

平成 23 年度 入 学 試 験 問 題

英 語

注 意 事 項

1. この問題冊子は、試験開始の合図があるまで開いてはいけません。
2. この冊子は、全部で8ページあります。
3. 解答は、別に配付してある解答用紙の該当欄に記入してください。
4. 受験番号は、それぞれの解答用紙の指定された2箇所に記入してください。決して氏名を書いてはいけません。
5. 解答用紙は、試験終了後回収します。
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1

次の英文を読んで間に答えなさい。

There is much evidence that East Asians and Westerners perceive the world and think about it in very different ways. In general, East Asians use a more <sup>(1)</sup> 'dialectical' mode of reasoning: they are more willing to accept, to entertain, or even seek out contradictory perspectives on the same issue. They see the world in which they live as complex, containing inherently conflicting elements. Where Chinese students try to retain elements of opposing perspectives by seeking to synthesize them, American students try to determine which is correct so that they can reject the other. Presented with evidence for two opposing positions, Easterners are more likely to reach a ( a ), whereas the fact of opposition tends to make Westerners adhere to one position more strongly. Westerners adopt a more 'either/or' approach. In one experiment, Chinese volunteers particularly liked proverbs, whether Chinese or American, that presented an apparent contradiction, such as the Chinese saying 'too humble is half proud.' US participants preferred proverbs without contradictions, such as 'half a loaf is better than no bread.'

Westerners are inclined to attend to some <sup>(2)</sup> focal object, analyzing its attributes and categorizing it in an effort to find out what rules govern its behaviour. Their attention is drawn by the constant features of entities in ( b ). East Asians attend to the whole context, including background and global aspects of a scene, whereas American students focus on a few objects which stand out in the foreground. In one study, Japanese volunteers who saw a cartoon of underwater life later remembered it as an integrated scene, such as a pond with a large school of fish and a clump of seaweed, where their US counterparts mostly recalled a few fish that they had seen in the foreground.

Eastern cultures, and in particular the Japanese, have been characterized as 'interdependent'; in other words, individuals are seen as less isolated than they are in the West, instead forming part of an interconnected social ( c ). For them, the sense of the self develops through understanding its influence on others. <sup>(3)</sup> Self-improvement in such cultures has far less to do with getting what one wants, and far more to do with confronting one's own shortcomings, in the interests of harmony, at home, at work, and

amongst friends. Westerners perform better on tasks with independent demands than on tasks with interdependent demands. (4) East Asians make stronger efforts to justify their choices if they have been made on behalf of a friend; Westerners if made for themselves.

The Japanese word for self, *jibun*, implies a share of something which is both separate and not separate, individual and yet still shared. It is a common Western ( d ) that Japanese culture does not value the individual. On the contrary, originality, self-direction, and autonomy are all highly prized. In fact, the Japanese have a more highly developed sense of private self-consciousness than their American counterparts, with at least as much concern for hidden thoughts, feelings, and motives. But they are more sensitive to their ( e ) to belong, rather than seeking only to feel good because of unique qualities that make one stand apart from others.

問 1. 文中の ( a ) ~ ( e ) に入れるのに、もっとも適切な語を以下の①~⑤から選び、その番号を書きなさい。ただし、同じものを繰り返して用いないこと。

① compromise

② isolation

③ misconception

④ obligation

⑤ web

問 2. 下線部 ( 1 ) の 'dialectical' mode of reasoning とはどのようなものか。30字以内の日本語で説明しなさい。

問 3. 下線部 ( 2 ) の focal object と対比的に用いられている、2語からなる名詞句を文中から2つ抜き出さなさい。ただし、冠詞は語数に含めない。

問 4. 下線部 ( 3 ) にある Self-improvement が意味するのはどのようなことか。その内容を40字以内の日本語で説明しなさい。

問 5. 下線部 ( 4 ) を和訳しなさい。

2

次の英文を読んで問に答えなさい。

The book is dead, I keep hearing as I sit writing yet another in a room lined with them. Technology has killed it. The libraries of the world are doomed to become museums, storage facilities for a form as old as cave paintings. <sup>(1)</sup> Americans, however, tend to bring an either-or mentality to most things, from politics to prose. It was predicted that the invention of television would kill radio. The making of movies was to be the death knell of live theater; recorded music, the end of concerts. All these forms still exist—sometimes overshadowed by their siblings, but not smothered by them. And despite the dreadful predictions, reading continues to be part of the life of the mind, even as computers replace pencils, and books fly into handhelds as well as onto store shelves.

The most provocative account of the effect of technology on literacy is now 16 years old, and while it remains a good read—in ink on paper but not, alas, digitally—the passage of time shows that its dark view of the future is overstated. Sven Birkerts' *The Gutenberg Elegies* notes, correctly, that “our entire collective subjective history—the soul of our societal body—is encoded ( A ).” But the author rejects the notion that words can appear on a computer screen in a satisfactory fashion: “The assumptions that underlie their significance are entirely different depending on whether we are staring at a book or a circuit-generated text,” he says.

Is <sup>(2)</sup> that true? Is Jane Austen somehow less perceptive or entertaining when the words “It is a truth universally acknowledged” appear on the screen? It’s worrying to read that many of the bestselling novels in Japan in recent years have been cell-phone books. But it’s also cheering to hear from e-book owners who say they find themselves reading more because the books come to them rather than the other way around. I remember an impassioned speech in praise of the typewriter delivered years ago by one of my newspaper colleagues: how, he asked, could we write on a keyboard that *made no sound*? Just fine, it turned out.

There is and has always been more than a whiff of snobbery about lamentations that reading is doomed to extinction. That’s because they’re really judgments on human

nature. If you've convinced yourself that America is a deeply anti-intellectual country, it must follow that we don't read, or we read the wrong things, or we read them in the wrong fashion. And now we have gleeful e-elitism as well, the notion that the conventional product, printed and bound, is a hopeless dinosaur. Tech snobbery is every bit as silly as the literary variety. Both ignore the tremendous power of book love. As Kafka once said, "A book must be **ア** [ ax, for, frozen, sea, the, the, us, within ]."

Reading is not simply an intellectual pursuit but an emotional and spiritual one. It lights the candle in the hurricane lamp of self; that's why it survives. There are book clubs and book web sites and books on tape and books online. There are still millions of people who like the paper version, at least for now. And if that changes—well, what is a book, really? Is it its body, or its soul?

問1. 下線部(1)の具体例を本文の中から1つ選び、20字以内の日本語で書きなさい。

問2. 文中の(A)に入れるのに、もっとも適切なものを以下の①～⑤から選び、その番号を書きなさい。

① by computer

② in films

③ in print

④ on screen

⑤ on television

問3. 下線部(2)のthatの表す内容を50字以内の日本語で書きなさい。

問4. 文中の**ア**[     ]の中の語群を文意に沿うよう並べかえなさい。ただし、**frozen**は前から5番目の位置に指定してある。

問5. 筆者は読書の将来をどのように考えているか、40字以内の日本語で説明しなさい。



3

Read the following article and answer the questions below in full English sentences.

They're counting sheep in Scotland, and not because of an outbreak of Celtic insomnia. For the past few decades, researchers have been observing the wild Soay sheep in St. Kilda off the western coast of Scotland. Recently they noticed something odd: the Soays had shrunk. This was surprising because bigger is generally better for sheep. They fatten up on grass during the fertile, sunny summer; when the harsh Scottish winter comes, the grass disappears, and the smallest, weakest sheep tend to die off while their larger, fitter cousins survive to reproduce in the spring.

But in just 25 years, Soay sheep have gotten 5% smaller, on average, according to a new study led by Tim Coulson of Imperial College London. It's not that evolution has gone into reverse in Scotland; rather, global warming has simply made it easier for smaller, less fit Soay sheep to survive. And plenty of other species are quickly adapting to the changing climate in similar ways. It seems, however, global warming, which by one forecast could threaten up to one third of the world's species by midcentury if left unchecked, is emerging as Darwin's new enforcer. "We're definitely seeing evolutionary change connected to climate change," says Arthur Weis, an evolutionary biologist at the University of Toronto. "It's a pretty convincing pattern to find."

Coulson and his colleagues found that the harsh winters in St. Kilda have been getting shorter and milder, largely as a result of climate change. That makes food more abundant and allows some of the younger sheep not only to survive but also to have offspring that tend to be tiny—what Coulson calls the *young mum* effect—yet have a better chance of survival because of the warmer winters. "The environmental and evolutionary processes are intertwined," says Coulson. "There's still natural selection, but it's not leaving as big a signature as it used to."

Christina Holzapfel, an evolutionary biologist at the University of Oregon, and her colleague William Bradshaw have shown that at least one species—the purple pitcher mosquito—has already adapted genetically to changing climates. The nonbiting mosquito is found from the Mid-Atlantic States up to Canada. Mosquitoes in Maine typically begin

hibernating on August 25, when there are about 15 hours of daylight, while mosquitoes in New Jersey hibernate later in the year in response to the later winters farther south. But Holzapfel and Bradshaw found that as the climate warmed and northern winters came later, Maine mosquitoes started hibernating later too—seven and a half days later in 1996 than in 1972. “As the environment changes, individuals that can’t change are unable to survive,” says Holzapfel, who with Bradshaw has identified the genes that control mosquitoes’ response to daylight. “What’s left is a different kind of population that can evolve and move forward.”

In general, species that can reproduce rapidly—like insects and weeds—will adapt more easily to the pace of climate change than large mammals and old trees. “A lot of the species that will be able to evolve in time are ones that we’d consider pests,” says Weis.

The world’s climate has always changed, and species have always evolved to survive it. But the sheer speed of man-made climate change today is unprecedented. Global warming may outrun even the fittest wildlife, and the short-term success of animals like the Soay sheep may not last. “Bad things are happening,” says Holzapfel. There’s a term for what happens when evolution can’t keep pace with climate change: extinction.

- Question 1** Why have Soay sheep in Scotland shrunk in response to global warming, according to Tim Coulson’s study?
- Question 2** How is ‘*young mum* effect’ defined in the article?
- Question 3** What changes did the scientists find in the behaviour of purple pitcher mosquitoes?
- Question 4** Who believes that harmful animals and plants are most likely to survive climate change?
- Question 5** According to the article, what situation can cause a species to die out?

4

次の英文を読んで間に答えなさい。

An inability to process language needn't stop you from doing maths, UK researchers have found. They say that three men suffering ( 1 ) severe aphasia, a linguistic impairment, can understand 'grammatical' rules in mathematics even though they cannot handle analogous rules in language. Aphasia leaves people unable to use or comprehend words, and is often ( a ) by stroke or other brain injuries.

The discovery ( b ) a commonly held view that linguistic and mathematical mental processing draw on the same cognitive resources. "Our findings very strongly turn that idea ( 2 ) its head," says Rosemary Varley, a cognitive neuroscientist at the University of Sheffield, UK. According to the view of cognition developed by linguist Noam Chomsky, language processing is a fundamental skill that is used for related grammatical tasks in the brain, such as certain mathematical ones. Previous studies of the relationship between linguistic and mathematical ability have lent some support to this notion. For example, brain-imaging studies have shown that some areas of the brain involved ( 3 ) language processing also become active when people are performing mathematical tasks. But it has been unclear whether this use of neural language centres is essential for maths; there are also indications that the two mental functions can work independently.

Varley and colleagues set out to clarify the picture by asking patients ( 4 ) aphasia to carry out some mathematical calculations. All three of their patients were ( c ) between 50 and 60 and were well educated; one had been a university professor before incurring a brain lesion. The three men were almost entirely unable to communicate verbally or in writing. "Their natural language grammar was blown ( 5 ) pieces," says Varley. But they clearly retained much of their higher mental functioning and could communicate, for example, through "highly expressive" drawings, she says.

Their impairments left them unable to decode the grammatical relationships of simple sentences. For example, they had great difficulty ( d ) subject and object in the phrase "The boy chased the girl," which they were unable to differentiate from "( 1 )."

Analogous object-relation problems are posed by mathematical expressions such as



90 ÷ 30 and ( □ ). More complex expressions might involve problems of nesting, such as the use of brackets like ( / \ ), which mirror linguistic sub-clauses and embedded relations, such as in the phrase “( = ).” Although the patients were unable to decode such linguistic expressions, they were all able to perform the mathematical calculations accurately with pen and paper. They could interpret Arabic numerals correctly even though they struggled to understand number words such as ‘three’ or ‘ninety,’ when ( e ) or written.

Varley speculates that it might be possible to use this capacity for mathematical grammar to help the patients find a way to interpret speech and the written word. But even if that remains a remote possibility, the study had a much more immediate benefit for the patients. “They really enjoyed doing these experiments,” says Varley. “It was a joy to them to demonstrate competence.”

問1. 文中の ( 1 ) ~ ( 5 ) に、もっとも適切な前置詞を入れなさい。

問2. 文中の ( a ) ~ ( e ) に、以下の動詞を文法的に正しい形に変えて入れなさい。ただし、同じものを繰り返して用いないこと。

age          challenge          distinguish          speak          trigger

問3. 文中の ( イ ) ~ ( ニ ) に入れるのに、もっとも適切なものを以下の①~④から選び、その番号を書きなさい。ただし、同じものを繰り返して用いないこと。

① 30 ÷ 90

②  $90 - [(3 + 17) \times 3]$

③ The girl chased the boy.

④ The man who killed the lion was angry