

2024年度一般選抜A試験問題

外国語（英語）

【注意事項】

1. この問題冊子には答案用紙が挟み込まれています。試験開始の合図があるまで問題冊子を開いてはいけません。
2. 試験開始後、答案用紙の受験番号欄に受験番号を記入しなさい。
3. 問題冊子には**計 4 問**の問題が**英 1～英 7 ページ**に記載されています。落丁、乱丁および印刷不鮮明な箇所があれば、手をあげて監督者に知らせなさい。
4. 答案には、必ず鉛筆（黒、「HB」「B」程度）またはシャープペンシル（黒、「HB」「B」程度）を使用しなさい。
5. 解答は答案用紙の指定された場所に記入しなさい。ただし、解答に関係のないことが書かれた答案は無効にすることがあります。
6. 問題冊子の余白は下書きに利用しても構いません。
7. 答案用紙はどのページも切り離してはいけません。
8. 答案用紙を持ち帰ってはいけません。

〔問 1〕 次の英文を読んで、あとの設問に答えなさい。

When you fill out a medical form listing your health history, vital statistics and test results, there probably isn't a space for "sense of purpose." Perhaps there should be. ⁽¹⁾The term may be hard to quantify or define, but it can be a big factor in overall well-being, physical condition and even life expectancy. "In all phases of life, it's good for your health, and particularly your cardiovascular health, to feel a sense of purpose," said Dr. Lawson Wulsin, professor of psychiatry at the University of Cincinnati College of Medicine. "We all need a role in life that's meaningful to us and the people who care about us."

Lacking a sense of purpose, Wulsin said, can be a factor in depression, which is increasingly linked to physical health problems. Mind-body connections are a longtime theme in wellness discussions—from Norman Cousins' 1979 landmark book *Anatomy of an Illness*, which ⁽⁷⁾() () () () () to foster healing, to current retirement guides that urge seniors to stay active and engaged mentally to promote health and longevity.

A recent study underscored the point. Researchers analyzed data from a survey of nearly 7,000 Americans over 50 who filled out psychological questionnaires that measured how strong their sense of life purpose was. In the years between 2006 and 2010, people with a stronger life purpose were less likely to die of any cause, and even less likely to die of heart, circulatory and blood conditions. "We were surprised," said Celeste Leigh Pearce, senior author of the study in the May edition of the journal *JAMA Network Open*. "There was already a ⁽¹⁾() () () () () life purpose and health outcomes. But this was a big study and these results are so striking."

So how do you define a sense of purpose? "There's no one-size-fits-all," said Pearce, associate professor of epidemiology at the University of Michigan School of Public Health in Ann Arbor. "I think that what's unique about life's purpose is that the way it manifests for each person is different. Some may ⁽⁷⁾() () () () () or helping with grandkids, some from work, some from volunteer activities," she said. "Anyone can define for themselves what gives them purpose and work toward fulfilling that. It can be achieved and enhanced in so many ways." Pearce, who is developing more studies on the subject, said physicians should consider discussing the issue with patients as part of their health assessment and wellness strategy.

Wulsin, whose book *Treating the Aching Heart* examined the links between depression and heart disease, agreed. "The popular wisdom is that stress is bad for your heart," he said. "But because there is ^(x)() () () () () stress and it's so complicated, it often doesn't get into the treatment plans of people with heart disease or at high risk of heart disease. That's something I think we can do better at." The physiological connections between purposefulness and longevity are still being studied. But psychological and physical health, Wulsin said, go together. "I like to say what's good for your heart is good for your brain," he said. "And what's good for your brain is good for your heart."

People under stress or suffering depression, he said, tend to smoke more, exercise less and sleep less well, all of which can adversely affect health. Beyond that, chronic stress and the inability to relax can affect everything from inflammation and metabolism to diabetes and high blood pressure. "That can accelerate the whole process of cardiovascular risk factors turning into cardiovascular disease," Wulsin said. "The stress response system, which is designed (オ)() () () () () adversity and challenge, functions better when we're not anxious about being victims in a meaningless life."

出典: "What's your sense of purpose? The answer may affect your health."

American Heart Association News, October 8, 2019.

(1) 下線部(1)にある The term が指す内容を明らかにして、下線部全体を和訳しなさい。

(2) 下線部(ア)～(オ)に入るように各語群にある語句を最もふさわしい順に並べ替えて、意味の通る英文を完成させなさい。

語群(ア): humor / of / popularized / the idea / using

語群(イ): about / amount / fair / literature / of

語群(ウ): derive / from / kids / purpose / raising

語群(エ): easy / measure / no / to / way

語群(オ): cope / help / to / us / with

〔問 2〕 次の英文を読んで、あとの設問に答えなさい。

When learning a foreign language, most people ⁽¹⁾fall back on traditional methods: reading, writing, listening and repeating. But if you also gesture with your arms while studying, you can remember the vocabulary better, even months later. Linking a word to brain areas responsible for movement strengthens the memory of its meaning. ⁽²⁾This is the conclusion a research team reached after using magnetic pulses to deliberately disrupt these areas in language learners. “Our results provide neuroscientific evidence for why learning techniques that involve the body’s motor system should be used more often,” neuroscientist Brian Mathias, of the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig, said in a news release.

As Mathias and his colleagues describe in the *Journal of Neuroscience*, they had 22 German-speaking adults learn a total of 90 invented artificial words (such as “lamube” for “camera,” and “atesi” for “thought”) (ア) four days. While the test ⁽³⁾subjects first heard the new vocabulary, they were simultaneously shown a video of a person making a gesture that matched the meaning of the word. When the word was repeated, the subjects performed the gesture themselves.

Five months later, they were asked to translate the vocabulary they had learned into German in a multiple-choice test. At the same time, they had an apparatus (イ) to their heads that sent weak magnetic pulses to their primary motor cortex—the brain area that controls voluntary arm movements. When these interfering signals were active, the subjects found it harder to recall the words (ウ) by gestures. When the apparatus sent no interfering signals (but still appeared to the subjects to be active), they found it easier to remember the words. The researchers concluded that the motor cortex contributed to the translation of the vocabulary learned with gestures. This applied to concrete words, such as “camera,” as well as abstract ones, such as “thought.”

“There’s now quite a lot of literature showing that gestures play a role in learning. I think where this study takes it a (エ) further is trying to understand *why*,” says Susan Goldin-Meadow, a psychologist at the University of Chicago who studies the effects of gestures on learning but was not involved in the new study. Research like this, as well as brain imaging, suggests the activation of the brain’s motor areas could be a factor. “It’s not necessarily the only reason why,” Goldin-Meadow adds, “but it’s probably a (オ).”

The effect did not occur when the test subjects were only presented with matching pictures instead of gestures when learning vocabulary. In contrast, children—unlike adults—seem to benefit from pictures as much as gestures in the long (カ). In an experiment published in 2020, the Leipzig research group had young adults and eight-year-old children listen to new vocabulary for five days, sometimes paired with matching pictures or videos of gestures. After two months, the two methods were still tied. But after six months, the adults benefited more from the gestures than the pictures, (キ) the children were helped equally by both.

The study indicates that the adult brain uses motor areas to remember foreign-language words. But it is not (ク) the motor component itself that promotes learning. The intrinsic meaning of the gesture also figures in, as another team led by Mathias's colleague Manuela Macedonia observed several years ago. That older study suggested that gestures particularly promote the memory of words if they represent the meaning of the word pictorially.

(ケ) in 1995, a study showed that such emblematic gestures facilitated French-language learning. Even transferring the words to a new context worked better: When learners accompanied the new vocabulary with gestures, they were more likely to use the words in new sentences. "I think we underuse gesture in our classrooms," Goldin-Meadow says. "People use it (コ), if they're good teachers and good listeners, but we don't necessarily bring it into the class if we don't think about it—and it could be used more often and more effectively."

出典 : Christiane Gelitz, "How Certain Gestures Help You Learn New Words."
Scientific American, November 12, 2021.

(1) 下線部(1)と意味が最も近いものを1つ選び、数字で答えなさい。

- ① come across ② keep up ③ resort to ④ work out

(2) 下線部(2)にある This が指す内容を明らかにして、下線部全体を和訳しなさい。

(3) 下線部(3)が指す内容を1つ選び、数字で答えなさい。

- ① courses ② followers ③ participants ④ themes

(4) 英文の意味が通るように、下線部(ア)～(コ)に入る最もふさわしいものを①～⑩から1つ選び、数字で答えなさい。同じものを2度使うことはない。文頭に来る単語も小文字で示してある。

- ① accompanied ② attached ③ back ④ contributor ⑤ only
⑥ over ⑦ run ⑧ spontaneously ⑨ step ⑩ while

〔問3〕 次の英文を読んで、あとの設問に答えなさい。

Research has revealed many benefits to being in the presence of nature, whether that's walking in a forest, having a small garden or keeping a few household plants.

"One study showed that patients at a hospital who had plants in their rooms reported less pain, lower blood pressure, less fatigue, and less anxiety than patients without plants in their rooms," says Jenny Seham, PhD, founder and director of AIM (Arts and Integrated Medicine) at Montefiore Health Systems in Bronx, New York. She explains: ⁽¹⁾Cortisol, the stress hormone, has been shown to lower with plant interaction, lowering fatigue, irritability and blood pressure. Gardening and caring for plants can help turn people away from negative thoughts or emotions."

Houseplant collections have become a popular social media trend. Jamie Keaton Jones, PhD, a psychotherapist in Washington, D.C., says that for many people, tending (2) plants has surfaced as a hobby that enables them to experience greater comfort and beauty from the presence of living things sharing their space. "Plants and exposure (2) greenery have been found to have multiple mental health benefits, such as lowering stress, decreasing feelings of depression, increasing sociability, restoring focus, improving cognitive performance, improving mood, and increasing self-esteem," says Jones.

Studies have also shown that plants and gardening increase productivity and levels of serotonin, the neurotransmitter responsible for uplifting mood. " ア ," says Gayle Weill, a therapist in New York and Connecticut.

Like any new skill or hobby, taking care of houseplants comes with a learning curve. Anyone starting to care for plants should be patient and allow themselves time to learn the basics, leaving ⁽³⁾() () (*) () ().

Before you bring home a boatload of botanicals, Jones says it's not about how many plants you have, but rather how you interact with them. For instance, are the plants in areas where you spend a lot of time? Do you care for them daily? If you have a small space or aren't sure how much time you're willing to ⁽⁴⁾invest in plant parenting, starting out with a lot of plants could be overwhelming. " イ ," says Seham.

Remember that while indoor gardening can be a boon for your mental well-being and can help with stress and relaxation, it's not a cure-all. " ウ ," says Keith. But caring for plants can be a useful and enjoyable part of an overall holistic wellness routine.

出典: Lauren David, "Good Vibes Grow on Trees." *Reader's Digest*, March/April 2023.
Pages 29-34. (改変あり)

(1) 下線部(1)を和訳しなさい。

(2) 下線部(2)に共通して入るものを1つ選び、数字で答えなさい。

- ① at ② for ③ of ④ to

(3) 下線部(3)に入るように語群にある語句を最もふさわしい順に並べ替えて、意味の通る英文を完成させなさい。ただし、(*)に入るもののみ、数字で答えなさい。

語群： ① a little trial ② and ③ error ④ for ⑤ room

(4) 下線部(4)と意味が最も近いものを1つ選び、数字で答えなさい。

- ① bring up ② devote to ③ settle on ④ treat with

(5) 空所 ア ～ ウ に入る最もふさわしいものをそれぞれ選んで、数字で答えなさい。

- ① Having a plant doesn't immediately or directly impact mental health processes
- ② Just one plant can make a difference; it can engage you by its smell or color that creates a positive mood response with every interaction
- ③ Rather than dwelling on the past or worrying about the future, plant care helps one focus on the present moment and provides a feeling of accomplishment

〔問 4〕 次の和文にある下線部(1)(2)(3)を英訳しなさい。

呼吸法が心身の健康に役立つことは広く知られている。⁽¹⁾私の中高時代には授業開始前に短時間、目を閉じてゆっくりと息をするようにいわれていた。活発に動き回る若者を授業に向かわせる方法としても、確かに効果があったように思う。

この体験を思い出したのは、呼吸法による心身への効果の違いを研究した論文が目にとまったからだ。呼吸法によって効果に違いがあるのかどうか、漠然と疑問に思っていたが、その論文によれば、ため息を使った呼吸法にウェルビーイングを高める効果があるという。

呼吸法にはいくつか種類があり、それぞれに効果が報告されている。⁽²⁾例えば横になったり座ったりしてゆっくりと呼吸し、気道を通る空気の動きに意識を向ける方法がある。今に意識を向けるマインドフルネス呼吸法のひとつで、悩みから自分を解放する働きがあるといわれる。ゆっくりと息を吸い一度息を止めてゆっくりと吐き出し、そこで少し息を止めまた息を吸う。これを繰り返すボックス呼吸という方法もあり、パフォーマンス向上やストレスコントロールの役に立つとされている。

今回の研究では、ゆっくり鼻から息を吸った後に倍の時間をかけてため息をつくように口から息を吐き出す5分間の「ため息呼吸法」がウェルビーイングを高める効果があった。⁽³⁾以前、ある禅僧から座禅のひとつとして「ムー」と口に出しながら息をゆっくり吐き出す方法を教わった。黙って座る方法しか知らなかった私には新鮮な体験で、禅僧の長い経験から得られた知恵を感じられる方法だと思った。

出典：大野裕、「こころの健康学：ため息呼吸法で健やかに」。

日本経済新聞、2023年2月14日。

問 題 訂 正 ・ 補 足 説 明

外国語（英語） 問題冊子（一般選抜A）

・ 英 5 ページ 〔問 3〕 本文 下から 2 行目

下線部加筆

～ Keith.

↓

～ Keith, a social worker in North Carolina.

理科（化学） 問題冊子（一般選抜）

・ 化 4 ページ 〔問 3〕 設問（1） 7 行目

補足説明

問題文の末尾（「…であった。」の後）に次の文を加える。

「ただし、1, 6-グリコシド結合は多糖類 X の枝分かれ部分にのみ存在しているものとする。」

小論文 問題冊子（一般選抜）

・ 2 ページ 13 行目

訂正内容

（誤）「2011 月」

（正）「2011 年」

受験番号	
一般A	
一般B	

2024年度一般選抜A

外国語答案用紙(1)

- 【注意】
1. 受験番号を受験番号欄に記入しなさい。
 2. 答案用紙を切り離してはいけません。
 3. 解答を指定された場所に記入しなさい。

〔問1〕

(1)

.....

.....

(2)

(ア)

(イ)

(ウ)

(エ)

(オ)

(この線から下には、何も記入してはならない)

1(1)	1(2)	1

O

O

〔問 2〕

(1) []

(2)

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.....

.....

(3) []

(4)

(ア)	(イ)	(ウ)	(エ)	(オ)	(カ)	(キ)	(ク)	(ケ)	(コ)

(この線から下には、何も記入してはならない)

2

外国語答案用紙(2)

〔問3〕

(1) _____

(2) []

(3) []

(4) []

(5) ア[] イ[] ウ[]

(この線から下には、何も記入してはならない)

3(1)	3(2-5)	3

O

O

〔問 4〕

(1)

.....

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(2)

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(3)

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.....

(この線から下には、何も記入してはならない)

4

1	2	3	4	計