

基礎学力テストI (全7の1)

1 次の英文を読んで、以下の問いに答えよ。

Scientists are working on a “smart bandage” that would detect specific bacteria in a wound and eventually may help people self-diagnose illnesses and free doctors to focus on more seriously ill patients. Scientists at the University of Rochester have yet to (1) a sensor chip into a gauze dressing. Once completed, however, the bandage would sense the germ and change color to alert a patient to the possibility of infection.

Among the bacteria the bandage (2) could pinpoint are those that cause strep throat and common skin staph infections. Others such as E. coli, salmonella and listeria, which can cause abdominal cramps, fever and severe and bloody diarrhea, are also being targeted.

Eventually, patients would be able to treat many of their own skin infections by scanning the bandage into a personal computer with special software that identifies the bacteria and offers a (3) via an online medical database, said Benjamin Miller, a chemist involved in the project. It is increasingly important to monitor health at home because it saves unnecessary trips to the doctor’s office, Miller said. “Right now, our medical system is (4) with many cases of relatively minor infections. If we can help shift some of the routine diagnoses to simple at-home tests, then we give physicians more time to treat patients with more serious ailments.”

The bandage would be designed for use on any type of wound—including scrapes, cuts, punctures or lesions. Depending on the class of bacteria, patients would treat their infections with the (5) antibiotic or other medicine.

The bandage is still years away from the home market and more tests need to be done to determine how applicable it would be to treat infections. Nonetheless, home monitoring could (6) into mainstream health care as devices become cheaper and more user-friendly.

(Miyama, A., Noguchi, J., & Mukuhira, A. (2003). *Passport to Scientific English* より一部改変)



基礎学力テストI (全7の2)

1. 本文の空所(1)～(6)に入れるのに最も適切な語を、下記の(a)～(d)からそれぞれ1つ選び、その記号をマークせよ。

- | | | | |
|-----------------------|-------------------|------------------|-----------------|
| (1) (a) incarnate | (b) inconvenience | (c) incorporate | (d) incite |
| (2) (a) pursuantly | (b) potentially | (c) prudently | (d) powerlessly |
| (3) (a) solicitation | (b) solid | (c) solvent | (d) solution |
| (4) (a) overconfident | (b) overjoyed | (c) overindulged | (d) overwhelmed |
| (5) (a) appropriate | (b) approximate | (c) apparent | (d) appealing |
| (6) (a) exude | (b) enumerate | (c) evince | (d) evolve |

2. 本文の内容と適合するものを下記の(a)～(h)から3つ選び、その記号をマークせよ。

- (a) Smart bandages would be unable to identify internal medical problems.
- (b) Academics in the medical field are experimenting with new ways to treat frequently-arising medical issues.
- (c) As a rule, doctors want to see a wider variety of serious medical problems.
- (d) More study is necessary to determine how smart bandages can treat different kinds of ailments.
- (e) Once they are able to be read by computer software, smart bandages would eliminate the need to visit a doctor.
- (f) Due to material and chip costs, smart bandages will indefinitely be limited for use by social elites.
- (g) Smart bandages will one day treat wounds entirely, making drugs a thing of the not-so-distant past.
- (h) The technology discussed could one day allow patients to become more involved in their own medical care.

基礎学力テスト I (全 7 の 3)

- 2 次の英文が完成した文章になるように、文意に沿って、(1)~(4)の(a)から(f)を並べ替えた後、それぞれ 1 番目、3 番目、6 番目にくるものの記号をマークせよ。

It is likely no surprise to dog owners, but growing research suggests that man's best friend often acts more like a human than a canine. Dogs can read facial expressions, communicate jealousy, display kindness, and even watch TV, studies have shown. They have picked up (1) [(a) experts say (b) during their evolution (c) which occurred between (d) these people-like traits (e) from wolves to domesticated pets, (f) 11,000 and 16,000 years ago,]. In particular, paying attention to us, getting along with us, and tolerating us, has led to particular characteristics that often mirror humans.

In a new study, scientists tested 54 dogs that each watched their owners struggle to retrieve a roll of tape from a container. The dogs were divided into three groups: helper, non-helper, and control. In the helper group, the owner requested help from another person, who held the container. In the non-helper group, the owner asked for help from a person, who then turned their back without helping. In the control group, the additional person turned his or her back without being asked for help. In all experiments, a third, "neutral" person sat in the room. After the first round of experiments, the neutral person and the helper or non-helper both offered treats to the dog. In the non-helper group, canines most frequently favored the neutral person's treat, shunning the non-helper. However, (2) [(a) the dogs did (b) the helper or (c) over the other (d) not favor either (e) in the helper group, (f) the neutral person]. Does this mean dogs are taking sides by ignoring the people who are mean to their owners?

In recent experiments, researchers wanted to see if age, habituation, or training influenced a dog's tendency to follow a human's gaze. They observed the dogs' reactions as a human gazed toward a door. Surprisingly, only the untrained Border Collies followed her gaze, the trained animals ignored it. That may be because trained dogs learn to focus on a person's face, and not where the person is looking. When researchers (3) [(a) spent just five minutes (b) they began ignoring (c) to look at her face, (d) teaching the untrained dogs (e) follow her gaze (f) the instinct to]. Even more surprising is that the untrained dogs often glanced back and forth between her and the door, baffled at what she was looking at. The behavior, is called "check backs" or "double looking." It is (4) [(a) these types of (b) us that we (c) a lesson for (d) an effect in (e) should always examine (f) whether training has] studies. The results are still under study, but researchers expect to discover that it is tough, but not impossible, to teach old dogs new tricks.

(Wei-Haas, M. (2015). *National Geographic* より一部改変)

基礎学力テスト I (全7の4)

3] 次の英文を読んで、以下の問いの答えを、それぞれ(a)～(d)より1つずつ選びマークせよ。

The European Union (EU) is unique; the constituent 28 countries have chosen to share their sovereignty in pursuit of bigger goals. The main goal was originally peace, but today it is prosperity in the form of greater economic co-operation and trade. At the core of the EU is the single market, the idea that goods, services, people and capital should flow freely across borders. The concept, however, is more of an organizing principle than a reality yet since services cannot cross the borders easily. A doctor or architect qualified in one country has difficulty working in another.

Language is also a theme of frequent discussion in the EU. The EU has 24 official languages and many more regional minority languages. The EU's policy is very generous: any of the national official languages can be an official EU language. This is idealistic from the union's multilingual nature, but tough to accomplish in reality. One of the European Commission's biggest budget items is translation. At the European Parliament, a member can speak any official language and receive translations into their own language.

The European Economic Community, a former entity of the EU, was founded by a small set of countries: West Germany, France, Italy, the Netherlands, Belgium and Luxembourg. The leaders at that time could sit at a small dinner table and they spoke decent French, the working language of the community. It was from generosity to make all the languages official. The picture has changed drastically since then, though. The leaders from 28 countries need a banquet table to sit together. The official languages reach all the way to Maltese, an Arabic dialect written in the Roman alphabet and spoken in a country where English is widely used, and even Irish, a language whose last monolingual speaker died in the 1960s.

Would the six founding members have made the same decision—to recognize all national languages as official and equal—if they had known they would later come to translate every piece of legislation into Maltese, Irish, Latvian and Lithuanian? Although, as a contrastive example, the founders of the United Nations pragmatically chose six official languages—English, French, Russian, Spanish, Chinese and Arabic—for their 51 member states (193 at present), the decision of the six members may not have been different even with the foresight.

The core of the EU may be the single market—a technocratic project, but the heart of the average European lies with a national identity, or even smaller a regional one. Issuing laws and regulations would not be accepted unanimously if they were written in limited number of languages and people of some member states had difficulty to comprehend them. At the level of political theater, debates in the European Parliament may look boring and stilted due to the need for simultaneous interpretations. However, if the members were required to use few selected languages and forbidden to speak the language their voters understand, joining the EU would be less attractive for candidate countries and there would not be as many member states as now.

(Babelicious. (2018). *The Economist* より一部改変)

基礎学力テスト I (全7の5)

(1) Choose the correct statement.

- (a) Currently, the core idea of the EU is to strengthen economic relationships.
- (b) The main goal of the EU (and its former entities) has never changed.
- (c) The EU has been trying to standardize job qualifications in member states.
- (d) Each member country of the EU has its independent, full sovereignty.

(2) Which of the following can NOT become an official EU language by rule?

- (a) a language whose number of speakers is very small
- (b) a language that is very different from other official EU languages
- (c) a regional language yet to be recognized as a national official language
- (d) a language whose number of speakers is not the largest in a country

(3) Why did the founding members of the EU decide to recognize all its members' national languages as its official languages?

- (a) The French language did not meet the requirements for communication.
- (b) The convenience of less common languages' speakers was considered.
- (c) They wanted to discuss things more efficiently.
- (d) Translators needed to secure more job opportunities at that time.

(4) Choose the correct statement.

- (a) The Maltese language shares letters with other European languages.
- (b) There are no Irish speakers now.
- (c) Maltese is originally a European language.
- (d) Irish is not an official language of the EU now.

(5) What is common between the United Nations and the European Union?

- (a) number of official languages
- (b) language equality
- (c) language policy
- (d) existence of official languages

(6) Which of the following does NOT explain why the author thinks the EU needs to continue its current language policy?

- (a) Voters may want to understand their leader's utterances in the assembly easily.
- (b) Debating in a native language should be guaranteed for every leader of the member states.
- (c) It facilitates laws and regulations being accepted by the member states.
- (d) Simultaneous interpretations lead to quick discussions in the assembly.

基礎学力テストI (全7の6)

4 次の1~3において、(a)~(d)の中から、英文として最も自然な2つの文を選び、その組合せの番号をマークせよ。

1

- (a) I went to the party alone but I was boring because I did not know anyone.
- (b) Young people around the world discover a collective identity in a new idealism.
- (c) The president of the company repeatedly spoke of the future as bright and getting brighter.
- (d) Although individuals have different tastes, almost Japanese people like to eat fish.

(1) a と b (2) a と c (3) a と d (4) b と c (5) b と d (6) c と d

2

- (a) This ship can carry 8,000 passengers and crew for a pleasure cruise around the world.
- (b) Musicians often use their songs to express how they feel about someone.
- (c) A doctor always tries to tell patients about their diagnosis in compassionate way.
- (d) It has been said that Canada is one of the most safety countries to visit today.

(1) a と b (2) a と c (3) a と d (4) b と c (5) b と d (6) c と d

3

- (a) She has been to France last year and bought some expensive bags for herself.
- (b) It is normal for people to feel hungry and to satiate their hunger.
- (c) If it will rain tomorrow, we may have to cancel our plans for a picnic and stay home instead.
- (d) It's been proven that exercise can boost your memory and brain power.

(1) a と b (2) a と c (3) a と d (4) b と c (5) b と d (6) c と d

基礎学力テスト I (全7の7)

5 次の(1)~(12)の()に入れるのに最も適切なものを、下の(a)~(d)からそれぞれ1つずつ選び、その記号をマークせよ。

- (1) Big data enables marketers to target messages to individuals rather than () groups.
(a) constant (b) general (c) inanimate (d) physical
- (2) Fasting every other day might affect how the body releases a () called insulin.
(a) dispute (b) launch (c) substance (d) notation
- (3) It is said to spread rapidly through contact with small () of bodily fluid.
(a) amounts (b) resources (c) shapes (d) surveys
- (4) Publishing before-and-after photos of cosmetic procedures has been ().
(a) auditioned (b) banned (c) convinced (d) trapped
- (5) People who () to work by walking or cycling have a lower risk of heart disease than those who drive.
(a) commute (b) enroll (c) stare (d) glare
- (6) The author links the () of drug-resistant bacteria to a hotter climate.
(a) emergence (b) hatred (c) indicator (d) patrol
- (7) The man () that he received any request from the company over its business plan.
(a) appointed (b) denied (c) dragged (d) transformed
- (8) The new test is highly accurate and produces results more quickly than previous () do.
(a) facilities (b) methods (c) limitations (d) reviews
- (9) They () for nearly a quarter of all injuries occurring in athletic matches or training.
(a) account (b) compete (c) describe (d) surface
- (10) They have () to believe that the outbreak can be brought under control.
(a) action (b) relation (c) reason (d) season
- (11) We try hard to educate our youths and () to stay out of it.
(a) adolescents (b) basins (c) despairs (d) quests
- (12) Younger children have greater sensitivity to light () compared to the older ones.
(a) controversy (b) corridor (c) exposure (d) fate