

# 外 国 語

(英 語)

90 分

## 注 意 事 項

1. 試験開始の合図までこの冊子を開かないこと。
2. 本問題冊子は 6 ページ，答案用紙は 2 ページである。
3. 各答案用紙の上の枠内には，受験番号を記入し，その右側の枠内には，受験番号の下 2 桁の数字を忘れずに記入すること。
4. 解答はすべて各答案用紙の所定の欄に記入すること。
5. 答案用紙の冊子は切りはなさないこと。
6. 答案用紙に記入する受験番号の数字の字体は，下記の例にならい，明瞭に記入すること。

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|

I 次の文を読んで、以下の設問に答えよ。(80 点)

It's two hundred years or so since the appearance of the first of a series of inventions that used electricity to transform the way most people live their lives, and still some people today can barely change a light bulb. When it comes to fixing the video machine or dealing with a computer that freezes before our very eyes, we're as helpless as a baby. We may use the technology freely, but we hardly understand the principles that we are so dependent on.

How many of us could invent electricity and the multitude of electric devices that we use every day? Easier said than done! Well, a look at some of the people who gave us these “gifts” brings new respect for the original genius of our inventors, not to mention making us feel humble regarding our own  
(1) dependence on their achievements.

Although some of the first steps in the process of invention originated in Europe, including the development of the battery by Alessandro Volta (from whose name we get the word “voltage”), it is not surprising that the first real uses of electricity for commercial purposes took place in the boom years before the Civil War in the United States.

The idea of the telegraph emerged in the early 1830s from the work of Joseph Henry, who adapted the theory of electromagnetism. Henry's name is little known because his idea was adopted and patented by Samuel Morse (from whom we get Morse Code), although Henry seems not to have been bitter about what happened. The first commercial telegraph line opened between Washington and Baltimore in 1844. Its impact on the conduct of business was immediate and profound.

In 1875 Alexander Bell used his experiences as a teacher of deaf children to make an electric current reflect voice patterns. Bell and his telephone also owed a considerable debt to Henry, who had given some early advice on how to proceed. Henry is surely the unrecognized hero in these stories. We'd like to  
(A)

think that we're pretty sophisticated these days, with our e-mails, faxes, etc.; but give us some wire, wood and a few other parts of an old phone and see how we'd get along. I doubt if any one of us today could come up with something that worked.

Next came Thomas Edison's light bulb in 1878, and then the electric motor. The social and economic effects of these inventions were enormous. Electric streetcars meant that people could live much farther from where they worked, and so suburbs grew around the major American cities. エレベーターによって<sup>(a)</sup>階段の問題がひとたび解決されてしまうと、今度はそれらの都市に高いビルを建てるのが可能になった。

But all of this is no easily attained success story. Initial attempts to lay a telegraph cable in the Atlantic in the 1850s and early '60s ended in failure. Given the distances and pressures involved, it's natural that a number of cables<sup>(2)</sup>just snapped. The line that finally worked was laid in 1866 and is presumably still in place, although long unused.

Then there is the brilliant work of Heinrich Hertz (from whose name we get the word "hertz"). The German experimenter died in 1894, aged only 36, but much of his work was picked up by an Italian, Guglielmo Marconi, who developed the wireless telegraph a few years later. Think of it: sending messages through the air! Were you transported back a hundred years, would you be able to come up with something like that?

The next step was radio, then television, the Internet, cell phones. . . . It's<sup>(B)</sup>easy to take these for granted. But recalling the stories of the amazing inventors who paved the way, and their many trials and hardships, makes us realize that nothing would have been achieved without their blood, sweat, and often long-forgotten tears.

I — 1. 下線部(1), (2)を和訳せよ。

I — 2. 下線部(a)を英訳せよ。

I — 3. Look at the underlined part (A). Explain in English, giving examples, why Henry is “the unrecognized hero.”

I — 4. 下線部(B)のように筆者が考える理由として、最も近いと思われるものを一つ選び、記号を記せ。

(ア) because these are so much a part of our everyday life

(イ) because these were invented by great geniuses

(ウ) because these use less electricity than other inventions like airplanes and cars

(エ) because if we didn't have these we would get more exercise than we do now

I — 5. 以下の中から、本文の内容に合うものを二つ選び、記号を記せ。

(ア) Though we are lucky to have so many useful inventions, many of us have no idea how they work.

(イ) Electricity was first invented and put to use in the United States.

(ウ) So far people have experienced few problems with electric inventions.

(エ) The inventions mentioned here were magnificent but of little social or economic significance.

(オ) Most of us would have been unable to think of the wireless telegraph if we had lived in Marconi's day.

(カ) The impact of the first commercial telegraph was not small, but it took many years before it was taken seriously.

## II 次の文を読んで、以下の設問に答えよ。(70 点)

The horse's importance to the development of human society over the last 5,000 years is a well-known story. The horse has played a more critical role in humanity's development than any other domesticated animal you can name.

Throughout the centuries, the horse's true potential soon became apparent; and once domesticated, it took on vital roles in transport, sport and warfare. It's hard to see how humans could have gotten by without the horse.

Breeding in captivity led to a whole range of different breeds, varying in size, speed and stamina. This variety meant that horses could be used for everything from personal transport to the carrying of heavy loads. Breeds of heavy horses enabled these animals to compete with oxen for the unenviable role of chief beast of burden.

In Europe horses appeared as a favorite animal of nobles, who refined the sport of the horse race to their liking. But in Asia the use of horses for sports considerably predated that in Europe. Mongolia was and is famous for its horse races in festivals and games. And in China, after its introduction from Persia, polo, a sport played on horseback, quickly caught on and was enjoyed by both men and women.

But the horse's greatest day, as it were, began in the early 18th century. Major innovations in agricultural practices and work methods saw horses become invaluable to many aspects of rural life, something quite different from their position as animals of sport.

Nowadays the relationship between people and horses has changed again, especially in the developed world. The internal combustion engine\* was the first technical development to undermine the importance of the horse, followed by numerous other advances in mechanization, 結果として、産業界における馬の役割は大いに減少することになった。

But perhaps the cruelest story that one comes across in the long

relationship between horses and people is the one centering on the use of horses in warfare. However, <sup>(1)</sup>had humans not used horses for this purpose, they probably would have found other means to accomplish what the horse did.

The first people to attempt to domesticate the wild horse probably lived semi-nomadic\*\* lives on the vast plains of Asia. Here horses were captured from the wild and bred. They were ridden to drive herds of cattle, and they also pulled carts. It was perhaps from these origins that the horse's involvement in war and battle developed. Skilled swordsmen and riders with bows and arrows put fear into the hearts of their opponents. The earliest known example of a Chinese horse-drawn chariot comes from a grave that is more than 3,000 years old. Horses were used in China by government couriers as well, to carry messages from place to place.

<sup>(2)</sup>It wasn't long before a range of breeds began to appear in eastern Asian societies in which horses were highly valued. There were breeds of horses specifically created for speed, size, power and endurance. All empires, whether Chinese, Persian, Greek, Roman or modern European, were dependent on the horse; and all major battles, up to and including those in World War I, relied heavily on horsepower. Their casualties were proportionately as great as those of the warriors they accompanied.

Although the horse was superseded by advanced machinery, <sup>(b)</sup>戦争におけるその役割は、いくら大げさに言っても言い過ぎることはない, a thing that can be seen in military parades today.

Horses have served humans for millennia, for better and for worse.

\*internal combustion engine 内燃機関

\*\*semi-nomadic 半遊牧民の

Ⅱ— 1. 下線部(i), (ii), (iii), (iv)の意味にもっとも近いものを一つ選び、記号を記せ。

(i) took on

(ア) began to play

(イ) came to cease

(ウ) got to pursue

(エ) started to spread

(ii) variety

(ア) category

(イ) definition

(ウ) diversity

(エ) variant

(iii) predated

(ア) came across

(イ) came after

(ウ) came before

(エ) came on

(iv) caught on

(ア) became exciting

(イ) became popular

(ウ) became prosperous

(エ) became vulgar

Ⅱ— 2. 下線部(A) the horse's greatest day の説明として、最も適切なものを一つ選び、記号を記せ。

(ア) The horse became useless compared to before.

(イ) The horse became very valuable in rural life.

(ウ) The horse was followed by numerous advances in mechanization.

(エ) The horse's relationship with people changed.

Ⅱ— 3. 下線部(a)の意味になるように、下の語句を並べ替えて、直前の部分にうまくつながるようにせよ。

effectively diminished/in industry/that/the horse's role/the result/was/  
with

Ⅱ— 4. 下線部(1), (2)を和訳せよ。

Ⅱ— 5. 下線部(b)を英訳せよ。