岐阜大学

英語

問題

2018年度入試

【学部】 教育学部、地域科学部、医学部、工学部、応用生物科学部

【入試名】 前期日程

【試験日】 2月25日

1 **For questions (1)–(15), choose the most appropriate word or phrase from the options あ, い, う, or え to complete the following Text. For questions (A)–(J), change the underlined words to the correct form.**

Grades & Coursework

If you are an international student, you may not be【 (1) 】with the application process for American colleges, including Massachusetts Institute of Technology (MIT). This is a quick overview to help you understand how applying to an American school like MIT works. Some of the information in here is also【 (2) 】for American colleges other than MIT, but you should make sure to check with other schools before applying since we can't speak for them!

Am I International?

MIT considers any student【 (3) 】does not hold US citizenship or permanent residency to be an international applicant, regardless【 (4) 】where you live or attend school. US Permanent Residents are those students who have an official copy of their Green Card in hand. If you are in the process of (A)obtain a Green Card, then you are considered by MIT to be an international student. If you are an American citizen or permanent resident, then you are considered a【 (5) 】applicant; however,【 (6) 】you have (B)live for long periods of time outside the United States, some of this information may still be helpful to orient you in the process.

When To Apply

Most US students apply to MIT at the (C)begin of their final year of high school, and international applicants should do the same. Only accepted students are (D)require to send final grades, and we understand that they will not be available【 (7) 】the summer months. Most applicants are 17–19 years of age. Some may be (E)young, especially if they have studied【 (8) 】; some may be older, especially if their countries have mandatory military service after secondary school. Students who have already enrolled at another university — either in America or abroad — must apply to MIT as a transfer student.

How MIT Considers International Applicants

MIT receives, many applications from very smart and (F)talent international citizens. From this great pool of candidates, we may only take a small cupful. Every year more than 4,000 international students apply to MIT, and we can admit fewer than 150. We limit the number of international students we can accept because of our generous financial aid. MIT is one of the【 (9) 】schools in the US that offers need-blind admissions and (G)meet their full financial need. "Need-blind" means you will not be disadvantaged in the admissions process because of your financial need. "Meeting your full financial need" means MIT will give you enough financial aid【 (10) 】you can afford to attend, no matter how much or how little your family can pay.【 (11) 】though the international application process is very competitive, we still admit wonderful students from all over the world every year. There are students from 116 countries at MIT. Approximately 9% of our undergraduates are international, and 40% of graduate students are citizens of other countries. There is a strong international community here at MIT, so no matter【 (12) 】you are from home, you can still feel【 (13) 】here.

What You Need To Do

To apply to MIT, you must take some standardized tests and complete our application.【 (14) 】capacity issues only a (H)limit number of interviews are available in some regions outside the US. If you live outside the US and your interview is initially waived, you will be (I)notify if an interviewer becomes available. Requesting an interview will not【 (15) 】that you will receive an interview. If it is not possible to provide an interview for you, we will not (J)held it against you.

(Adapted from MIT Admissions, http://mitadmissions.org/apply/international/howto)

(1)	あ. careful	い. familiar	う. serious	え. worried
(2)	あ. fortunate	い. kind	う. true	え. vivid
(3)	あ. what	い. wherever	う. which	え. who
(4)	あ. of	い. on	う. over	え. up
(5)	あ. bilingual	い. domestic	う. foreign	え. regional
(6)	あ. although	い. before	う. if	え. since
(7)	あ. at	い. on	う. to	え. until
(8)	あ. ahead	い. along	う. alongside	え. altogether
(9)	あ. few	い. little	う. most	え. very
(10)	あ. after	い. as soon as	う. because	え. so that
(11)	あ. All	い. Even	う. Over	え. Under
(12)	あ. how deep	い. how far	う. how long	え. how many
(13)	あ. at home	い. in mind	う. in time	え. on time

(14) あ. At present　い. Due to　う. In fact　え. In return
(15) あ. claim　い. declare　う. ensure　え. state

2 著作権等の都合で問題掲載を見合わせております。

3 （医（医）・応用生物科学（共同獣医）志願者のみ）

Read the following text and answer the questions below.

The purpose of this letter is to help orient you among your colleagues.

When I was a sixteen-year-old senior in high school, I decided the time had come to choose a group of animals on which to specialize when I entered college the coming fall. I thought about spear-winged flies of the taxonomic family Dolichopodidae, whose tiny bodies sparkle like animated gemstones in the sun. But I couldn't get the right equipment or literature to study them. So I turned to [1−1]. By sheer luck, it was the right choice.

Arriving at the University of Alabama at Tuscaloosa, with my well-prepared and identified beginner's collection of ants, I reported to the biology faculty to begin my freshman year of research. Perhaps charmed by my naïveté, or perhaps recognizing an embryonic academic when they saw one, or both, I was welcomed by the faculty and given a stage microscope and personal laboratory space. This support, on top of my earlier success as nature counselor at Camp Pushmataha, buoyed my confidence that I had the right subject and the right university.

My good fortune came from an entirely different source, however. It was choosing ants in the first place. These little six-legged warriors are the most abundant of all insects. As such, they play major roles in land environments around the world. Of equal importance for science, ants, along with termites and honeybees, have the most advanced social systems of all animals. Yet, surprisingly, at the time I entered college only about a dozen scientists around the world were engaged full-time in the study of ants. I had struck gold before the rush began. Almost every research project I began thereafter, no matter how unsophisticated (and all were unsophisticated), yielded discoveries publishable in scientific journals.

What does my story mean to you? (2)A great deal. I believe that other experienced scientists would agree with me that when you are selecting a domain of knowledge in which to conduct original research, it is wise to look for one that is sparsely inhabited. Judge opportunity by how few there are of other students and researchers in one field versus another. This is not to deny the essential requirement of broad training, or the value of apprenticing yourself to researchers and programs of high quality. Or that it also helps to make a lot of friends and colleagues of your age in science for mutual support.

[3], through it all, I advise you to look for a chance to break away, to find a subject you can make your own. That is where the quickest advances are likely to occur, as measured by discoveries per investigator per year. Therein you have the best chance to become a leader and, as time passes, to gain growing freedom to set your own course.

If a subject is already receiving a great deal of attention, has a glamorous aura, or its practitioners are prizewinners who receive large grants, then [4]. Listen to the news coming from the current hubbub, learn how and why the subject became prominent, but in making your own long-term plans be aware it is already crowded with talented people. You would be a newcomer, a private amid bemedaled first sergeants and generals. Take a subject instead that interests you and looks promising, and where established experts are not yet conspicuously competing with one [1−2], where few if any prizes and academy memberships have been given, and where the annals of research are not yet layered with superfluous data and mathematical models. You may feel lonely and insecure in your first endeavors, but, all other things being equal, your best chance to make your mark and to experience the thrill of discovery will be there.

You may have heard the military rule for the summoning of troops to a battlefield: "March to the sound of the guns." In science the opposite is the one for you, as expressed in the following principle:

March [1−3] from the sound of the guns. Observe the fray from a distance, and while you are at it, consider making your own fray.

Once you have settled upon a subject you can love, your potential to succeed will be greatly enhanced if you study it enough to become a world-class expert. This goal is not as difficult as it may seem, even for a graduate student. It is not overly ambitious. There are thousands of subjects in science, sprinkled through physics and chemistry, biology and the social sciences, where it is possible in a short time to attain the status of an authority. [5]. Society needs this level of expertise, and it rewards the kind of people willing to acquire it.

The already existing information, and what you yourself will discover, may at first be skimpy and difficult to connect to other bodies of knowledge. If this proves to be the case, that's very good. Why should the path to a scientific frontier usually be hard rather than easy? The answer is stated in the following principle:

In the search for scientific discoveries, every problem is an opportunity. The more difficult the problem, the greater the likely importance of its solution.

The truth of this guidebook dictum can be most clearly seen in extreme cases. The sequencing of the human genome, the search for life on Mars, and the finding of the Higgs boson were each of profound importance for medicine, biology, and physics, respectively. Each required the work of thousands, and cost billions. Each was worth all the trouble and expense. But on a far smaller scale, in fields and subjects less advanced, a small squad of researchers, even a single individual, [6].

This brings me to the ways in which scientific problems are found and discoveries made. Scientists, mathematicians among them, follow one of two pathways. [1−4], early in the research a problem is identified, and then a solution is sought. The problem may be relatively small (for example, what is the average life span of a Nile crocodile?) or large (what is the role of dark matter in the universe?). As an answer emerges, other phenomena are typically discovered, and other questions raised. The second strategy is to study a subject broadly, while searching for any previously unknown or even unimagined phenomena. These two strategies of original scientific research are stated as follows:

For every problem in a given discipline of science, there exists a species or other entity or phenomenon ideal for its solution. (*Example: a kind of mollusk, the sea hare Aplysia, proved ideal for exploring the cellular base of memory.*)

Conversely, for every species or other entity or phenomenon, there exist important problems for the solution of which it is ideally suited. (*Example: bats were logical for the discovery of sonar.*)

Obviously, both strategies can be followed, together or in sequence, but by and large scientists who use the first strategy are instinctive problem solvers. They are prone by taste and talent to select a particular kind of organism, or chemical compound, or elementary particle, or physical process, to answer questions about its properties and roles in nature. Such is the predominant research activity in the physical sciences and molecular biology.

The potential paths you can follow with a scientific career are vast in number. Your choice may take you into one of the scenarios I've described, or not. The subject for you, as in any true love, is one in which you are interested and that stirs passion and promises pleasure from a lifetime of devotion.

(Adapted from Edward O. Wilson, *Letters to a Young Scientist*, Liveright, 2013, pp.43–51.)

Question (1)**:**

Fill in each of the blanks [1−1], [1−2], [1−3] and [1−4] with the appropriate word which is used in the text.

Question (2)**:**

Which of the following reasons BEST explains why the author believes his story should mean (2) a great deal to the reader?

A. Because it gives recommendations on how to succeed as a scientific researcher.
B. Because it says medical doctors should be aware of recent scientific research in their fields.
C. Because it says research on ants is more important than research on flies.
D. Because it says that a high school education is important for a scientific career.
E. Because it stresses the importance of scientific research.

Question (3)**:**

Fill in the blank [3] with the appropriate word.

A. Although　B. Despite　C. Nonetheless　D. So　E. Then

Question (4)**:**

Choose the option that BEST fits the blank [4].

A. don't hesitate to participate in that subject　B. don't miss the chance to research that subject
C. keep looking at that subject　D. respect that subject
E. stay away from that subject

Question (5)**:**

Choose the sentence that BEST fits the blank [5].

A. Even if your rivals are doing better research than you, you must move forward with your research without envying them.
B. However, I do not recommend you choose a subject because the theme is overly ambitious.
C. If there are few scientists researching a subject, with diligence and hard work you can become a world authority even at a young age.
D. If you do a Nobel Prize-level study, people will be interested in your research and provide funding and research facilities.
E. Remember that it is not you but the head of the laboratory who selects your research from thousands of subjects in the scientific field.

Question (6)**:**

Choose the option that BEST fits the blank [6].

A. can maintain a satisfactory quality of life

B. can produce unverifiable research results
C. can produce meaningless results if rush the experiment
D. can reproduce the research of other scientists with major funding
E. can with effort devise an important experiment at relatively low cost

Question (7)**:**

Write T, F, or N for each of the following statements A − F**.**

T = the statement agrees with the text
F = the statement does not agree with the text
N = this information is not given in the text

A. The information ants transmit through pheromones is among the most complex and precise found in the animal kingdom.
B. Since there were few scientists who specialized in research on ants, the author made many discoveries about them even as a college student.
C. One approach scientists may adopt in carrying out their research is to identify problems early and explore how to solve them.
D. You should pick a research theme that interests you, promises good results, and initially has few experts.
E. To become an expert in your field, you had better apprentice to a famous researcher and enroll in a prestigious research program.
F. The author found that the insects of all kinds that scavenge for living find their way to dead animals or dung by homing in on the scent.