

# 令和3年度入学試験問題

英

語

コミュニケーション  
英語 I・II・III  
英語表現 I・II

## (注意事項)

1. 問題冊子は指示があるまで開かないこと。
2. 問題冊子は13ページ、解答紙は5枚あります。「始め」の合図があったらそれぞれを確認すること。
3. 解答紙それぞれの2箇所を受験番号を記入すること。
4. 解答はすべて解答紙の所定の欄に記入すること。
5. この教科は200点満点です。なお、共創学部については400点満点に、文学部については150点満点に、経済学部経済工学科については300点満点に、芸術工学部及び農学部については250点満点に換算します。



英

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コミュニケーション

英語 I ・ II ・ III

英語表現 I ・ II

[ 1 ] Read the following article and answer the questions below in Japanese.  
(40 points)

Locusts have been around since at least the time of the pharaohs of ancient Egypt, 3200 B.C., destroying some of the world's weakest regions, multiplying to billions and then vanishing, in irregular highs and lows. If the 2020 version of these marauders\* stays steady on its warpath, the United Nations Food and Agriculture Organization (FAO) says desert locusts can pose<sup>(1)</sup>a threat to the livelihoods of 10% of the world's population.

There can be a lot of confusion about what exactly a locust is. The simple answer, though, explains Rick Overson of Arizona State University's Global Locust Initiative, is that locusts are a very special kind of grasshopper. As Overson explains, there are hundreds of species of grasshoppers, "but only a small handful of those are what we consider locusts." That raises a question: What makes a locust a locust? According to Overson, it comes down to a superpower possessed by locusts that enables them to go through a remarkable switch in development.

Most of the time, locusts exist in their "solitary phase"—they lead independent lives, they're green and pretty unremarkable. The timing of this varies, and the shifts are pretty irregular, but for years, locusts can live like this—alone, biding their time. But when environmental conditions are right—usually when there's a lot of rainfall and moisture—something dramatic happens: "They increase in numbers, and as they do so, they sense one another around them," says Overson. This is what biologists call the "gregarious phase," or social phase, of the locust.

The creatures undergo a remarkable transformation. "They change themselves. Their brain changes, their color changes, their body size changes," Overson says. The ability to change dramatically like this in response to environmental conditions is called phenotypic plasticity.<sup>(2)</sup> Though

scientists can't be certain why locusts developed the trait over time, many believe it's because they typically live in temperamental and harsh environments.

Swarms are enormous masses of tens of billions of flying bugs. They range anywhere from a square third of a mile to 100 square miles or more, with 40 million to 80 million locusts packed in half a square mile. They bulldoze\* pasturelands in dark clouds the size of football fields and small cities. Once they enter the gregarious phase, a generation of locusts can multiply twentyfold every three months. So when they boom, they do so exponentially, and things quickly get out of hand.

Locusts are migratory, transboundary pests. They ride the winds, crisscrossing swaths of land until they find something they want to eat. They especially love cereal grain crops, planted extensively across Africa. "They are powerful, long-distance flyers, so they can easily go a hundred plus kilometers in a 24-hour period," Overson notes. "They can easily move across countries in a matter of days, which is one of the other major challenges in coordinated efforts that are required between nations and institutions to manage them."

Locusts are also greedy eaters. An adult desert locust that weighs about 2 grams (a fraction of an ounce) can consume roughly its own weight daily. And they're not picky at all. According to the FAO, a swarm of just 1 square kilometer — again, about a third of a square mile — can consume as much food as would be eaten by 35,000 people in a single day.

Making matters worse, many of the countries slammed with the worst infestations are already suffering from protracted crises — recovering from recessions, fighting natural disasters, racked by conflict and now the coronavirus outbreak. In individual nations, a lack of cash, competing priorities and domestic challenges make it hard to mount a long-range pest management strategy. Because locust numbers go up and down, Overson says it's been difficult for countries — such as Kenya, which hasn't seen an infestation in 70

years — to build up intermediate and long-term infrastructure to address outbreaks proactively. That’s why so many governments are now scrambling to come up with solutions.

Considering all of the other worldwide emergencies that have hit in 2020, aid resources are stretched thin. Pesticide deliveries have been delayed. But Keith Cressman, the FAO’s senior locust forecasting officer, is hopeful that the needed funds will materialize. The FAO has already raised half of the \$300 million it expects to need for this effort.

### Notes

marauders\*: people or animals that move around and destroy or steal property

bulldoze\*: to move or push things away with a great force, like a bulldozer

### Questions

- Q 1. Regarding the underlined part (1), what three characteristics of “locusts” make them a great threat? Answer **in Japanese** using examples from the article.
- Q 2. Based on the information in Paragraph 2 (“There can be ...”), explain what “locusts” are **in Japanese**.
- Q 3. Regarding the underlined part (2), what “phenotypic plasticity” do locusts have? Answer **in Japanese** using examples from the article.
- Q 4. Summarize Paragraph 8 (“Making matters worse ...”) **in Japanese**. (Maximum 120 characters including numbers, alphabet letters, and punctuation marks.)



[ 2 ] Read the following article and answer the questions below in Japanese.

(40 points)

According to Shoshana Zuboff, a professor at the Harvard Business School, surveillance\* capitalism originated with the brilliant discoveries and the bold and shameless claims of one American firm: Google.

Incorporated in 1998, Google soon came to dominate Internet search. But initially, it did not focus on advertising and had no clear path to profitability. What it did have was a completely new insight: the data it derived from searches—the numbers and patterns of questions, their phrasing, people’s click patterns, and so on—could be used to improve Google’s search results and add new services for users. This would attract more users, which would in turn further improve its search engine in a repeating cycle of learning and expansion.<sup>(1)</sup>

Google’s commercial breakthrough came in 2002, when it saw that it could also use the data it collected to profile the users themselves according to their characteristics and interests. Then, instead of matching ads with search questions, the company could match ads with individual users. Targeting ads precisely and efficiently to individuals is the Holy Grail\* of advertising. Rather than being Google’s customers, Zuboff argues, the users became its raw-material suppliers, from whom the firm derived what she calls “behavioral surplus.” That surplus consists of the data above and beyond what Google needs to improve user services.

Together with the company’s formidable capabilities in artificial intelligence, Google’s enormous flows of data enabled it to create what Zuboff sees as the true basis of the surveillance industry—“prediction products,” which anticipate what users will do “now, soon, and later.” Predicting what people will buy is the key to advertising, but behavioral predictions have obvious value for other purposes, as well, such as insurance, hiring decisions, and political campaigns.



Zuboff's analysis helps make sense of the seemingly unrelated services <sup>(3)</sup>offered by Google, its diverse ventures and many acquisitions. Gmail, Google Maps, the Android operating system, YouTube, Google Home, even self-driving cars — these and dozens of other services are all ways, Zuboff argues, of expanding the company's "supply routes" for user data both on- and offline. Asking for permission to obtain those data has not been part of the company's operating style. For instance, when the company was developing Street View, a feature of its mapping service that displays photographs of different locations, it went ahead and recorded images of streets and homes in different countries without first asking for local permission, fighting off opposition as it arose. In the surveillance business, any undefended area of social life is fair game.

This pattern of expansion reflects an underlying logic of the industry: in the competition for artificial intelligence and surveillance revenues, the advantage goes to the firms that can acquire both vast and varied streams of data. The other companies engaged in surveillance capitalism at the highest level — Amazon, Facebook, Microsoft, and the big telecommunications companies — also face the same expansionary needs. Step by step, the <sup>(4)</sup>industry has expanded both the scope of surveillance (by migrating from the virtual into the real world) and the depth of surveillance (by going into the interiors of individuals' lives and accumulating data on their personalities, moods, and emotions).

## Notes

surveillance\*: spying, observation

Holy Grail\*: a thing which is eagerly pursued or sought after

## Questions

- Q 1. Regarding the underlined part (1), explain **in Japanese** what is meant by “a repeating cycle of learning and expansion”.
- Q 2. Regarding the underlined part (2), explain **in Japanese** what “breakthrough” happened at Google in 2002.
- Q 3. Regarding the underlined part (3), how does Zuboff’s analysis explain “the seemingly unrelated services offered by Google”? Answer **in Japanese**.
- Q 4. Regarding the underlined part (4), how have the “scope” and “depth” of surveillance expanded over time? Explain **in Japanese** by giving specific examples of services mentioned in the article and possible data they collect.



[ 3 ] Read the following article and answer the questions below in English.

(40 points)

Even during the holidays when life got crazy busy, sometimes a person just needed to make time to hug a cat.

Miriam sat in a not-so-comfortable armchair in the middle of the cat colony room, which was a shelter reserved for special needs cats. Lulabell was curled up asleep on her lap and Luther was sleeping on her feet. The chair with its old springs and flattened cushions had been donated to the shelter, just like the cat toys and scratching posts and the carpet-covered hidey-hole that Luther retreated to whenever anyone came in the room. Except Miriam. When Miriam came to visit, Luther and Lulabell liked to sleep on her.

Luther and Lulabell were brother and sister. They'd been brought to the shelter six months ago when their first and only owner went into assisted care. Luckily for the two, the shelter didn't place an expiration date on their charges, but the change in circumstances had been a shock to the twelve-year-old cats. It had taken Miriam nearly a month to do everything to make Luther, the shyest of the two, leave the safety of his hidey-hole.

The two cats weren't exactly special needs. Luther and Lulabell were Maine Coon mixes, which meant they were two of the largest cats in the shelter. Lulabell was a fuzzy orange love and Luther, fuzzy black with a brown undercoat. They wouldn't have both fit in a single cage, and to separate the pair would have been cruel. To put them in with the younger, more territorial cats would have been just as cruel considering how shy Luther was. The woman in charge of the shelter thought they'd be better off sharing space with cats recovering from injuries or who needed medication or specialized diets.

Dr. Fischer, the young vet who donated her time to the shelter, told Miriam on more than one occasion that she should adopt them. "They've

clearly bonded with you,” she always said. “And you’ve bonded with them.”

Miriam wished she could, but the rent-controlled apartment complex she’d moved into with her husband after the last of their children left home didn’t allow pets. Roy had been gone nearly six years now, and the place still seemed too large and empty without him. Lulabell and Luther would have helped with that, but rules were rules.

After Roy passed away, Miriam had thrown herself into volunteering without too much thinking. She read story-time books to little kids at the library, sorted donations for the food bank, and knitted scarfs for the homeless with a group of other older women who met at a local Starbucks, but the work she loved best was spending time at the shelter. She loved seeing “the look” on someone’s face when they found the perfect pet. That moment of instant love and connection—love at first sight, Dr. Fischer called it, and Miriam supposed it was. She and Roy hadn’t fallen in love that way. They’d had a solid friendship that developed into a lifelong loving partnership.

### Questions

Q 1. Based on the article above, what happened to Miriam’s family? Answer in English.

Q 2. Based on the article above, describe both Luther and Lulabell in English.

Q 3. Based on the article above, how did Miriam get involved with Luther and Lulabell? Answer in English.

Q 4. Based on the article above, why couldn’t Miriam adopt Luther and Lulabell? Answer in English.

[ 4 ] Read the instructions and write a paragraph in English. (50 points)

In 2020, many students in schools and universities experienced online education.

Using about 100 English words, introduce and explain one advantage and one disadvantage of online education in a well-developed paragraph.



[ 5 ] Read the instructions and write your answer in English. (30 points)

The table below shows changes in international student enrollment at universities in the United States:

Place of origin	2001 (number of students)	2014 (number of students)	% Change (2001 to 2014)
Canada	26,514	27,240	3%
China	63,211	304,040	381%
Japan	46,810	19,064	- 59%

Using about 70 English words, summarize the different trends of enrollment for the three countries between 2001 and 2014.







