

次の英文を読んで、以下の設問に答えよ。(70点)

1 For many years overpopulation was the ur<sup>\*1</sup>-worry. The prospect of too many people  
 on a finite planet stood behind common environmental worries from pollution to global  
 warming. Significant numbers of educated couples skipped having children at all, or no  
 more than one, so they would do their part in preventing overpopulation. In China, having  
 5 a single child was a forced decision.

(1) While the global population of humans will continue to rise for at least another forty  
 years, demographic trends in full force today make it clear that a much bigger existential  
 threat lies in global underpopulation.

That worry seems preposterous at first. We've all seen the official graph of expected  
 10 human population growth. A steady rising curve swells past us now at 7 billion and peaks  
 out about 2050. The tally at the expected peak continues to be downgraded by experts ;  
 currently U.N. demographers predict 9.2 billion at the top. The peak may be off by a  
 billion or so, but in broad sweep the chart is correct.

But curiously, the charts never show what happens on the other side of the peak.  
 15 The second half is so often missing that no one even asks for it any longer. It may be  
 because it's pretty scary news. The hidden half of the chart is that it projects a steady  
 downward plunge toward fewer and fewer people on the planet each year — and no  
 agreement on how close to zero it can go. In fact, there's much more agreement about the  
 peak than about how few people there will be on the planet in a 100 years.

20 A lower global population is something that many folks would celebrate. The reason  
 it's scary is that the low will keep getting lower. All around the world, the fertility rate is  
 dropping below replacement level, country by country, so that globally there will soon be  
 an unsustainable population. With negative population growth, each generation produces  
 fewer offspring, who produce fewer still, until there are none. Right now, Japan's  
 25 population is way below replacement level, as is most of Europe, Eastern Europe, Russia,  
 the Former Soviet Republics, and some Asian countries. It goes further : Japan, Germany  
 and Ukraine have absolute population decline ; they are already experiencing the  
 underpopulation bomb.

( ① ). While they are above replacement level, their birthrates are dropping fast.  
 30 Much of Africa, South America, the Mideast, and Iran have rapidly dropping fertility rates.  
 The drop in fertility has recently stalled in some sub-Sahara African nations but, that's  
 because development there has stalled. When development resumes, fertility will drop  
 again — because fertility rates are linked to urbanity. There is a deep feedback cycle :  
 The more technologically developed a society becomes, the fewer offspring couples will  
 35 have, (2) 彼らが生活水準を上げることがより容易になるほど、その進展によって大家族を欲  
 する気持ちがより弱くなる。 The result is the spiral of modern technological population  
 declin — a new but now universal pattern.

All that it would take to break this downward spiral is that many women living in cities all around the world decide to have more than two children in order to raise the average fertility level to 2.1 children. (3) That means substantial numbers of couples would have to have three or four children in urban areas to make up for those with none or only one. It possibly could become fashionable to have four kids in the city. The problem is that these larger families are not happening anywhere where the population has become urban, and urbanity is now the majority mode of the population and becoming more so. Every developed country on the planet is experiencing falling birth rates. The one exception has been the U.S. because of its heavy immigration, primarily because of Catholic Hispanic immigrants, but even that is changing. The most recent report shows that the birth rates\*2 of Hispanic immigrants in the U.S. is dropping faster than ever. (4) Soon the U.S. will be on par with the rest of the world, with plunging birth rates.

To counter this scary population implosion, Japan, Russia, and Australia pay bonuses for newborns. Singapore (with the lowest fertility rate in the world) will pay couples \$5,000 for a first child and up to \$18,000 for a third child — ( ② ); Singapore's rate is less than one child per woman. In the past, drastic remedies for reducing fertility rates were difficult, but they worked. Drastic remedies for increasing fertility don't seem to work, so far.

Our global population is aging. The moment of peak youth on this planet was in 1972. (5) その時以来ずっと、地球上の平均年齢は毎年上がってきており、次の数百年間にわたる世界の高齢化に終わりが見えない！ The world will need the young to work and pay for medical care of the previous generation, but the young will be in short supply. Mexico is aging faster than the U.S., so all those young migrant workers who seem to be a problem now will soon be in demand back at home. In fact, after the peak, individual countries will race against each other to import workers, modifying immigration policies, but these individual successes and failures ( ③ ).

The picture for the latter half of this century will look like this: Increasing technology, cool stuff that extends human life, more older people who live longer, millions of robots, but few young people. Another way to look at the human population in 100 years from now is that we'll have the same number of over-sixty-year olds, but several billion fewer youth.

We have no experience throughout human history with declining population and rising progress (including during the Black Plague years). Some modern countries with recent population decline have experienced an initial rise in GDP because there are fewer "capita" in the per-capita calculation, but this masks long-term diminishment. But there can always be a first time!

Here is the challenge: this is a world where every year there is a smaller audience than the year before, a smaller market for your goods or services, fewer workers to choose from, and a ballooning elder population that must be cared for. We've never seen

this in modern times ; our progress has always paralleled rising populations, bigger audiences, larger markets and bigger pools of workers. It's hard to see how a declining yet aging population functions as an engine for increasing the standard of living every  
 80 year. To do so would require a completely different economic system, one that we are not prepared for at all right now. The challenges of a peak human population are real, but we know what we have to do ; the challenges of a dwindling human population tending toward zero in a developed world are scarier because we've never been there before. It's something to worry about.

\*<sup>1</sup>ur : your

\*<sup>2</sup>rates : 正しくは rate。著作権の都合上、原文どおりの表記としてある。

“The Underpopulation Bomb” by Kevin Kelly as featured in *What Should We Be Worried by*  
 John Brockman (originally published on Edge.org)

- ② - 1. 下線部(1)を日本語に訳せ。
- ② - 2. 下線部(2)を英語に訳せ。
- ② - 3. 下線部(3)を日本語に訳せ。
- ② - 4. 下線部(4)のように述べる理由を、句読点を含めて 60 字以内の日本語で説明せよ。
- ② - 5. 下線部(5)を英語に訳せ。
- ② - 6. 本文中の空欄①, ②, ③に入れるのもっとも適切なものを A から E の中から選び、記号で答えよ。
- 空欄①
- A. But most of the developed world has a promising future
  - B. On the other hand, the developing world is experiencing another bomb
  - C. The countries experiencing this bomb are not only developed ones
  - D. The shocking news is that the developing world is not far behind
  - E. This bomb hasn't been as well known as the overpopulation bomb
- 空欄②
- A. and it'll bear fruit
  - B. but to no avail
  - C. so will the others
  - D. the outcome has not become clear yet
  - E. this remedy will work in other countries

## 空欄③

- A. are difficult to judge because there are no criteria
- B. are important and this will decide the global future
- C. cancel out and won't affect the global picture
- D. don't matter because its result is evident from the start
- E. will greatly change the picture of the globe of tomorrow

②－ 7. 次の1から8の文から、本文の内容に一致するものを2つ選び、番号で答えよ。

1. By having no children or only one child, many educated couples contributed to limiting population growth.
2. Experts are in agreement on how many people there will be on the earth a century from now.
3. The fertility rate has fallen below the replacement level all over the world.
4. In some African countries, where fertility rates have stopped falling, the rates are predicted to rise.
5. Bold measures to raise fertility rates seem to be working as effectively as those to reduce fertility rates.
6. It is likely that the number of elderly people will be the same a century from now, though they will represent a larger proportion of the population.
7. The elderly will act as a driving force to raise living standards unless the current economic system is changed.
8. We fear the problems posed by a decreasing population as we do those posed by a peak population, as we've never experienced either.