

## D 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。

Africa's air pollution is causing more premature deaths than unsafe water or childhood malnutrition and could develop into a health and climate crisis that had once been seen in China and India, a study by a global policy forum has found. The first major attempt to calculate both the human and financial cost of the continent's pollution suggests dirty air could be killing 712,000 people a year prematurely, compared with approximately 542,000 from unsafe water, 275,000 from malnutrition and 391,000 from unsafe sanitation. While most major environmental hazards have been improving with development gains and industrialization, outdoor air pollution from traffic, power generation, and industries is increasing rapidly, especially in fast-developing countries such as Egypt, South Africa, Ethiopia, and Nigeria.

"Annual deaths from \*ambient particulate pollution across the African continent increased by 36% from 1990 to 2013. Over the same period, deaths from household air pollution also continued to increase, but only by 18%," said a researcher at the Paris-based Organization for Economic Co-operation and Development (OECD). The OECD is funded by the world's richest 35 countries. For Africa as a whole, the estimated economic cost of premature air pollution deaths in 2013 was roughly \$215 billion a year for outdoor air pollution, and \$232 billion for household, or indoor, air pollution.

The study's author, Rana Roy, is concerned by the pace at which outdoor air pollution is growing in Africa, bucking the downward trend in most industrialized countries. Used cars and trucks imported from rich countries are adding to urban pollution caused by household cooking on open fires.

"This mega-trend is set to continue to unfold throughout this century. It suggests that current means of transportation and energy generation in African cities are not sustainable," said Roy. "Alternative models to those imported from industrialized economies, such as dependence on the individual automobile, are necessary."

"It is striking that air pollution costs in Africa are rising in spite of slow industrialization, and even de-industrialization, in many countries," said Roy.

“Should this latter trend successfully be reversed, the air pollution challenge would worsen faster, unless radically new approaches and technologies were put to use. The ‘new’ problem of outdoor air pollution is too large to be ignored or postponed to tomorrow’s agenda. At the same time, Africa cannot afford to ignore the ‘old’ problem of household pollution or to consider it largely solved: It is only a few high-income countries—Algeria, Egypt, Libya, Mauritius, Morocco, Seychelles, and Tunisia—that can afford to view the problem of air pollution as being a problem of outdoor particulate pollution alone,” according to Roy.

The study stresses that there is not nearly enough knowledge of the sources of air pollution and its impact in much of Africa. It quotes a UK professor of atmospheric chemistry at York University, who is leading a large-scale investigation of air pollution in West Africa. “London and Lagos (Nigeria) have entirely different air quality problems. In cities such as London, it’s mainly due to the burning of <sup>\*\*</sup>hydrocarbons for transport. African pollution isn’t like that. There is the burning of trash, cooking indoors with inefficient fuel stoves, millions of steel diesel electricity generators, and petrochemical plants, all pushing pollutants into the air over the cities. Compounds such as sulphur dioxide, benzene, and carbon monoxide, that haven’t been issues in western cities for decades, may be a significant problem in African cities. We simply don’t know.”

Whereas China has reached a level of development that has allowed it to concentrate on solving air pollution, most African countries must grapple with several major environmental burdens at the same time, said the study. “They are not in the position of China, which can today focus on air pollution undistracted by problems such as unsafe water or underweight children,” said Roy.

Henri-Bernard Solignac-Lecomte, head of the Europe, Middle East, and Africa unit at the OECD Development Centre, said the study stresses concrete actions for air pollution in Africa because it increasingly hurts people and limits economic development. Reducing it requires urgent action by governments to change the unsustainable course of urbanization. Indeed, Africa is urbanizing at a very fast pace: Today’s 472 million urban dwellers will be around a billion in 2050. Today’s investment choices will have decade-long impacts on urban infrastructure and the quality of life of people living in urban areas.

“Bold action to improve access to electricity, using clean technologies such as solar power, can contribute to reducing the exposure of the poorer families to indoor smog from coal or dung-fired cooking stoves. As for outdoor pollution, African economies would be well advised to learn from the experience of industrialized countries, for example by developing mass public transportation systems—like Rabat or Addis Ababa are doing with their tramways,” said Solignac-Lecomte.

Roy warned that the human and economic costs of air pollution might “explode” without bold policy changes in Africa’s urbanization policies. He concluded with a call for urgent international action: “Africa’s population stands at 1.2 billion, or 16% of the world’s population today. If its local air pollution is now contributing to climate change, it is likely to contribute considerably more when its population increases to around 2.5 billion, or 25% of the world’s population in 2050, and to around 4.4 billion, or 40% of the world’s population in 2100.”

\* ambient particulate : 大氣中微粒子

\*\* hydrocarbons : 炭化水素

1. One idea of the first paragraph is that
  - イ. outdoor air pollution is increasing rapidly in certain African countries.
  - ロ. industrialization has had little effect on environmental hazards in Africa.
  - ハ. unsafe water is currently the worst environmental hazard in Africa.
  - ニ. China and India were able to avoid a health crisis arising from air pollution.
  
2. Between 1990 and 2013, annual deaths in Africa due to ambient particulate pollution
  - イ. showed a similar increase for both outdoor and household pollution.
  - ロ. decreased twice as fast for household pollution as for outdoor pollution.
  - ハ. showed a similar decrease for both outdoor and household pollution.
  - ニ. increased twice as fast for outdoor pollution as for household pollution.

3. The underlined word "bucking" (paragraph 3) is closest in meaning to
- イ. following.
  - ロ. forcing.
  - ハ. opposing.
  - ニ. representing.
4. The underlined sentence, "Alternative models to those imported from industrialized economies, such as dependence on the individual automobile, are necessary" (paragraph 4), means that African cities need to
- イ. reduce imports of automobiles from Western countries.
  - ロ. develop new approaches to transportation and energy generation.
  - ハ. create new models for the scientific understanding of air pollution.
  - ニ. follow the example of Western cities in coping with industrialization.
5. The passage suggests that high-income countries like Algeria and Egypt have
- イ. escaped the problems of air pollution suffered by other African countries.
  - ロ. made strong efforts toward solving its outdoor air pollution problems.
  - ハ. neglected to deal with the problem of air pollution in their cities.
  - ニ. made real progress in solving its household air pollution problems.
6. Compared with air pollution in Western cities like London, air pollution in African cities is
- イ. caused by a diversity of sources.
  - ロ. rooted in cultural traditions.
  - ハ. due mainly to automobile exhaust.
  - ニ. difficult to measure.
7. The underlined word "grapple" (paragraph 7) is closest in meaning to
- イ. continue.
  - ロ. cooperate.
  - ハ. deal.
  - ニ. disagree.

8. The passage mentions all the following solutions to the problem of air pollution in Africa EXCEPT
- イ. developing clean energy sources.
  - ロ. preventing urbanization.
  - ハ. building public transportation systems.
  - ニ. supplying households with electricity.
9. One theme of the passage is that air pollution in Africa is
- イ. basically the same in all African countries.
  - ロ. not a source of climate change.
  - ハ. similar to air pollution in advanced Western countries.
  - ニ. not yet fully understood.
10. The most appropriate title for this passage is
- イ. Africa: The Negative Side of Industrialization.
  - ロ. The Human and Economic Costs of Air Pollution.
  - ハ. Africa's Problem with Air Pollution.
  - ニ. Sources of Environmental Pollution in African Countries.

II. 次の文を読み、下記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。

All dogs like to play, which is one of the reasons why humans find dogs so entertaining. We all seem to get a kick out of the excitement which our dogs show when we wave a newly purchased toy in front of them. The average dog owner in the U.S. spends nearly \$50 a year on toys, according to a 2015 national survey of pet owners by the American Pet Products Association. However, despite the intense interest that a dog may show for the new toy, perhaps only 15 or 20 minutes later, you usually find the toy lying in the middle of the floor being ignored by your pet. There are some exceptions, and some dogs may find a particular favorite toy that they carry around with them for days on end, and they may even carefully tuck it into their bed and sleep beside it. However, as a general rule the interest that dogs have in most toys is short-lived.

Sometimes we can get a clue as to what is going on in the dog's mind by looking at the behavior of human children. For the most part, children (and many adults) like to interact with new things. This preference for newness is a tendency that psychologists call "neophilia." That means that often it is the novelty of the toy that is most attractive, rather than the specific nature of the toy.

The importance of neophilia in dogs' preferences for toys was demonstrated in an experiment published in a report in the journal *Animal Cognition*. Patricia Kaulfuss from the University of Giessen in Germany and Daniel Mills from the University of Lincoln in the UK familiarized 17 dogs with two different toys. To begin with, the experimenters played with the dogs using the toys. This was to ensure that the dogs were interested in them. They then presented the dogs with a lineup of three toys—the two that they already had played with plus a novel toy. Each dog saw three different lineups and was exposed to three different unfamiliar objects over the course of the study. The dogs were allowed to approach each lineup and to sniff or pick up any one of the toys that they were interested in. The results were incontrovertible—the dogs chose the unfamiliar new toy 76% of the time. For dogs, "new" was clearly better and more interesting than "old."

The fact that dogs show neophilia explains why they become bored with toys

so quickly. New objects can't be new forever so the interest based on novelty is often not very long-lasting. This was demonstrated in a study by Anne Pullen and John Bradshaw at the University of Bristol Anthrozoology Institute. They conclude that dogs "show intense but temporary neophilia towards novel objects" with the important word being "temporary."

In this study the researchers used 16 adult Labrador Retrievers (taking advantage of the fact that Labs are very playful dogs). A variety of toys were used. In the test sequence the dogs were given one toy for 30 seconds. Then the toy was taken away and after a brief interval the toy was brought back. This continued until the dog stopped showing interest or interacting with the toy. On average after only five 30 second exposures (that is a total of 2 ½ minutes of actual playtime with the toy) the dogs lost interest. The researchers did test a variety of different things to see if they could lengthen the dogs' time at play with the toy; however, this was without success. It appears that once a dog is completely familiar with the sight, sound, feel, and smell of a toy it becomes rather boring.

However, since this experiment used toys that were of different types, with different colors, different textures, and different smells, some comments could be made about the dog's initial preference for particular types of toys. Co-author John Bradshaw suggests, "Because we think that dogs perceive toys in the same way that wolves perceive prey, they prefer toys that either taste like food or can be torn apart," which, as all dog owners know, can lead to messy outcomes.

Co-author Anne Pullen adds that they should be "soft, easily manipulable toys that can be chewed easily and/or make a noise. Dogs quickly lose interest in toys with hard surfaces, and those that don't make a noise when manipulated."

The conclusion that we reach from these two pieces of research is that if dogs had their way they would get new toys every day. Although that solution would elate the pet product industry, the good news is that it is possible to have old toys still maintain enough "newness" to make them interesting. The best solution involves not leaving toys scattered around all the time so that they ultimately lose their appeal. Instead, toys can be tucked away, out of sight, for a period of time. These old toys can then be rotated back into service and thus will serve as somewhat "new" objects. It is like being once again fascinated by "Star Trek" reruns when you



come across them on the “oldie” channel on your TV.

Another possibility is to make the toys seem different when you present them to the dog again. This often can be done by changing its scent by rolling it in leaves or grass, applying a drop of perfume, or giving it a quick spray with some fabric freshener. Perhaps the best way to keep a plaything from becoming boring to your dog, however, is to get personally involved. Playing with your dog using that old toy can change the plaything’s worth and the dog’s interest in it. A toy can take on an entirely new meaning when it becomes the focus of interaction between you and your dog. In this way, that old toy becomes a new way of having fun again.

1. The main purpose of the first paragraph is to describe

- イ. the challenge of buying dog toys.
- ロ. the size of the pet toy market in the U.S.
- ハ. the attitude of dogs toward their toys.
- ニ. the popularity of dog toys in the U.S.

2. The passage suggests that neophilia is

- イ. a source of stress for dogs.
- ロ. difficult to study scientifically.
- ハ. caused by dogs’ lack of intelligence.
- ニ. a trait dogs share with humans.

3. In the experiment published in *Animal Cognition*, each dog was exposed to a total of

- イ. 3 toys.
- ロ. 6 toys.
- ハ. 9 toys.
- ニ. 12 toys.

4. The underlined word “incontrovertible” (paragraph 3) is closest in meaning to
- イ. clear.
  - ロ. complex.
  - ハ. negative.
  - ニ. weak.
5. In the study by Anne Pullen and John Bradshaw,
- イ. the dogs did not demonstrate neophilia in their behavior.
  - ロ. the researchers were unable to influence the dogs’ interest in the toys.
  - ハ. the dogs were given a variety of toys in each test sequence.
  - ニ. the researchers limited the dogs’ playtime to 2.5 minutes.
6. The study by Pullen and Bradshaw found that dogs’ initial interest in toys was
- イ. basically the same for all types of toys.
  - ロ. stronger for toys with no smell.
  - ハ. influenced by how hungry the dogs were.
  - ニ. weaker for toys with hard surfaces.
7. The underlined word “elate” (paragraph 8) is closest in meaning to
- イ. confuse.
  - ロ. please.
  - ハ. surprise.
  - ニ. worry.
8. The passage suggests all of the following ways to keep toys interesting for dogs EXCEPT
- イ. keeping the toy out of sight for a while.
  - ロ. changing the smell of the toy.
  - ハ. presenting the toy in a different location.
  - ニ. helping your dog play with the toy.

9. The author would probably agree that

- イ. dogs are difficult to please as pets.
- ロ. U.S. dog owners spend too much money on toys for their dogs.
- ハ. research on dogs has little practical value.
- ニ. dogs have an inborn need for the stimulation of play.

10. The most appropriate title for this passage is

- イ. Recent Research on How to Train Dogs.
- ロ. Which Types of Toys Do Dogs Prefer?
- ハ. The Emotional Life of Dogs.
- ニ. Why Do Animals Like New Things?



IV. 次の空所(1)~(7)を補うのにもっとも適当なものを、それぞれ対応する各イ~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。

A.

Fletcher: This plant shop certainly has quite a selection of flowers and trees to choose from.

Morwenna: Oh, I just love the atmosphere in this shop! It's so lush and fragrant!

Fletcher: So, what do you think we should get for the garden? ( 1 )

Morwenna: I like it just the way it is. But I would like to set up a little fountain or something in the middle of the lawn.

Fletcher: A fountain? What kind of fountain?

Morwenna: Just something cute for the birds to splash around in. But nothing too expensive.

Fletcher: OK. ( 2 ) Pardon me, we're looking for a small garden fountain.

Plant-Shop Staff: Sure. We have several styles to choose from. ( 3 )?

Fletcher: Do you have anything between \$150 and \$200?

Plant-Shop Staff: Of course. We have this elegant fountain for \$160, and this traditional birdbath for \$175. Both of them include free delivery and installation.

Morwenna: Isn't the birdbath lovely? And it's within our budget.

Fletcher: ( 4 ). We'll take the birdbath.

- (1) イ. I spent the entire day in the sun!  
ロ. With my allergies, gardens are torture.  
ハ. Let's have a little picnic!  
ニ. It's so bare and boring at the moment.

- (2) イ. Let me ask.  
□. Why don't we look for something online?  
ハ. Which do you think the birds would like?  
ニ. As soon as I do, I'll be sure to let you know.
- (3) イ. How much did you spend  
□. What's your price range  
ハ. What style did you have in mind  
ニ. Would you like to see a catalogue
- (4) イ. That was close  
□. I'm happy to be of service  
ハ. Then it's decided  
ニ. So is the fountain

B.

Tariq: Hey Janet! You're coming to the party tonight, right? It's gonna be super cool!

Janet: Sorry, Tariq. ( 5 ). Something came up.

Tariq: What!? You have something better to do? Why didn't you tell me? I told everybody that you'd be there!

Janet: Really sorry! I'm taking Deshawn to a movie tonight.

Tariq: Forget the movies. This party will make you feel like you're in a movie! ( 6 )?

Janet: I thought about it. But, you know Deshawn has been pretty down these days. Especially since he lost his job.

Tariq: Yeah, I know. But it's not gonna be any fun without you.

Janet: Are you kidding? You'll have as much fun as you always do.

Tariq: Well, you know where it's happening tonight. ( 7 ).

Janet: Alright. Take care, Tariq.

- (5) イ. I can't make it  
ロ. We don't have it  
ハ. I don't like it  
ニ. You shouldn't have
- (6) イ. How do you feel about that  
ロ. Why don't you bring him along  
ハ. Don't you think you should  
ニ. Isn't that where we're going
- (7) イ. The movie starts at 9:30, I think  
ロ. So, let me know if you change your mind  
ハ. Don't worry about anything  
ニ. That's the only concern I have

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。

Over the past century alone, around 400 languages—about one every three months—have ( 1 ) extinct, and most linguists estimate that 50% of the world’s remaining 6,500 languages will have vanished by the end of this century. Today, the top ten languages in the world claim around half of the world’s population. Can language diversity be preserved, or are we ( 2 ) a path to becoming a monolingual species? Since there are so many imperiled languages, it’s impossible to label just one as the rarest or ( 3 ) endangered, but at least 100 around the world have only a handful of speakers, from Ainu in Japan to Yagan in Chile. It can be difficult to find these people too. There are some famous cases—Marie Smith Jones passed away in Alaska in 2008, taking the Eyak language with her—but usually they are older individuals (often in failing health) who don’t advertise their language skills. “The ( 4 ) the number of speakers, the harder it is to get an accurate headcount,” says David Harrison, chair of the linguistics department at Swarthmore College, and co-founder of the non-profit Living Tongues Institute for Endangered Languages. ( 5 ) if a number of people still speak it, they might live far apart and do not converse with one another. In the case of the last two surviving speakers of the pre-Columbian Mexican language Ayapaneco, they refused to ( 6 ) to each other for years. Without practice, even a native language will begin to degrade in the speaker’s mind.