

平成20年度入学試験問題

英 語 Ⅱ リーディング ライティング

(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9ページ、解答紙は5枚である。「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. 経済学部経済工学科の配点は、表示されているものの $\frac{7}{4}$ 、農学部については $\frac{5}{4}$ です。

英

語

英 語 II
リ ー デ ィ ン グ
ラ イ テ イ ン グ

[1] 次の英文は、19世紀後半に生まれた英国の数学者・哲学者の自伝からの一節である。それを読み、設問に答えなさい。(42点)

At the age of eleven, I began *Euclid, with my brother as my tutor. This was one of the great events of my life, as dazzling as first love. I had not imagined that there was anything so delicious in the world. After I had learned the fifth proposition, my brother told me that it was generally considered difficult, but I had found no difficulty whatever. This was the first time it had dawned upon me that I might have some intelligence. From that moment until *Whitehead and I finished **Principia Mathematica*, when I was thirty-eight, mathematics was my chief interest, and my chief source of happiness.

The beginnings of Algebra I found far more difficult, perhaps as a result of bad teaching. I was made to learn by heart: 'The square of the sum of two numbers is equal to the sum of their squares increased by twice their *product.' I had not the vaguest idea what this meant, and when I could not remember the words, my tutor threw the book at my head, which did not stimulate my intellect in any way. After the first beginnings of Algebra, however, everything else went smoothly.

My grandmother was always afraid that I might overwork, and kept my hours of lessons very short. The result was that I used to work in my bedroom on the sly with one candle, sitting at my desk in a night-shirt on cold evenings, ready to blow out the candle and pop into bed at the slightest sound. I hated Latin and Greek, and thought it merely foolish to learn a language that nobody speaks. I liked mathematics best, and next to mathematics I liked history. Having no one with whom to compare myself, I did not know for a long time whether I was better or worse than other boys, but I remember once hearing my Uncle Rollo saying goodbye to Jowett, the Master of *Balliol, at the front door, and remarking: 'Yes, he's getting on very well indeed,' and I knew,

though how I cannot tell, that he was speaking of my work. As soon as I realised that I was intelligent, I determined to achieve something of intellectual importance if it should be at all possible, and throughout my youth I let⁽⁴⁾nothing whatever stand in the way of this ambition.

注

*Euclid：ユークリッド幾何学

*Whitehead：ホワイトヘッド(英国生まれの哲学者)

**Principia Mathematica*：『数学原理』

*product：積

*Balliol：オックスフォード大学を構成するカレッジの1つ

問 1. 下線部(1)を日本語に訳しなさい。

問 2. 下線部(2)の“bad teaching”の具体的内容を日本語で簡潔に述べなさい。

問 3. 下線部(3)を日本語に訳しなさい。

問 4. “this ambition”の指す内容を明らかにして、下線部(4)を日本語に訳しなさい。

〔2〕 次の英文は、ある科学者のグループが行った研究について述べたものである。
それを読み、設問に答えなさい。(50点)

Working out could help your mind as well as your body keep in shape. Keeping physically fit as we grow older may actually slow down or prevent *dementia.

A group of scientists followed 2,288 people of ages 65 and older for six years. Participants underwent initial testing to determine their *cognitive abilities, which were scored on a scale from zero to 100. None showed signs of dementia or *Alzheimer's disease at the beginning of the study. They were also scored on how they performed on four established physical tests: a timed walk of 10 feet; how long it took participants to stand five times from a seated position; a standing balance assessment; and a grip strength measurement in the dominant hand. Each *subject was scored from zero to four on the tests, with four representing the highest functioning level. The scores were added up to obtain a total physical performance score of up to 16. Those who had the lowest physical performance scores were found also to have the lowest cognitive scores.

The researchers then followed up with the participants every two years, contacting them to assess changes in their physical and mental functioning. At the end of the study, 319 participants had developed dementia, including 221 with Alzheimer's disease. The research subjects with higher physical function scores at the start of the study were three times less likely to have developed dementia than those with lower initial physical function scores.

Subjects whose physical performance scores were greater than 10 were much less likely to develop dementia than those who scored 10 or less. A one-point decrease in the physical performance was associated with an increased risk of dementia or Alzheimer's disease and a faster decline in cognitive performance scores; and the link remained when researchers accounted for other factors, including cognitive function at the beginning of the study, a family history or genetic inclination for Alzheimer's disease, age, gender,

education, and other mental and physical illnesses.

Dr. Eric B. Larson, who co-authored the study, notes, “We had expected _____, but we were surprised to find that physical changes can precede
(3) declines in thinking. That suggests that what is considered a brain disease may be intimately connected to physical fitness.”

Specific physical weaknesses observed among participants at the beginning of the study turned out to be linked with cognitive problems later. For example, those with a slowed walking pace and poor balance were more likely to develop dementia, and among participants with possible mild cognitive impairment, those with poor handgrip were more likely to develop dementia. This suggests that by looking for gait slowing and poor balance, physicians
(4) might be alerted to the earliest stages of dementia in older patients even before cognitive impairment is apparent, according to Dr. Larson, director of the Group Health Center for Health Studies.

注

*dementia : 認知症

*cognitive abilities : 認知能力

*Alzheimer’s disease : アルツハイマー病

*subject : 被験者

問 1. 下線部(1)の4つのテストの内容を日本語で具体的に述べなさい。

問 2. 下線部(2)の“the link”の内容を日本語で具体的に説明しなさい。

問 3. 下線部(3)に入る最も適切な英文を、次の(a) — (d)から1つ選び記号で答えなさい。

(a) changes in physical performance could be detected by the test scores

(b) a decline in physical performance would be followed by cognitive impairment

(c) the earliest signs of dementia would be subtle cognitive changes

(d) keeping physically fit would keep you away from any disease

問 4. 下線部(4)を日本語に訳しなさい。

[3] 次の英文を読み、設問に答えなさい。(48点)

It took our species hundreds of thousands of years to reach a population of 10 million, and we now are adding 10 million people every six weeks. Global population is around 6 billion and it is estimated to reach 7 to 11 billion in the next 50 years. It is unclear, however, whether the Earth's ecological life-support systems can sustain this many people, at least at current standards of living. ⁽¹⁾ Humans currently consume 40 percent of the food available to sustain land animals, and 45 percent of the available freshwater on Earth. Our *toxic pollutants have spread across the planet and are causing serious effects, which we are only now beginning to recognize, on the health and behavior of humans and wildlife.

Humanity has become a geological force and our pollution of the atmosphere is altering the Earth's climate. We are causing the first episode of mass extinction on the planet in 65 million years, with thousands of species vanishing each year. ⁽²⁾ *Homo sapiens* is likely to become the greatest catastrophic actor since a giant *asteroid collided with the Earth 65 million years ago, wiping out half the world's species in a geological instant. By destroying our planet's natural resources, *biodiversity, and the ecosystem, we are weakening its capacity to support our vastly increasing populations, and subsequently creating violent conflicts and health, social, and economic problems for ourselves and future generations.

It is widely agreed that we need to change course and move toward greater ecological sustainability; however, making the necessary changes has proved to be extremely difficult. Most agree that we need to stabilize population growth, and yet family planning efforts have been met with considerable resistance. Some opponents ⁽³⁾ argue that environmental degradation is not due to overpopulation as much as overconsumption and pollution by the rich. Indeed, industrialized countries consume the vast

majority of the Earth's resources. This is why the world's leading scientists have issued a warning to the world, urging developed nations to reduce their consumption. Yet efforts to deal with consumption are also strongly resisted and attacked by politically powerful groups. Most people — including economists and governmental leaders — still maintain that increasing consumption is desirable.

Our environmental problems are clearly due to both overpopulation and excessive consumption, but we face a global deadlock: wealthy countries want poor ones to reduce their population, and poor countries want the rich to reduce their consumption. As the World Commission on Environment and Development recognized: "The Earth is one but the world is not."

(4)

注

*toxic pollutants : 有毒汚染物質

*asteroid : 小惑星

*biodiversity : 種の多様性

- 問 1. 下線部(1)を日本語に訳しなさい。
- 問 2. 下線部(2)を日本語に訳しなさい。
- 問 3. 下線部(3)の "opponents" は, どのような意見に対して反論を述べているのか, 本文に即して日本語で答えなさい。
- 問 4. 下線部(4)の内容を, 本文に即して日本語で具体的に説明しなさい。

[4] 次の文の下線部を英語に訳しなさい。(30点)

英米の生活は基本的に週単位で行なわれている。最近ではいろいろの事情で月⁽¹⁾単位のものも多くなったようだが、かつては給料も家賃も週単位であった。今で
もかなりの部分がそうである。また、仕事や生活の計画は曜日を基本にするのが
普通で、たとえば火曜日は洗濯の日、金曜日は買物の日などとし、人との会合の
約束なども次の土曜日とか、再来週の金曜日とかいうように決める。一ヶ月を分⁽²⁾割して
考えると、日本のように上旬、中旬、下旬などという分け方はせず、
第一週、第二週というような言い方をする。手紙、日記などで日付と曜日を記入⁽³⁾
するときは“Wednesday, Sept. 7, 1988”のように常に曜日が優先する。つまり生
活のすべてが週単位のサイクルで行なわれているのである。

[5] Mistakes and failures provide us with a chance to learn something new. In a 100-word English essay, write about one unforgettable mistake or failure that you have experienced and explain in detail what you have learned from it and its effects. (30 点)