(岐阜大 2019)

Fill in the blanks (1) - (8) and complete the sentences. For each blank, you have four choices given below. Choose the best word and write A, B, C, or D.

The Red Kangaroo

The Red Kangaroo is an iconic Australian animal of the arid zone and (1) the largest living marsupial in the world.

The Red Kangaroo is a large kangaroo with a body (2)_of up to 1.4m and tail up to 1m. Males tend to be orange red in colouring (3) females are often blue grey. Both males and females are a lighter whitish colour underneath. Red Kangaroos can be distinguished (4) other species of kangaroos by the black and white patches on their cheeks and the broad white stripe that extends from the corner of the mouth to the ear. Male Red Kangaroos are (5) the body weight of females and can weigh up to 92kg while the females can weigh up to 39kg.

Red Kangaroos are (6), primarily grazing on grasses but also eating leaves of shrubs. The Red Kangaroo has the ability to survive when water is scarce. The herbage and foliage that the kangaroos eat provide them (7) their water needs as well as their nutritional requirements. In times of (8), Red Kangaroo populations can suffer as their food supplies diminish. The abundance of food is a determining factor in the Red Kangaroo life cycle.

(Adapted from Louise Carter, 'Red Kangaroo, *Macropus rufus*," *Australian Museum*, October 30, 2015, http://australianmuseum.net.au/red-kangaroo/)

1.	A. can	B. do	C. is	D. have
2.	A. temperature	B. colour	C. length	D. blood
3.	A. while	B. hereby	C. for	D. intentionally
4.	A. to	B. with	C. from	D. upon
5.	A. double	B. surprising	C. scale	D. increased
6.	A. habitable	B. habitats	C. herbicides	D. herbivores
7.	A. to	B. with	C. toward	D. over
8.	A. dream	B. drought	C. drain	D. depth

(岐阜大・医&共同獣医 2019)

Read the following text and answer the questions below. Disease and Global Population: The Plague and AIDS

In the mid-14th century, Europe, as well as much of Asia and Africa, was devastated by an outbreak of plague, which contemporaries called the Black Death. The disease actually took three forms: bubonic plague, pneumonic plague, and septicemic plague (all caused by the bacterium variously known as *Pasteurella pestis* or *Yersinia pestis*). It is estimated that at least 25 million and perhaps as many as 75 million of Europe's population of 100 million died between 1347 and 1351. As the plague raged, the social structure of Europe was destroyed. Contemporary accounts report that government and law enforcement, religious ceremonies, and medical practice disappeared in areas where the plague was worst. In an ecological sense, the plague can be viewed as a classic case of a "density-dependent mechanism" that served to limit the population. Six and a half centuries later, (44)<u>it</u> should serve as a warning to us as we continue to overcrowd our planet.

Medieval Europeans had no idea what caused the plague or how to control it. It is now known to be caused by a bacterium that can be carried by rodents, such as rats and squirrels, and is transmitted from rodents to people by fleas. For tens of thousands, or even millions, of years, populations of *Y. pestis* have been living in the guts of fleas that feed on rats and infect them with the plague. After the rat dies, the fleas seek another host, carrying with them the plague bacilli. Eventually, the plague-carrying flea also dies, but often not before it has infected other mammalian hosts and indirectly infected other fleas that feed on the same host.

Even today bubonic plague is not well understood, and isolated cases and small outbreaks continue to occur among people. We should remember that even with our advanced medical knowledge and technology, we could conceivably find ourselves facing an unknown or poorly understood, but rampant and devastating, disease. The current AIDS crisis is a roughly (45)<u>analogous situation</u>. According to the latest data from USAID, the governmental body that assists in the development of struggling nations, globally from 1980 through 2009, an estimated 60 million have been infected with HIV (the cause of AIDS), and over 25 million (46)<u>have succumbed to</u> the disease. At the current rate of infection over 7,000 new cases of HIV occur around the world each day, making AIDS the fourth leading cause of death. ▲(A) To date, more than 16 million children have lost one or both of their parents because of the epidemic. (47)<u>In modern times, disease</u> outbreaks cannot be isolated in the same way that they were in the time

<u>of the Black Death</u>. Increased globalization puts people all over the world in contact with one another. Certainly, the ability to transmit information, increased infrastructure, and so forth play a leading role that was not present during the time of the plague. \triangle (B) On the one hand, increased intercommunication can result in increased awareness, resource aid, and responses for disease outbreaks from people and institutions all over the world. On the other hand, it can make the disease all the more difficult to isolate and control. \triangle (C)

The United Nations has taken a leading role in combating AIDS, especially in African countries, where rates of infection can reach 30%; typically, epidemics curb themselves at that level. Africa still remains the (49)epicenter of the global crisis, according to an update released by the Joint U.N. Program on HIV/AIDS. This report confirmed that Africa accounts for almost 80% of the 3 million annual fatalities worldwide and more than 60% of the 5 million new infections. Many of these figures are exacerbated by lack of proper funding, inadequate access to health care, poor sanitary conditions in impoverished nations, overcrowding, increases in dangerous drug use, and unsafe sex practices in both heterosexual and homosexual individuals.

The U.N. Millennium goal is to halt and reverse the epidemic by 2015 through HIV prevention, care, treatment, and impact alleviation programs. ▲(D) The response from many leading countries has been very positive, and funding for AIDS programs in developing countries, especially from the United States, has increased dramatically — from U.S. \$2 billion in 2001 to an estimated U.S. \$8 billion in 2008. However, resources still fall short of what is needed to effectively turn back the epidemic. Despite encouraging signs, the report also outlines serious challenges that need urgent attention to achieve the intended goal of reversing the epidemic. Access to HIV treatment and prevention service remains low. In 2009, there was an estimated \$7.7 billion gap between monetary support needed and monetary support received to address worldwide AIDS services. Globally, only one in five persons has access to prevention services, and in 2003 targeted prevention services reached only 16% of sex workers, 11% of men who have sex with men, 20% of street children, and less than 5% of the world's 13 million injecting drug users. Although 2010 estimates vary, worldwide over 6.5 million people are in need of HIV treatment and are not getting it for a variety of reasons including governmental barriers, access to clinics, and education about treatment. On a more positive note, progress has been made on several fronts since 2001. Worldwide, the number of people receiving counseling and testing services doubled in the 4-year period of 2001-2005. In 2009, the

number of women accessing services to prevent mother-to-child HIV transmission in middle to low income countries was up to 53%. Internationally, education programs targeted at youth continue to increase. In 2010, the Secretary General noted that the use of antiviral treatments increased 10-fold within the years of 2005 to 2008 in several areas, but cautioned that at the current funding level it will most likely not be possible to halt the spread of AIDS by 2015 as previously predicted by international organizations. While there are many promising areas of improvement in the treatment of AIDS, many challenges remain.

AIDS (50)<u>takes a toll in</u> human lives but also has a devastating effect on local economies and social structures. AIDS reduces the number of healthy workers in their prime and increases the number of dependent people, including the sick, the young, and the old. Scarce resources are diverted to caring for AIDS victims, and as AIDS continues to spread, the productivity of the workforce continues to decrease. Children in particular are being hit hard; teachers are being lost to AIDS, and many children must leave school to help support the family after a parent contracts AIDS. The full effect of the AIDS epidemic will not be seen for another generation or more.

(Adapted from McKinney, M., et al., *Environmental Science: Systems and Solutions*, 5th Edition, Burlington, MA: Jones & Bartlett Learning, 2013, pp. 58-60)

Question 43:

Look at the four triangles \blacktriangle () in the text, and choose the BEST place to add the following sentence by writing the correct letter (A, B, C or D).

This can be both a positive and negative thing.

Ouestion 44:

In Paragraph 1, what does (44)<u>it</u> refer to?

A. plague B. population C. warning D. mechanism

Question 45:

In Paragraph 3, what does the phrase (45) analogous situation refer to?

A. a strange situation
C. a familiar situation
D. a comparable situation

Question 46:

In Paragraph 3, the phrase (46)<u>have succumbed to</u> is closest in meaning to which of the following?

A. have given up

C. have carried on

B. have died from

D. have spread to

Question 47:

Which of the following statements (A - D) supports sentence 47?

(47)<u>In modern times, disease outbreaks cannot be isolated in the same</u> way that they were in the time of the Black Death.

- A. The movement of people around the world has helped spread infectious diseases more easily now than in the past.
- B. The healthcare system did not always work well in the 14th century.
- C. It was harder to identify the point of origin of disease outbreaks in the 14th century than it is today.
- D. It was more difficult to trace the standard route of disease outbreaks in the past than it is today.

Ouestion 48:

It can be inferred from the information in Paragraph 3 that

- A. modern medical science today has unraveled the mystery of bubonic plague.
- B. parallels can be drawn between the plague in the 14th century and modern HIV/AIDS.
- C. human beings have comprehensively won the battle against global epidemics.
- D. our understanding of global epidemics remains the same as that of 14th-century Europe.

Question 49:

In Paragraph 4, the word (49) epicenter is closest in meaning to

A. category B. community C. core D. country

Question 50:

In Paragraph 6, the phrase (50)<u>takes a toll in</u> is closest in meaning to

A. preserves B. restores C. ruins D. prolongs

Question 51:

One fact about Yersinia pestis is that it

- A. can only be transmitted from person to person.
- B. dies immediately after infecting its host.
- C. was known to Europeans in the 14th century.
- D. survives in the guts of fleas after their host dies.

Question 52:

Which of the following is NOT mentioned or CANNOT be inferred about the Black Death?

- A. The name "Black Death" was used by medieval Europeans.
- B. A treatment from the Black Death era is still popular today.
- C. It still exists in the modern world.
- D. At the time of the Black Death, the population was prone to the spread of the disease.

Question 53:

According to the U.N. report, how many factors were cited as reasons for Africa's worsening incidences of new AIDS infections?

A. 2

B. 3

C. 4

D. 6

Ouestion 54:

All of the following statements about AID /HIV are true except

- A. AIDS refers to the illness and its set of symptoms.
- B. HIV is a virus that attacks humans.
- C. HIV is caused by AIDS.
- D. AIDS can be referred to as HIV infection.

Question 55

What does the author imply about the Black Death in Europe?

- A. The Black Death affected mainly an isolated European population.
- B. The grim sequence of events that struck 14th-century Europe was terrifying but kept under control.
- C. Although the Black Death could be found almost everywhere in Europe, it struck primarily rural farming villages.
- D. In 14th-century Europe, there seemed to be no scientific explanation for the plague.

Ouestion 56

Outline the sequence of cause and effect showing how HIV/AIDS death tolls affect local economies, based on the information given in the last paragraph of the text. Write the letters (A, B, C or D) in the correct order.

A. reduction of labor

B. poor health care system

C. inadequate care for HIV-infected D. lower economic productivity persons

Questions 57 - 62

Complete the following sentences by filling the blanks with the most appropriate word from the list below. Write the correct letter (A - L). **57.** Bubonic plague was spread by _____ and fleas. **58.** The plague was an infectious disease that recurred as resulting in the death of millions across the European continent from 1347 to 1351. **59.** Antiviral treatments are used in the prevention of transmission of HIV/AIDS. **60.** A conclusion that can be made regarding the global response to the AIDS epidemic is that as long as the current gap remains, it will be difficult to reverse the growing trend. 61. Globally, only _____ % of the world's population has access to prevention services. **62.** Populations of living things are reduced by _____ factors such as disease. A. 11 B. 16 C. 20 D. density-dependent H. outbreaks E. funding F. healthy G. mother-to-child I. outlines J. plague-carrying K. role L. rodents

Questions 63 - 67

The following are frequently asked questions about AIDS and responses to them. Match the following responses (63 - 67) with the appropriate questions (A - G). Two questions will NOT be used. Write the correct letter (A - G).

Frequently Asked Questions about AIDS

- A. How do you cure AIDS?
- B. How do you get HIV?
- C. How do you prevent an HIV infection?
- D. How many people are infected?
- E. What are AIDS and HIV?
- F. What do test results mean?
- G. What does AIDS/HIV do?

(Adapted from onestopenglish.com, "Seven Questions about AIDS,' http://www.onestopenglish.com/grammar/pdf-content/vocabulary-

metaphors/metaphors-aids-work sheet-and-teachers-notes/147516. article)

- **63.** Acquired Immunodeficiency Syndrome(AIDS) is a set of symptoms that show that a person has become infected by a virus that attacks and damages the body's immune system. AIDS is caused by HIV (the human immunodeficiency virus).
- **64.** You can only become infected if your blood comes into contact with the HIV virus. Blood, semen, vaginal secretions and breast milk can all carry the virus. The three most common ways people become infected are:
 - 1. Having unprotected sex with an infected person;

- 2. Injecting drugs with a needle that's been used by an infected person;
- 3. Being born to a mother who is already infected.

You can also get HIV through receiving infected blood (in a blood transfusion for example).

- **65.** A person who is HIV-positive is under siege. HIV batters the body's defenses until diseases which the immune system normally fights off become major threats. These diseases are called "opportunistic diseases" and include pneumonia, meningitis, tuberculosis, and bacterial infections. So, in fact, a person doesn't die of AIDS, they die of one of those other diseases that they have no protection against.
- **66.** At the moment, there is no magic bullet that can treat AIDS. Doctors are unable to wipe out the infection once it has started. However, there are drugs now available which can stop the progress of HIV and allow people with AIDS to live normal lives.
- **67.** Don't have unprotected sex (sex without a condom). If you use drugs, don't share needles. It is possible to win the war against the HIV epidemic, but everyone needs to have good information about preventing infection, along with support from society to help them act on this information.

(横浜国立大 2015)

Read the passage below and answer the questions that follow.

As NASA focuses considerable effort on a mission to send humans to Mars in the coming decades, psychology researchers are looking at what types of personalities would work the best together on such a long trip.

Now, a new study finds that on long-term space missions — such as missions to Mars, which could take as long as three years to complete a round trip — having an extrovert on board could have several disadvantages.

For example, extroverts tend to be talkative, but their gregarious*¹ nature may make them seem intrusive*² or demanding of attention in confined and isolated environments over the long term, the researchers say. "You're talking about a very tiny vehicle, where people are in very isolated, very confined spaces," said study researcher Suzanne Bell, an associate professor of psychology at DePaul University in Chicago. "Extroverts have a little bit of a tough time in that situation."

"If one person on a crew always wants to talk, while the other members are less social, it could actually get pretty annoying*3 in that environment," Bell said. The researchers concluded that extroverts could potentially be a liability*4 on these missions.

Extroverts and teams

(A)NASA is interested in a number of issues related to planning long-term space missions, including how to put together the most compatible teams for the missions. In the new study, which is funded by NASA, (B)Bell and her colleagues reviewed previous research on teams who lived in environments similar to those of a long-term space mission, including simulated spacecraft missions of more than 100 days, as well as missions in Antarctica.

Typically, extroverts — who tend to be sociable, outgoing, energetic and assertive — are good to have on work teams because they speak up and engage in conversations about what needs to be done, which is good planning. And because of their social interactions, extroverts tend to have a good understanding of who knows what on a team (such as who the experts in a certain field are), which helps foster*5 coordination. But the researchers found several potential drawbacks to having extroverts on teams in isolated, confined environments.

In one study of a spacecraft simulation, an extroverted team member was ostracized*6 by two other members who were more reserved. "They thought

he was too brash*⁷, and would speak his mind too much, and talk too much," Bell said.

(C) Moreover, extroverts may have a hard time adjusting to environments where there's little opportunity for new activities or social interactions, the researchers said.

"People who are extroverted might have a hard time coping because they want to be doing a lot; they want to be engaged in a lot of things," said study researcher Shanique Brown. "And on these missions, there won't be that much to do — things become (D) after a while, and you're seeing the same people."

"The new findings don't mean that extroverts can't go to Mars. More specific studies are needed to look at how extroverts fare on these teams, and whether certain kinds of training could help prevent problems," Bell said.

Such studies could be conducted in space-simulation environments, or on the International Space Station.

Bell noted that a team of all introverts is likely not the solution. "The question is, where's the balance, and once we find the balance, what can we do through training to promote team compatibility?"

(Adapted from "Why Extroverts Could Cause Problems on a Mission to Mars," by Rachael Rettner. http://www.livescience.com/46295-extroverts-long-term-space-missions.html)

*1 gregarious: social and expressive *2 intrusive: pushy and unpleasant *3 annoying: very unpleasant

*4 liability: a person whose presence causes disadvantage to others

*5 foster: develop *6 ostracize: exclude

*7 brash: loud and aggressive

Questions

- 1. Explain the content of underlined part (A). Answer in Japanese.
- 2. Explain the content of underlined part (B). Answer in Japanese.
- 3. Explain the content of underlined part (C). Answer in Japanese.
- 4. Choose the most suitable word for blank (D) from the list below.

interesting boring important constant

(横浜国立大 2015)

Read the passage on research articles below and answer the questions that follow

Who Reads These Sigh-entific Articles?

Journal articles are infamously dull and incomprehensible. For whatever reason, there seems to be a tension between writing engagingly*1 and writing sophisticatedly. Perhaps authors lack motivation or are poorly trained in composition. Or, perhaps the demands of scientific precision make it difficult to write in an accessible and lively manner.

Reading social science can generate lots of sighs — expressions of boredom and frustration. (A) The more scientific an article is, the more sighentific it tends to become. Tediousness*2 increases as authors try to be more detailed with their definitions, thorough with their literature reviews, precise with their measurements, descriptive of their sampling processes and outcomes, and technically advanced with their analyses.

Scholarly articles consist of dense prose*3 that must be read slowly with intense concentration in order to be fully understood. This indicates the expertise*4 and thought that scholars put into their work — a positive thing. On the other hand, the sigh-entific nature of articles ensures that they will have a limited audience and impact.

Articles can be seen as technical reports written by researchers for researchers. Scholars engage in high-level conversations with themselves — a relatively tiny audience compared to the readership of, say, a routine news story appearing on CNN.com. And, given the proliferation*⁵ of disciplinary and interdisciplinary*⁶ journals and the thousands of potentially relevant articles that are published every year, a journal article may be read by only a small fraction*⁷ of the (already small) group of researchers who might be interested in it, if they only had the time to read more widely.

Admittedly, there are exceptions. Some articles are read and cited by hundreds of researchers. Some are summarized in textbooks that are read by thousands of students. Occasionally, articles do make an impact on policy makers or practitioners. And, there is a small but growing number of academics who are pursuing (B) a more public approach to research — one that addresses wider audiences and makes a greater effort to bring about social change. Nevertheless, it seems safe to say that the majority of articles are written for a small audience of likeminded experts, and they reach only

a fraction of that intended audience. Thus, their impact is, arguably, very minimal.

(Adapted from *How to Critique Journal Articles in the Social Sciences* by Scott R. Harris)

*1 engaging: interesting in a way that attracts your attention

*2 tedious: too long, slow, or dull *³ prose: ordinary written language

*4 expertise: special knowledge or high level skills

*5 proliferation: a sudden increase in number
*6 interdisciplinary: involving two or more different subjects or areas of study

*7 fraction: a small part of something

Questions

- 1. Explain the content of underlined part (A). Answer in Japanese.
- 2. Explain the content of underlined part (B). Answer in Japanese.

(岐阜大・医&共同獣医 2018)

For questions (1)-(15), choose the most appropriate word or phrase from the options $\mathcal{T}, 1, \mathcal{D}$, or \mathcal{I} 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 I though the international application process is very pay. (11)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) \mathcal{P} . careful

1. familiar

ウ. serious

工. worried

(3) \mathcal{P} . what

1. wherever

ウ. which

工. who

(5) \mathcal{P} . bilingual

1. domestic

ウ. foreign

工. regional

(2) \mathcal{T} . fortunate

1. kind

ウ. true

工. vivid

(4) \mathcal{P} . of

1. on

ウ. over

工. up

(6) \mathcal{T} . although

1. before

ウ. if

工. since

- (7) \mathcal{P} . at
 - 1. on
 - ウ. to
 - 工. until
- (9) \mathcal{T} . few
 - 1. little
 - ウ. most
 - 工. very
- (11) r. All
 - 1. Even
 - ウ. Over
 - 工. Under
- (13) \mathcal{P} . at home
 - 1. in mind
 - ウ. in time
 - 工. on time
- (15) *P.* claim
 - 1. declare
 - ウ. ensure
 - 工. state

- (8) \mathcal{T} . ahead
 - 1. along
 - ウ. alongside
 - 工. altogether
- (10) \mathcal{T} . after
 - 1. as soon as
 - ウ. because
 - 工. so that
- (12) \mathcal{P} . how deep
 - 1. how far
 - ウ. how long
 - エ. how many
- (14) \mathcal{P} . At present
 - 1. Due to
 - ウ. In fact
 - 工. In return

(岐阜大・医&共同獣医 2018)

Read the following text and answer the questions below.

- Russ Juskalian, 30, is a journalist based in Munich who has reported from Southeast Asia, Finnish Lapland and from the Himalayan foothills. As you would expect, he writes articles related to his travels. But, unlike most journalists, he also sells his photos, giving him a second career as a photographer. If that were not enough, in his spare time, he teaches classes in science writing, international freelancing and travel writing through an online program offered by the University of Massachusetts. His schedule varies dramatically from week to week and month to month because he has so many competing things going on. He tends to (1)compartmentalize his time, so that he has a series of tasks that he must get done before moving on to the next ones. So-called "slashers," like reporter / photographer / teacher Juskalian, are part of an (2)emerging trend known as the "portfolio career." If you are the right personality type, it can be an incredibly rewarding and profitable career move.
- 2 Slashers are individuals who have created a portfolio career involving multiple identities. Their income comes from part-time employment, temporary work, freelance assignments or a personal business — or they work a full-time job, while pursuing other profitable interests. Barrie Hopson, co-author of 10 Steps to Creating a Portfolio Career, says that this type of career offers a much more fulfilling work-life blend, not to mention a safety net of several jobs, so if you lose one or choose to quit a job, you will still have other sources of income. During the heart of the 2008 recession, people took on portfolio careers out of necessity. Now that the job market is improving, why is the slasher lifestyle becoming even more common? The reason is because increasingly people are finding that they do not want to do the same thing day in and day out. The traditional, single-track career pattern of the last century is now (3) obsolete; workers on that career path will almost certainly have to change places of employment, and might even have to retrain into new professions. According to Hopson, only one of the 46 portfolio careerists that he studied has returned to a single-track career in the past two years. All of the participants claimed that they were happier as slashers, which is not a surprise since most of them earned more within two years of switching to a portfolio career than they ever did as a full-time employee.
- 3 To determine if a portfolio career is right for you, think back to your high school days. If you took part in one or more activities, such as theater, music, art, or sports, and if you were eager to try a lot of new things, then you will

most likely (4)<u>crave</u> variety now. Another question to consider: if you won the lottery tomorrow, and money was no object, what would you do with your life? If your brain excitedly goes in 50 different directions in answer to that question, chances are that you have portfolio career potential. If you think that you might be made of the right stuff, consider some more questions before jumping into a portfolio career:

- Do flexibility and creativity appeal to you?
- Are you organized?
- Are you open to new opportunities?

If you answer "yes" to most of these questions, this path could be the one for you.

4 There are several tips to make this latest career trend work for you. First of all, you should foresee and handle any clashes of interest. This advice applies to both conflicts within a specific day job and at the career level. For instance, if you stay at your full-time job, but you need more time to dedicate to other interests, have an honest conversation with your employer to come up with the best solution. Additionally, make sure that your other interests will not negatively impact your overall career. The good and bad news here is that you have the power to create whatever custom-designed career you want. But it does take effort and an honest assessment of what you really want in life. It is also important that you have at least one consistent line of work. It's always smart to have one or two steady jobs, so that [Many portfolio careerists take the anchor-orbiter approach, meaning one job requires a physical presence at a certain location during a certain time (i.e. an office job), while the other jobs (i.e. freelance work) are scheduled around the job requiring a physical presence. Starting a rainy day fund is another essential preparation for this career. Put six months' to two years' worth of savings in your bank account to support your cost of living ... just in case. For full-time freelancers, the recommendation is at least a year's worth of savings. If you would like to create your own business, you should launch it while still working your day job. Whether you decide to quit or not, saving is an absolute must — especially if you have a family. A person with

 \vec{j} has different (and greater) risks to consider than a recent college graduate.

6 Anyone who has ever been fired or laid off understands the importance of developing multiple careers and not putting all their career eggs in one basket (figuratively speaking). By juggling multiple careers, one can have flexibility and adaptability, which are two key skills every employee in this post-economic downturn needs to have to succeed in the future. Plus, if you

do choose to return to a traditional work environment, your extensive repertoire and transferable skills from your portfolio career might (5)give you a leg up against other applicants. Juskalian definitely (6)seconds the flexibility and adaptability thoughts, not only because his income is irregular, but because his work flow is, too. Depending on what's going on in his personal life, Juskalian's schedule can swing between periods centered around friends and family, and periods of almost no personal time. He finds his lifestyle very fulfilling but at the same time, he believes that it takes a certain mentality — and a lot of energy — to juggle his career.

(Adapted from "Portfolio Careers: Is the Latest Work Trend Right for You?" *Forbes*, Feb 27, 2013, https://www.forbes.com/sites/learnvest/2013/02/27/portfolio-careers-is-the-latest-work-trend-right-for-you)

Question (1):

Which of the following phrases BEST fits the meaning of the words (1)-(6)? Answer this question using \mathcal{T} to \mathcal{I} . There are two extra choices which you do not need to use.

- 7. hoping for something good or exciting
- 1. in an early stage of development
- ウ. making you feel happy and satisfied
- エ. no longer used
- オ. to divide something into separate areas or group
- カ. to give you an advantage over others
- ‡. to have a very strong desire for something
- 7. to support a suggestion made by another person

Question (2):

Which of the following four choices BEST shows the main ideas of Paragraphs ②~⑤? Answer this question using ア to オ. There is one extra choice which you do not need to use.

- 7. How portfolio careers became so popular.
- 1. Is this the right career path for you?
- ウ. Personal growth and fulfilment with portfolio careers
- 工. Portfolio careers are superior to full-time employment.
- オ. Things to consider before launching a portfolio career

Question (3):

Which of the following questions BEST fits the blank [b]? Answer this question using \mathcal{P} to \mathcal{T} .

T. Are you afraid to take risks?

- 1. Are you a recent college graduate?
- ウ. Are you stressed under pressure?
- 工. Do you manage your time well?
- オ. Do you worry much about your future?

Question (4):

Which of the following phrases BEST fits the blank $[\ \ \ \ \]$? Answer this question using $\mathcal F$ to $\mathcal T$.

- T. it builds your career
- 1. it can be an appealing choice
- ウ. one job title doesn't quite cover it
- 工. you focus on the sectors that really matter to you
- オ. you have a base level of income

Question (5):

Which of the following phrases BEST fits the blank $[\dot{j}]$? Answer this question using \mathcal{T} to $\dot{\tau}$.

- 7. cooking, cleaning, washing and supporting families
- 1. high unemployment and a growing number of startups
- ウ. kings and queens of the new workforce
- 工. only one full-time employment
- オ. three kids, a mortgage and a lot of bills

Question (6):

Find one word in the text that means the same as <u>the double underlined</u> word.

Question (7):

Complete the following paragraph about the right personality for portfolio careers, using the words in the box below. There are two extra words which you do not need to use.

You can generally see that people who thrive on portfolio careers are self-starters. They (a) their lives very well, believe they are largely in control of their own destiny, and do not like to be bossed about. Furthermore, they are independent, high energy, prepared to market themselves, and enjoy interacting with people. They are not (b) to take risks, cope well with (c), and feel positive about themselves. They love to learn and are not driven purely by (d). They can multitask, live with ambiguity and often blend their (e). The reason that perfectionists have problems with this

career pattern is that there simply is not the time to always get everything (f).

difficult / frightened / make / money / organize / right / stress and pressure / work and free time

Question (8):

Write T, F, N for each of the following statements 1) to 5).

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

- 1) A portfolio career may be an appealing choice for people during bad economic times.
- 2) According to Hopson, the one person who returned to full-time employment was unhappy as a slasher.
- 3) If you want to stay on the single-track career path, you won't move between companies in this modern society.
- 4) Juskalian has no free time on his schedule this year.
- 5) The term "Portfolio career" is often used to describe multi-employment.

(岐阜大·医&共同獣医 2018)

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 naiveté, 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. Even if your rivals are doing better research than you, you must move forward with your research without envying them.

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 the 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, 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 clung by homing in on the scent.

(東京大 1989)

次の英文の下線部を和訳せよ。

Some people are so changed by their life's experience that in old age they behave in completely unexpected ways. Many of us know elderly men and women who no longer act as we have come to expect them to act. I am not talking here about victims of senile dementia*. In the examples I am talking of the person continues to behave in what most people would agree is a normal manner, but one so remote from his old self that he appears, to those who know him, to be someone else entirely.

*(注) senile dementia: 老年性痴呆

(東京大 1990)

次の英文の下線部を和訳せよ。

Emotions are everywhere the same; but the artistic expression of them varies from age to age and from one country to another. We are brought up to accept the conventions current in the society into which we are born. This sort of art, we learn in childhood, is meant to excite laughter, that to provoke our tears. Such conventions vary with great rapidity, even in the same country.

(東京大 2005)

次の英文の下線部(1),(2),(3)を和訳せよ。

The Scientific Revolution is the term traditionally used to describe the great intellectual triumphs of sixteenth- and seventeenth-century European astronomy and physical science. By around 1700 educated men conceived of the universe as a mechanical structure like a clock, and the earth was regarded as a planet moving round the sun. The intellectual transformation associated with the Scientific Revolution led to a new confidence in the value of the investigation of nature and its control, a development which is fundamental to an understanding of the importance of science in modern society.

The seventeenth century was also characterized by a new optimism about the potential for human advancement through technological improvement and an understanding of the natural world. (1) Hopes were expressed that the understanding and control of nature would improve techniques in industry and agriculture. There was, however, a large gap between intention and achievement in the application of scientific knowledge. While claims for the practical usefulness of natural knowledge and its future significance for technological improvement were common, the cultivation of science had little effect on the relationship between man and his environment. Nevertheless, the cultural values associated with the pursuit of natural knowledge were a significant characteristic of seventeenth-century society. Science expressed the values of technological progress, intellectual understanding and the celebration of God's wisdom in creating the world. (2) The hostile and mysterious environment of the natural world would, people believed, yield its secrets to human investigation. The belief in the human capacity to dominate nature was justified by the argument that the study of God's book of nature went hand in hand with the study of the Bible, the book of God's word.

These important shifts in cultural outlook dramatically transformed the conception of the universe and of man's place in nature. (3) The belief that the universe is a machine and that it might contain other worlds like the earth threatened traditional assumptions about the uniqueness of man, leading to a denial of the doctrine that the universe had been created for the benefit of man.