

英 語

(問 題)

2016年度

〈2016 H28101124〉

注 意 事 項

1. 試験開始の指示があるまで、問題冊子および解答用紙には手を触れないこと。
2. 問題は2～11ページに記載されている。試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁および解答用紙の汚損等に気付いた場合は、手を挙げて監督員に知らせること。
3. 解答はすべて、HBの黒鉛筆またはHBのシャープペンシルで記入すること。
4. マーク解答用紙記入上の注意
 - (1) 印刷されている受験番号が、自分の受験番号と一致していることを確認したうえで、氏名欄に氏名を記入すること。
 - (2) マーク欄にははっきりとマークすること。また、訂正する場合は、消しゴムで丁寧に、消し残しがないようによく消すこと。

マークする時	<input checked="" type="radio"/> 良い	<input type="radio"/> 悪い	<input type="radio"/> 悪い
マークを消す時	<input type="radio"/> 良い	<input type="radio"/> 悪い	<input type="radio"/> 悪い

5. 記述解答用紙記入上の注意
 - (1) 記述解答用紙の所定欄（2カ所）に、氏名および受験番号を正確に丁寧に記入すること。
 - (2) 所定欄以外に受験番号・氏名を書いてはならない。
 - (3) 受験番号の記入にあたっては、次の数字見本にしたがい、読みやすいように、正確に丁寧に記入すること。

数字見本	0	1	2	3	4	5	6	7	8	9
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- (4) 受験番号は右詰めで記入し、余白が生じる場合でも受験番号の前に「0」を記入しないこと。

	万	千	百	十	一
(例) 3825番⇒		3	8	2	5

6. 解答はすべて所定の解答欄に記入すること。所定欄以外に何かを記入した解答用紙は採点の対象外となる場合がある。
7. 試験終了の指示が出たら、すぐに解答をやめ、筆記用具を置き解答用紙を裏返しにすること。終了の指示に従わない場合は、答案のすべてを無効とするので注意すること。
8. いかなる場合でも、解答用紙は必ず提出すること。
9. 試験終了後、問題冊子は持ち帰ること。

I Read the following two passages and choose the most appropriate word or phrase for each item (1~14). Mark your choices (a~d) on the separate answer sheet.

(A)

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- | | | | |
|--------------------|----------------|-----------------|------------------|
| 1. (a) advanced | (b) confined | (c) diminished | (d) materialized |
| 2. (a) abnormal | (b) minimal | (c) principal | (d) topical |
| 3. (a) acquisition | (b) conception | (c) elaboration | (d) transaction |
| 4. (a) drilled | (b) filled | (c) tooled | (d) worked |
| 5. (a) appropriate | (b) insightful | (c) prominent | (d) tolerable |
| 6. (a) denial | (b) shift | (c) tendency | (d) transit |
| 7. (a) allowance | (b) dominance | (c) intuition | (d) selection |

(B) Newspapers have a long history. They can be traced back to Ancient Rome, when the public used to gather around the government bulletin called *Acta Diurna*, attached to notice boards. Although all 'news' in this period must have drawn people's attention, both the literate population and the actual amount of information were severely (8). Later, as literacy rates grew, so did the number and issue-frequency of newspapers. In this way, newspapers, the record of government and of citizens' daily lives, have played an important role in (9) people's knowledge and vision of the world.

Up until the late twentieth century, one of the salient features of newspapers was their capacity to provide an (10) of events, so people could roughly grasp the day's news at a glance. However, with the advent of the so-called 'internet era', the newspaper has been transformed (11) again and many are now published in electronic format, and back copies have been digitalized. People are no longer carrying bulky, inconvenient newspapers on packed rush-hour trains. Instead, they can carry around the contents of hundreds of newspapers on their much smaller tablets. Pages are now layered and (12) so deep on the virtual screen monitor that you never sense how much actual information is there. What is more, highly accessed topics are already presented to you to read on the front page, based on the reading (13) of others — a sort of self-propelling selection process. Under such conditions, readers are in a sense deprived of their (14) to select what they want to read. This packaging of news stories might indicate one of the problems of excessive development of technology.

- | | | | |
|------------------|----------------|---------------|-----------------|
| 8. (a) covered | (b) damaged | (c) limited | (d) undermined |
| 9. (a) expanding | (b) expecting | (c) exploring | (d) extracting |
| 10. (a) aspect | (b) inspection | (c) overview | (d) undertaking |
| 11. (a) ever | (b) much | (c) only | (d) yet |
| 12. (a) buried | (b) dug | (c) pulled | (d) sunken |
| 13. (a) cycles | (b) habits | (c) speeds | (d) transitions |
| 14. (a) duty | (b) intention | (c) right | (d) temptation |

II Read the following three passages and mark the most appropriate choice (a ~ d) for each item (15~24) on the separate answer sheet.

(A) Among the innovations that changed the world in the period between 1880 and 1910, the introduction of photography into the lives of ordinary people is sometimes overlooked and overshadowed by the automobile, the aeroplane, radio, cinema and other notable inventions. Nevertheless, celluloid film, the hand-held camera, and cheap and easy photography were developments that were to have an equal importance for our awareness of ourselves and the world. In February 1900, the Eastman Kodak company introduced the Brownie camera, a cardboard box with a simple camera mechanism, selling at the incredibly low price of \$1. Eastman Kodak had previously made relatively cheap, portable cameras, but the Brownie was revolutionary in bringing photography to everybody. What had previously been the preserve of the professional, and occasional rich amateur, in specially arranged shots, became democratic, immediate, and ubiquitous. Everything was photographed by everybody: childhood, the passing of time, events such as birthdays, holidays, street scenes, domestic circumstances, as well as historic events such as coronations and celebrations, natural disasters and wars. Many great photographers began their interest in the field with getting a Brownie as a child, but for many, many more people, the camera became a way of recording what interested them most, their own lives.

15. What does the passage claim about the importance of photography?

- (a) It was a smaller achievement than those in other fields such as aviation.
- (b) Most photographers preferred the larger expensive cameras to the Brownie.
- (c) People used cheap cameras to take photographs of themselves and their surroundings.
- (d) The camera led to the overthrow of governments and revolutions all over the world.

16. Before the production of the Brownie, photographs

- (a) did not matter to most ordinary people.
- (b) had been of interest mainly to children.
- (c) were taken by professionals and some amateurs.
- (d) were the medium in which great artists worked.

(B) Face-to-face teams have long been a feature of workplace organization. Today, as organizations have become more fluid and flexible they are often constructed around team-based projects. These have the virtue of bringing together necessary expertise, as and when necessary. A well-run team capitalizes on the skills and strengths of its different members to achieve a synergistic effect, a resourceful meeting of minds. But this is rarely accomplished without the help of a skilled team leader, someone who anticipates and manages any destructive conflict, and counters groupthink where dissenters are reluctant to speak out, or defer to the more vocal members.

In the virtual world there are teams that are exclusively electronic, with no expectation of face-to-face contact. Team members and leaders are acquainted solely through their virtual presence such as emails or webcam images. More common, though, is a mixed modality: team members work virtually for much of the time, but with periodic face-to-face meetings. Members of virtual teams can be physically on the same worksite, even on the same floor of a shared building. But the operational advantages are most apparent when members are separated by considerable distances, even different countries. The Rieter organization, for example, is a Swiss company that provides machinery to yarn producers. When its market switched to China and India it shifted its manufacturing base to those countries, while retaining its research and development facilities in Switzerland, Germany, and the Czech Republic. The separation of core activities created virtual teams that needed to work together and communicate across time and language zones—which they did, with the help of specialized software that could work in five different languages.

17. A skilled team leader in a face-to-face team is expected

- (a) not to allow any members to feel engaged in the decision-making process.
- (b) not to allow the pressure to conformity to misdirect the discussion.
- (c) to encourage members to express their opinions confidently in a loud voice.
- (d) to strive for unanimous agreement in the group as much as possible.

18. In the virtual world,

- (a) emotional connection between workers becomes almost unnecessary.
- (b) the power of decision is concentrated in people with high expertise in IT.
- (c) there are practically no barriers due to differences of space or time.
- (d) workers don't have to have any specialized skills or work experience.

19. The Rieter organization

- (a) does not have one fixed place of production of its own.
- (b) employs its workers regardless of their language abilities.
- (c) has ceded its manufacturing sections to Asian companies.
- (d) has realized the most sophisticated way of communication.

(C) In the early 1970s Asia's rice farmers faced ruin. The brown planthopper, an insect which fed on young plants, transmitted a virus, causing crops to shrivel and brown. By the end of the decade it had caused damage costing over \$300 million — more than \$1 billion in today's money. Scientists raced to find a solution. They screened over 6,000 samples of rice and its wild relatives until they found a unique sample from central India of a wild species that was resistant to the virus. By crossing it with domesticated rice strains, plant-breeders transferred the resistant genes into a new variety. Today, millions of farmers across Asia grow rice derived from such crosses.

'Crop wild relatives' — the wild ancestors of cultivated plants — are a valuable weapon in the fight against hunger. Together with varieties used by traditional farmers, they contain a wealth of genetic diversity. Yet they are under-researched and under-collected. With their survival threatened by population growth and environmental damage, the race is on to find them before it is too late.

Climate change is expected to cause higher temperatures and more frequent droughts, changing the distribution of pests and diseases. Population growth will add to the pressure on productive land: the UN Food and Agriculture Organisation (FAO) says humanity will need 70% more food by 2050.

Dependence on a few staples worsens the consequences of any crop failure. Just 30 crops provide humans with 95% of the energy they get from food, and just five — rice, wheat, maize, millet and sorghum — provide 60%. A single variety of banana — Cavendish — accounts for 95% of exports. A fast-spreading pest or disease could see some widely eaten foodstuffs wiped out.

That makes it even more important to preserve the genetic diversity found in crop wild relatives and traditional varieties as an insurance policy. Alas, much of it has already disappeared. In the 1800s American farmers and gardeners grew 7,100 named varieties of apple. Today, at least 6,800 of them are no longer available, and a study in 2009 found that 11 accounted for more than 90% of those sold in America. Just one, 'Red Delicious', a variety with a thick skin that hides bruises, accounts for 37%.

Seed banks are the best hope of preserving those crop varieties and crop wild relatives that remain. Dehydrating and freezing seeds means that they can be kept for hundreds, perhaps even thousands, of years, and still sprout when given light and water, as botanists need to do on occasion. Some 7.4 million samples are already in seed banks around the world, but huge gaps exist.

Increasingly, assistance and funding is being given to institutions such as the International Centre for Tropical Agriculture (CIAT), a research facility in Colombia, and the Millennium Seed Bank (MSB) in Britain, which is the world's largest wild-plant seed bank, housing 76,000 samples from more than 36,000 species. The MSB co-ordinates 'Adapting Agriculture to Climate Change', a \$50 million, ten-year international programme funded by

Norway to collect and store wild relatives of 29 important crops, cross them with their domesticated kin and share the results with breeders and farmers. Among many other seed types, the CIAT's seed bank contains over 36,000 samples of beans, more than any other seed bank, and varieties developed there feed 30 million people in Africa.

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20. According to the passage,
- (a) a few samples of each type of seed are sufficient to guarantee future production.
 - (b) changes in plant distribution are the best way to feed the world's hungry.
 - (c) crop wild relatives are potentially useful in overcoming food shortages.
 - (d) the largest seed bank has developed new types of bananas to improve yields.
21. Which is true of seed banks?
- (a) One major seed bank focuses exclusively on species of beans.
 - (b) Seeds can be preserved for centuries and will still be viable.
 - (c) They maintain seeds of close to 7,000 types of apples.
 - (d) They primarily maintain seeds of fruit-bearing trees.
22. According to the passage, distribution of plant diseases in the future
- (a) can be predicted with data currently being collected.
 - (b) has been well researched and prevention methods are already underway.
 - (c) is less important than increasing productivity and improving transportation.
 - (d) may result from global warming and lack of regular rainfall.
23. According to the passage, crop wild relatives have
- (a) affected population migration and the distribution of pests.
 - (b) potential for increasing the amount of meat produced around the world.
 - (c) provided genes resistant to some of the viruses that damage crops.
 - (d) the potential for improving the yields of cereals in the U.S.
24. Which of the following is the best title for the passage?
- (a) Agricultural Biodiversity Gets Assistance
 - (b) Crop Diversity Declines Due to Weather
 - (c) Fighting Against Hunger
 - (d) Global Warming Main Factor in Crop Damage

III Choose the most appropriate sentence from the following list (a ~ h) for each item (25~31). Mark your choices on the separate answer sheet.

- (a) And more letters failed to survive the chain of forwarding, so that the letters that eventually reached the Boston businessman actually formed a small portion of the original sample.
- (b) Before the mail and telegraph systems were developed in the 19th century, it would have taken many days for messages to cross the continent, and news of important events was often too late for action to be taken.
- (c) Milgram also asked the recipients to pass on the same instructions to the next in line, and to inform him and his researchers of the action taken.
- (d) One is that the experiment was held in only one country, the USA, which was undoubtedly the most developed and thus most connected country in the world.
- (e) The answers lie in experiments conducted in the mid-1960s by an American psychologist, Stanley Milgram.
- (f) The world is indeed a global village now, though it is a sprawling, chaotic, and duplicitous virtual space, rather than the happy village of letter writers imagined by earlier commentators.
- (g) This phrase expresses the notion that if you take all the people you know, then all the people they know, and so on, to six degrees, you will end up with the entire population of the world.
- (h) Which, in view of the spirit of the time, encouraged by the idea of a television and satellite linking of the world, became widely disseminated to a non-academic readership and thence into a widely-held belief.

It's a small world as the song goes, meaning not that the planet Earth is small, but that humanity is closely connected; our 'global village' is a network of friendship and acquaintance, linking each person into one big community of human life. This idea, of global connection forming a kind of super-village community, became popular in the 1960s, and had a particularly influential expression in the phrase, 'six degrees of separation'. (25) Thus, you know someone, who knows someone, and so on until we reach the President of the United States, or a famous movie star, or a schoolchild in South Africa, or an Inuit hunter-gatherer in the Arctic regions of Canada. All within six degrees.

Is this idea actually true, and how was the number six arrived at? (26) A letter containing a package of instructions was sent to about 300 people, selected randomly in Kansas and Nebraska, states chosen for their geographical centrality in America. The recipients of Milgram's letter were asked to forward the letter to people they knew, with the aim of having the letter forwarded eventually to a named person, a businessman living in Boston,

some 2000 kilometers away. (27) Although none of the people selected knew the Boston businessman directly, there were some cases where a very rapid connection was made, with the starting person knowing someone in Boston, who knew the end person, or someone who did know him, thus reaching the target in two or three steps. In other cases, however, the starting person in Nebraska or Kansas simply forwarded the letter to somebody they directly knew, who they hoped would know someone else in the chain.

When the experiment was finished, Milgram and his team analyzed and published the results. The experiment, and follow-up experiments, seemed to show that very occasionally the target was reached very rapidly, and in other cases would take up to ten or eleven steps, but on average the process took about six steps. And thus the idea of 'six degrees of separation' was created. (28) Although Milgram himself did not use the phrase, he was adept at media relations at the same time as being a highly prestigious academic, and he did little to discourage the publicity.

There are, of course, some problems with the simplicity of the six-degree model of connectedness. (29) Would the same results have occurred in less developed countries in Africa or South America? Another problem with the media presentation of Milgram's experiment was that the data did not actually establish the simple conclusions understood by the general public. As with almost all unsolicited surveys and questionnaires, the vast majority of the starting participants did not participate, and simply threw the original letters into the trash. (30) People who willingly participate in surveys are often a rather select group, and it may well have been that the participants were already the type of people who would know more people and thus be more connected than those of the sample who were unwilling to take part in such experiments.

Looking back at these 1960s' beliefs from our vantage point in the 21st century, the conclusions seem both prophetic and archaic. The advent of the World Wide Web in the 1990s and social networking have brought about the situation where degrees of separation seem hardly to exist at all in the age of Google, Facebook, Twitter and LINE. (31) Perhaps those awkward people who simply refused to pass the letter on and become involved in the network of the small world were more far-sighted than anti-social, after all.

IV Choose the most appropriate phrase from the list (a ~ m) for each item (32 ~ 38).
Mark your choices on the separate answer sheet.

Ms Terai, a Japanese teaching assistant, is meeting a visiting foreign professor, Dr Biswas, at Narita Airport.

Terai: Doctor Biswas? Doctor Mohendra Biswas?

Biswas: Yes, I am he. How (32)?

Terai: I recognised you from the photograph on the back of your latest book.

Biswas: Ah, I see. I think I may be a trifle older, but it is very perceptive of you to (33).

Terai: Thank you. And welcome to Japan, Doctor Biswas. My name is Yoshimi Terai; I work with Professor Bando at the Institute. We are very much looking forward to your stay with us.

Biswas: Well, thank you very much indeed. I'm really (34), and looking forward to it, too.

Terai: Please let me take your bag, Doctor Biswas, and if you would like to (35), we can go down to the train platform.

Biswas: Not a taxi?

Terai: Erm, no. The taxi from the airport to the city centre actually (36) than the train. You'll find during your visit that taxis here are useful for short distances, but over longer distances, trains or the subway are much more convenient and quicker.

Biswas: And friendlier to the environment, (37).

Terai: Yes, that is (38), Doctor Biswas. Please follow me.

- (a) are you doing
- (b) come this way
- (c) costs much more
- (d) did you know
- (e) give that impression
- (f) glad to be here
- (g) I should think
- (h) indeed the case
- (i) over the limit
- (j) pick me out
- (k) take a nap
- (l) takes more time
- (m) tired right now

V Read the following passage and write an English summary in one sentence in your own words in the space provided on the separate answer sheet.

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[以 下 余 白]

英 語

<2016 H28101124>

受験番号	万	千	百	十	一
氏名					

(注意) 所定の欄以外に番号・氏名を書いてはならない。

採 点 欄

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V-1

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V-2

<2016 H28101124>

受験番号	万	千	百	十	一
氏名					

(注意) 所定の欄以外に番号・氏名を書いてはならない。

V

※解答欄以外には書かないこと

英 語

(記述解答用紙)

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1

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2