

24 (英検 2 級 2016 年度第 1 回 改)

The Handwriting Debate

The development of computers (F)has had a huge effect on society. As a result, many schools around the world have introduced computer classes, and some (G)encourage students to use computers in other classes, too. This not only (H)allows students to take notes and complete assignments more quickly but also helps them gain the skills they need for jobs they will do in the future. However, the new focus on computer skills means that many schools in developed countries are (I)spending much less time teaching students (J)how to write by hand.

Surveys show that many parents (K)are concerned about the fact that their children (I)spend so little time developing good handwriting skills. (L)In the past, learning good handwriting was considered a necessary part of a good education, and these parents feel children are losing an important skill. However, some education experts say such parents are too focused on the past. The world has changed, they say, and typing is now more important than writing by hand.

On the other hand, recent research has shown that writing by hand may help people learn more quickly. Karin James, a psychologist at Indiana University in the United States, studied the brains of children when they were writing (M)letters by hand and when they were typing. She found that children who wrote letters by hand used an additional three parts of the brain that children who were typing did not. Virginia Berninger, a psychologist at the University of Washington, also found that the brain was more active when writing by hand than when using a keyboard. (N)Even more importantly, she found that when children wrote by hand, they used (O)a wider range of vocabulary and expressed more complex ideas.

Handwriting is also important because it increases the hand's strength and flexibility. In particular, it strengthens the small muscles in the hand and (H)allows people to make very accurate, small movements. This can be very important in certain jobs, such as for doctors who perform operations. All this research suggests that schools should think again before focusing entirely on (P)having children use computer keyboards to write.

(A) Why do some schools encourage students to use computers?

- 1 It takes students less time to learn how to type than it does to learn how to write.
- 2 It allows teachers to spend less time working with students in their classes.
- 3 It helps students perform tasks in class faster and prepares them for future jobs.
- 4 It helps students learn by connecting them with other students around the world.

(B) Many parents are worried about their children because they

- 1 believe that their children are not learning an important skill.
- 2 think that the world is changing and their children need computer skills.
- 3 are not able to teach their children how to use computers at home.
- 4 feel that spending so much time studying will harm their children's eyes.

(C) Karin James found that

- 1 a combination of writing and typing is the best way to help children learn.
- 2 the brain has a hard time handling information when a person is writing.
- 3 children who are typing use fewer parts of the brain than children who are writing by hand.
- 4 most people prefer to write letters to their children by computer rather than by hand.

(D) How can learning handwriting help doctors?

- 1 It encourages them to focus more on their patients when performing operations.
- 2 It gives them stronger muscles which help them carry heavy medical equipment.
- 3 It helps them do their job better by allowing them to see small movements more easily.
- 4 It improves their ability to move their hands accurately while performing surgeries.

(E) Which of the following statements is true?

- 1 Typing helps students come up with more ideas and organize them better.
- 2 Children use a larger variety of words when writing by hand.
- 3 Good handwriting has recently become an important skill.
- 4 Teachers spend a lot of time preparing for classes that teach typing.

(F) 下線部(F)について、以下の例文の和訳を完成させよ。

英語	日本語
have a + [形容詞] + effect impact on O	Oに[形容詞]な影響を与える
<p>(例文) I assumed that Ryo's getting into Tokyo University would <u>have an adverse effect on</u> his sister's academic performance. That, however, turned out to be beside the point.</p> <p>(例文) The tornado <u>had an enormous economic impact on</u> the region.</p>	

(G) 下線部(G)について、以下の例文の和訳を完成させよ。

英語	日本語
encourage + <input type="text"/> + to 不定詞	<input type="text"/> に～するよう促す
(例文) His death has <u>encouraged</u> me <u>to</u> steadily pursue my ends.	
discourage + <input type="text"/> + from 動名詞	<input type="text"/> が～するのを思いとどまらせる
(例文) To my surprise, the doctor <u>discouraged</u> him <u>from</u> driving a car.	

(H) 下線部(H)について、以下の例文の英訳を完成させよ。

英語	日本語
allow + O + to 不定詞	O が～することを許可する
(例文) 荒れ模様の天気のおかげで、我々の誰も富士山に登れなかった。(The stormy weather で始めて)	
(例文) 彼にはプライドがあるので、そのお金を受け取らないだろう。(His pride で始めて) (灘高 2015)	

(I) 下線部(I)について、以下の例文の和訳を完成させよ。

英語	日本語
spend + A(金) + on + B(物)	A(金)を B(物)に使う
(例文) It's not clear whether vegetarians <u>spend</u> less <u>on</u> food.	
spend + O(時間) + 動名詞	O(時間)を～することに使う
(例文) I <u>spent</u> somewhere between 6-8 hours a day <u>studying</u> English, so (that) I'm second to none in it. ※second to none 「誰[何]にも劣らない」	

(J) 下線部(J)について、以下の例文の英訳を完成させよ。

疑問詞+to 不定詞 = [名詞句]	
英語	日本語
what+to 不定詞	何を～すべきか
what+ <u>名詞</u> +to 不定詞	どの <u>名詞</u> を～すべきか
(例文) 私は暇なときに何をすべきかわからない。(×2)	
(例文) 私は彼女にどの果物を買うべきかわからない。(×2)	
which+to 不定詞	どちらを～すべきか
which+ <u>名詞</u> +to 不定詞	どちらの <u>名詞</u> を～すべきか
(例文) 私はどちらを買うべきか決められない。(×2)	
(例文) 私はどちらの眼鏡を買うべきか決められない。(×2)	
who+to 不定詞	誰を～すべきか
(例文) 私は自分の妻に誰を選ぶべきか決められない。(×2)	
how+to 不定詞	どのように～すべきか
(例文) フライドポテト(=chips)の作り方を僕に教えてよ。(×2)	
when+to 不定詞	いつ～すべきか
(例文) いつ事業を始めるべきか私に教えてください。(×2)	

where+to 不定詞	どこで～すべきか
(例文) 最も大切なことは、どこで彼女と夕食をとるべきかだ。(×2)	
whether (or not)+to 不定詞	～すべきかどうか
(例文) 彼を罰すべきかどうかについて議論しましょう。(×2)	

(K) 下線部(K)について、以下の例文の英訳を完成させよ。

英語	日本語			
be <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>concerned</td></tr> <tr><td>worried</td></tr> <tr><td>anxious</td></tr> </table> about O	concerned	worried	anxious	O について心配している
concerned				
worried				
anxious				
(例文) 彼の怪我が気がかりだ。(concerned を用いて)				
(例文) イクムはいつも将来のことを心配している。(worried を用いて)				
(例文) 彼女の気分の変化が気がかりだ。(anxious を用いて)				

(L) 下線部(L)について以下の例文の英訳を完成させよ。

英語	説明
S+Vi(=自動詞)+Prep(=前置詞)+O SVO SVOO SVOC	能動態の文を受動態の文に変える際に、能動態の文のOが受動態の文のSの位置に来る。また能動態の文のSが受動態の文の動作主(= by A)の位置に来る。
(例文) 私は彼を見た。(能動態) 彼は私に見られた。(受動態)	

(例文) たくさんの人たちがラジオを聴く。(能動態)
ラジオはたくさんの人たちに聴かれる。(受動態)

(例文) マイクはこれら4冊の本を楽しんだ。(能動態)
これら4冊の本はマイクに楽しられましたか。(受動態)

(例文) 彼女はその理由を彼に伝えるだろう。(能動態)
彼はその理由を彼女によって伝えられるだろう。(受動態)
その理由は彼女によって彼に伝えられだろう。(受動態)

(例文) 私は彼にプレゼントを買った。(能動態)
プレゼントは私によって彼に買われた。(受動態)

(例文) 彼は私を激怒させた。(能動態)
私は彼によって激怒させられた。(受動態)

(例文) ドアは開けっ放しにされた。(受動態)

(例文) その男性は無罪だとみなされている。(受動態)

(M) 下線部(M)について、以下の例文の英訳と和訳を完成させよ。

英語	日本語
letter	手紙 文字
(例文) 彼は私に手紙を書いてくれたが、まだ返信していない。	
(例文) Sentences always start with capital <u>letters</u> .	

(N) 下線部(N)について、以下の例文の英訳と和訳を完成させよ。

比較の優劣の差の表し方									
英語	日本語								
優劣の差を漠然と示す場合									
<table border="0"> <tr> <td style="border: 1px solid black; padding: 2px;">much</td> <td rowspan="4" style="padding: 0 10px;">+ 比較級</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">far</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">a lot</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">even</td> </tr> </table>	much	+ 比較級	far	a lot	even	<table border="0"> <tr> <td style="border: 1px solid black; padding: 2px;">ずっと</td> <td rowspan="2" style="padding: 0 10px;">~</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">はるかに</td> </tr> </table>	ずっと	~	はるかに
much	+ 比較級								
far									
a lot									
even									
ずっと	~								
はるかに									
(例文) 七夏は兄よりもずっと社交的だ。(much を用いて)									
(例文) I'm <u>a lot</u> richer than my sister.									
(例文) ケンは兄よりもずっと背が高い。(far を用いて)									
(例文) I can make good students <u>even</u> better.									
<table border="0"> <tr> <td style="border: 1px solid black; padding: 2px;">a little</td> <td rowspan="2" style="padding: 0 10px;">+ 比較級</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">slightly</td> </tr> </table>	a little	+ 比較級	slightly	わずかに~					
a little	+ 比較級								
slightly									
(例文) 菜々美は理紗よりわずかに若い。(a little を用いて)									
(例文) 張本は水谷よりわずかに卓球がうまい。(slightly を用いて)									

優劣の差を具体的に示す場合	
具体的な数字 + 比較級	数字分～
(例文) ケンは兄よりも 20cm 背が高い。	
(例文) 冬休みは夏休みより約 20 日間短い。	

(O) 下線部(O)について、以下の例文の和訳を完成させよ。

英語	日本語
[a wide range of O] [a broad range of O]	広範囲な O
(例文) The advantage of studying at an international school is that it has children from <u>a wide range of</u> cultural backgrounds.	
(例文) You must study hard now to have <u>a broad range of</u> career opportunities.	

(P) 下線部(P)について、以下の例文の英訳を完成させよ。

使役動詞+O+原形不定詞	
英語	日本語
make+O+原形不定詞	Oに～させる
have+O+原形不定詞	Oに～してもらう、Oに～させる
let+O+原形不定詞	Oに～させてあげる
(例文) なんで彼女は泣いたの？(What で始めて)	
(例文) 私は姉に最寄り駅で拾ってもらった。(I で始めて)	
(例文) どんなことでも質問があれば教えてください。(Please で始めて)	

(Q) 全訳せよ。

25 (2015年度センター試験 改)

Catching Bees and Counting Fish: How "Citizen Science" Works

- [1] It's a sunny afternoon here in Texas, and (7)my wife Barbara is at the park again, counting and recording the number of eggs laid by monarch butterflies. After collecting her data, she'll (8)share it with the professional scientist who recruited her. In another state, our friend Antonio listens for frogs by visiting 12 different sites, (9)four times a year. He has been submitting his (10)findings to scientists for almost 20 years now. And on the other side of the country, our niece Emily is catching native bees, (11)putting tiny tags on them, and handing in weekly reports to the biology department at a local university. Nobody is paying Barbara, Antonio, or Emily for their efforts, but all three (12)consider themselves lucky (13)to be "citizen scientists."
- [2] When volunteers (14)participate as assistants in activities like these, they (15)are engaging in (16)citizen science, a valuable research technique that invites (17)the public to assist in gathering information. Some of them are science teachers or students, but most are simply amateurs who enjoy spending time in nature. They also (18)take pride in aiding scientists (19)and indirectly helping to protect the environment. The movement they (20)are involved in is not a new (21)one. In fact, its roots go back over a hundred years. One of the earliest projects of this type is the Christmas Bird Count, (22)started by the National Audubon Society in 1900. However, citizen science projects (23)are burgeoning more than ever: over 60 of them were mentioned at a meeting of the Ecological Society of America not long ago.
- [3] In formal studies, professional scientists and other experts need to (24)maintain the highest possible standards. (25)For research to be accepted as valid, it must not only be thorough, but also objective and accurate. Some might argue that citizen scientists cannot maintain the necessary attention to detail, or that amateurs will misunderstand the context of the investigation and make mistakes (26)when collecting and organizing information. In other words, can citizen science be considered truly reliable?
- [4] (27)Two recent studies show that it can. The first focused on volunteer knowledge and skills. (28)In this study, a scientist asked volunteers to identify types of crabs along the Atlantic coast of the US. He found that almost all adult volunteers could perform the task and even third graders in elementary school had an 80 % success rate. The second study compared

professional and nonprofessional methods. (29)Following a strict traditional procedure, a group of 12 scuba divers identified 106 species of fish in the Caribbean. Using a procedure (30)designed by professionals to be more relaxed and enjoyable for volunteers, a second group of 12 divers spent the same amount of time in the same waters. Surprisingly, the second method was even more successful: this group identified a total of 137 species. Results like these suggest that research assisted by amateurs can be trusted when scientists organize (31)it.

- [5] The best citizen science projects are win-win situations. On the one hand, the scientific community gains access to (32)far more data than they (33)would otherwise have, while spending less money. On the other hand, citizen science is good for the general public: it gets people out into the natural world and involved in scientific processes. Additionally, when people (34)take part in a well-designed study that includes training to use equipment, collect data, and share their findings, they have the satisfaction of (35)learning about new ideas and technologies.
- [6] I find (36)it encouraging that the list of scientific studies using citizen scientists is quickly getting longer. (37)Still, we're just beginning to realize the potential of citizen science. (38)More scientists need to recognize how much volunteers can contribute to professional research. As I see it, it's time for us to expand the old, conservative view of "science *for* people" to include a more democratic one of "science *by* people."

問1 The citizen scientists in Paragraph [1] .

- ① compare their data with that of other volunteers
- ② earn some money for the information they gather
- ③ monitor the life cycles of insects in laboratories
- ④ report on their results or activities to professionals

問2 The word burgeoning in Paragraph [2] is closest in meaning to .

- ① causing arguments
- ② increasing rapidly
- ③ losing popularity
- ④ receiving awards

問3 Why does the author emphasize an 80% success rate in Paragraph [4]?

- ① To contrast negatively with the adults' success rate
- ② To demonstrate the high quality of the overall results
- ③ To emphasize how many types of crabs there are
- ④ To reveal the elementary students' lack of skills

問4 What personal view is expressed in Paragraph [6]?

- ① Eventually, scientific knowledge will come mainly from amateurs.
- ② Not enough scientists appreciate the advantages of citizen science.
- ③ The recent shift toward relying on volunteer data is disappointing.
- ④ Too many studies using citizen science are now being conducted.

問5 What is the author's main message in this article?

- ① Citizen science benefits volunteers, professionals, and society.
- ② Scientific research should be left in the hands of specialists.
- ③ There is a long history of volunteers identifying fish species.
- ④ Traditional science has been replaced by citizen science.

問6 次の表は、本文の段落構成と内容をまとめたものである。空所に入れるのに最も適当なものを、下の①～④のうちから一つずつ選び、表を完成させなさい。

Paragraph	Content
[1]	Introduction: Author's personal examples
[2]	
[3]	
[4]	
[5]	
[6]	Conclusion: Author's hope for the future

- ① Concerns: Volunteer skills and knowledge
- ② Evidence: Successful volunteer efforts
- ③ Explanation: Definition and history
- ④ Opinion: Merits for everyone involved

問7 下線部(7)について、以下の例文の和訳と英訳を完成させよ。また下線部(7)を和訳せよ。但し、monarch butterflies は「オオカバマダラ」と表記すること。

英語	日本語
lie (lie - lay- lain)	[自動詞] 1. 横たわる 2.ある 3. (SVC のかたちで)S は C のままである
(例文) Kaho <u>lies</u> lazily in bed on Sunday mornings.	
(例文) The beauty of Kyoto <u>lies</u> in the harmonious balance between its old townscape and autumn leaves.	
(例文) I <u>lay</u> awake last night, thinking about her.	
lay (lay - laid - laid)	[他動詞] ~を横たえる、~を産む
(例文) The nurse <u>laid</u> my baby on my stomach, as soon as she began crying.	
(例文) 産卵しない鳥は存在しますか。	

問8 下線部(8)について、以下の例文の和訳を完成させよ。

英語	日本語
share A(物事) with B(人)	A(物事)を B(人)と共有する
(例文) What do you say to <u>sharing</u> your umbrella <u>with</u> your sister?	

問9 下線部(9)について、以下の例文の和訳と英訳を完成させよ。

英語	説明
$\left[\begin{array}{c} \text{量} \\ \text{数} \end{array} \right] + a + \left[\begin{array}{c} \text{期間} \\ \text{単位} \end{array} \right]$	この場合、a は <u>each</u> の意味を成す。
例 文	<p>(例文) My husband earns <u>¥10,000,000 a year</u>.</p> <p>(例文) I visit my uncle <u>once a year</u>.</p> <p>(例文) 週に二回、母は私に電話してくる。</p> <p>(例文) We play catch <u>at least three times a month</u>.</p> <p>(例文) They sell eggs for <u>three dollars a dozen</u>.</p> <p>(例文) Japanese bullet trains run at a speed of <u>more than 200 kilometers an hour</u>.</p>

問10 下線部(10)について、以下の例文の和訳を完成させよ。

英語	日本語
finding	[可算] 発見したこと、発見したもの
(例文) These new <u>findings</u> are completely different from the hypothesis.	

問11 下線部(11)について、以下の例文の英訳と和訳を完成させよ。

英語	日本語
put A on B	1. A を B の上に置く 2. A を B に貼る
(例文) Kevin はプリンターの上に財布を置いた。	
(例文) I forgot to <u>put</u> a stamp <u>on</u> the envelope.	

問12 下線部(12)について、以下の例文の和訳を完成させよ。

英語	日本語
consider O C	O を C とみなす
(例文) It's of little importance that I'm <u>considered lazy</u> .	

問13 下線部(13)の to 不定詞の用法を書け。(例) 形容詞用法・主格

問14 下線部(14)について、以下の例文の和訳を完成させよ。

英語	日本語
participant	参加者
(例文) One of the <u>participants</u> in the race committed a horrible crime.	
participate in O	O に参加する
(例文) The 13-year-old boy, who <u>participated in</u> the 2017 World Table Tennis Championships, has parents from China.	

問15 下線部(15)について、以下の例文の和訳を完成させよ。

英語	日本語
engage in O	○(仕事)に携わる
be engaged in O	○(仕事)に携わっている
(例文) Young Australians <u>are engaged in</u> political issues.	

問16 下線部(16)の内容を説明せよ。

問17 下線部(17)について、以下の例文の和訳を完成させよ。

英語	日本語
形容詞 public	公共の、公衆の
(例文) Toru Hashimoto encouraged <u>public</u> participation in politics.	
名詞 the public	一般の人々
(例文) Hackers trick <u>the public</u> into revealing confidential information.	

問18 下線部(18)について、以下の例文の英訳を完成させよ。

英語	日本語
take pride in O	○を誇りに思う
be proud of O	
(例文) 私はキリスト教徒であることを誇りに思っている。	

問19 下線部(19)and が接続している品詞は何か。

問20 下線部(20)について、以下の例文の和訳を完成させよ。

英語	日本語
be involved in O	1. Oに参加する 2. Oと関係する
(例文) The politician <u>is not involved in</u> the crime.	

問21 下線部(21)が指す内容を英語で記せ。

問22 下線部(22)の品詞を書け。

問23 下線部(23)について、以下の例文の和訳を完成させよ。

英語	日本語
burgeon	急速に成長する
(例文) <i>Shogi's</i> <u>burgeoning</u> popularity is being supported by the rise of the 14-year-old Sota Fujii.	

問24 下線部(24)について、以下の例文の和訳を完成させよ。

英語	日本語
maintain	1. ～を維持する 2. ～だと主張する
(例文) Top predators <u>maintain</u> the diversity of rare plants and insects. (大阪大 2014)	
(例文) I <u>maintained</u> that it was a waste of money to study philosophy at college .	

問25 下線部(25)の For の文法的役割を書け。また下線部(25)を和訳せよ。

問26 下線部(26)を省略せずにかくとどのようになるか。空所を埋めよ。
when () () collecting and organizing information

問27 下線部(27)を和訳せよ。

問28 下線部(28)について、以下の例文の和訳を完成させよ。また下線部(28)を和訳せよ。

英語	日本語
identify O	Oの身元を明らかにする
(例文) The police looked to neighbors to <u>identify</u> the body.	
identify with O	Oに共鳴する
(例文) Younger people are more likely to <u>identify with</u> the rightist party.	

問29 下線部(29)について、以下の例文の和訳を完成させよ。

英語	日本語
following O = after O	Oのあとで
(例文) <u>Following</u> the terrorist attack at an Ariana Grande concert, Manchester residents came together by offering rides, donating blood and attending vigils*. (New York Times)	
*vigil 「デモ」	

問30 下線部(30)について、以下の例文の和訳を完成させよ。

英語	日本語
be designed to 不定詞	～するよう作られている
(例文) This course <u>is designed to</u> meet the needs of students wishing to find a well-paid job.	

問31 下線部(31)が指す内容を本文中から抜き出せ。

問32 下線部(32)について、以下の例文の英訳を完成させよ。

英語	説明
<div style="display: flex; align-items: center;"> <div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px; margin-right: 10px;"> much far a lot even </div> <div style="display: flex; flex-direction: column; align-items: center;"> + 比較級 </div> </div>	比較の強調
<p>(例文) 七夏は兄よりもずっと社交的だ。(much を用いて)</p> <p>(例文) 私は妹よりもずっと裕福だ。(a lot を用いて)</p> <p>(例文) ケンは兄よりもずっと背が高い。(far を用いて)</p> <p>(例文) 私は優秀な生徒をいっそう優秀にすることができる。(even を用いて)</p>	

問33 下線部(33)について、以下の例文の和訳と英訳を完成させよ。また下線部(33)を含む文を和訳せよ。

英語	説明
if節の代用表現	if節のかわりに、 <u>主語・副詞句・to不定詞</u> に仮定の意味が含まれるケースがある。これらの仮定法を見抜くコツは、助動詞の過去形かつ文脈判断だ。
<p>(例文) <u>A competent doctor</u> would make an accurate prognosis.</p> <p>(例文) 賢い生徒ならば、ましな選択をできていただろう。</p> <p>(例文) <u>Anyone else</u> would have done the same.</p> <p>(例文) I hope to pass the entrance exam for Tokyo University; <u>otherwise</u>, I wouldn't go on to university.</p> <p>(例文) 幸いケビンが学校まで送ってくれた。もし送ってくれていなかったら、私は遅刻していただろう。</p> <p>(例文) <u>With your assistance</u>, I could have given a better presentation on the product.</p> <p>(例文) <u>To hear how she died</u>, her fiancé would get deeply shocked.</p>	

問34 下線部(34)について、以下の例文の英訳を完成させよ。

英語	日本語
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> participate in O take part in O join O </div>	○に参加する
(例文) 君はボランティア活動に参加したいですか。(join を用いて)	

問35 下線部(35)の品詞を書け。

問36 下線部(36)が指す内容を日本語で書け。

問37 下線部(37)について、以下の例文の英訳を完成させよ。

英語	日本語
still	[副詞] 1. まだ 2. しかし
(例文) 彼女はまだ生きてるの？	
(例文) 彼は嘲笑されることを恐れている。しかし彼の周りの人々は彼にほとんど関心を寄せていない。	

問38 下線部(38)を和訳せよ。

26 (英検 2 級 2004 年度第 1 回 改)

The Price of Plastic

Nowadays, most stores and supermarkets (A)provide their customers with plastic bags because they are strong, convenient, and cheap. But (B)the very same reasons that make plastic bags so useful also make them a growing problem. Because (C)they receive these bags (1), many shoppers use (D)them only once (E)and then throw them away. (F)This has led to millions of bags ending up as garbage each year, creating serious problems for the environment.

Because plastic bags do not break down easily in the soil, they often block plants from getting the air and water (G)they need. In addition, (H)they gradually release poisonous chemicals into the environment. (2), millions of animals are killed every year by plastic bags. In the ocean, for example, turtles often eat the bags, (I)mistaking them for jellyfish. The bags then (J)prevent the turtles from breathing or being able to digest food.

Consumers need to be educated about the importance of reducing the number of plastic bags they use. They also need to be persuaded to change to other types of bags that do less damage to the environment. One solution is for the government to get involved. For example, in 2002 a tax on plastic shopping bags was introduced in Ireland. Because of the extra cost, people began to use the bags more carefully. The tax also (3) them to take their own bags when shopping (K)so as to save money. This (L)led to a 95 percent decrease in the number of plastic bags being used.

Increasingly, other countries are following Ireland's example and putting a tax on plastic bags. Companies are also working to produce new kinds of plastic that are easier to recycle and do less damage to the environment. However, until many more consumers realize the importance of both reusing and recycling plastic bags, they will remain a major (4) to the environment.

1. 文意に沿って空所(1)から空所(4)に入れるのに最も適切なものを選び。

- | | |
|---------------------|-------------------|
| (1) 1 in return | 2 by accident |
| 3 for free | 4 on purpose |
| (2) 1 For one thing | 2 What is more |
| 3 In other words | 4 On the contrary |
| (3) 1 encouraged | 2 promised |
| 3 allowed | 4 ordered |
| (4) 1 aid | 2 key |
| 3 loss | 4 threat |

2. 下線部(A)について、以下の例文の和訳を完成させよ。

英語	日本語
provide A with B provide B for A	A(人)に B(物)を提供する
(例文) Soon, more Japanese people will have a five-day workweek. The increase in leisure time will <u>provide them with</u> more opportunities to enjoy outdoor activities. (センター試験 1990)	

3. 下線部(B)について、以下の例文の英訳を完成させよ。

また下線部(B)を含む文を和訳せよ。

英語	日本語
副詞 very	とても
(例文) 君が帰宅するのを心待ちにしている。(excite を適切な形にして用いて)	
形容詞 very	まさに
(例文) そもそも最初から、その生徒は不誠実だったよ。 (例文) まさにこういった理由のために、私は彼のことを尊敬している。(look を用いて)	

4. 下線部(C)が指す内容を英語で記せ。

5. 下線部(D)が指す内容を英語で記せ。

6. 下線部(E)について、以下の例文の和訳を完成させよ。

英語	日本語
and then	～して(それから) [物事が生じる順序を明確に示す表現]
(例文) The man with a white beard had a drink or two <u>and then</u> went off.	

7. 下線部(F)を this を明らかにして和訳せよ。

8. 下線部(G)が指す内容を英語で記せ。

9. 下線部(H)が指す内容を英語で記せ。

10. 下線部(I)について、以下の例文の和訳を完成させよ。

英語	日本語
mistake A for B	A を B と間違える
(例文) Every now and then people around me including my family <u>mistake</u> my useful and earnest advice for them <u>for</u> criticism of their behaviors.	

11. 下線部(J)について、以下の例文の英訳と和訳を完成させよ。

英語	日本語
<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;"> <pre>prevent keep stop</pre> </div> <div style="margin-right: 10px;">+ O + from +</div> <div style="border: 1px solid black; padding: 2px;"> <pre>動名詞 名詞</pre> </div> </div>	O が～することを妨げる
<p>(例文) 家族のせいで、私はその夢を実現できなかった。</p> <p>(例文) My fear <u>kept</u> me <u>from</u> my work.</p> <p>(例文) My financial circumstances <u>stopped</u> me <u>from</u> travelling abroad last year.</p>	

12. 下線部(K)について、以下の例文の英訳を完成させよ。

英語	日本語
<p>in order to 不定詞</p> <p>so as to 不定詞</p>	～するために
<p>(例文) 君は東大に入るために一生懸命勉強しなければならない。</p> <p>(例文) 君はその試験に落ちないように一生懸命勉強しなければならない。</p>	

13. 下線部(L)について、以下の例文の英訳と和訳を完成させよ。

英語	日本語
lead to O	Oにつながる
(例文) 文化的な相違が政治的な争いを引き起こす。	
lead A to B	AをBに至らしめる AをBまで連れて行く
(例文) It is certain that he <u>led</u> the company <u>to</u> success. (例文) Shall I <u>lead</u> him <u>to</u> the station?	
lead O to 不定詞 lead O into 動名詞	Oに～する気にさせる
(例文) Curiosity <u>led</u> me <u>to</u> read books about contemporary history. (例文) Holy cow! どうやってカホに宿題をやらせたんだい?(intoを用いて)	

14. 全訳せよ。

27 (英検 2 級 2004 年度第 1 回 改)

Long-Distance Communication

Elephants are (A)in general highly social animals. Female elephants live together with their young in groups of 10 to 20 animals, while adult males (B)either live in all-male herds or (C)on their own. The elephants in a herd (D)cooperate with each other to find food and avoid danger.

However, because elephants need to eat a lot, they usually spread out over a wide area in their search for food. The (1) is that they also need to be able to communicate over long distances. For many years, scientists were puzzled (E)as to how they (F)managed to do this. Mother elephants, for example, seemed to (G)have no difficulty finding their young, however far they wandered away. In other cases, elephants in separate herds, often very far apart, seemed to be able to let each other (H)know about (I)approaching danger. Yet the scientists (J)observing them could not explain how the elephants were getting these (2).

Eventually, it was discovered that the elephants were communicating by using sounds that are (K)too low for human beings to hear. One advantage of these sounds is that (L)they are able to travel much (3) than higher sounds. Indeed, it has been estimated that messages sent (M)by means of these sounds can cover an area as large as 30 square kilometers. Using a sound spectrograph — a machine that shows sounds as visual images — scientists can now record the messages being sent by elephants.

There are still many details about elephant communication that are (4). For example, what information do the messages contain, and how do elephants learn this language? (N)Now that we have found a way to "hear" the messages elephants send, we may be able to learn more about the fascinating secrets of elephant communication.

1. 文意に沿って空所(1)から空所(4)に入れるのに最も適切なものを選び。

- | | |
|------------------|--------------|
| (1) 1 difference | 2 hope |
| 3 result | 4 merit |
| (2) 1 problems | 2 warnings |
| 3 desires | 4 beliefs |
| (3) 1 farther | 2 later |
| 3 faster | 4 closer |
| (4) 1 visible | 2 accurate |
| 3 typical | 4 mysterious |

2. 下線部(A)について、以下の例文の英訳を完成させよ。

英語	日本語
in general	一般に
(例文) 一般に、女性は男性よりも長生きする。	

3. 下線部(B)について、以下の例文の和訳を完成させよ。

英語	日本語
either A or B	[2語から成る等位接続詞] AかBのいずれか
(例文) <u>Either</u> Mike <u>or</u> Bob wants to visit Tokyo. (動詞は主語 B に合わせる!)	
neither A nor B	[2語から成る等位接続詞] AもBも～ない
(例文) <u>Neither</u> Mike <u>nor</u> Bob wants to visit Tokyo. (動詞の形は主語 B に合わせる!)	

4. 下線部(C)について、以下の例文の和訳と英訳を完成させよ。

英語	日本語
<u>名詞</u> + of one's own	～自身の <u>名詞</u>
(例文) You may start <u>a website</u> <u>of your own</u> . (例文) 私は自分用のスマホを持っていません。	
on one's own	自分自身で、独力で
(例文) You have to solve the problem <u>on your own</u> . (例文) 自力でその仕事を終えなさい。(get を用いて)	

5. 下線部(D)について、以下の例文の和訳と英訳を完成させよ。

英語	日本語
cooperate with O collaborate with O	O と協力する
(例文) I warned him not to <u>cooperate with</u> the woman in her forties.	
(例文) 私はその科学者と協力して、その計画を遂行した。(collaborate を用いて)	

6. 下線部(E)について、以下の例文の英訳を完成させよ。

英語	日本語
as to O ⇔ on O ⇔ about O	O に関して
(例文) When we meet someone for the first time, we usually form an opinion <u>as to</u> what that person is like.. (センター試験 1991)	

7. 下線部(F)について、以下の例文の和訳を完成させよ。

英語	日本語
manage to 不定詞	なんとか～する
(例文) After a lot of problems she <u>managed to</u> learn to drive a car. (センター試験 1990)	
(例文) In spite of the heavy traffic, I <u>managed to</u> get to the airport in time. (センター試験 1991)	
(例文) As far as I know, he <u>managed to</u> make ends meet with the help of his friends.	

8. 下線部(G)について、以下の例文の英訳と和訳を完成させよ。

英語	日本語
have $\left[\begin{array}{l} \text{trouble} \\ \text{difficulty} \\ \text{a hard time} \end{array} \right] + (\text{in}) + \text{動名詞}$	～するのに苦労する
<p>(例文) 私は正午までにその宿題を終わらせるのに苦労した。(get を用いて)</p> <p>(例文) You'll <u>have difficulty persuading</u> him to review today's lesson; He's such a lazy person.</p> <p>(例文) 最初、私は大学生活に慣れるのに苦労した。</p>	

9. 下線部(G)を含む文を和訳せよ。

10. 下線部(H)の品詞を書け。

11. 下線部(I)の品詞を書け。

12. 下線部(H)と下線部(I)を含む文を和訳せよ。

13. 下線部(J)の品詞を書け。

14. 下線部(K)について、以下の例文の英訳を完成させよ。

英語	日本語
too + <u>形容詞</u> + to 不定詞	とても <u>形容詞</u> なので～できない
too + <u>副詞</u> + to 不定詞	とても <u>副詞</u> なので～できない
too + <u>形容詞</u> + (a/an) + <u>名詞</u> + to 不定詞	とても <u>形容詞</u> な <u>名詞</u> なので～できない
<p>(例文) 彼女はとても貧しいので車を買うことが出来ない。</p> <p>(例文) 彼女は勉強しすぎているので自分の時間が持てない。</p> <p>(例文) 彼女はとても貧しい生徒なので昼食をとることができない。</p>	

15. 下線部(L)が指す内容を、日本語で詳しく説明せよ。

16. 下線部(M)について、以下の例文の英訳と和訳を完成させよ。また下線部(M)を含む文を和訳せよ。

英語	日本語
by means of O through O	O(という手段)によって
<p>(例文) 僕はポルシェで彼女宅に行った。(by means of を用いて)</p> <p>(例文) Only <u>through</u> study, can you get into Keio University.</p>	

17. 下線部(N)について、以下の例文の和訳を完成させよ。

英語	日本語
Now that SV	今や SV なので (Now that は一語の従位接続詞扱い)
(例文) <u>Now that</u> Donald Trump is running for president of the U.S., he should refrain from making rash comments.	

28 (英検準1級 2017年度第3回 改)

3D Printing in Healthcare

Doctors (A)dream of a day (B)when organs such as hearts and kidneys can be made or grown rather than (C)having to be obtained from organ (D)donors. Currently, the number of patients (E)requiring new organs (F)far exceeds the available supply, and (G)tissue from donors must be carefully matched with (H)that of recipients (I)so that the recipient's immune system does not reject the organ. (J)Even when things go well, recipients must take medications so the transplanted organ can survive in their body. Techniques for growing tissue in labs have achieved only limited success, and the complex structures of major organs make (K)them impossible to grow (L)using simple cellular-reproduction techniques. Using 3D printers to produce organs (M)made from (N)either the patient's own cells or from artificially generated (O)ones, (P)however, has the potential to eliminate these problems.

Medical 3D printers are similar to normal printers (Q)that use ink, but they create tissue by spraying cells, proteins, and other materials onto a foundation, building up the object layer by layer. Although significant advances have been achieved, a major obstacle to creating entire organs remains: the mechanisms by which cells (R)interact with (S)one another to form the complex structures in organs require more research before they can (T)be replicated. It will also be necessary to find ways to keep cells alive after the printing process. (U)Cells quickly die without oxygen and nutrients, so structures called blood vessels, which carry blood through the organ, must also be reproduced. Blood vessels must be hollow (I)so that blood can flow through them, and because of their delicate structure, it has been difficult to re-create them using 3D printers.

One possible solution has been found by researcher Jennifer Lewis of Harvard University, who has developed a gel called Pluronic ink. Most types of gel harden when the temperature becomes colder, but Pluronic ink is unique because it is a solid at room temperature but becomes a liquid when cooled. Lewis does a 3D scan of the organ's blood vessels, then prints out a 3D copy of them using Pluronic ink. Next, she prints the new organ cell tissue around the Pluronic ink. Lewis (V)then lowers the temperature (I)so that the Pluronic ink becomes a liquid, which can then simply be sucked out. Finally, she injects another type of cell into the empty spaces to form the walls of the blood vessels. (W)Lewis has been able to produce printed tissue containing a tube that carries nutrients into the tissue, allowing it to survive for extended periods of time.

Although Lewis's work represents an important step in developing 3D-printed organs, she (X)is concerned about (Y)the way current research is being presented. (Z)Well-known researchers have given public demonstrations of medical 3D printers, creating, for

example, items which appeared to be human organs but which were not functional.
 (あ)This has caused many to believe 3D-printed organs are just around the corner when, in fact, they are probably decades away. Lewis calls this "misleading," arguing that "we don't want to give people false expectations." Although researchers need favorable publicity and funding to support their efforts, Lewis says exaggerated claims could actually have the opposite effect (い)in the long run.

1. According to the author of the passage, the use of 3D printers in the medical industry could
 - (a) allow patients to receive new organs without having to take drugs that prevent their immune system from rejecting the new tissue.
 - (b) allow doctors to create new types of cells that would greatly shorten the time needed to grow organs in the laboratory.
 - (c) assist in repairing damaged organs received from donors in order to increase the supply of organs available for transplant.
 - (d) alter the structure of tissues from organ donors so that the reproduction of cells would occur more efficiently.
2. What is one problem regarding the creation of organs using 3D printers?
 - (a) Medical 3D printers are unable to construct objects layer by layer when a patient's own cells and artificially generated ones are used together.
 - (b) The foundations the printers create are not strong enough to support all of the blood vessels that supply blood to organs.
 - (c) Scientists have not yet been able to fully understand the processes cells use to organize themselves when they form organs.
 - (d) Because the layers of an organ grow at different rates, it is difficult to design a printer that can print an entire organ.
3. Why is Pluronic ink useful in the 3D-printing process?
 - (a) Adding it to 3D-printed tissue helps researchers see which parts of the tissue might need more nutrients.
 - (b) Once it has been used to create a structure that 3D-printed tissue can be built around, it can easily be removed.
 - (c) It is capable of flowing to all types of cells in 3D-printed tissue in order to supply them with nutrients.
 - (d) Because of its unusual properties, it allows 3D-printed tissue to be frozen and stored safely.

4. What point does Jennifer Lewis make about presenting 3D-printing research to the public?
- (a) Exaggerated claims made in order to increase interest in the research could result in people having a negative image of the field.
 - (b) Because artificial organs are so complex and difficult to understand, simpler explanations of their functions are needed.
 - (c) Researchers must give demonstrations of the 3D printing of organs so people can see for themselves how important the research is.
 - (d) Researchers must remember that people doubt the medical potential of 3D printing because they mainly associate it with nonliving objects.

5. 下線部(A)について、以下の例文の英訳を完成させよ。

英語	日本語
dream of O	○を夢見る ○の夢を見る
(例文) 過去を夢見ることはほとんど役に立たない。 It is of () () to () () the past.	

6. 下線部(B)の品詞を書け。

7. 下線部(C)の品詞を書け。

8. 下線部(D)について、以下の例文の和訳を完成させよ。

英語	日本語
donor	ドナー ((臓器・血液)提供者)
(例文) A kidney <u>donor</u> has been found.	

9. 下線部(E)の品詞を書け。

10. 下線部(F)について、以下の例文の英訳を完成させよ。

英語	日本語 & 説明
far exceed O	Oをはるかに上回る (farは副詞で動詞 exceedを強調している)
(例文) 今日の中古教科書の需要は供給をはるかに上回っている。 Today's () for () () () () () .	

11. 下線部(G)について、以下の例文の和訳を完成させよ。

英語	日本語
tissue	(動物・植物の)組織
(例文) Yamanaka won the 2012 Nobel Prize in Physiology or Medicine* for creating iPS cells, which can develop into almost all <u>tissues</u> . (nippon.com より引用) (注) Novel Prize in Physiology or Medicine ノーベル生理学・医学賞	

12. 下線部(H)について、以下の例文の和訳を完成させよ。

英語	説明
that	代名詞 that は単数形の名詞を置きかえるはたらきを有する。
those	代名詞 those は複数形の名詞を置きかえるはたらきを有する。
(例文) For a start, in many Western countries the number of women at medical schools now exceeds <u>that</u> of men. (慶應大・法 2008)	
(例文) It is usually difficult to separate the influences of education from <u>those</u> of intelligence... (慶應大・医 2013)	

13. 下線部(I)について、以下の例文の和訳を完成させよ。

英語	日本語
so (that) SV	SV するために [目的]
(例文) Could you speak more slowly <u>so (that)</u> she can understand you?	
, so (that) SV	～した結果 SV する [結果]
(例文) I spent somewhere between 6-8 hours a day studying English, <u>so (that)</u> I'm second to none in it.	

14. 下線部(J)を和訳せよ。

15. 下線部(K)が指す内容を日本語で記せ。

16. 下線部(L)の品詞を書け。

17. 下線部(M)の品詞を書け。

18. 下線部(N)について、以下の例文の和訳を完成させよ。

英語	日本語
either A or B	[2語から成る等位接続詞] A か B のいずれか
(例文) <u>Either</u> Mike <u>or</u> Bob wants to visit Tokyo. (動詞のかたちは主語 B に合わせる!)	
neither A nor B	[2語から成る等位接続詞] A も B も～ない
(例文) <u>Neither</u> Mike <u>nor</u> Bob wants to visit Tokyo. (動詞のかたちは主語 B に合わせる!)	

19. 下線部(O)について、以下の例文の英訳を完成させよ。

英語	説明
it	it は単数名詞の反復を避けるために用いられる代名詞で、「全く同じ物事」を指す。
they	they は複数名詞の反復を避けるために用いられる代名詞で、「全く同じ人や物事」を指す。
one	one は可算名詞(×不可算名詞)の反復を避けるために用いられる代名詞で、「同類の人や物事」を指す。
(例文) その電車に乗り損ねたから、次の電車に乗ったよ。	

20. 下線部(P)の品詞を書け。

21. 下線部(M), (N), (O), (P)を含む文を和訳せよ。

22. 下線部(Q)の品詞を書け。

23. 下線部(R)について、以下の例文の英訳を完成させよ。

英語	日本語
interact with O	1. O と影響しあう、2. O と交流しあう
(例文) ただなり(Tadanari)はバスケット部の他の部員とうまくつきあっている。	

24. 下線部(S)について、以下の例文の英訳を完成させよ。

英語	日本語
one another = each other	お互い
(例文) 僕たちは知り合って三年だ。	

25. 下線部(T)について、以下の例文の英訳を完成させよ。

英語	日本語 & 説明
replicate	～を再生する、～を複製する (replica 「複製品」の動詞形)
(例文) Some computer viruses <u>replicate</u> themselves, spreading through emails.	

26. 下線部(U)を和訳せよ。

27. 下線部(V)の品詞と意味を書け。

28. 下線部(W)を和訳せよ。

29. 下線部(X)について、以下の例文の英訳を完成させよ。

英語	日本語			
be <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>concerned</td></tr> <tr><td>worried</td></tr> <tr><td>anxious</td></tr> </table> about O	concerned	worried	anxious	O について心配している
concerned				
worried				
anxious				
(例文) 彼の怪我が気がかりだ。(concerned を用いて)				
(例文) イクムはいつも将来のことを心配している。(worried を用いて)				
(例文) 彼女の気分の変化が気がかりだ。(anxious を用いて)				

30. 下線部(Y)について、以下の例文の英訳を完成させよ。

英語	日本語 & 説明
the way SV ≒ how SV	SV の方法、SV の仕方 (この the way は関係副詞 how で代用可能だが、併記することはできないので要注意)
(例文) Make an effort to interact with friends and share opinions. That is <u>how</u> you will find your true self.	

31. 下線部(Z)を和訳せよ。

32. 下線部(あ)を和訳せよ。

33. 下線部(い)について、以下の例文の和訳を完成させよ。

英語	日本語
in the long run	長い目で見れば
(例文) Low priced cars may turn out to be expensive <u>in the long run</u> .	
in the short run	短期的には
(例文) This approach would lower the cost of living <u>in the short run</u> .	