest Earthquake

1 Japan experiences 20 percent of the world's _____ earthquakes. Almost 100 years ago, a huge quake hit Kanto, a region on the main island of Honshu. Since then, almost four dozen major quakes have rocked the nation. LARGE

2 Many of the quakes were damaging, killing thousands of people and destroying countless buildings. But none of these natural disasters can compare to the underwater quake that _____ on March 11, 2011, about 129 km east of Sendai, on Japan's east coast. The quake ranked as one of the world's most powerful earthquakes in the last century. STRIKE

3 The quake's force was so strong that experts believe it actually _____ the island of Japan 2.4 meters. MOVE

4 The quake in the ocean was almost as intense as an exploding atomic bomb. The ocean floor _____ down several feet, hurling billions of cubic yards of water out of place for hundreds of miles. PUSH

5 Boaters out on the ocean probably never noticed the slightest bump of the tsunami wave as it rolled beneath _____. THEY

6 But those who lived along Japan's coast already knew what _____ about to happen. BE

7 They had already seen the beaches suddenly empty of water as it was drawn back from the shoreline, _____ fish flapping on the wet sand. LEAVE

1	2	3	4	5	6	7

Task 5. ***(18 points / 18 баллов)***

Read the text below. Use the words given in capitals at the end of each line to form a word that fits in the gap in the same line. Fill in the table below with these words. / Прочитайте приведённый ниже текст. Преобразуйте слова, напечатанные заглавными буквами после номеров 8–13 так, чтобы они грамматически и лексически соответствовали содержанию текста. Заполните пропуски полученными словами.

California
Gold Rush

8 Before California was known for gold, it was _____ for another natural resource — trees. Many settlers worked at sawmills. FAME

9 They cut and shipped lumber to use for _____ and firewood. One of the workers was James W. Marshall. He worked at Sutter's Mill, a sawmill near what is now Sacramento, California. CONSTRUCT

10 On January 24, 1848, Marshall was walking near the American River when he spotted something _____ in the water. It was gold. SHINE

11 At first, many people doubted Marshall. They thought the gold claims were just rumours. But soon _____ began to confirm that California was gold country. NEWS

12 News of the gold in California spread. Soon prospectors from _____ the United States began making their way west to hunt for gold. CROSS

13 There were two main ways people travelled to California from the _____ United States. EAST

8	9	10	11	12	13

Task 6. ***(28 points / 28 баллов)***

For questions 14-20 read the text below and think of the word which best fits each space. Choose the correct answer from the options provided. Complete the table below with corresponding letters. / Прочитайте текст с пропусками, обозначенными номерами 14–20. Эти номера соответствуют заданиям 14–20, в которых представлены возможные варианты ответов. Обведите номер выбранного вами варианта ответа.

Global Warming

Carbon dioxide is one of the most **14 _____** compounds on earth. When concentrated in the atmosphere, it absorbs infrared radiation — solar energy that arrives in the form of light. The higher the concentration of carbon dioxide (and other gases, such as methane and water vapour) in the atmosphere, the more radiation is absorbed by the atmosphere **15_____** than returning to space. The net effect of more carbon dioxide is a **16_____** in surface temperatures, a phenomenon scientists have called the greenhouse effect.

Earth goes **17_____** natural cycles of heating and cooling. These changes take place over millennia and even longer periods of time. They're caused by variations in earth's orbit and position relative to the sun, **18_____** changes in the sun's own energy output. But in a very short period of **19_____** time, scientists have measured a rapid warming that is most likely not due to natural causes. February 2016, for example, showed the highest average global surface temperatures for any month on **20 _____**. Surface temperatures were 2.18 degrees Fahrenheit (1.21C) higher than average - not only another record, but also the greatest change from the average over 137 years of record keeping.

14	A)	extended	B)	common	C)	general	D) frequent
15	A)	rather	B)	or	C)	more	D) instead
16	A)	raise	B)	promotion	C)	rise	D) growth
17	A)	through	B)	over	C)	across	D) in
18	A)	also	B)	besides	C)	including	D) as well as
19	A)	current	B)	recent	C)	the latest	D) late
20	A)	record	B)	letter	C)	book	D) recording

14	15	16	17	18	19	20