Ⅰ 次の文章の下線をほどこした部分(1)~(3)を和訳しなさい。

(50点)

The word 'history' has two senses: what happened in the past, and what we say in the present about what happened in the past. In the first sense, history as past events is imagined as a country stretched out 'behind' us which we could visit if only we had a time-travel machine. History as the surmises, interpretations and narratives constructed today is based on what those past events left for us—it survives in the form of documents, letters, diaries, ruins unearthed by the archaeologist, artefacts known or judged to be old. These are the residue of what has otherwise gone; historians study and arrange them, like pieces of an incomplete jigsaw puzzle, in order to fashion a coherent story. History, in the sense of past time, is accessible only through history in the sense of today's incomplete jigsaw puzzle; we can get at it in no other way.

Among the indispensable resources of the historian are contemporary accounts of past events written by witnesses. Of course these accounts have to be approached with scepticism; the historian must remember the human inclination to dramatise, enlarge a share or minimise a responsibility, write with bias, distort the facts whether deliberately or unconsciously, 'spin' the events or tell outright lies. Even so, first-hand reports are valuable and important. Without diaries and reports, memoirs, newspapers and other contemporary records, historians would have a very hard if not impossible time. This was what Thomas Carlyle had in mind when he defined history as 'a kind of distilled newspapers', though of course he thereby ignores the task of checking and interpretation that the historian uses to turn those records into an organised whole. Moreover a great deal of the raw material used by historians consists of other less interesting factual records, such as lists of names, account books, legal documents, and the like; a far cry from, say, diary entries and personal letters, reportage and memoir.

It is these latter accounts, though, that give the freshest and most vivid

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impression of the past, however much spin and bias they contain. documentary raw material of history has the immediacy of presence, the directness that characterises communication from someone who was there and felt and saw the things reported. Any policeman will tell you that four witnesses at the scene of an accident will give four different stories of what happened; so we must accept that every contemporary account is one person's account, filtered through subjectivity and the often unreliable channel of memory. Nevertheless it is impossible not to be gripped, absorbed and often moved by letters, diaries and court records. It is a quite different experience from reading novelised versions of the events, and even historical accounts of them. The consciousness that the writer was there makes a big difference. If, as you read, you recall the cynical view of Santayana that 'history is a pack of lies about events that never happened told by people who weren't there', you might not be able to resist a smile. He meant today's historians writing about the past; but the same applies to the creators of their resources. Some letters and diaries might indeed be a pack of lies, and their authors might not really have been where they claimed to have been — but it is reasonable to suppose that most are the authors' version of the truth. And the fact that they were written close to the described events makes them compelling.

II

The life of a physicist can be a lonely one. Imagine this: You sit down in an airplane, and the person next to you asks you what you do for a living. You reply that you're a physicist. From here, the conversation can go one of two ways. Nine times out of ten, the first thing out of his or her mouth is something along these lines: "Physics? I hated that class!"

You'll then spend the rest of the trip (or party, or elevator ride, or date) apologizing for the emotional trauma that physics has apparently inflicted on your friend. These random encounters often reveal an almost joyful contempt, reserved specifically for the fields of physical science and mathematics. "Oh, I'm terrible at algebra!" for example, is said in an almost boastful tone, in a way that "I barely even know how to read!" never would. But why?

Physics has a somewhat unfair reputation for being hard, impractical, and boring. Hard? Perhaps. Impractical? Definitely not. Indeed, when people try to "sell" physics to the public, it is almost always in terms of how it can be used to build bridges or launch rockets — that is, how physics is ultimately the foundation for engineering or chemistry.

But boring? That's where we really take issue. The problem, as we see it, is that the practical side of physics is almost always put forward at the expense of the interesting side. Even folks with technical focuses such as engineering and computer science typically don't get past mechanics and electromagnetism to the really *fun* stuff. And that's a shame, because quite frankly there has been very little cutting-edge research done on pulleys in the past few years.

This hostility to physics seems to be deep-rooted, and makes it difficult to have discussions without discouraging an audience. In starting a scientific conversation with a "civilian," we promoters of physics often feel like we're trying to force people to eat their vegetables, and rationalize it in the same

way. We never begin physics discussions with "It's fun!" but almost always with "It's necessary," which naturally drains all of the fun out of it.

In an era when new technologies are constantly emerging, scientific literacy should be fundamental. On the other hand, it isn't necessary that you have four extra years of college sciences to understand them. You don't need to have a detailed knowledge of exactly how the physics works to appreciate the revolutions in quantum computing or cosmology. It is important, rather, to understand *why* these developments are significant, and how they will change technology and our lives.

And it's not simply that people need to understand a particular theory. Physics is the model inductive science, and by understanding how science proceeds, people are better able to make informed decisions about issues such as global warming. The hope is that we are more prepared to refute people who disagree with us by offering facts rather than simply insisting "No."

The United States, in particular, has an immense problem with science and (3) mathematics education, with high school students performing well below average compared to those in other developed countries. But we cannot limit ourselves to *only* blaming teenagers, or their teachers. The problem is far-reaching, affecting all walks of life.

III

- (1) 楽しいはずの海外旅行にもトラブルはつきものだ。たとえば、悪天候や自然 災害によって飛行機が欠航し、海外での滞在を延ばさなければならないことは さほど珍しいことではない。いかなる場合でも重要なのは、冷静に状況を判断 し、当該地域についての知識や情報、さらに外国語運用能力を駆使しながら、 目の前の問題を解決しようとする態度である。
- (2) 人と話していて、音楽でも映画でも何でもいいが、何かが好きだと打ち明けると、たいていはすぐさま、ではいちばんのお気に入りは何か、ときかれることになる。この問いは、真剣に答えようとすれば、かなり悩ましいものになりうる。いやしくも映画なり音楽なりの愛好家である以上、お気に入りの候補など相当数あるはずであり、その中から一つをとるには、残りのすべてを捨てねばならない。

総合人間学部および医学部(医学科)志願者以外の問題は,このページで終わりである。

以下は、総合人間学部および医学部(医学科)志願者のみの 問題である。

「V テープの音声を聞いて、Section 1, Section 2 の問題に答えなさい。音声を聞いている間、メモをとったり解答を記入したりしてもよい。

総合人間学部(50点) 医学部(医学科)(30点)

Section 1

Section 2

- (1) Why did the idea of playing classical music to babies become popular?
- (2) What is the problem with the Mozart Effect?
- (3) For what did the German research team find "zero evidence"?
- (4) According to the author, what do babies need in order to learn a language?
- (5) According to the author, how effective is forced learning for infants?

問題は、このページで終わりである。

[今から聞き取りテストを始めます。]

Section 1

[In this section, you will hear the reading of an excerpt from a book written by a surgical doctor. After the reading, you will hear five questions with four possible answers to each question. On your answer sheet, please write the letter a, b, c, or d that best answers the questions. You will hear the reading of the passage, questions, and answer choices two times. I will now begin.]

The best hope for saving lives lies in raising performance, not in expanding advanced biological research. In 2003, I had just finished my surgical training, and I decided to travel as a visiting surgeon to India. In the course of a two-month tour I worked in a series of six public hospitals across the country.

My tour of Indian hospitals was very interesting. In many hospitals where basic equipment and nurses were lacking, and dirt was everywhere I stepped – there were brand-new CT scanners and MRI machines. Such machines have become the symbols of modern medicine, but to view them this way is to misunderstand the nature of medicine's success. Having a machine is not a cure. Medical cures require understanding the ordinary details that must go right for each particular problem.

India's health system is facing the fundamental and huge difficulty of adapting to its population's new and suddenly more complicated range of illnesses. This situation is not unique to India, and that is what makes it a core problem for our time. Throughout the East, populations are changing rapidly. Because people live longer today, heart disease has become the globe's leading killer. New laboratory science is not the sole key to saving lives. Doctors need to perform better by effectively using existing know-how.

True success in medicine is not easy. It requires will, attention to detail, and creativity. But the lesson I took from India was that it is possible anywhere and by anyone. I can imagine few places with more difficult conditions. Yet astonishing successes could be found. And each one began, I noticed, remarkably simply: with a readiness to recognize problems and a determination to remedy them.

Arriving at meaningful solutions is an inevitably slow and difficult process. Nonetheless, what I saw was: better is possible. It does not take genius. It takes diligence. It takes moral clarity. It takes innovative thinking. And above all, it takes a willingness to try.

[Next, listen to the questions, and write the letter a, b, c, or d that best answers the questions.]

Question 1: What was the author's situation at the time he went to India?

- a. He had just become a doctor.
- b. He was beginning his training.
- c. He had job offers at six hospitals.
- d. He had just finished some biological research.

Question 2: According to the author, what was the state of the Indian hospitals he visited?

- a. They were dirty.
- b. They lacked basic equipment.
- c. They had many determined doctors.
- d. All of the above.

Question 3: What is the reason stated for the new health problems in countries like India?

- a. People today work too hard.
- b. People today avoid the doctor.
- c. People today live longer.
- d. People today move to cities.

Question 4: What did the author learn in India?

- a. Medicine is not easy, except for a genius.
- b. Astonishing success is not realistic.
- c. True medical success comes from trying hard and not giving up.
- d. Medicine today is too slow and difficult.

Question 5: What is the main point of this passage?

- a. Doctors need to improve the way procedures are followed.
- b. Doctors need to visit Indian hospitals.
- c. Doctors need more advanced equipment.
- d. Doctors need to do more laboratory research.

[I will now repeat Section 1.]

Repeat (The best hope for saving lives ...)

Repeat (Question 1 ~ Question 5)

[This is the end of Section 1.]

Section 2

[In this section, you will hear a passage about research on learning. Please write in English an appropriate answer for each question on your answer sheet. You may write your answers anytime. Answer briefly; you do not need to write full sentences. You will hear the reading of the passage two times. I will now begin.]

When researchers found in the 1990s that listening to Mozart enhanced college students' spatial reasoning, such as the ability to read patterns, an entire industry sprang up based on the claim that filling the home with classical music could improve a baby's brain. So attractive was this idea that in the late 1990s and the early 2000s, hospitals in the U.S. State of Georgia sent every newborn home with a CD featuring Bach, Handel and Mozart. Today, you can still buy albums and DVDs that promote the so-called Mozart Effect. The only problem is that the Mozart Effect is nonsense.

In 2007, the German government commissioned a team of top researchers from psychology, education, neuroscience, and philosophy to investigate all the research done on the phenomenon. Their conclusion was that even if listening to Mozart does raise spatial reasoning, including the ability to read patterns, the effect lasts no more than twenty minutes. What's more, the German team found zero evidence that listening to classical music does anything at all to develop the infant brain.

A misreading of science, coupled with parents' high expectations, also fuels a lot of hopeless attempts to teach foreign languages to infants. Research in the 1990s showing that babies possess a unique ability to learn any tongue sent parents running to buy language tapes. It did not work. Why? Because babies only tune in to a language when it is spoken to them regularly by a real person. More recent experiments show that infants exposed only to foreign-language DVDs absorbed nothing at all—not one word or phrase, not a single sound. The apparent conclusion is that babies need a human connection, not artificial stimulation, to learn.

To help babies learn languages, should foreign-language classes for babies have real teachers?

Many parents today must believe so since they are enrolling their infants in language school programmes. The idea seems to be that languages should be learned at the youngest age possible. Yet, research shows that people can learn languages at any age. But when it comes to tutoring young

children, the language needs to be a real experience and cannot be forced. The point seems to be that there is absolutely no sense in making very young children study for extended periods.

[I will now repeat Section 2]

Repeat (When researchers found in the 1990s ...)

[This is the end of Section 2.]

[これで聞き取りテストの放送を終わります。]