リーディングの指示

1. リーディングには、PART I と PART II の 2 つがあります。
2. 解答時間は、PART I、PART II を合わせて 45 分です。どちらの PART、どの問いから始めてもかまいません。
3. 各問いには 4 つの選択肢が与えられています。その中から最も適当と思われる答えを 1 つ選んで、解答カードの相当欄をマークして下さい。
4. 終了の指示があったら直ちに鉛筆を置いて、問題冊子と解答カードを試験監督が集め終わるまで待っていて下さい。

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5. PART I では、2 つの文章をよく読んで、それぞれの文章についての 10 の問いに答えて下さい。文章はくりかえし読んでもかまいません。
6. PART II では、文章中の 10 の空欄を埋めて、意味が通るように文章を完成させて下さい。PART II の解答指示は 20 ページにありますので、それに従って下さい。
7. 解答開始の指示の後には、どのページを開いてもかまいません。

指示があるまで、前のページも次のページも開けないで待っていて下さい。

PART I

Text 1

1. Recommendations about diets are everywhere: eating fish makes people smarter, fresh fruit helps prevent colds, and counting calories is a sure way to lose weight. People have been interested in food and its effects on health for thousands of years, but recent research in the field of health and nutrition has cast doubt on traditional 'one-size-fits-all' approaches to dietary advice. Rather than telling people what they should eat, many modern dieticians now encourage people to monitor how their bodies react to different types of food and develop a personalised regimen. Empirical research has shown that people have diverse reactions to food, and this can be explained by differences in the composition of the community of microbes that live in the digestive tract, commonly referred to as the microbiome.

2. One of the largest studies of the microbiome was performed by researchers at King's College, London. The study assessed how two thousand volunteers metabolised three macronutrients: fats, proteins, and carbohydrates, by measuring indicators in the blood, such as blood sugar and insulin. The results showed that individuals have predictable, reproducible responses but that there are huge discrepancies between people. Fewer than 1% of people had an 'average' response to all three macronutrients, making a mockery of the idea of standardised diet programs. Even the responses of identical twins, people who have the same genes and likely grew up in the same environment, were considerably different. The study also showed that the microbes found in the participants' microbiomes varied enormously; identical twins shared only 37% of microbe species, compared to 35% in unrelated people.

3. A healthy microbiome is thought to bring many benefits, the most established of which is improved digestion. Microbes produce enzymes that help break down complex carbohydrates and dietary fibre into smaller, more easily absorbed molecules. In doing so, essential nutrients such as short-chain fatty acids are released. These important compounds provide energy for the cells lining the colon and promote digestive health and function. Furthermore, a healthy microbiome can help people who lack the ability to produce certain enzymes. For example, lactose-intolerant people cannot digest dairy products because their bodies do not produce an enzyme called lactase, but they can benefit from lactase made by bacteria in their microbiomes.

4. Furthermore, the microbiome supports the immune system. It provides a defence against harmful microbes, known as pathogens, by competing with them for resources and making it more difficult for them to multiply and cause infections. Also, in early life, a healthy microbiome helps the immune system develop by exposing it to a diverse range of microbes. The immune system then develops the ability to distinguish between benign microbes and pathogens so that it knows which microbes to attack.

5. Perhaps surprisingly, the microbiome appears to promote good mental health. Although the connection is not yet fully understood, several plausible explanations have been suggested. One theory proposes that the microbiome produces neurotransmitters such as serotonin and dopamine, which are involved in regulating brain function and have a positive effect on mental health. Also, studies have shown that the microbiome may promote the release of stress-regulating hormones, such as cortisol.

6. A healthy microbiome contributes to many aspects of overall well-being. Conversely, problems in the microbiome can lead to many adverse consequences for a person's health. An imbalance or disruption in the composition of the microbiome is called dysbiosis, and it can cause a wide range of health problems, such as stomach pain, vulnerability to infection, and depression. Dysbiosis can arise due to several factors, including poor diet, chronic stress, excessive alcohol consumption, and interestingly, the prolonged use of antibiotics. Doctors prescribe antibiotics to help fight harmful infections, but broad-spectrum antibiotics also kill beneficial bacteria. For this reason, many doctors have begun recommending probiotic supplements after a long course of antibiotics.

7. In conclusion, as our understanding of the microbiome grows, we increasingly appreciate its importance and the value of an individualised approach to diet. The benefits go far beyond just maintaining a healthy weight and good digestion: people with a healthy gut may suffer fewer illnesses and have better mental health. For people keen to improve their diet, a commercially available testing kit now allows individuals to monitor their bodies' responses to different macronutrients. These kits empower people to take an active role in their health instead of following prescribed advice that may not work for them.

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26. According to paragraph 1, what do current dietitians suggest people do?
    a. increase the variety of food they eat on a regular basis
    b. register for a program to receive advice from dietitians
    c. participate in a study to find out the condition of their microbiomes
    d. observe their reactions to different foods to create a suitable diet

27. What is the significance of the experiment involving identical twins described in paragraph 2?
    a. It shows that different reactions to food are not solely due to a person's genes.
    b. It demonstrates that genes are a crucial factor in everyone's metabolism.
    c. It supports the idea that identical twins digest food in exactly the same way.
    d. It suggests that having a healthy microbiome is especially important for twins.

28. According to paragraph 2, what is true about the notion of standardised diet programs?
    a. It is clearly supported by the fact that fewer than 1% of individuals exhibit an ‘average’ response to all three macronutrients.
    b. It helps to prove the fact that fewer than 1% of individuals exhibit an ‘average’ response to all three macronutrients.
    c. It is made to look absurd by the fact that fewer than 1% of individuals exhibit an ‘average’ response to all three macronutrients.
    d. It disputes the fact that fewer than 1% of individuals exhibit an ‘average’ response to all three macronutrients.

29. What is one way the microbiome can aid digestion?
    a. It produces complex carbohydrates.
    b. It absorbs molecules from the bloodstream.
    c. It dissolves short-chain fatty acids.
    d. It provides an enzyme that some people lack.

30. How does the microbiome help prevent people from becoming sick?
    a. It creates a diversity of pathogens that are available to produce helpful enzymes and aid digestion.
    b. It destroys harmful pathogens before they have an opportunity to multiply and cause infection.
    c. It helps the immune system learn how to identify different types of microbes and react in the right way.
    d. It responds aggressively to a diversity of microbes so that people’s defence mechanisms are strengthened.

31. What is meant by plausible explanations in paragraph 5?
    a. theories that are proven and most people believe
    b. theories that are based on superstition rather than evidence
    c. theories that many researchers believe are irrational
    d. theories that could be true but are not yet proven

32. Which of the following is implied in paragraph 6?
    a. Broad-spectrum antibiotics are dangerous and should not be prescribed to patients.
    b. Probiotic supplements are much safer and more effective than antibiotics.
    c. Problems in the microbiome are usually caused by doctors overprescribing probiotics.
    d. Health care professionals may unintentionally harm their patients’ microbiomes.

33. Which of the following statements is true about dysbiosis?

a. It happens when someone is vulnerable to infections.
b. It is treated by prolonged use of probiotics.
c. It is defined as an imbalance in the microbiome.
d. It helps to fight harmful infections and pathogens.

34. Why does the author mention a testing kit in the final paragraph?

a. to emphasise the importance of getting a second opinion
b. to suggest a practical way to improve one's health
c. to warn people about the dangers of self-diagnosis
d. to spread important findings about the microbiome

35. Which is the best title for this passage?

a. Revealing a Key to Personalized Well-being
b. Exposing Commonly Held Myths about Diet
c. Promoting Personalised Diets for Better Mental Health
d. Improving the Health of Your Family Members' Microbiomes

Text 2

1. The profound influence of language on our beliefs, attitudes, and worldview is undeniable. While its effects may be subtle, language has the power to shape our thoughts and actions. The concept of linguistic relativity, popularized by linguist Benjamin Lee Whorf in the 1950s, suggests that a person's language determines their thoughts and behaviors. Although the idea that language impacts cognition is valid, Whorf's original hypothesis was discredited by researchers in favor of a weaker version that claims language guides, rather than determines, the way people think. This phenomenon is particularly evident with respect to space, time, and gender.

2. One fascinating example can be seen in the Kuuk Thaayorre language spoken by an Aboriginal community residing in western Australia. The Kuuk Thaayorre language does not have relative spatial terms such as left or right. Instead, speakers use cardinal directions: north, south, east, and west. In this language, it would be common for a speaker to say, "There is a bug on your southeast leg," or "Move your bag a little to the northwest." This means that a speaker of Kuuk Thaayorre must know the cardinal direction they are facing to communicate effectively. Perhaps because their language demands it, they can identify cardinal directions with great precision.

3. Over the past two decades, research has demonstrated that speakers of languages that rely on absolute directions have some impressive abilities. They have exceptional navigational skills and spatial awareness, even in unfamiliar surroundings and inside buildings. For example, Kuuk Thaayorre speakers can keep track of where they are better than someone who has lived in the same environment for years but speaks a different language. The requirements of their language enforce and train this cognitive ability. Furthermore, since spatial awareness is a fundamental aspect of cognition, differences in the way people think about space extend to other areas of cognition.

4. In addition to spatial orientation, it has been hypothesized that language plays a significant role in shaping people's concept of time. Studies have shown how languages map time through experiments involving picture cards showing sequential processes such as a man aging, a crocodile growing, and a banana being eaten. Participants were asked to place shuffled cards in the correct order. For example, the cards showing a man aging should be arranged from young to old. English speakers arranged the cards from left to right, consistent with the writing direction of their language. Hebrew speakers, on the other hand, arranged the cards from right to left, corresponding to the direction in which their language is written. However, Kuuk Thaayorre speakers had a unique approach: they arranged the cards from east to west, irrespective of the direction they were facing.

5. The way in which languages express and encode time can also alter how one thinks about the future. All languages fall into two distinct groups: "futured" languages and "futureless" languages. Futured languages, such as English, mark time using grammar. In English, auxiliary verbs like "will" and "shall" indicate future events, for example, "I will go to the shop." On the other hand, futureless languages, like Japanese, do not have a dedicated future tense; instead, they mark the future with time expressions and context. For example, in the sentence, "I go to the shop tomorrow," the word "tomorrow" is needed to indicate the future.

6. Speakers of futureless languages perceive the present and future as closely related, but speakers of futured languages see the present and future as separate periods of time. Many studies have explored how this linguistic feature can affect how people think about the future. The data shows that speakers of futureless languages are more likely to save money, accumulate wealth, exercise, and care for the planet. One explanation is that consistently expressing future activities using the present tense may make the future appear more immediate and less distant. While these findings are inconclusive, they do suggest another facet of how language can impact cognition.

7. The influence of language can also be observed in how grammatical gender affects the way people imagine and represent ideas. Many languages assign grammatical gender to nouns, and the effect of this can be seen in the way German and Spanish artists personify ideas like war and death. For example, "death," which is masculine in German, is often depicted as a male character by German artists, but in Spanish, "death" is feminine, and it is more common for Spanish artists to use a female character. Research on over 750 artistic personifications has shown that the depicted gender matches the grammatical gender in over 78% of cases. One example is Delacroix's painting *Lady Liberty Leading the People*, where liberty is represented as a woman, matching the grammatical gender in French.

8. In conclusion, language holds significant sway over our beliefs, attitudes, and perspectives. While Whorf's original hypothesis has been discredited, numerous studies support the idea that language influences thought. The linguistic variation regarding space and time is evident in comparing spatial awareness across different cultures. Furthermore, aspects of grammar, such as gender, can shape our perceptions of objects and concepts in the world. These insights highlight the profound interplay between language and cognition, demonstrating how language molds our understanding of the world and ourselves.

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36. According to paragraph 1, what can be inferred about Whorf's hypothesis?
    a. It rejected the importance of non-linguistic factors in cognition.
    b. It placed too much weight on the role of language in cognition.
    c. It has claims and evidence that lacked any scientific validity.
    d. It was too weak in asserting how cognition affects language.

37. According to paragraph 2, which of the following most accurately relates to the use of spatial terms in the Kuuk Thaayorre language?
    a. Directions are given as they are in English.
    b. Speakers describe the location of objects relative to them.
    c. Directions can change based on the time of day.
    d. Speakers must know the direction they are facing.

38. What ability have speakers of Kuuk Thaayorre developed due to their language?
    a. They can keep track of where people live.
    b. They can transport goods to unfamiliar areas.
    c. They can find safety when disasters occur.
    d. They can orient themselves in unknown places.

39. In the experiment to test the influence of language on time, what were participants asked to do?
    a. identify cards missing in a set
    b. place cards in certain directions
    c. put cards in chronological order
    d. describe the time on each card

40. In paragraph 4, what can be inferred about the impact of writing on expressing time?
    a. The representation of time matches the direction of text.
    b. Older languages have more colorful time expressions.
    c. The direction of time is unclear in some languages.
    d. Sophisticated writing systems represent time as linear.

41. According to the passage, why do speakers of futureless languages save more money and exercise more than speakers of futured languages?
    a. Their languages have more expressions about money and exercise.
    b. They describe money and health using only the present tense.
    c. They see the future as less remote and more closely linked with the present.
    d. Their languages perceive the past, present, and future separately.

42. What word is closest in meaning to the underlined word “assign” used in paragraph 7?
    a. advocate
    b. attribute
    c. appeal
    d. accustom

43. Personification in art illustrates that _____.
    a. gender is apparent in about three quarters of all work examined
    b. death and war are perceived as masculine by European artists
    c. artists decide on what to paint based on public opinion
    d. artists are greatly influenced by the language they speak

44. Why does the writer mention Delacroix's painting?

a. to prove that artists follow standards about how to depict abstract ideas
b. to show that liberty tends to be thought of as a feminine idea
c. to demonstrate how many Spanish artists represent liberty
d. to give an example of gender representation consistent with grammar

45. What is the best title for this reading passage?

a. The Role of Language in Shaping Thought
b. Differences in Thought and Perception
c. The Impact of Grammatical Gender on Culture
d. The Evolution of Language and Culture

PART II

次の文章には10の空欄（46-55）があり、次のページに各空欄に対する４つの選択肢が与えられています。各空欄に最も適当と思われる答えを１つ選び、解答用カードの相当欄をマークして下さい。

The Czech Republic in Central Europe is a crossroads of many cultures. For example, its capital, Prague, exhibits wonderful architectural styles, including Gothic, Baroque, Renaissance, Neoclassical, and Modern. This amazing variety is（ 46 ）Prague because, unlike many other major European cities, it was not destroyed by war. Prague has remained virtually unchanged for about 600 years, and its streets（ 47 ）much of their medieval character.

Perhaps the most famous landmark is the Charles Bridge that crosses the river Vltava.（ 48 ） during the 14th and 15th centuries, it is a remarkable example of Gothic architecture. Its design features pointed arches, ribbed vaults, and many decorative elements characteristic of the style. Its most（ 49 ）feature is that the bridge is lined with 30 statues of saints and religious figures, such as Francis Xavier, which were added in the 17th and 18th centuries. Floods have damaged the bridge, and it has been repaired and restored many times. Efforts have been made to preserve its Gothic character（ 50 ）future generations.

A short walk from Charles Bridge is St. Nicholas Church, which is an excellent example of Baroque architecture. The church displays several typical Baroque features, such as the highly ornate facade featuring intricate sculptures that create a sense of movement. The interior is（ 51 ）decorated with artwork painted on the walls and ceilings, which encourages people to gaze upwards. There is a 20-meter-wide curved dome,（ 52 ）an overall atmosphere of elegance and splendor. Most of the interior is covered with imitation marble to add to the feeling of luxury.

Another interesting building is the House of the Black Madonna. It is an example of a type of modern style known as Cubist architecture. The entrance, the roof windows, and the staircase have been decorated with cubist elements such as sharp edges and geometric shapes. The cafe on the first floor has heavy iron chandeliers and dark-stained oak furniture.（ 53 ）, the most compelling element is the Black Madonna, a sculpture made in the 17th century and positioned in the corner of the building.

A visit to Prague is like a walk（ 54 ）the ages. The St. Charles Bridge, St. Nicholas Church, and the House of the Black Madonna are just three of many examples of outstanding pieces of architecture that can be seen in this historical city.（ 55 ） these beautiful buildings is vital so that future generations may study and enjoy the history and culture of Prague.

46.	a. related to b. dedicated to c. unique to d. receptive to	47.	a. remain b. retain c. repeal d. relocate	48.	a. Constructing b. Constructed c. Having constructed d. Have constructed
49.	a. notable b. permanent c. stationary d. common	50.	a. in spite of b. for the sake of c. for the rest of d. at the risk of	51.	a. directly b. richly c. officially d. kindly
52.	a. depending on b. contributing to c. coping with d. specializing in	53.	a. Undoubtedly b. Accordingly c. Likewise d. Notwithstanding	54.	a. into b. within c. through d. during
55.	a. Decoration of b. Compliance with c. Identification with d. Preservation of				