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次の英文 **A**, **B**, **C** の内容に関して、(27) から (38) までの質問に対して最も適切なもの、または文を完成させるのに最も適切なものを **1**, **2**, **3**, **4** の中から一つ選び、その番号を解答用紙の所定欄にマークしなさい。

From: Peter Wilkerson <health@claytoncounty.com>
 To: Emily Slater <emslat78@housemail.com>
 Date: January 20
 Subject: Health checks for babies

Dear Emily,

Thank you for your e-mail. We at the Clayton County Health Department are more than happy to answer all of your questions about health services for children. First of all, congratulations on having your baby boy! Newborn babies are precious, which is why we have to take special care of their health.

To answer your first question, no, we do not perform health checks for newborns at the health department. You will have to take your baby to a doctor who specializes in small children for that. We recommend Dr. Peterson. Her office is in Clayton City, and she does 1-, 3-, 6-, 9-, and 12-month health checks for babies.

You also asked about vaccines to prevent illness for your baby. We do give vaccines for babies for free, but most children get their vaccines at the doctor's office during their checkups because health insurance pays for it. However, if you do not have health insurance, you can bring your baby here for his vaccines. We can give him his first vaccine when he is 3 months old. Vaccines are only given on the first Tuesday of every month. The baby's temperature must be under 37.5°C in order to get the vaccine. Please let me know if you have any more questions.

Sincerely,

Peter Wilkerson

Clayton County Health Department

- (27) Why is Peter Wilkerson writing to Emily?
- 1 Her baby needs special help that other babies do not need.
 - 2 The Clayton County Health Department sends e-mails to all new mothers.
 - 3 She asked him questions about the health department's services.
 - 4 He is concerned that she is not taking good enough care of her baby.
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- (28) Peter Wilkerson says that the health department
- 1 is located in an office building in Clayton City.
 - 2 does not offer health checks for newborn babies.
 - 3 has a doctor who specializes in small children.
 - 4 only does checkups for babies during certain months.
-
- (29) What should parents do if they want to get a free vaccine for their baby?
- 1 Bring their baby to the health department on a specific day of the month.
 - 2 Take their health insurance information with them to the health department.
 - 3 Get an e-mail from the doctor's office saying that the baby needs vaccines.
 - 4 Bring their baby to the doctor's office when he or she has a high temperature.

SuperAgers

People around the world are living longer. One problem that affects many older people, though, is memory loss. Usually, this is just an inconvenience, but it can be a sign of brain disease. Scientists have been studying the brains of people suffering from memory loss in the hope of finding a way to treat the problem. Researchers at Northwestern University in Chicago, however, decided to take a different approach. They began looking at the brains of people who still have strong and healthy memories even as they get older.

The team of researchers calls these people “SuperAgers.” The researchers asked people over the age of 80 who believed they had unusually good memories to take part in the project. To determine if these people truly had good memories, the researchers first tested a group of people between the ages of 50 and 65. Then, they gave the same test to the people over 80 and compared the results. All those who scored as well as the younger group were considered to be SuperAgers. This, however, only amounted to about 10 percent of those who had volunteered.

After this, the brains of the younger group and those of the SuperAgers were scanned. The researchers were surprised to find that the brains of the SuperAgers looked just as healthy as—and in some ways healthier than—those of the younger group. In particular, the outer layer of the brain, known as the cortex, was thicker than the people in the younger group. This part of the brain is connected to both memory and thinking. Moreover, the part of the brain that helps people pay attention was also thicker than is normally the case with older people.

The SuperAgers not only had good memories but were also more energetic and active than other people the same age. This goes along with other studies which have shown that people who participate in many activities and are involved in their communities are less likely to suffer from brain problems. What scientists do not yet know, though, is whether such people are born with genetically stronger brains or whether it is their diet and lifestyle that keep their brains healthier.

(30)

What are researchers at Northwestern University doing about memory loss?

- 1 They are studying the brains of people who have good memories in their old age.
- 2 They are focusing on cases where memory loss is not caused by brain disease.
- 3 They are trying to reduce the effects of brain diseases on people's memories.
- 4 They are looking for a way to reduce the inconvenience of memory loss.

(31)

In the study, "SuperAgers" were defined as

- 1 people over 80 who answered at least 10 percent of the test questions correctly.
- 2 people over 80 whose memories are as good as people in their 50s and early 60s.
- 3 people between 50 and 65 whose memories are better than average for their age.
- 4 people between 50 and 65 who are likely to live a healthy life through their 80s.

(32)

What were researchers surprised to learn about the SuperAgers?

- 1 They got along better with younger people than with people of their own age.
- 2 They had better memories than others but are not as good at paying attention.
- 3 There were no differences between their brains and those of other people their age.
- 4 The part of their brains related to memory and thinking was unusually healthy.

(33)

What does evidence from a variety of studies suggest?

- 1 Some people are unlikely to be able to improve their memories through practice and exercise.
- 2 Most people with strong brains are genetically different from people with normal brains.
- 3 Living an active and social life is related to the health of people's brains.
- 4 Eating healthily before exercising has a positive effect on people's memories.

Sweet Treat

Chocolate, which is made from cocoa beans, is one of the world's best-loved foods. Some chocolate manufacturers, however, are warning that there may be a major shortage of chocolate in the near future. This is because the world is now consuming more chocolate than it can produce. Moreover, demand keeps increasing. In fact, the price of chocolate increased by over 60 percent between 2012 and 2014.

One reason for the chocolate shortage can be seen as a good thing. Chocolate is a luxury item, so most of it is consumed in wealthy countries. However, with the strong economic growth of many developing countries over the past two decades, demand for chocolate has risen. For example, the development of a large middle class in China and India has led to more chocolate being consumed in these countries. Demand for chocolate has also grown dramatically in South America. In this sense, the growing shortage of chocolate can be seen as a sign that the standard of living is rising around the world.

Another reason, though, is more troubling. Today, about 70 percent of the world's cocoa beans are produced in two West African countries, Ghana and the Ivory Coast. Production in these countries, though, has been declining. This is because there have been increasing periods of very dry weather caused by climate change. Moreover, cocoa trees are being threatened by various diseases that attack them. Because cocoa trees take a long time to grow and produce beans, these diseased trees cannot be replaced easily.

Cocoa bean farmers have been responding by developing new kinds of cocoa trees. These new kinds are stronger against disease and produce more beans than normal trees. However, progress is slow because of the time it takes for each tree to grow. At the same time, demand for chocolate is rising, so cocoa is becoming more and more valuable. Therefore, chocolate manufacturers are investing more money in the industry so that production will increase in the future. By doing this, they hope to avoid cocoa shortages. With luck, people around the world will continue to have access to one of their favorite foods.

(34)

What are chocolate manufacturers concerned about?

- 1 People prefer living a healthy life to eating sweets such as chocolate.
- 2 People will not want to buy chocolate any longer because it is too expensive.
- 3 They will have to increase the price of chocolate by 60 percent to cover costs.
- 4 They are not able to produce as much chocolate as people want to buy.

(35)

The change in demand for chocolate shows that

- 1 the quality of life of people around the world is improving.
- 2 many people living in South America are now selling chocolate.
- 3 middle-class people are unlikely to buy large amounts of chocolate.
- 4 Chinese people are more interested in luxury goods than other people.

(36)

In the area where the majority of cocoa beans come from,

- 1 climate change is helping to produce healthier cocoa trees.
- 2 it is taking longer than usual to grow new cocoa trees.
- 3 fewer beans are being produced because the weather is becoming drier.
- 4 beans are 70 percent smaller than beans grown in South America.

(37)

In order to keep up with demand for chocolate,

- 1 manufacturers are looking for ways to make sweets that taste like chocolate.
- 2 manufacturers are spending more money on increasing production.
- 3 farmers are moving to new places to grow cheaper cocoa beans.
- 4 farmers are buying cocoa trees that can produce beans more quickly.

(38)

Which of the following statements is true?

- 1 The number of diseases that threaten cocoa trees is decreasing.
- 2 Cocoa trees that can protect themselves against diseases are being developed.
- 3 People in China and India have stopped believing that chocolate is a luxury food.
- 4 Chocolate will probably become the world's best-loved food in the near future.