第１問　次の英文を読んで、後の問いに答えなさい。

Americans and Europeans stand out from the rest of the world for our sense of ourselves as individuals. We like to think of ourselves as unique, autonomous, self-motivated, self-made. As the anthropologist Clifford Geertz observed, this is a peculiar idea. People in the rest of the world are more likely to understand themselves as interwoven with other people. In such social worlds, your goal is to fit in and adjust yourself to others, not to stand out. People imagine themselves as part of a larger whole — threads in a web, not lone horsemen on the frontier. In America, we say that [　ア　]. In Japan, people say that [　イ　].

These are broad brush strokes, but the research demonstrating the differences is remarkably robust and it shows that they have far-reaching consequences. The social psychologist Richard E. Nisbett and his colleagues found that (　あ　). For example, Americans are more likely to ignore the context, and Asians to attend to it. Show an image of a large fish swimming among other fish and seaweed fronds, and the Americans will remember the single central fish first. That's what sticks in their minds. Japanese viewers will begin their recall with the background. They'll also remember more about the seaweed and other objects in the scene.

Another social psychologist, Hazel Rose Markus, asked people arriving at San Francisco International Airport to fill out a survey and offered them a handful of pens to use, for example four orange and one green; those of European descent more often chose the one pen that stood out, while (　い　).

Dr. Markus and her colleagues found that these differences could affect health. Negative affect — feeling bad about yourself — has big, persistent consequences for your body if you are a Westerner. Those effects are less powerful if you are Japanese, possibly because (　う　).

There's some truth to the modernization hypothesis — that as social worlds become wealthier, they also become more individualistic — but it does not explain the persistent interdependent style of Japan, South Korea and Hong Kong.

In May, the journal *Science* published a study, led by a young University of Virginia psychologist, Thomas Talhelm, that ascribed these different orientations to the social worlds created by wheat farming and rice farming. Rice is a finicky crop. Because rice paddies need standing water, they require complex irrigation systems that have to be built and drained each year. One farmer's water use affects his neighbor's yield. A community of rice farmers needs to work together in tightly integrated ways. Not wheat farmers. Wheat needs only rainfall, not irrigation. To plant and harvest it takes half as much work as rice does, and substantially less coordination

and cooperation. And historically, Europeans have been wheat farmers and Asians have grown rice.

Their test case was China, where the Yangtze River divides northern wheat growers from southern rice growers. The researchers gave Han Chinese from these different regions a series of tasks. They asked, for example, which two of these three belonged together: a bus, a train and train tracks? More analytical, context-insensitive thinkers (the wheat growers) paired the { A } and { B }, because they belong to the same category. More holistic, context-sensitive thinkers (the rice growers) paired the { C } and { D }, because they work together.

Asked to draw their social networks, wheat-region subjects drew themselves larger than they drew their friends; subjects from rice-growing regions drew their friends larger than themselves. Asked to describe how they'd behave if a friend caused them to lose money in a business, subjects from the rice region punished their friends less than subjects from the wheat region did. Those in the wheat provinces held more patents; those in the rice provinces had a lower rate of divorce.

I write this from Silicon Valley, where there is little rice. The local wisdom is that all you need is a garage, a good idea and energy, and you can found a company that will change the world. The bold visions presented by entrepreneurs are breathtaking in their optimism, but they hold little space for elders, for longstanding institutions, and for the deep roots of community and interconnection. Nor is there much rice within the Tea Party. Senator Ted Cruz, Republican of Texas, declared recently that all a man needed was a horse, a gun and the open land, and he could conquer the world.

Wheat doesn't grow everywhere. Start-ups won't solve all our problems. A lone cowboy isn't much good in the aftermath of a Hurricane Katrina. As we enter a season in which the values of do-it-yourself individualism are likely to dominate our Congress, it is worth remembering that this way of thinking might just be the product of the way our forefathers grew their food and 【 α 】.

The New York Times, December 4, 2014 (一部改変)

注 lone: 孤独な　robust: 強固である　seaweed frond: 海藻　finicky: 手間がかかる
rice paddy: 水田　irrigation: 灌漑　Yangtze River: 揚子江　Han Chinese: 漢民族
entrepreneur: 起業家　breathtaking: 並はずれている　Tea Party: アメリカの保守系政治団体
Republican: 共和党員　start-up: 起業　aftermath: 被害状況　forefather: 先祖

問 1. 下線部の'interwoven with other people'に最も近い意味のものを 1 つ選び、その番号を答えなさい。

(1) competing with each other
(2) dependent on each other
(3) dominant over other people
(4) irrelevant to other people

問 2. 空所 [ア] と [イ] にはそれぞれあることわざが入る。各空所に入れるのに最も適するものを選び、その番号を答えなさい。(squeaky: きしる)

(1) every failure is a stepping stone to success
(2) it is no use crying over spilt milk
(3) the nail that stands up gets hammered down
(4) the squeaky wheel gets the grease
(5) two dogs fight for a bone and the third runs away with it

問 3. 空所 (あ) ～ (う) にはそれぞれ次の 3 つの内のいずれかが入る。各空所に入るものの番号を答えなさい。

(1) the Asians chose the one more like the others
(2) these different orientations toward independence and interdependence affected cognitive processing
(3) the Japanese are more likely to attribute the feelings to their larger situation and not to blame themselves

問 4. Talhelm は、欧州の個人主義とアジアの集団主義の違いは小麦農業と稲作農業の違いに起因すると述べている。Talhelm がこのように主張する理由を 20 ～ 30 字の日本語で書きなさい。

問 5. 空所 { A } ～ { D } にはそれぞれ次の 3 つの内のいずれかが入る。各空所に入るものの番号を答えなさい。

(1) bus
(2) train
(3) train tracks

問 6. 空所【 α 】には次の(1)～(6)の語句をある順序に並べた表現が入る。２番目と５番目に入るものの番号を答えなさい。

(1) a fundamental truth	(2) about the way	(3) all humans
(4) flourish	(5) not	(6) that

問 7. 本文の内容に合致するものを２つ選び、その番号を答えなさい。

(1) Negative feelings about oneself have more physical effects on Westerners than Japanese because of their individualism.

(2) According to the modernization hypothesis, wealthy social worlds are not necessarily individualistic.

(3) Europeans are more tolerant of their friends' failures because they are more sensitive to context than Asians.

(4) The author points out that entrepreneurs in Silicon Valley are optimistic and think little of elders and longstanding institutions.

(5) A Republican senator in Texas says that the sense of value in rice farming countries is also important in times of trouble.

第２問　次の英文を読んで、後の問いに答えなさい。

There is an old saying that [　ア　]. This saying received empirical support in social psychology in the 1920s, when a series of studies showed that groups were more accurate than their individual members. In an early demonstration of the phenomenon, for example, Columbia University's Hazel Knight asked students to estimate the temperature in a classroom. When the estimates were averaged together, the resulting group answer was more accurate than the estimate of a typical member.

Early authors found this surprising and attributed it to some mysterious group property. Eventually, however, it was recognized as a product of statistics: Using a large sample of imperfect estimates tends to cancel out extreme errors and converge on the truth. Subsequent research in forecasting demonstrated the power of averaging compared to more sophisticated statistical methods of combination. The power and simplicity of averaging was summed up in the title of James Surowiecki's 2004 best-selling book, "The Wisdom of Crowds."

In a fascinating new article in *Psychological Science*, Stefan Herzog and Ralph Hertwig turned the old aphorism on its head: [　イ　]. Herzog and Hertwig had participants make estimates about quantitative values they did not know with certainty — specifically, dates in history. They then had participants make second estimates. Could this "crowd in the mind" help improve judgments? The answer is yes, and the literature on the wisdom of crowds helps us understand why.

Crowds, of course, are not always wise. They are more likely to be wise when two principles are followed. The first principle is that groups should be composed of people with knowledge relevant to a topic. The second principle is that the group needs to hold diverse perspectives and bring different knowledge to bear on a topic. Valuing diversity has become a truism, but it is interesting to consider exactly how diversity improves decision making. People inevitably make errors. The question is whether people make (　あ　) errors, in which case individuals are interchangeable and there is little benefit gained from a crowd; or whether people make (　い　) errors, in which case their errors will often cancel out. Differences in perspective are created both through who is in the group — when people have (　う　) experiences, training, and judgment models — and through process — when ideas are formed and expressed independently from the ideas of others. Interestingly, the benefits of diversity are so strong that one can choose group members that differ pretty widely in their ability and still gain — as long as there is added diversity.

Herzog and Hertwig used the insights of the "wisdom of crowd" perspective to make one head nearly as good as two. After participants made their first guesses at the dates of historical events, they then made a second estimate using one of two methods. In one condition, participants simply gave a second estimate. This condition did little to increase either knowledge or diversity.

In the second condition, participants were given detailed directions for making their follow-up guess: "First, 【 甲 】 Second, 【 乙 】 Third, what do these new considerations imply? Was the first estimate rather too high or too low? Fourth, 【 丙 】" When the participants used the more involved method, the average was significantly more accurate than the first estimate. The "crowd within" achieved about half the accuracy gains that would have been achieved by averaging with a second person.

Herzog and Hertwig called their more involved process "dialectical bootstrapping." You can pull yourself up by your own proverbial bootstraps by assuming that you are wrong, providing a second estimate based on a search for new evidence, and then averaging the two estimates. Interestingly, in Herzog and Hertwig's studies, bootstrapping did not lead to second estimates that were more accurate than the first. The benefit of dialectical bootstrapping was only realized when the first and second estimates were averaged together. Compared to simply providing a second judgment, dialectical bootstrapping creates diversity — it leads to estimates that are more likely to have offsetting errors.

Jack Soll and Richard Larrick: *You Know More than You Think* (*Mind Matters* June 2, 2009)
http://www.scientificamerican.com/article/you-know-more-than-you-think/
(一部改変)

注 converge：収束する　aphorism：格言　truism：当然のこと
crowd within：crowd in the mind と同じ　dialectical bootstrapping：弁証法的自助努力
pull oneself up by one's own bootstraps：独力でやり遂げる　offset：相殺する

問 1. 空所 [ア] と [イ] にはそれぞれ、Hazel Knight の研究結果と Stefan Herzog と Ralph Hertwig の共同研究の結果を簡潔に示す言葉が入る。次の (1)～(6) の中から各空所に入れるのに最もふさわしいものを 1 つずつ選び、その番号を答えなさい。なお、[イ] に入るときは冒頭の文字が大文字になる。

(1) one head can be nearly as good as two
(2) one look is worth a thousand words
(3) one word is worth a thousand looks
(4) two heads are better than one
(5) what happens two times does not happen three times
(6) what happens two times happens three times

問 2. Hazel Knight の実験によって示され、James Surowiecki のベストセラー『群衆の知恵』の書名にもよく示されている社会心理学上の知見をうけて、Stefan Herzog と Ralph Hertwig が実験によって確かめようとしたことはなにか。最も適切なものを (1)～(4) の中から 1 つ選び、その番号を答えなさい。

(1)：多くの人を集めれば、一人の知恵を超えることができるのかどうか。

(2)：多くの凡人を集めても、優秀な一人の知恵を超えることはできないのかどうか。

(3)：一人でも、うまくやれば複数の人を集めた知恵に近いことができるのかどうか。

(4)：より多くの人を集めれば集めるほど、よりすぐれた知恵がえられるのかどうか。

問 3. 本文では、下線部のように「群衆が常に賢明であるわけではない」とし、賢明であるための 2 つの条件が示されている。その条件とは何か。それぞれ 15～20 字の日本語で答えなさい。

問 4. 空所（ あ ）～（ う ）にはそれぞれ 'different' か 'similar' が入る。'different' が入る空所名をすべて書きなさい。1 つもない場合は「なし」と書きなさい。

問 5. 空所【 甲 】～【 丙 】にはそれぞれ次の (A) ～ (C) のいずれかが入る。最も適切な組み合わせを (1)～(6) の中から 1 つ選び、その番号を答えなさい。

(A) assume that your first estimate is off the mark.

(B) based on this new perspective, make a second, alternative estimate.

(C) think about a few reasons why that could be. Which assumptions and considerations could have been wrong?

(1)： 甲－A　乙－B　丙－C　　(2)： 甲－A　乙－C　丙－B

(3)： 甲－B　乙－A　丙－C　　(4)： 甲－B　乙－C　丙－A

(5)： 甲－C　乙－A　丙－B　　(6)： 甲－C　乙－B　丙－A

問 6. Stefan Herzog と Ralph Hertwig の研究によれば、真実の値に最も近い推定値になる傾向があるのはどれか。(1)～(5)の中から 1 つ選び、その番号を答えなさい。

(1)： 1 回目の推定値

(2)： 2 回目の推定値（単純に行った推定）

(3)： 2 回目の推定値（「弁証法的自助努力」に基づいて行った推定）

(4)： (1) と (2) の平均値

(5)： (1) と (3) の平均値

問 7. 数値の推定(教室の温度の推定など)に関して、本文の内容と一致するものを 2 つ選び、その番号を答えなさい。

(1)： 群衆による推定値を真実の値により近いものにするために最も重要なことは、できるだけ多くの人を集めて群衆の規模を大きくすることである。

(2)： 群衆による推定が個人による推定より優れているのは、群衆には個人を超えるある神秘的な能力が備わっているからだ、と現在では考えられている。

(3)： 一人でも、うまくやれば群衆による推定値の半分くらいは真実の値に近づくことが可能である。

(4)： Stefan Herzog と Ralph Hertwig の研究は、Hazel Knight の実験結果を誤りだとして退けるものである。

(5)： Herzog と Ralph Hertwig は、一人でやってもよい推定値を得ることができるための方法として、「弁証法的自助努力」という方法を考案した。

第３問　次の英文の空所 ア～シ に、それぞれ与えられた文字で始まる単語を入れなさい。

Before the Industrial Revolution began, the world's population was less than one billion, mostly consisting of rural farmers who did all their work using manual labor or domesticated (ア: a___). Now there are seven billion (イ: p___), more than half of us live in cities, and we use machines to do the majority of our (ウ: w___). Before the Industrial Revolution, people's work on the (エ: f___) required a wide range of skills and activities, such as growing plants, tending animals, and doing carpentry. Now many of us work in factories or offices, and people's jobs often (オ: r___) them to specialize in doing just a few things, such as adding numbers, putting the doors on cars, or staring at computer screens. Before the Industrial Revolution, scientific inventions had little (カ: e___) on the daily life of the average person, people traveled little, and they ate only minimally processed food (キ: t___) was grown locally. Today, technology permeates everything we do, we think (ク: n___) of flying or driving hundreds or thousands of miles, and much of the world's food is grown, processed, and cooked in factories far from (ケ: w___) it is consumed. We have also changed the structure of our families and communities, the (コ: w___) we are governed, how we educate our (サ: c___), how we entertain ourselves, how we get information, and how we perform vital functions like sleep and defecation. We have even industrialized exercise: more people get pleasure from watching professional athletes compete in televised sports than by (シ: p___) in sports themselves.

Daniel E. Lieberman, *The Story of the Human Body*

permeate: 浸透する　　defecation: 排泄　　televised: テレビで放映される