

平成24年度入学試験問題

英 語

注 意

- 1 問題冊子は1冊，解答用紙は4枚です。
- 2 すべての解答用紙に受験番号を記入しなさい。
- 3 解答は，すべて解答用紙の指定されたところに書きなさい。
- 4 試験終了後，問題冊子は必ず持ち帰りなさい。

1 次の文章を読んで下の設問に答えなさい。

I recently flew from my home in New York to San Francisco. I expected my visit to be like any other business trip—a series of nonstop meetings. The trip, however, held a surprise that I couldn't have imagined.

My parents were divorced in 1961, when I was 11. For many years afterward, my father worked in Switzerland, eventually retiring to live in San Francisco. At most, I saw him once a year. On those rare occasions, the conversation was usually about the ordinary—where we should eat, what movie we should see—or about my life in New York. He didn't offer me much information about himself and, curious though I was, I learned not to ask him too much. I knew my father had faced many challenges in his life, which always somehow explained his silence about himself.

He grew up in Berlin as an only child, and was sent to live with an unloving aunt in Vienna for the sake of safety when Hitler came to power in 1933. ①彼が再び両親に会うことは戦後になるまでなかった。 In 1938, before World War II began, my father escaped to Paris. Within a short while, he was in the French Foreign Army, and then, after France was defeated, he was sent to northern Africa as a prisoner. Later, after a very lucky escape and a long walk across the Sahara Desert, he worked for O.S.S., the American wartime spying agency.

Learning even these few details of my father's life required endless questioning of his few friends and even fewer relatives. After he passed away in 1988, my wife's sister and brother-in-law, residents of San Francisco, found some of my father's belongings. The boxes stayed in their garage until one day the family looked inside them. The result was an envelope which they gave me during my visit. The envelope contained a certificate, written in German. My father had been given a special degree in 1975 by the Institute of Chemistry in Vienna. The degree was presented for ②his work at the institute from 1936 to 1938 on highly advanced nuclear study. As he was born in 1920, he was honored for research conducted between the ages of 16 and 18!

I tried to put the story together. Without parents in Vienna and then living with an

unkind aunt, my father had found pleasure and relief in the world of science. Perhaps he could have become a world-famous professor, maybe even a Nobel Prize winner. But then the Nazis occupied Austria and all that mattered was that, talented or not, he was a Jew. ③His life as a promising scientist was about to end, and a new one was about to begin. By the time he came to the United States, he needed to master a new language and get a new job. In my view, he clearly never again had the chance to carry out his career dreams.

Was he bitter about his life he was given? It is hard to know. These days, the thought of my father's disappointed life is never far from me. ④化学研究所の証書は私の机の正面の壁にかかっている. Are there other secrets of his life hiding in the garage? Since I don't know of any living relatives of his today, it is the only hope I have of finding out more about him.

- (1) 生前の父を筆者がどう思っていたか日本語で述べなさい。
- (2) 下線部①を英語にしなさい。
- (3) 下線部②が示す内容を日本語で詳しく述べなさい。
- (4) 下線部③の内容を日本語で説明しなさい。
- (5) 下線部④を英語にしなさい。

2 次の英文を読んで下の設問に日本語で答えなさい。

A study suggests that people who live at higher latitudes have larger eyes and more ability in their brains to deal with visual information compared with those living nearer the equator. ①Researchers measured the brain volumes and eye sizes of 55 skulls kept at the Oxford University Museum of Natural History dating from the 19th century. The skulls represented 12 different populations from around the world, including native people from England, Australia, China, Kenya, Micronesia and Scandinavia.

“As you move away from the equator, there’s less and less light available, so humans have had to evolve bigger and bigger eyes,” said ②Ellie Pearce, a graduate student from Oxford University and the lead author on the study. “Their brains also need to be bigger to deal with the extra visual input. Having bigger brains doesn’t mean that higher-latitude humans are smarter; it just means they need bigger brains to be able to see well where they live.” This suggests that someone from Greenland and someone from Kenya will have the same ability to detect detail, but the person from the higher latitude needs more brainpower and bigger eyes to deal with the lower light levels.

Professor Robin Dunbar, also from Oxford University and a co-author of the study, said that people whose ancestors lived within the Arctic Circle have eyeballs 20% bigger than people whose ancestors lived near the equator. They have an associated increase in the size of the visual part of the brain, which previous studies have shown matches with the size of the eyeball. Brain volume increases with latitude: people living at high latitudes north and south of the equator have bigger brains than people living near the equator.

The results, published in the journal *Biology Letters*, showed that the biggest brains, averaging 1,484 milliliters, were from Scandinavia, while the smallest brains, around 1,200 milliliters, came from Micronesia. The average eye size was 27 milliliters in Scandinavia and 22 milliliters in Micronesia. Professor Dunbar concluded that the increase in brain volume must have evolved relatively recently in human history. He added, “It’s only within the last 10,000 years or so that modern humans have occupied all latitudes right up

to the Arctic Circle. So, this is probably a development that's happened within the last 10,000 years.”

(注) latitude 緯度 equator 赤道 Arctic Circle 北極圏

- (1) 下線部①の **Researchers** はどのようにしてデータを得ましたか。
- (2) 下線部②の **Ellie Pearce** の意見を簡単にまとめなさい。
- (3) 最終段落における **Professor Dunbar** の見解を述べなさい。

3 次の文章を読んで、下線部①、②、③、④を英語にしなさい。

Interviewer: Tell us a little bit about your observations of the state of environmentalism in Japan.

Interviewee: Well, we have seen a very amazing side of Japan, I think. It's just amazing to be here in Japan and see that there are a lot of progressive practices. I see that even though there isn't a refund system on cans and bottles, there's a very high level of recycling. And we were in Hokkaido two days ago and we were learning about a wind project in Hakodate, so alternative energies seem to be getting more popular. There are many forests and beautiful mountains in Japan. ①それは皆さんが誇りに思っていることですよね？

But, actually, I've never seen concrete rivers like I have seen in Japan. That is just shocking. I can't quite get over that. Although the waste might not be on the streets of the cities, ②他方で川にはゴミがたくさん浮いているのを見かけました。 It's interesting to see the contrast.

Also, it's interesting to see the use of energy as it is here. I've never seen heated toilet seats before. And also vending machines—I've never seen so many vending machines, ever. ③日本では22人に1台自動販売機があると聞きました。 The energy for all vending machines in Japan would make up the energy for one whole power plant.

It's fascinating; there are all these technologies and you see the way forward. ④しかし、同時にその新しい技術が日本における環境保全を妨げているのです。

- 4 次の英文を読んで、あなたの答えを10行程度の英語で書きなさい。

Mobile phones are used by many people for all kinds of purposes such as talking, sending email, and surfing the Internet. There is no doubt that they are convenient machines which have changed modern life. However, some people feel that there are some disadvantages or dangers to using mobile phones. Describe some negative aspects of mobile phones and give your overall opinion about these devices.