

# 0 英語問題

## 注意

1. 試験開始の指示があるまでこの問題冊子を開いてはいけません。
2. 解答用紙はすべてHBの黒鉛筆またはHBの黒のシャープペンシルで記入することになっています。HBの黒鉛筆・消しゴムを忘れた人は監督に申し出てください。(万年筆・ボールペン・サインペンなどを使用してはいけません。)
3. この問題冊子は16ページまでとなっています。試験開始後、ただちにページ数を確認してください。なお、問題番号はI～Vとなっています。
4. 解答用紙にはすでに受験番号が記入されていますので、出席票の受験番号が、あなたの受験票の番号であるかどうかを確認し、出席票の氏名欄に氏名のみを記入してください。なお、出席票は切り離さないでください。
5. 解答は解答用紙の指定された解答欄に記入し、その他の部分には何も書いてはいけません。
6. 解答用紙を折り曲げたり、破ったり、傷つけたりしないように注意してください。
7. この問題冊子は持ち帰ってください。

### マーク・センス法についての注意

マーク・センス法とは、鉛筆でマークした部分を機械が直接よみとって採点する方法です。

1. マークは、下記の記入例のようにHBの黒鉛筆で枠の中をぬり残さず濃くぬりつぶしてください。
2. 1つのマーク欄には1つしかマークしてはいけません。
3. 訂正する場合は消しゴムでよく消し、消しきずはきれいに取り除いてください。

マーク記入例：

A	1	2	3	4	5
	○	○	●	○	○

 (3と解答する場合)

I . 次の文を読み、下記の1～10それぞれに続くものとして、本文の内容ともっともよく合致するものを、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

In the beginning there was silence, and it was good. From silence came sound, not all of which was good. And the sound that was not welcome was called noise. And there got to be more and more of it, because who wants to rake leaves by hand when you can use a leaf blower?

Let me be honest. I don't get along with noise. And by "noise" I don't mean only the noises that everyone agrees are bad for your hearing—those irritating sirens and the stand-right-next-to-the-speaker heavy metal concerts. Even everyday noise gets on my nerves. You may say I'm too sensitive, but I have science on my side. A growing body of evidence confirms that the constant noise of construction crews, road projects, jet traffic and, yes, those leaf blowers, is having a negative effect on our health and happiness.

Providing scientific proof of this has not been easy—in part because noise, defined as "unwanted sound," is to a large degree a matter of personal taste and sensitivity. The romantic hears a train whistle differently from people with sleep disorders. But study after study has found that community noise is interrupting our sleep, interfering with our children's learning, and even increasing our chances of having a heart attack. It is also reducing people's inclination to help one another.

It is modern transportation—cars, motorcycles, trucks and air traffic—that accounts for most of the background noise that disturbs and even sickens people. More than 40 percent of Americans whose homes have any traffic noise at all classify that noise as "bothersome," according to the 2005 American Housing Survey. One-third of those say the noise is so bothersome that they want to move. All told, more than 100 million Americans are regularly exposed to noise levels in excess of the 55 decibels that federal agencies have recommended as a reasonable background intensity.

A now-classic study conducted in the 1970s was among the first to indicate that such noise is more than an annoyance. It found that children living on the lower, noisier floors of an apartment building overlooking a busy Manhattan bridge had lower reading scores than those living on higher floors. But was noise really

the major factor explaining that difference? After all, people tend to move away from extremely noisy neighborhoods if they can, and those who don't are more likely to be poor, which by itself is a risk factor for delayed educational advancement and ill health.

To answer such questions, scientists have taken advantage of unusual situations in which people's exposure to noise changed over time while other factors remained relatively constant. In a study of students attending an elementary school near noisy train tracks in New York, for example, researchers showed that by the time the students reached sixth grade, those whose classrooms faced the train were a year behind those whose classrooms were on the quiet side of the building. After noise reduction materials were installed in the classrooms and around the tracks, reading scores in the two groups equalized, strengthening the case that noise was the main cause.

But it was a "natural" experiment in Germany that helped clinch the case, when the old Munich airport was shut down and a new one was opened at a distant site. Tests done on third- and fourth-graders—before that switch, soon after it and again later on—showed that students near the old airport initially scored lower than others on tests of memory and reading but improved after the airport closed, while those living near the new airport saw a decline in scores after the switch occurred.

Noise that invades a classroom may make it hard for students to hear the teacher, of course. But blood tests done on the Munich children helped reveal a more \*insidious biological mechanism through which noise damages our health. Children near the working airports had significantly higher levels of stress hormones. As a result, children near the working Munich airports had significantly higher blood pressure than children in quieter neighborhoods—adding to their risk of having a heart attack later in life. Similar impacts have been documented among adults near Amsterdam's Schiphol airport and Stockholm's Arlanda airport, where constant noise as low as 55 decibels correlated with more doctor visits, high blood pressure and treatments for heart troubles.

Whether traffic noise actually increases one's chances of having heart disease or a heart attack has been harder to determine, because such studies require large numbers of people. Yet even if continuous exposure to such noise is unlikely to kill

you, it can stay under the surface and have a negative effect on your well-being.

Studies have shown that constant night noise not only produces fatigue, irritability, and poor concentration, but also activates the stress response as you sleep. And while the number of awakenings per night may decrease as you adjust to the noise, the increased heart rate, blood pressure and breathing changes persist.

“The idea that people get used to noise is a myth,” the Environmental Protection Agency has reported. “Even when we think we have become accustomed to noise, biological changes still take place inside us.” The Health Council of the Netherlands found that high levels of mechanical noise, such as that from a hospital’s own air-conditioning equipment, can delay recovery in patients.

Another insidious effect of noise is its development of what scientists call “learned helplessness.” Children given puzzles in moderately noisy classrooms are not only more likely to fail to solve them but are also more likely to surrender early. “They just give up,” said Gary W. Evans, a professor of human ecology at Cornell University who studies noise and behavior. The implications of learned helplessness on a child’s success in life “are potentially pretty powerful,” he said.

Perhaps most disturbing in these times of political and economic <sup>\*\*</sup> polarization is that noise tends to make people less generous. In one study, people were less likely to help someone pick up dropped books when the noise of a lawn mower was present. Another showed that in a noisy environment, people playing a game were more likely to see their fellow players as disagreeable or threatening. Yet another found a drop in helpful behavior when loud “annoying music” was played.

The environmental movement has encouraged people to focus on preserving the physical environment—and rightly so. What we forget sometimes, though, is that it’s not just the air, water and soil that suffer the effects of pollution. No less damaging in our day-to-day lives is the excess of noise that interferes with our peace of mind and overwhelms our sense of hearing.

\*insidious : 知らぬ間に進行する

\*\* polarization : 両極化

1. The main purpose of paragraph 3 is to show that
- ㄱ. scientists are not able to agree on the risks of noise pollution.
  - ㄴ. some kinds of noise are beneficial.
  - ㄷ. continuous exposure to noise is harmful to well-being.
  - ㄹ. people aren't as kind to each other as they used to be.
2. Among Americans whose homes have disturbing traffic noise, the number who want to move to a quieter place is about
- ㄱ. 13 percent.
  - ㄴ. 33 percent.
  - ㄷ. 40 percent.
  - ㄹ. 66 percent.
3. According to the author, one weakness of the now-classic study on noise conducted in the 1970s is that the lower reading scores
- ㄱ. were found only among children.
  - ㄴ. do not prove anything about general learning ability.
  - ㄷ. could have been caused by something besides noise.
  - ㄹ. were found only in one area of New York City.
4. The underlined word "clinch" (paragraph 7) is closest in meaning to
- ㄱ. decide.
  - ㄴ. explain.
  - ㄷ. open.
  - ㄹ. remove.
5. The experiment in Germany showed that, compared to students in a quiet classroom environment, students in a noisy classroom environment
- ㄱ. did not listen to their teacher as much.
  - ㄴ. had lower memory and reading scores.
  - ㄷ. suffered permanent changes to their learning abilities.
  - ㄹ. came from a low-income family background.

6. The passage suggests that long-term exposure to raised sound levels
- イ. is not related to heart disease.
  - ロ. is less harmful once people get used to it.
  - ハ. cannot be avoided in modern society.
  - ニ. has physical effects that may not be noticed.
7. Studies suggest that children in noisy classrooms tend to
- イ. become more aggressive.
  - ロ. lose interest and motivation.
  - ハ. become puzzled by their studies.
  - ニ. develop techniques for coping with the noise.
8. All of the following are mentioned as possible effects of exposure to noise EXCEPT
- イ. sleep disturbance.
  - ロ. lower test scores.
  - ハ. higher blood pressure.
  - ニ. conflicts among neighbors.
9. The author would probably agree that noise pollution
- イ. is just as harmful as air and water pollution.
  - ロ. has been a central concern of the environmental movement.
  - ハ. is not easy to measure objectively.
  - ニ. harms people's mental rather than physical health.
10. The most appropriate title for this passage is
- イ. The Benefits of a Quiet Life.
  - ロ. Sources of Noise in Modern Society.
  - ハ. Noise: The Invisible Pollution.
  - ニ. The Effects of Noise on Memory.

- II. 次の文を読み、下記の1～9それぞれに続くものとして、本文の内容ともっともよく合致するものを、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

The world's farmers need a pay raise, or else, come mid-century, the other 7 billion of us may not have enough to eat.

As the Earth Policy Institute notes, the world produced more grain than it consumed throughout the 1970s, 1980s, and 1990s. Today, those surpluses are gone. While the world harvested 20.4 million tons of grain between 2001 and 2010, it consumed 20.5 million tons. In October 2009 the United Nations' Food and Agriculture Organization (FAO) reported that world food production would have to increase 70 percent by 2050 to adequately feed the planet's growing population. In developing nations alone, this would require an investment of \$83 billion a year. And, the organization noted, "farmers and future farmers will invest in agriculture only if their investments are profitable."

In the 21st century, market power is concentrated in a very small number of food corporations and supermarkets that buy food worldwide. The food corporations minimize their costs by paying farmers less for farm products. The power of the farmer to resist downward price pressure has weakened, as farmers in rich and poor countries alike now compete intensely with each other to sell at the lowest possible prices.

At the same time, the manufacturers of fuel, machinery, \*fertilizer, chemicals, seeds, and other necessities have grown much larger, more globalized, and more powerful. When farm product prices rise, the industrial firms increase the price of their products. In 2008, when grain prices rose 80 percent, fertilizer prices went up as much as 160 percent, and oil was \$160 a barrel.

Farmers are trapped between powerful global food firms that drive down the prices of their produce and powerful industrial firms that drive up the cost of their inputs. Cheap food prices also reduce national and international investment in agriculture, as investors consider farming less profitable than other opportunities. Because of these investment risks, farmers cannot readily adopt more sustainable and productive techniques. As a result, world food output is increasing too slowly to meet rising demand and overall farm productivity gains are sliding.

In a recent survey, FAO researchers reported that 24 percent of Earth's land surface was seriously damaged, compared with 15 percent estimated by a similar survey in 1990. The FAO team noted that the land was being worn down at a rate of around .1 percent a year. This degradation is caused primarily by the low profitability of agriculture, which drives many farmers (particularly in poorer regions) to misuse their land.

Much the same applies to <sup>\*\*</sup>irrigation: "In order to double food production we need to double the water volume we use in agriculture, and there are serious doubts about where there is enough water available to do this," says Colin Chartres, director general of the International Water Management Institute.

Solutions to land and water degradation are fairly well known and have been shown to work. Unfortunately, most farmers cannot afford to carry them out, even though many would like to do so. And there's little in the way of government assistance. In the United States, for example, public funding for agricultural research and development grew 3.6 percent a year from 1950 to 1970, but only 1.4 percent a year from 1970 to 2007. University of Minnesota economists write: "A continuation of the recent trends in funding, policy, and markets is likely to have significant effects on the long-term productivity path for daily foods in developed and developing countries alike." While a few highly efficient and profitable producers continue to make advances, many farmers in the world are being left behind—especially small farmers, who currently feed more than half the world.

Although most experts agree that we should be seeking ways to sustainably double food output over the next 50 years, the ruling economic signal for the farmer is: Don't do it. If we simply obey the marketplace and allow agricultural output to gradually fall behind, however, 9 billion consumers will be exposed to unmatched price jumps, which will place the poor in danger and may well lead to government unrest and regional wars. Instead of taking this <sup>\*\*\*</sup>*laissez-faire* approach, policy makers need to find ways to increase farmers' incomes, which would provide incentives for investment, innovation, and production.

Here are a few ways to address the issue:

- Consumers, supermarkets, and food processors could pay more for food to protect the resource base and enable farmers to invest in new technologies.



- ・ Governments could pay farmers a social wage, separate from their commercial food production, for exercising proper care of soil, water, atmosphere, and biodiversity.
- ・ Regulations could reduce the use of technologies that degrade the food resource base and reward those that improve it.
- ・ Markets could be established to offer farmers higher returns for wise and sustainable farming practices.
- ・ Public education programs could demonstrate how to eat more sustainably, and industry education programs could show examples of sustainability standards and techniques.

None of this will be easy or work overnight, of course, but if we want long-term food security, it is imperative that a serious debate take place about how to deliver fairer incomes to farmers worldwide, countering the unintended effects of today's overwhelming market forces.

\*fertilizer : 肥料

\*\*irrigation : 灌漑

\*\*\**laissez-faire* : 自由放任主義の

1. The second paragraph suggests that
  - イ. the world population will increase 70 percent by 2050.
  - ロ. farmers are still able to produce a food surplus.
  - ハ. agricultural methods have changed little since the 1970s.
  - ニ. farmers' willingness to invest depends on profitability.
  
2. The passage suggests that farmers earn less for their produce than before due to the power of
  - イ. investors.
  - ロ. food corporations.
  - ハ. consumers.
  - ニ. governments.

3. The underlined word “sliding” (paragraph 5) is closest in meaning to
- イ. breaking.
  - ロ. continuing.
  - ハ. decreasing.
  - ニ. improving.
4. The increase in degraded land since 1990 is due mainly to
- イ. population growth.
  - ロ. climate change.
  - ハ. poor farming practices.
  - ニ. gains in agricultural productivity.
5. The passage suggests that solutions to land and water degradation are
- イ. costly to carry out.
  - ロ. already being used in most countries.
  - ハ. of little interest to farmers.
  - ニ. not very effective.
6. The passage suggests that if food production continues to decline at the current rate,
- イ. there will be a worldwide economic depression.
  - ロ. small farms will disappear in most countries.
  - ハ. governments will lose control over farmers.
  - ニ. the poor will be less able to provide for themselves.
7. The passage mentions all the following solutions to the problem of food production EXCEPT that
- イ. food corporations should do research on farming practices.
  - ロ. the public should be educated about sustainable farming.
  - ハ. governments should pay farmers for good farming practices.
  - ニ. markets should be created to support sustainable farming.

8. The underlined word "imperative" (last paragraph) is closest in meaning to

- イ. considerable.
- ロ. essential.
- ハ. final.
- ニ. influential.

9. The author would probably agree that

- イ. farmers have little economic incentive to increase their output.
- ロ. market forces will solve the problem of food production.
- ハ. it is inevitable that billions of people will go hungry in the future.
- ニ. consumers can do little to help solve the food problem.

Ⅲ. 次の1～8それぞれの空所を補うのもっとも適当なものを、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

1. ( ) out of the band, she began a solo career.

イ. Throwing      ロ. Thrown      ハ. Having thrown      ニ. Threw

2. If I had won the lottery, I ( ) a new car.

イ. would buy      ロ. bought      ハ. would have bought      ニ. would have been buying

3. This website contains ( ) information on new movies.

イ. many      ロ. several      ハ. few      ニ. lots of

4. ( ) so many people ill, the school decided to cancel some of the classes for one week.

イ. Regarding      ロ. Reported      ハ. Since      ニ. With

5. Cars imported from other countries are a lot better than ( ) made in our country.

イ. all      ロ. them      ハ. those      ニ. which

6. Contrary to popular belief, aerobic exercise does not make you tired and sleepy. If ( ), it helps you concentrate more.

イ. anything      ロ. everything      ハ. nothing      ニ. something

7. In the past decade, around 2 million children have been killed in armed conflict, and ( ) have been seriously injured.

イ. as many three times      ロ. as three times many

ハ. many as three times      ニ. three times as many

8. This renewable energy project is expected to create more than 4,000 jobs ( ) reducing the amount of CO<sub>2</sub> emissions.

イ. although      ロ. furthermore      ハ. due to      ニ. while

IV. 次の会話文A・Bの空所(1)～(4)を補うのもっとも適当なものを、それぞれ対応する下記のイ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

Conversation A

Peter: I'm glad the weekend is finally here.

Gwen: Me too. It was a really busy week. ( 1 ) What are you doing?

Peter: I don't have any plans yet. How about you?

Gwen: I'm not sure, but I was thinking about going to see a movie.

Peter: Which one?

Gwen: The new Spiderman movie.

Peter: ( 2 ) Can I join you?

Gwen: Sure. What time shall we meet?

(1) イ. There was not much to do.

ロ. I'm ready for some fun.

ハ. I had a lot of spare time.

ニ. And I'll be away on work this weekend.

(2) イ. That sounds like a lot of fun.

ロ. I read a bad review on that movie.

ハ. I don't like romance movies.

ニ. I don't understand why people like comic figures.

Conversation B

Haley: Hi. How are you?

Casey: Horrible. I caught a cold five days ago, ( 3 ) The cough has gotten deeper, and I feel like I've been hit by a freight train!

Haley: Did you take any medicine?

Casey: Yes, I've been taking some every four hours, but it doesn't seem to help me.

Haley: You should be taking a lot of fluids, too.

Casey: I know. ( 4 )

(3) ㄱ. but I feel better now.

ㄴ. and now it's getting worse.

ㄷ. but I got over it.

ㄹ. and it hasn't changed much.

(4) ㄱ. I've been taking a lot of showers.

ㄴ. But I don't feel hungry.

ㄷ. But I don't like lying in bed.

ㄹ. I've been drinking a lot of water.

V. 次の空所(1)～(6)それぞれにもっとも適当な1語を補い, 英文を完成せよ。解答は解答用紙の所定欄にするせ。

When Professor Kato was assigning project partners for his biology class, I was hoping to be paired with a smart student or at least someone I could have some fun ( 1 ). Above all, I hoped he ( 2 ) not assign me to work with one particularly competitive student. However, ( 3 ) fate would have it, Professor Kato announced that I would be working with the one person in class I wanted to ( 4 ). I went up to my new project partner and ( 5 ) myself. He looked at me as ( 6 ) I weren't there. He just gave me the impression that he could do any project better if he did it alone.

【以下余白】