

I 次の問い(問1～10)の英文の空欄 **ア** ～ **コ** に入る最も適当なものを、それぞれの①～④の中から一つずつ選べ。また、下の問い(問11～15)のAとBの二人の会話の空欄 **サ** ～ **ソ** に入る最も適当なものを、それぞれ①～④の中から一つずつ選べ。

問1 Our universal healthcare system is so widespread (**ア**) there are few people who do not know about it.

- ① however ② although ③ once ④ that

問2 The basic function of the (**イ**) is to breathe in oxygen and breathe out carbon dioxide.

- ① kidneys ② liver ③ lungs ④ intestines

問3 Solar power and wind power are (**ウ**) energy sources to fossil fuels.

- ① optical ② essential ③ alternative ④ fundamental

問4 Julie and Mark are aged seventeen and nineteen (**エ**).

- ① each other ② respectively ③ mutually ④ in contrast

問5 I saw the children happily (**オ**) the strawberry cake.

- ① eating ② to eat ③ to be eaten ④ that eating

問6 (**カ**) disease is a disease that spreads over a whole country or the whole world.

- ① A contagious ② An acute ③ A pandemic ④ A critical

問7 How can we (**キ**) young people from coming into contact with illegal drugs?

- ① refrain ② prevent ③ guarantee ④ leave

問8 I am (**ク**) an expert than you are.

- ① no further ② not any more ③ not further ④ no more

問9 Did you see the man and his dog (**ケ**) were walking on the bank?

- ① both ② that ③ whom ④ they

問10 (**コ**) is computer software designed to help the user to perform specific tasks.

- ① A terminal ② An equipment
③ An application ④ A touch panel

問11 A : Can I bother you for a moment? Could you please tell me how to turn this machine on?

B : (サ)

- ① Sure. You need to hold onto both handles, or you will fall over really easily.
- ② I'm sorry the lights are so bright on there. Let's see if we can turn them down somehow.
- ③ I'm happy to help. Take this up to the third floor and it's the second door on the left.
- ④ We are not allowed to use that, I'm afraid.

問12 A : (シ)

B : We're working on updating it right now.

- ① This program isn't very user-friendly at all!
- ② That's great news. I have been waiting a long time for it!
- ③ Are you working overtime on the reports again tonight?
- ④ Thank you for getting everything uploaded and submitted on time again this month!

問13 A : Isn't the gym open twenty-four hours?

B : (ス)

- ① I don't know where to order the product.
- ② Only on weekends.
- ③ How much is the change?
- ④ No, it doesn't open without a password.

問14 A : (セ)

B : This is the advanced session. Are you in the right room?

- ① Can you tell me where the entrance is?
- ② I think so. It says my instructor is Dr. Ueno. Are you Dr. Ueno?
- ③ Why are we starting on unit six?
- ④ There will be coffee and donuts available for everyone during the break.

問15 A : (ソ)

B : I did it last time.

- ① Last month's event was so much fun, and I can't wait for the next one.
- ② Yes, I heard you did a great job. Thank you for all your hard work.
- ③ Are you organizing this month's book club meeting?
- ④ How did it go?

Ⅱ 次の問い(問1～5)の日本語に合うように、それぞれの①～⑧の語を並べ替えて空所を補い、文を完成させよ。ただし、解答は ア ～ コ に入る番号のみを解答欄にマークせよ。なお、文頭に来るべき語も小文字で記してある。

問1 私がその商品を受け取ったのは、注文して半年以上も経ってからのことだった。

I did not () () (ア) () () after () ()
(イ) it.

- | | | | |
|-----------|--------------|---------------|-----------|
| ① I | ② had | ③ more than | ④ ordered |
| ⑤ receive | ⑥ six months | ⑦ the product | ⑧ until |

問2 マイクはこんな寒い夜に、彼を外で待たせたままにしておくべきではなかったのだが。

Mike () (ウ) () () () () outside (エ)
() a cold night.

- | | | | |
|--------|----------|-----------|-------|
| ① have | ② him | ③ kept | ④ not |
| ⑤ such | ⑥ should | ⑦ waiting | ⑧ on |

問3 メアリーは、自分の息子はきっと立派な学者に成長するだろうと信じて疑わなかった。

Mary never doubted () () () (オ) () ()
(カ) () .

- | | | | |
|------------------|------|--------|-----------|
| ① a good scholar | ② be | ③ grow | ④ her son |
| ⑤ that | ⑥ to | ⑦ up | ⑧ would |

問4 気象庁によれば、今年の夏は厳しい暑さに耐えなければならないということだ。

According to the Meteorological Agency, we () (キ) () ()
() (ク) () () this summer.

- | | | | |
|--------|--------|-----------|--------|
| ① have | ② heat | ③ intense | ④ put |
| ⑤ to | ⑥ up | ⑦ will | ⑧ with |

問 5 A : 今年はこの自然公園の入園料を値上げして、開園時間も短縮することにしましょう。

B : なぜですか？そんなことをすれば、来場者数を増加させることなどできませんし、結果として収入を大きく失うことになりますよ。

A : そうですね。でも、ゲートを通過する人が増えるということは、それだけ自然環境の汚染もひどくなるということです。どんなものによっても、自然を失ってしまったことの埋め合わせはできないということを覚えておきましょう。

B : 確かにおっしゃる通りですね。

A : I would suggest that we raise the entrance fee for our natural parks, and the opening hours should also be shortened during this year.

B : Why? That probably won't boost the number of visitors and will result in a great loss of revenue.

A : Yes, but more people coming through the gates means more pollution of the natural environment. Remember that () () (ケ) () () () (コ) ().

B : You are absolutely right.

① the loss

② for

③ make

④ nothing

⑤ can

⑥ of

⑦ up

⑧ nature

Ⅲ 次の文章〔英文 1・2〕を読み、下の問い(問 1～9)に答えよ。なお、*印のある語句には注がある。

〔英文 1〕

「著作権の都合で開示できません」

"Smithsonian Guides to Historic America: Southern New England - Massachusetts, Connecticut, Rhode Island" by Henry Wiencek, © 1989 Stewart, Tabori & Chang, Inc.

「著作権の都合で開示できません」

"Smithsonian Guides to Historic America: Southern New England - Massachusetts, Connecticut, Rhode Island" by Henry Wiencek, © 1989 Stewart, Tabori & Chang, Inc.

*theological 「神学の」

*auspices 「援助」

*divinity 「神学」

*tenure 「終身在職権」

*enclave 「飛び領土」

*clapboard 「下見板張りの」

*demarcation 「境界」

*pediments 「(古典建築に見られる三角形の)切妻壁」

*colonnaded 「列柱を備えた」

問 1 本文で用いられている次の語において、最も強いアクセント(第一強勢)のある音節を、それぞれ次の①～④の中から一つ選べ。

es · tab · lish · ment
① ② ③ ④

ア

Con · ti · nen · tal
① ② ③ ④

イ

問 2 本文中の空欄 (A) ~ (D) に入る最も適当な語句を、それぞれ次の①~④の中から一つ選べ。

空欄 (A) ウ

- ① preferably ② more likely ③ rather from ④ instead of

空欄 (B) エ

- ① the midst of ② the number of ③ a number of ④ many a

空欄 (C) オ

- ① which ② that ③ what ④ how

空欄 (D) カ

- ① in order to ② a result of ③ a variety of ④ a direction to

問 3 下線部(1)の語が同じ意味で使われているものを、次の①~④の中から一つ選べ。 キ

- ① After a long examination, the inspector discovered a crack in the house's foundation.
② They have just raked in the largest sum since the foundation was established in 2022.
③ We celebrated the hundredth anniversary of the foundation of our municipal zoo last year.
④ Invest your time wisely in building a sound foundation for your new business.

問 4 下線部(2)の人物について、間違っているものを、次の①~④の中から一つ選べ。 ク

- ① 学問の水準を高め、規律を厳格にし、学生が学びたい科目を選択できる選択制を導入した。
② 高校教育の無償化を提唱し、女子のための大学の設立を奨励した。
③ 1869年にハーヴァード大学の学長に就任した後、40年間にわたりこの役職にあり続けた。
④ 法学部、歯学部、神学部を設立し、ハーヴァード大学の世界的地位を確立した。

問 5 下線部(3)の they に含まれるものとして、最も適当な組み合わせを、次の①~④の中から一つ選べ。 ケ

- ① Wadsworth Hall and University Hall
② Hollis Hall and Massachusetts Hall
③ Harvard Hall and Holworthy Hall
④ Radcliffe College and Stoughton Hall

問 6 下線部④の three inaccuracies に挙げられている事柄ではないものとして、最も適当なものを、次の①～④の中から一つ選べ。 コ

- ① 大学の銅像のモデルに関する事
- ② 大学の銅像に刻まれた設立年に関する事
- ③ 大学の銅像に刻まれた創設者に関する事
- ④ 大学の銅像の置かれている場所に関する事

問 7 本文の内容と一致するものを、次の①～④の中から一つ選べ。 サ

- ① ハーヴァード大学の学位授与は、設立当初から厳格な法律の適用を受けてなされた。
- ② ハーヴァード大学の歯学部は、臨床例を理論的に研究する分野において、パイオニアとなった。
- ③ ヘンリー・ワズワース・ロングフェローは、ハーヴァード大学が誇る卒業生の一人である。
- ④ ハーヴァード大学の一部の建物は、アメリカ独立戦争時には軍人によって使用された。

問 8 本文の内容と一致しないものを、次の①～④の中から一つ選べ。 シ

- ① ハーヴァード大学は、同名の牧師が資金と書物を学校に遺贈したことから、そう名付けられた。
- ② ハーヴァード・ヤードには歴史的建造物が多く、寮、オフィス、教室、図書館などが建ち並ぶ。
- ③ ハーヴァード大学図書館の蔵書数は、ニューヨーク公共図書館の蔵書数よりも多い。
- ④ ハーヴァード大学を卒業したハリー・ワイドナーは、タイタニック号の遭難事故で亡くなった。

Though humans have always understood there's a connection between diet and health, it took thousands of years for modern nutrition research — bolstered by advances in chemistry, physics, and biology — to emerge. Early nutrition experiments focused largely on the element nitrogen, first discovered in 1772, and whether its presence or absence in foods caused animals and humans to be healthy or sick.

Then in 1838, Dutch chemist Gerardus Johannis Mulder proposed the existence of a compound he called protein, which he argued played a “principal role” in nourishment. For decades, historian Kenneth Carpenter writes, protein was considered the “true nutrient” for human health, despite emerging knowledge that fruits, vegetables, and milk eased conditions such as *scurvy and *rickets. While these afflictions were common among those with limited diets, researchers still blamed other factors, including infection, *tainted food, or even sea air.

Meanwhile, sailors on lengthy voyages had long been suffering from another ailment: *beriberi, which can cause heart failure and a loss of feeling in the legs and feet. Japanese naval physician Kanehiro Takaki had a pivotal theory: In the 1880s he noticed that poor people were likelier to develop the disease, and he suspected a lack of protein in their diets might play a role.

Dutch army doctor Christian Eijkman conceived his own theory about beriberi after experiments with chickens. The birds that ate the white rice common on Japanese naval vessels had similar symptoms. On the other hand, *poultry that dined on brown rice stayed healthy.

Polish chemist Casimir Funk discovered that pigeons fed only white rice became ill, but they improved when they ate rice bran and yeast. This confirmed Takaki's theory that diet and beriberi were linked, but the problem wasn't a lack of protein. It was the lack of another substance, a nitrogen-containing compound that Funk called “vitamine,” the name for a compound that contains nitrogen. This 1912 discovery revolutionized scientific thought, suggesting that diseases might be caused by nutritional deficiencies — and cured by adequate amounts of the newly found compounds. “A monotonous diet ought to be avoided,” Funk declared.

Researchers rushed to isolate other micronutrients associated with afflictions such as rickets, scurvy, *goiters, and more. Around the time Funk coined the word “vitamine,” American nutrition scientist Elmer McCullum conducted feed experiments with different animal populations and discovered that an “accessory” substance present in some fats was essential to rat growth. That fat-soluble substance became known as vitamin A. McCullum and others also conducted further experiments with Funk's rice bran-derived nutrient, naming it vitamin B after beriberi.

The custom of naming vitamins alphabetically in order of discovery continued. Today, four fat-soluble vitamins — A, D, E, and K — are considered essential to human growth and health. So too are nine water-soluble vitamins: B 1, B 2, B 3, B 5, B 6, B 7, B 9, B 12, and C.

One vitamin jumped ahead in the alphabet. Given its discovery date in 1929 by a Danish researcher, Carl Peter Henrik Dam, vitamin K likely would have been labeled with an earlier letter, such as F. But Dam's research revealed that the substance was essential for *blood coagulation — a word that starts with k in Scandinavian languages and German — and he proposed the new name instead.

("Why are vitamins named after letters?" by Erin Blakemore, from National Geographic, May 11, 2024)

- *scurvy 「壊血病」
- *rickets 「くる病」
- *tainted 「汚染された」
- *beriberi 「脚気(かけ)」
- *poultry 「食用のために飼育される鳥類」
- *goiters 「甲状腺腫」
- *blood coagulation 「血液の凝固」

問 9 [英文 2]を読み, 次の[A群]～[F群]の設問への答えをそれぞれ①～③の中から一つずつ選べ。

[A群] According to the passage, which of the following is true about early nutrition research? ス

- ① Early research into nutrition often focused on whether there was nitrogen or protein in the food.
- ② Early researchers believed that fruits and vegetables were more essential for good health than milk.
- ③ Early researchers did not believe that diseases such as scurvy were caused by infection or unclean food.

[B群] According to the passage, which of the following is true about diseases prevalent on ships? セ

- ① Sailors developed heart problems when they didn't get enough protein.
- ② Japanese sailors ate white rice and became sick, but Dutch sailors ate brown rice and did not get sick.
- ③ Chickens that ate white rice had the same symptoms as the sailors who were at sea for very long periods of time.

[C群] According to the passage, which of the following is true about the three researchers, Takaki, Eijkman, and Funk? ソ

- ① While Takaki, Eijkman, and Funk all thought that diet was the cause of the disease beriberi, Funk found that it was caused by a lack of a compound that contains nitrogen.
- ② While Takaki and Eijkman focused on the chickens on Japanese naval ships, Funk focused on pigeons.
- ③ Each of the researchers suspected a different cause for the same disease: Takaki thought it was protein, Eijkman thought it was white rice, and Funk thought it was yeast.

[D群] According to the passage, which of the following is true about the history of vitamins? タ

- ① After the discovery of “vitamine,” people quickly discovered new diseases such as goiters.
- ② The name of the nutrient that Funk discovered later became vitamin B.
- ③ An American scientist discovered a nutrient that was called vitamin A because he was American.

[E群] According to the passage, which of the following is true about vitamins? チ

- ① Vitamin K, necessary for the coagulation of blood, was discovered by a Danish scientist.
- ② In order to stay healthy, we need proper amounts of four vitamins.
- ③ Carl Peter Henrik Dam suggested his discovery be called vitamin K instead of vitamin F because the word ‘blood’ in German begins with the letter k.

[F群] Which of the following best expresses the **main idea** of this whole passage? ツ

- ① This text explains how the various micronutrients including vitamins can be used to help prevent and/or cure various diseases and ailments.
- ② The efforts of early researchers such as Mulder and Takaki in identifying proteins as essential to human health led to the eventual cure of serious diseases such as scurvy, rickets, and beriberi.
- ③ The link between what we eat and how healthy we are is not a new discovery, but over the past 100 years, scientists have specified the micronutrients needed for maintaining health.