東北大学　　医学部歯学部

平成30年度前期日程入学試験学力検査問題

平成30年2月25日

外　国　語(英語)

志望学部	試　験　科　目	試　験　時　間
経済学部，理学部，医学部保健学科，歯学部，薬学部，工学部，農学部	英語	10：00～11：40 (100分)
文学部，教育学部，法学部，医学部医学科	英語，ドイツ語，フランス語のうちから1科目選択	

・ドイツ語，フランス語の問題冊子は，出願時に，それぞれの科目を希望した者に配付します。

注　意　事　項

1. **試験開始の合図があるまで，この問題冊子，解答用紙を開いてはいけない。**
2. この問題冊子は，16ページである。問題冊子の白紙のページや問題の余白は草案のために使用してよい。なお，ページの脱落，印刷不鮮明の箇所などがあった場合には申し出ること。
3. 解答は，必ず**黒鉛筆**(シャープペンシルも可)で記入し，ボールペン・万年筆などを使用してはいけない。
4. **解答用紙の受験記号番号欄(1枚につき2か所)には，忘れずに受験票と同じ受験記号番号をはっきりと判読できるように記入すること。**
5. 解答は，必ず**解答用紙の指定された箇所**に記入すること。
6. **解答用紙を持ち帰ってはいけない。**
7. 試験終了後，この問題冊子は持ち帰ること。

◇M4(576—29)

I　次の英文を読み，下の問いに答えなさい。

Oddly enough, aunting and uncling have little clear representation in the public discourse about families. The relationships of aunts and uncles with nieces and nephews are rarely discussed or examined in any comprehensive way. Yet relationships among siblings are among the more resilient(1), long lasting, and intimate of family ties, and with the introduction of children, the roles of aunt and uncle are added to the mix of bonds linking siblings and their partners or spouses.

Even the terms *aunting* and *uncling* are relatively new; they appeared only recently in the popular and academic literatures on families, and then amid some controversy. Among the early appearances of the terms was an article I wrote and submitted for review to a leading academic journal. The article was published in due time, but not without some spirited exchanges. One of the reviewers questioned the terms *aunting* and *uncling* and lamented over(2) their inclusion in the family vocabulary, perhaps thinking they were unnecessary, unusual, or simply dreadful. The story illustrates the invisibility of the family work of aunts and uncles because specific terms to describe what they do are not in common usage. We have no common terms by which to describe our(A) expectations of aunts and uncles or their typical activities and to differentiate them from the expectations and activities of other family members such as parents or grandparents. Terms such as *aunting* and *uncling* have a clear linguistic parallel with the term *parenting*, a word in common usage, but the former still sound foreign to some ears, as they did to the journal reviewer. The gap in our common language is suggestive of how the family positions of aunts and uncles are rarely discussed or acknowledged in any formal way. The family work of aunts, uncles, nieces, and nephews is neatly hidden from public view and acknowledgment, although as we shall see, aunts and uncles routinely discuss, among themselves and their intimates, their relationships with nieces, nephews,

and other family members, and their contributions to family work are varied, consequential, and apparently commonplace.

The invisibility of aunts, uncles, nieces, and nephews, as well as relationships among adult siblings more generally, in the field of family studies contrasts sharply with the lived experience of actors who know quite clearly the importance of each to the other. Family members rather commonly talk among themselves, visit, phone, e-mail, circulate family photos in person or via websites, and celebrate holidays, birthdays, and anniversaries. In their contacts, they share news and gossip, and all of this occurs across households of grandparents, parents, adult siblings (some of whom are single), and close friends, including coworkers. To be sure, not all families are in frequent communication, but then not all exist as isolated households. One need only recall travel patterns on major North American holidays to confirm this.(B)

In one curious instance, the everyday and academic discourse on families fuses implicit acknowledgment of what aunts and uncles typically do and how these positions are commonly understood. The Aunties and Uncles Cooperative Family Project Ltd. is a program developed to service disadvantaged children in Sydney, Australia. The program matches adult volunteers with children typically from single-parent families headed by women. The adult volunteers agree to spend one weekend per month with their assigned child and are expected to help build the child's self-esteem and confidence. Volunteers become mentors(3) to parents as well. The program staff refers to volunteers as aunties and uncles and the children(C) who are served by the program as nieces and nephews. At least some of the volunteers come to think of the families they are assigned to as extensions of their own families. That is, they regard themselves as aunts or uncles and the children as nieces or nephews. As one adult volunteer remarked, "We have become family and would continue to be, even if the program ceased to exist." At least some of the families served agree: "With all we receive from the auntie, we feel she and her family is like a family to us."

The Aunties and Uncles Program is unusual in several respects. First, by labeling the volunteers as aunties and uncles, the organizers are implicitly identifying a meaning or definition of these family positions — aunts and uncles mentor children and children's parents. In doing so, the organizers recognize what family scholars have often overlooked — the integral (4) role aunts and uncles can play in family life. Second, the organizers assume a common meaning to aunting and uncling that parents and children will recognize, and in this way implicitly define a common culture of aunting and uncling. Third, the program facilitates the social construction of kinship, what we might call *chosen* or *fictive kin* (D). Volunteers may come to view themselves as chosen kin, or as uncles and aunts connected by virtue of their responsibilities to parents and children rather than ties of blood or marriage; serviced families may come to regard their assigned providers as being like kin. In this way, chosen kin are created through a deliberate intervention program that implicitly recognizes a definition of what it means to be an aunt or uncle and applies such labels to participants. In ordinary family life, the positions of aunt and uncle may be rooted in relational ties of blood or marriage, or they may be rooted in ties of friendship, shared expectations, and values. Just as we sometimes regard a close friend as *like a brother or sister*, we may come to regard such a friend as a chosen uncle or aunt.

(Adapted from Robert M. Milardo, *The Forgotten Kin: Aunts and Uncles*)

問 1　下線部(A)を日本語に訳しなさい。

問 2　下線部(B)が指す内容を日本語で述べなさい。

問 3　下線部(C)を日本語に訳しなさい。

問 4　下線部(D)の「選ばれた親族，仮想の親族」とは何か，本文に即して日本語で説明しなさい。

問 5　下線部(1)～(4)の意味として最も適切なものを，それぞれ与えられた選択肢から選び，記号で答えなさい。

(1) resilient:
(ア) changeable　(イ) efficient
(ウ) friendly　(エ) tough

(2) lamented over:
(ア) approved willingly　(イ) felt relieved about
(ウ) regretted deeply　(エ) respected highly

(3) mentors:
(ア) biological relatives　(イ) dependable advisers
(ウ) financial supporters　(エ) mental abusers

(4) integral:
(ア) essential　(イ) faint
(ウ) laughable　(エ) strange

Ⅱ　次の英文を読み，下の問いに答えなさい。

How did life begin? I think this is one of the two most interesting questions in science, and the most important question in the history of human thought. How did the Universe begin? I think this is the other interesting scientific question, but we know less about it at the moment. There are speculative theories that suggest the Universe could be eternal, and that there was no beginning. If this is the case, then the Universe has always existed and the question is answered: it didn't begin. Whether or not this would be a satisfying answer is up to you. I'd be comfortable with it.

(A) Regardless of what happened at the beginning of time, we know there was a period 13.8 billion years ago when the part of the Universe that we can see today, containing over 350 billion large galaxies and with a diameter of over 90 billion light years, was compressed into a region of space smaller than a single atom. No life could have existed in such extreme physical conditions, so even if the Universe existed in some form before the Big Bang, it's safe to say that no complex physical structures would have made it through. The observable Universe must therefore have lacked life at some point in the past, and life must have begun spontaneously somewhere within it, at some point during the last 13.8 billion years. The word "spontaneously" is worth defining here, because it crops up a lot in discussions about the origin of life. In saying that life appeared spontaneously, we are asserting that life is a physical process that emerged as a result of the action of the laws of Nature. If we say that the Earth formed spontaneously, we mean that nobody built it; by saying that living things appeared spontaneously, we mean the same thing.

The first atomic nuclei formed in the initial minute or so following the Big Bang, and the first atoms formed in large numbers when the Universe was 380,000 years old. The first stars ignited around 100 million years later, and these assembled the first carbon atoms. It is unlikely that the rich chemistry of

life could have begun spontaneously without carbon, oxygen and a handful of the heavier elements beyond the hydrogen and helium atoms that existed before the stars. Life could have got going anywhere in the Universe after this time, and may very well have done so; we don't know.

第4段落

(1) _____.

(2) _____.

(3) _____.

(4) _____.

Nothing that we've said in these opening paragraphs is controversial from a scientific perspective, but there is one assumption we'll make which is at least contestable. We will assume that life began on Earth, rather than arrived here from space. Since we have discovered no life on planets beyond Earth, this is reasonable, but it is possible that life began on Mars, or perhaps even on comets in the outer Solar System, and was delivered to Earth by impacts from space. (B) This theory is known as panspermia. Unlikely as it may sound, it is a testable theory, and that puts it firmly in the realm of science.

It is certainly possible that we could discover life on Mars over the next few decades, and if the microbial Martians share our biochemistry and our genetic code, we might be forced to assume a common origin on either planet, or perhaps somewhere else in the Solar System. This would make the search for the origin of life more difficult, because it is far easier to explore our own planet's deep history than it is to explore the history of another world. The only way to find out is to do the science, and this is one of the reasons why we send spacecraft to Mars and the potentially life-supporting moons of Jupiter and Saturn. It goes without saying, however, that we shouldn't stop searching for the origin of life on Earth while we build spacecraft to search for life beyond it.

Under the assumption that life began on Earth, it must have been the case that the basic chemistry of life existed on our planet before living things emerged, and that sometime and somewhere chemistry became biology. (C) There is no precise definition of what "becoming biology" means, but it is worth emphasizing that biology is just a word for very complex chemistry. Living things are constructed from the same set of chemical elements as inanimate things, and they obey the same laws of Nature. In this sense we can assert that the Earth is our ancestor and creator, and we would like to know how, where and when the transition from geochemistry to biochemistry occurred.

(Adapted from Brian Cox and Andrew Cohen, *Forces of Nature*)

問 1　下線部(A)を日本語に訳しなさい。

問 2　下線部(B)が指す内容を日本語で述べなさい。

問 3　下線部(C)はどのようなことを意味しているか，本文に即して日本語で答えなさい。

問 4　第4段落に次の(ア)~(エ)の文を入れるとき，それらをどの順序で並べるのが最も適切か，該当する解答欄に記号で答えなさい。

(ア) There is good evidence that life had gained a foothold on Earth around 3.5 billion years ago, and possibly much earlier — we'll discuss this evidence later.

(イ) Therefore, we will assume that Earth was once a lifeless world, and that living things appeared at some point in the first billion years after its formation.

(ウ) The Earth formed 4.54 billion years ago out of the cloud that had emerged around the young Sun.

(エ) It is safe to assume that there was no life on Earth in the early years following her formation; the conditions were too violent and changeable.

———このページは白紙———

Ⅲ 次の Emma と Luke の会話について，下の問いに答えなさい。

Emma: You're looking pretty tired this morning. Your eyes are bloodshot. Is everything OK?

Luke: I'm fine. I was up late last night watching a documentary. It was the life story of Thomas Edison. It was so (①) that I couldn't turn it off. I watched it from beginning to end and finally went to bed after midnight.

Emma: I don't know much about Thomas Edison other than the fact that he was a productive inventor. Isn't he most famous for inventing the lightbulb?

Luke: Actually, Thomas Edison didn't invent the lightbulb. He simply (②) it. Lots of scientists before him had been working on electrical lighting, but Edison found a way to make it more practical. But you're right. Edison was a famous inventor. In fact, he is credited with over one thousand patents.

Emma: That's impressive. He must have had a great imagination to come up with that many original ideas during his lifetime.

Luke: He was more than just imaginative. According to the documentary, he was hard working. He (③) himself to his work. He knew that having a good idea was not enough. It took a lot of effort and persistence to succeed.

Emma: Wow. You seem very passionate about his life story. So, what did you like most about the documentary?

Luke: I don't know. I guess I liked the way he was able to change the world with his inventions. It got me thinking about the different inventions that

have changed our lives. What do you think is the most significant invention over the last one hundred years or so?

Emma: I guess I would say it's the Internet. I can't imagine life without it. It cuts down on time and effort to get information. And it enables us to connect with others easily. I truly believe that it has made the world smaller and more accessible. I rely on it for everything from online shopping to streaming my favorite shows. I doubt I could go a day without it. In fact, just this morning I've already used it to check the weather forecast, send a homework assignment to my professor, chat with a friend, write a few e-mails, and book a pair of tickets to the movies tonight. What would I do without it?

Luke: I see your point. I've probably accessed the Internet a half dozen times myself this morning, including searching for a solution for red and itchy eyes.

Emma: How about you? What do you think is the most life-changing invention in the last one hundred years?

Luke: Let me think. I would say that the invention of the airplane has had the biggest impact on society. Can you imagine how hard it was to get from place to place before there were planes? You said that the Internet has made the world smaller and easily accessible. But how about airplanes? Well before the Internet was invented, airplanes were making the world more connected and globalized. Instead of driving for hours and days, or sailing for weeks and months, people could get to their destinations quicker, and visit places they've only dreamed about. Thanks to airplanes, I'm sure tourism has boomed, creating new businesses all over the world. And

besides helping tourism, I'm sure airplanes are helping the economy in countless ways. Planes have made products and services immediately available. In fact, I'll bet you that the eye drops I ordered online this morning will be at my door tomorrow thanks to overnight delivery!

Emma: Maybe you should consider more sleep instead of relying on eye drops.

Luke: I'll keep that in mind.

問 1　本文中の空欄①～③に入る最も適切な語を，それぞれの選択肢(ア)～(エ)の中から1つ選び，記号で答えなさい。

空欄① (ア) disgusting　(イ) exhausting　(ウ) fascinating　(エ) revolting

空欄② (ア) conceived　(イ) deteriorated　(ウ) identified　(エ) improved

空欄③ (ア) devoted　(イ) focused　(ウ) labored　(エ) spent

問 2　次の(1)～(5)から本文の内容と合うものを2つ選び，記号で答えなさい。

(1) Both Emma and Luke feel the world has become more and more exclusive thanks to the inventions of airplanes and the Internet.

(2) According to Luke, after Edison's invention of the lightbulb, people's lives were more connected.

(3) Emma believes that her life would be unmanageable without the Internet.

(4) Luke's reasons for selecting the airplane as one of the most life-changing inventions include his belief that they have boosted world economies and created more opportunities for inventors.

(5) Both Luke and Emma have utilized the Internet multiple times prior to their morning conversation.

問 3　次の指示に英語で答えなさい。

Point out one invention from the past other than those mentioned in the passage, and explain how it changed, or has changed, people's lives.

Ⅳ　次の文章を読み，下線部(A)，(B)を英語に訳しなさい。

日本の若者たちが外国旅行をしなくなったと言われて久しい。それもあって，私のような者にまで，もっと外国を旅せよという「檄」を飛ばしてもらえないかといった依頼が届くようになった。だが，申し訳ないけれど，そうした依頼はすべて断ることにしている。

(A)ひとつには，私も若いとき，年長者の偉そうな「叱咤激励」が鬱陶しいものと思えていた。だから自分が齢を取っても，絶対に若者たちに対するメッセージなどを発しないようにしようと心に決めたということがある。

(B)もうひとつ，旅への関心にはさまざまな段階があると思えるのだ。近いところから，少しずつ遠いところに関心が向かっていくというのも珍しいことではない。たとえ，いまは日本国内に留まっていても，何かのきっかけがありさえすれば，いつか異国への関心が芽生えるだろう。

(沢木耕太郎「絵馬の向こう側」より一部変更)