学 力 検 査 問 題

外 国 語 （英語）

コミュニケーション英語Ⅰ，コミュニケーション英語Ⅱ，
コミュニケーション英語Ⅲ，英語表現Ⅰ，英語表現Ⅱ

（5問）

平成 28 年 2 月 25 日

自 15 時 20 分

至 17 時 20 分

答案作成上の注意

1 この問題冊子には，コミュニケーション英語Ⅰ，コミュニケー
   ション英語Ⅱ，コミュニケーション英語Ⅲ，英語表現Ⅰ，英語
   表現Ⅱの問題があります。総ページは **14 ページ**です。

2 解答用紙は **1 枚**（表裏の 2 ページ）です。解答はすべてその解
   答用紙に読みやすい文字で記入しなさい。

3 **受験番号**は，解答用紙の所定の箇所に，必ず記入しなさい。

4 配付した解答用紙は，持ち出してはいけません。

5 試験終了後，問題冊子は持ち帰ってください。

[Ⅰ] 次の英文を読んで，英文全体の内容を 250 字～270 字の日本語で要約しなさい。句読点も字数に含めます。

Emerging adults are among the most active users of digital communication technologies, including texting, instant messaging, and video chat. Furthermore, today's 18-29 year olds are often described as "digital natives" because they have grown up using these technologies to develop existing friendships during adolescence. While research has established that digital communication can make existing friendships stronger over the long-term, a continuing concern among some is that youth are less "connected" than they were in the past or that increasing digital communication limits socioemotional or empathic growth. This question is difficult to answer. Drawing on the experimental traditions of computer-mediated communication research, the present study aimed to directly compare digital and in-person communication between pairs of close, emerging-adult friends to determine potential differences in ability to foster bonding. Bonding was defined as the momentary emotional experience of feeling connected to and affection for a friend.

Research comparing face-to-face and distant forms of communication existed several decades before the rise of the Internet. By the late 1970's, experimental work examining information exchange through teleconferencing and closed-circuit television was advanced enough to be covered in psychological journals. In the years since, computer-mediated communication researchers have compared audiovisual, auditory, and text-based communication to in-person communication, looking at a wide variety of factors, including efficiency of communication and trust.

For strangers meeting for the first time, digital communication has been shown to enhance the closeness of the relationship and frequency of self-disclosure, and strangers meeting in text-based environments show higher

connectedness to one another than strangers meeting one another face-to-face. These results seem at first to fly in the face of media richness theory, which proposes that the number of cues and channels available for communication relates directly to the exchange of richer information. They also seem to contradict social presence theory, which suggests that these "richer" media allow for greater warmth and affection.

The above evidence from media research might suggest that when young adults engage in digital communication, they can, with time, achieve the same level of connectedness as in-person communication. However, this research has focused on the process of meeting and getting to know others digitally. In contrast, adolescents and young adults use digital tools mainly to communicate with existing connections, whether friends, family, or acquaintances. Stated differently, youth use digital media to maintain connections established in face-to-face contexts. Computer-mediated communication research, therefore, has explored different processes in online environments. Little is yet known about the emotional experience of bonding with an existing friend as it occurs online. Given the frequency with which adolescents and young adults use digital tools to communicate with friends, we hope to shed light on their ability to feel emotionally bonded when using various tools.

(Adapted from "The Effects of Texts, Audio, Video, and In-person Communication on Bonding between Friends" by Lauren E. Sherman, Minas Michikyan & Patricia M. Greenfield, *Cyberpsychology*, 2013)

〔Ⅱ〕 次の対話を読んで，下の問いに答えなさい。

Hiroko, a Japanese high school student, and Mr. Smith, her English teacher from America, meet at Hiroshima University.

Mr. Smith: Hiroko! Hi! How are you? （ A ） I heard you and your classmates were planning to be here for the open campus. ㋐

Hiroko: Mr. Smith, hello! （ B ） What brings you here?

Mr. Smith: I'm here to take a Japanese test at 2:00 pm, but I think I'm lost. I came earlier because I've heard that this is one of the largest campuses in Japan and I may have some trouble finding the test location. ㋑ Do you happen to know where the Faculty of Education is?

Hiroko: （ C ） This is my first time on this campus too. I do have a map of this campus, though. The faculty should be on the map.

Mr. Smith: （ D ） Wow, there are so many buildings! Hmm, yes! Here is the faculty!

Hiroko: You mean these three buildings on the top left corner? Great. （ E ）

Mr. Smith: What can we see around here? How about this pond we're walking along? Is it this Budou Pond, right at the center of the whole campus?

Hiroko: I think you're right. ㋒

Mr. Smith: What a relief. I am so lucky I ran into you. I hope this is a good sign for my test. （ F ）

Hiroko: I'm on my way to the Central Library. According to this map, that white building should be it. After visiting the library, I'll attend a seminar held in the Faculty of Letters at 3:00 pm. ㋓

Mr. Smith: The Faculty of Education and the Central Library are close to

each other. Do you mind my walking with you?

Hiroko:　　　(　G　) It'll be nice to have a bit more time to chat. Did you know that the library was designed by Kenzo Tange, a world famous architect, who also designed the Hiroshima Peace Memorial Park along with other famous buildings in Japan and around the world?

Mr. Smith:　　(　H　) I should take a closer look at the building after my test. Well, I'll leave you here. Enjoy your campus tour. Thanks for your help. Bye.

Hiroko:　　　No problem. Good luck on your test. Bye.

問 1　空欄（　A　）～（　H　）を補うのにもっともふさわしい文を下の ① ～ ⑩ から選び，それぞれ番号で答えなさい。同じ文を繰り返し使用することはできません。

　① Can I have a look?

　② I am so happy to run into you here!

　③ Is that right?

　④ It's good to see you too!

　⑤ No, not at all.

　⑥ Now, where are we?

　⑦ Sorry, I don't.

　⑧ When should we leave?

　⑨ Where are you headed?

　⑩ Yes, I do.

問 2　本文中に次の文を補うとすれば，㋐ ～ ㋓ のどの位置がもっとも適切ですか。記号で答えなさい。

It looks like we're sort of at the heart of Hiroshima University.

問 3　Mr. Smith と Hiroko が話をしている時間は大体いつ頃だと思いますか。

　　次の ① ～ ④ からもっとも適切なものを番号で答えなさい。

　　① 　1:30 pm

　　② 　2:00 pm

　　③ 　2:30 pm

　　④ 　3:00 pm

このページは白紙です。

My mother's parents came from Hungary, but my grandfather was educated in Germany. Even though Hungarian was his native language, he preferred German to all the other languages he spoke. It seems he was able to hold a conversation in nine languages, but was most comfortable in German. Every morning, before going to his office, he read the German language newspaper, which was American owned and published in New York.

My grandfather was the only one in his family to come to the United States. He still had relatives living in Europe. When the first World War broke out, he lamented the fact that if my uncle, his only son, had to go, it would be cousin fighting against cousin. In the early days of the war, my grandmother implored him to stop taking the German newspaper and to take an English language paper instead. He laughed at the idea, explaining that the
(1)
fact that it was in German did not make it a German newspaper, but only an American newspaper, printed in German. But my grandmother insisted because if the neighbors see him read it, they would think he was German. So, under pressure, he finally gave up the German language newspaper.

One day, the inevitable happened and my Uncle Milton received his draft notice. My grandparents were very upset, but my mother, his little sister, was
(2)
ecstatic. Now she could proudly talk about her soldier brother going off to war. She was ten years old and my uncle, realizing how he was regarded by his little sister and all of her friends, went out and bought them all service pins, which meant that they had a loved one in the service. All the little girls were delighted. When the day came for him to leave, his whole group, in their uniforms, left together from the same train station. There was a band playing and my mother and her friends came to see him off. Each one wore a service pin and waved a small American flag, cheering the boys, as they left.

The moment came and the soldiers, all rookies, none of whom had had any training, but who had nevertheless all been issued uniforms, boarded the train. The band played and the crowd cheered. Although no one noticed, I'm sure my grandmother had a tear in her eye for the only son going off to war. The train (3) groaned as if it knew the destiny to which it was taking its passengers, but it soon began to move. The crowd still cheering and waving their flags, the band still playing, the train slowly departed the station.

It had gone about a thousand yards when it suddenly ground to a halt. The band stopped playing, the crowd stopped cheering. Everyone gazed in wonder as the train slowly backed up and returned to the station. It seemed an eternity until the doors opened and the men started to file out. Someone shouted, "The war is (A)." For a moment, nobody moved, but then the people heard someone bark orders at the soldiers. The men lined up formed into two lines, walked down the steps and, with the band in tow, playing a Sousa march, paraded down the street, as returning heroes, to be welcomed home by the assembled throng. As soon as the parade ended, they were immediately discharged from the army. My mother said it was a great day, but she was just a little (B) that it didn't last a tiny bit longer. The next day my uncle returned to his job, and my grandfather resumed reading the (C), which he read until the day he died.

(Adapted from "The Hero" by Sue Ragland, 2002)

問 1　下線部(1)は何を表しているか，日本語で説明しなさい。

問 2　筆者の母はなぜ下線部(2)のような反応を示したのか，その理由を日本語
　　　で説明しなさい。

問 3　下線部(3)の意味としてもっとも近いものを ① ～ ④ から選びなさい。

① laughed happily

② moaned deeply

③ smiled sadly

④ howled loudly

問 4　空欄（　Ａ　）と（　Ｂ　）を補うのにもっともふさわしい語の組み合わせを，次の ① ～ ④ から選びなさい。

① （　Ａ　）　started　　　　　（　Ｂ　）　annoyed

② （　Ａ　）　out　　　　　　　（　Ｂ　）　confused

③ （　Ａ　）　over　　　　　　　（　Ｂ　）　disappointed

④ （　Ａ　）　finished　　　　　（　Ｂ　）　pleased

問 5　空欄（　Ｃ　）を補うのにもっともふさわしい語句を本文から抜き出しなさい。

このページは白紙です。

◇M4(093—93)

〔Ⅳ〕 次の英文を読んで，下の問いに答えなさい。

　　Robots have transformed many industries, most notably manufacturing, and have the power to deliver tremendous benefits to society, such as in search and rescue, disaster response, health care and transportation. They are also invaluable tools for scientific exploration in environments inaccessible to humans, from distant planets to deep oceans. A major obstacle to their widespread adoption in more complex environments outside factories is their fragility. Whereas animals can quickly adapt to injuries, current robots cannot "think outside the box" to find a compensatory behavior when they are damaged: they are limited to their pre-specified self-sensing abilities, can diagnose only anticipated failure modes, and require a pre-programmed recovery plan for every type of potential damage, an impracticality for complex robots.

　　Current damage recovery in deployed robots typically involves two phases: self-diagnosis, followed by selection of the best pre-designed recovery plan. Such self-diagnosing robots are expensive, and are difficult to design, because robot engineers cannot foresee every possible situation.

　　Injured animals respond differently: they learn by trial and error how to compensate for damage. Similarly, trial-and-error learning algorithms(注1) could allow robots to creatively discover compensatory behaviors without being limited to their designers' assumptions about how damage may occur and how to compensate for each type of damage. However, state-of-the-art learning algorithms are impractical because the fastest algorithms depend on human demonstrations or take 15 minutes or more even for relatively small search spaces. Algorithms without these limitations take several hours. Damage recovery would be much more practical and effective if robots adapted as creatively and quickly as animals do (for example, in less than 2 minutes) in larger search spaces and without expensive, self-diagnosing sensors.

We show that rapid adaptation can be achieved by guiding an intelligent trial-and-error learning algorithm with an automatically generated, pre-computed behavior-performance system that predicts the performance of thousands of different behaviors. Current learning algorithms either start with no knowledge of the search space or with minimal knowledge from a few human demonstrations. Our hypothesis is that animals understand the space of possible behaviors and their value from previous experience, and that animals adapt by intelligently selecting tests that validate or invalidate whole families of promising compensatory behaviors. The key insight here is that (A) could do the same.

(Adapted from an article by Antoine Cully, Jeff Clune, Danesh Tarapore & Jean-Baptiste Mouret, published in *Nature*, 2015)

注1　algorithm：コンピュータの計算プログラム

問1　第一段落の下線部 "think outside the box" とは，この文章の中ではどのような意味となるか，本文の内容から具体的に日本語で説明しなさい。

問2　現在，使用されている自己診断型ロボットの2つの課題を本文の内容から日本語で説明しなさい。

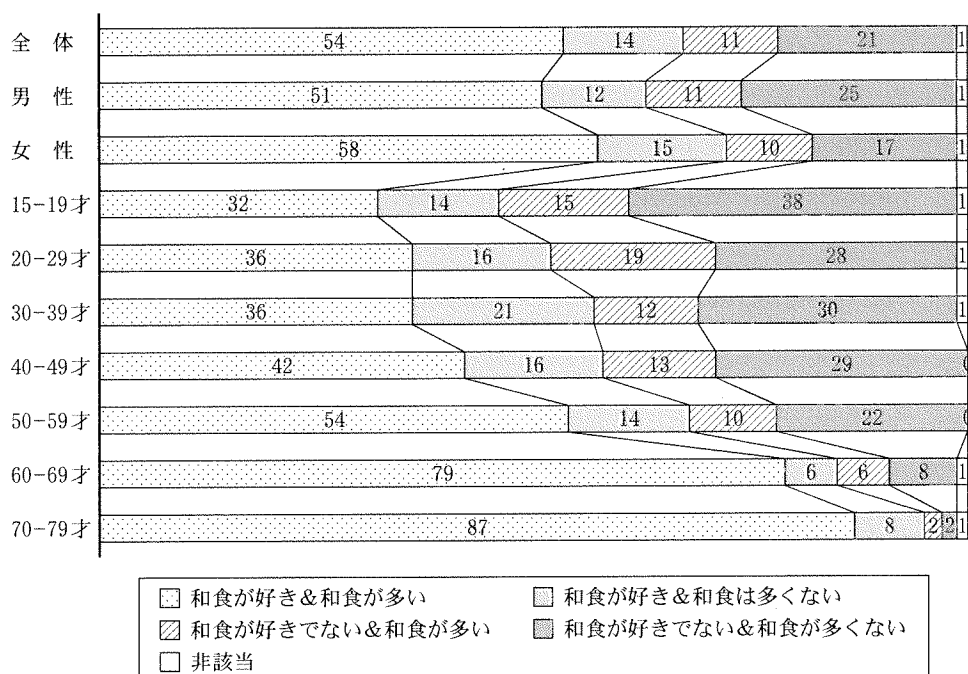問3　本文の内容と一致するものを下の①～④から1つ選びなさい。
　　①　新しいロボットは，問題が1つでも起これば，全てのプログラムを一度リセットする。
　　②　新しいロボットでは，想定されるトラブルがすべて事前にプログラムされている。
　　③　新しいロボットは，多くの選択肢の中から最適な行動を決定する。
　　④　新しいロボットの問題点は，重量が重くなることである。

問4　空欄（ A ）を補うのにふさわしい単語を本文から抜き出しなさい。

〔Ⅴ〕 下の〔A〕と〔B〕の問いに答えなさい。

〔A〕 次のグラフは，15歳から79歳までの日本人男女1,200人を対象に，和食
に対する好みと，和食を食べる頻度について調査した結果をまとめたもので
す。このグラフから言えることを90語程度の英語で説明しなさい。コンマ
やピリオドは語数に含めません。解答欄の最初の（　　　）に使用した語数を
記入しなさい。

全　体	54	14	11	21	1
男　性	51	12	11	25	1
女　性	58	15	10	17	1
15-19才	32	14	15	38	1
20-29才	36	16	19	28	1
30-39才	36	21	12	30	1
40-49才	42	16	13	29	0
50-59才	54	14	10	22	0
60-69才	79	6	6	8	1
70-79才	87	8	2	2	1

□ 和食が好き＆和食が多い　　　　▨ 和食が好き＆和食は多くない
▨ 和食が好きでない＆和食が多い　■ 和食が好きでない＆和食が多くない
□ 非該当

注）四捨五入により合計が100％とならない場合があります。

（日本リサーチセンター　和食についての調査から作成）

〔B〕 あなたは，日本人は和食をもっと食べるべきだと思いますか。そうではな
いと思いますか。どちらかの立場から，自分の意見を90語程度の英語で書
きなさい。コンマやピリオドは語数に含めません。解答欄の最初の（　　　）
に使用した語数を記入しなさい。