令和3年度一般選抜試験問題(前期)

英語(問題)

注 意

- 1) 英語の問題冊子は17ページあり、問題は3問である。白紙・空白の部分は下書きに使用してよい。
- 2) 別に解答用紙1枚があり、**解答はすべてこの解答用紙の指定欄に記入すること**。 指定欄以外への記入はすべて無効である。
- 3) 解答用紙の所定欄に次のとおり受験番号を記入しなさい。氏名を記入してはならない。
 - ・一般選抜試験のみを志願する受験者は一般の欄に受験番号を記入する。
 - ・併用試験のみを志願する受験者は併用の欄に受験番号を記入する。
 - ・<u>一般選抜試験と併用試験の両方を志願</u>する受験者は一般と併用の両方の欄にそれ ぞれの受験番号を記入する。

なお、記入した受験番号が誤っている場合や無記入の場合は、英語の試験が無効となる。

また、*印の欄には何も記入してはならない。

- 4) 問題冊子は持ち帰ること。
- 5) 解答用紙は持ち出してはならない。
- 6) 試験終了時には、解答用紙を裏返しておくこと。解答用紙の回収後、監督者の指示に従い退出すること。



Ι

"Our analysis found having a dog is actually protective against dying of any cause," said Mount Sinai endocrinologist Dr. Caroline Kramer, lead author of a new systematic review of nearly 70 years of global research published Tuesday in "Circulation," a journal of the American Heart Association.

The review of the health benefits of man's best friend analyzed research involving nearly 4 million people in the United States, Canada, Scandinavia, New Zealand, Australia and the United Kingdom.

"Dog ownership was associated with a 24% reduction in all-cause mortality," said Kramer, an assistant professor in the division of endocrinology and metabolism at the University of Toronto.

The meta-analysis found an even bigger benefit for people who had already had a heart attack or stroke.

"For those people, having a dog was even more beneficial. They had a 31% reduced risk of dying from cardiovascular disease," Kramer said.

A separate study of more than 336,000 Swedish men and women, also published Tuesday in "Circulation," likewise found people who owned dogs had better health outcomes after suffering a major cardiovascular event such as heart attack or stroke. Heart attacks and stroke are the leading causes of death globally, according to the World Health Organization.

The benefit was highest for dog owners who lived alone.

"The most interesting part of this study was that people who lived alone actually seem to get the greatest benefit in both the heart attack group and the stroke group," said dog owner Dr. Martha Gulati, who is the editor-in-chief of CardioSmart.org, the American College of Cardiology's patient education platform.

"People who lived with a dog actually had less mortality than people living alone who didn't have a dog," said Gulati, who was not involved in either study.

Heart attack survivors living alone who owned dogs had a 33% lower risk of death compared to people who did not own a dog. Stroke survivors living alone had a 27% reduced risk of death.

"We know that loneliness and social isolation are strong risk factors for premature death and our hypothesis was that the company of a pet can alleviate that," said study author Tove Fall, an associate professor of epidemiology at Uppsala University in Sweden.

"Single owners have to do all the dog walks and we know that physical activity is important in rehabilitation after a myocardial infarction or stroke," Fall added.

Both published studies were (2), meaning that researchers cannot prove that dog ownership was the (3) cause of the increased life expectancy or the better health outcomes after heart attack and stroke; only a randomized (4) trial could answer those questions.

"Is it the dog or is it the behaviors?" Gulati asked. "Is it because you're exercising or is it because there is a difference in the type of person who would choose to have a dog versus somebody who would not? Are they healthier or wealthier? We don't know those things."

The American Heart Association points to studies that found pet owners who walk their dogs got up to 30 minutes (5) exercise a day than non-walkers.

"There are studies suggesting that individuals who have dogs have a better cholesterol profile and lower blood pressure," said Kramer, who is a dog owner.

"One study, my favorite, found just the effect of petting a dog can reduce your blood pressure as much as a medication," Kramer said.

Other studies suggest dogs provide companionship and affection that can reduce anxiety and depression. That's especially important after a major illness, such as a heart attack or stroke.

"We know that if you have depression after a heart attack, you're (6) likely to have a poor outcome," Gulati said, which is one reason so many hospitals have begun using therapy dogs for cardiac patients.

In fact, a number of cardiologists believe in the benefits of dog ownership so much they will actually prescribe a dog for their patients, if they believe the person can appropriately care for a pet.

"I know a lot of my patients often say to me after they have a heart attack or stroke, can I even take care of a dog? They worry because they don't want to leave the dog alone if something happens to them," Gulati said.

"But if possible, I always encourage them to get a dog," she said, "perhaps an older dog who needs to be rescued and not a puppy that will be harder to manage."

"While these non-randomized studies cannot 'prove' that adopting or owning a dog directly leads to reduced mortality, these robust findings are certainly at least suggestive of this," said Dr. Glenn Levine, chair of the writing group of the American Heart Association's scientific statement on pet ownership.

However, the AHA also says that pet ownership is a caring commitment that comes with certain financial costs and responsibilities, so "the primary purpose of adopting, rescuing, or purchasing a pet" should not be to reduce cardiovascular risk.

According to the Centers for Disease Control and Prevention, studies show dogs decrease stress and promote relaxation and impact nearly all stages of our lives.

"They influence social, emotional and cognitive development in children, promote an active lifestyle, and have even been able to detect oncoming epileptic seizures or the presence of certain cancers," the CDC said.

Does that mean that even younger people benefit from having a dog?

"The overall understanding of cardiovascular health is that the earlier that

we implement healthier behaviors, the better," Kramer said. "So like walking, not smoking. And I think that maybe dog ownership is part of that."

(CNN News, October 8, 2019. "Owning a dog tied to lowering your risk of dying early by 24%, says science" By Sandee LaMotte)

- 1 In accordance with the passage, put the letter "O" if each of the following sentences is true and "X" if it is not, on your answer sheet.
- ① Dr. Kramer has conducted clinical studies on the mortality rate of dog owners in different countries for about 70 years.
- ② Regarding mortality rate of dog owners living alone, heart attack survivors receive more benefits from owning a dog than stroke survivors do.
- ③ It has been scientifically proven that the fact that owning a pet helps reduce its owner's loneliness leads to decreasing the mortality rate of pet owners living alone.
- Petting a dog is more effective for reducing the blood pressure than the medicine for high blood pressure is.
- (5) Many cardiologists would like to recommend their patients to own a dog.
- ⑥ The AHA says that dog owners should not set their main purpose of owning a dog on decreasing the risk of contracting cardiovascular diseases.
- Not only heart attack survivors and stroke survivors but also other
 people can receive benefits from owning a dog.
- 2 Find the most suitable phrase in **two words** that can be substituted for the underlined expression marked (1) from the first paragraph.
- 3 Select the correct combination of words to be filled in the blanks marked (2), (3), and (4) from the choices below and answer by the letter 'ア', 'イ', 'ウ', or 'エ'.
 - 7 (2) clinical (3) direct (4) observational
 - イ (2) clinical (3) indirect (4) observational
 - ウ (2) observational (3) direct (4) clinical
- エ (2) observational (3) indirect (4) clinical
- 4 Fill in the blanks marked (5) and (6) with the same English word.

 6	*********

II

Many people spend their nights now tossing and turning, struggling to unglue from the constant scroll of coronavirus news updates.

But, while there is no body or life hack to make you impervious to the touch of disease, we do know that sleep is key to [1:7] bodies / f healthy / f helping / f our / f stay]. "Sleep is an essential part of protection (2) and response (3) any infection," said Douglas B. Kirsch, a neurologist and former president of the American Academy of Sleep Medicine. But still, he hears you: "Sleep is hard when anxiety levels are high, such as in the case of a pandemic."

There are some answers as to what you can do now. You may not like them.

Create and maintain a very consistent sleep practice and schedule that works for you.

The more consistent your wake-up time, the more consistent your body functions.

The National Sleep Foundation recommends sticking to a sleep schedule, and here's a simple way to do it: Set a regular bedtime. Pair it with a set time to wake.

Set yourself up for success by doing the little things: use blackout curtains if you're sleeping while it's bright, ditto to earplugs or a sleep mask.

[4:アdo / イ matter / ウno / エ what / オ you], make your bedroom very comfortable and very dark.

Are you easily awakened? Use a fan or a repeated track on Spotify for white noise.

Still, if you're tired, get sleep while you can. "If you're tired during the day, get your rest then," said Janet Mullington, a professor in the department

of neurology at Harvard Medical School.

Just don't let naps wreck your schedule. Michael Breus, a clinical psychologist who focuses on the link between behavior and sleep, said the sweet spot of naps is about 10 to 20 minutes.

Set a hard curfew for all electronics.

Stay on schedule with the help of a strict electronic curfew: Try 90 minutes without social media, email and even TV before lights out, said Dr. Breus.

"It may be tempting to stay up late binge-watching your favorite shows because you don't have to go to work in the morning, but it is more important than ever to prioritize your sleep," said Kristen L. Knutson, an associate professor at Northwestern University's Center for Sleep and Circadian Medicine.

If you can't do 90 minutes, start with 15. Also, probably don't watch "Contagion."

Stay informed, but don't look at the news right before bed.

Limit your types of media consumption too, particularly avoiding things in the evening that increase anxiety. This might be the hardest but most sane advice: "Only look at coronavirus news once per day, preferably not near bedtime," said Dr. Kirsch.

Turning off notifications on your phone might also be helpful. You can set your phone to automatically turn off notifications in the evenings, by scheduling do not disturb hours.

"Isolation can increase the desire to stay electronically connected even more," said Lisa Medalie, a behavioral sleep medicine specialist at the University of Chicago, (5) adds that it's vital to keep disciplined, (6) helps minimize distractions and regain control.

You can use the time before bed to put away fears, too, as part of giving

order to the day. "Setting up plans of action for the day, both for kids and adults, can help alleviate some of that uncertainty," said Dr. Kirsch. "We tend to keep our anxieties bottled up and they burst out in the dark. Try to clear out the mental cabinet ahead of time."

Bottom line: protect your sleep by protecting your bedtime rituals. Block off this chunk of time. [7:アbuffer / イcan / ウminutes / エmore / オthe / カyou] before bed, the better. Do you really think you're going to sleep better after mainlining Twitter?

Move your body and raise your heart rate every day.

This is a must, not only because it makes you tired and ready for bed. Exercising also helps with something else we're all dealing with, whether we're sick or well: anxious, nervous energy. Dr. Kirsch said, "This can be as simple as a neighborhood walk or doing an exercise video at home."

Working out at home might be the best — and safest — way to get your heart rate up.

Treat anxiety with gratitude, breathing, meditation and maybe medication.

Many people think stressful thoughts as they fall asleep. That feeds a cycle of anxiety. Make an on-paper or mental list of things to be grateful for instead.

Try 4-7-8 breathing. In a comfortable position, with your eyes open or closed: inhale for four seconds, hold your breath for seven seconds, exhale slowly for eight seconds. Then repeat (8) necessary.

Consider meditation or progressive relaxation before bed or while falling asleep. There are many free podcasts.

Dr. Kirsch suggested taking a few moments throughout the day to separate for a few moments and take some deep breaths: "Even people who are not typically anxious may be struggling. Sleep is difficult when anxiety is high, thus trying to manage anxiety levels during the day can also benefit nighttime sleep."

Also, if you are suffering from anxiety, speak to a clinic or a doctor or a mental health professional, or at least try to get one of those. Debilitating anxiety is a medical condition.

Don't eat before bed. Don't drink yourself to sleep.

You may have a new routine now. Another cup of coffee — or an early happy hour over Zoom — helps burn the midnight oil. Yes, coffee is good for you in moderation — up to 400 milligrams of caffeine per day — but more than that can lead to shakiness, nervousness, and irregular heartbeat.

And while alcohol makes you sleepy, it doesn't promote quality of rest. Alcohol "leads to sleep fragmentation," said Dr. Kirsch.

Don't eat right before bed. Symptoms of heartburn are unpleasant enough, but can be indistinguishable from anxiety, leading to even more anxiety.

Feel out of control around food or drink? Start a food diary, just so you know what you're actually consuming.

Take a hot shower or bath 90 minutes before bed. Wash your sheets!

Getting warm and then cooling off helps produce melatonin. One method to maintaining an electronic curfew is to combine it with a hot shower, both of which get you primed for a restful night.

And while you're taking care of your body, take care of your space. If possible, use HEPA filter air cleaners for your bedroom, wash your sheets twice a week, and give your home, particularly your bedroom, a nightly clean. You're probably spending more time than ever there; this can promote peace of mind and might lower anxiety.

What if you're feeling sick?

If you're battling infection, your body needs a lot of rest to heal quickly. To start, increase your total sleep time (9) two hours, said Dr. Breus.

Optimize rest conditions: Use a bed wedge or extra pillows to keep your chest raised to avoid additional congestion and postnasal drip. And that nightly shower or bath can keep your body cool and create a better sleeping environment. Change clothes and sheets frequently to control bacterial or virus spread.

"Focus on adequate sleep, stay hydrated, and manage symptoms to recover," said Dr. Medalie. "During this time of uncertainty, work on what you can control: your sleep habits."

So, why does sleep matter anyway?

Here's (10) we know about (11) sleep is important.

The American Academy of Sleep Medicine recommends seven to eight hours of sleep a night.

A 2015 study found a direct link between shorter sleep times and an increased risk of getting a cold for healthy adults aged 18 to 55; specifically those sleeping less than five hours or between five and six hours had a greater likelihood of catching a virus than those sleeping for seven hours a night.

The science is simple: a good night's sleep supports the release and production of cytokine, a protein that helps the immune system quickly respond to antigens — foreign substances which cause the body's immune response to kick in — according to Dr. Medalie.

Sleep is your best defense.

Even in the best of times, Americans average under seven hours of sleep a night. It's a seemingly smaller deficiency than the recommended eight, but it weighs heavily. Missing as little as 16 minutes tonight could harm your cognitive functioning tomorrow, since shifting sleep rhythms can slow or speed up our body's internal clocks, which basically has the same effect as not getting enough sleep. Fatigue, irritability and mental confusion are all deprivation symptoms.

Say you sleep for only four hours a night for six days in a row. In 1999, researchers from the University of Chicago monitored a group of 11 healthy young men who did just that and found this chronic deprivation not only simulates the effects of aging, (13: cause) the body to develop higher levels of the stress hormone cortisol, and higher blood pressure, it can halve a healthy young person's usual number of antibodies to a flu vaccine.

Skipping one night of shut-eye can harm memory and bias behavior. Not only will you physically and mentally feel worse, reaction times plummet, and chances of depression, anxiety, and weight gain rise, since sleep loss disrupts energy intake and expenditure.

(The New York Times, March 25, 2020. "How to Get More Sleep Tonight" By Adam Popescu)

correct sentences. No capitalization is done even at the beginning of the
sentence. Choose the word which comes to the * positions below and
answer by the letter 'ア' through 'オ' or 'カ' on your answer sheet.
[1:7 bodies / イ healthy / ウ helping / エ our / オ stay]
[1:
[4:アdo / イ matter / ウ no / エ what / オ you]
[4:
[7:ア buffer / イ can / ウ minutes / エ more / オ the / カ you]
[7: *]
2 Select the most suitable word to fill in the blanks marked (2),
(3), (8), and (9) from the following choices and answer by
the letter '7' through 'I'. You may not use the same word more than once.
ア as イ by ウ from エ to
3 Select the most suitable word to fill in the blanks marked (5),
(6), (10), and (11) from the following choices and answer by
the letter '7' through 'I'. You may not use the same word more than once.
ア what イ which ウ who エ why
4 Translate the underlined phrase marked (12) into Japanese.

1 Rearrange the words in the brackets marked [1], [4], and [7] to make

 \coprod

E-cigarettes are often promoted as a tool to help smokers quit, but there's still not enough scientific evidence (1) back up this claim. There is evidence, however, that many young people are introduced to tobacco through e-cigarettes.

Surgeon General Jerome Adams cited that earlier evidence on Thursday, when he spoke about the 2020 Surgeon General report on tobacco. This year's report — the 34th overall — was the first in three decades to address smoking cessation specifically.

The report comes in the midst of a heated debate about flavored e-cigarettes, which public health officials say hook kids. In early January, the Food and Drug Administration announced a ban on nearly all flavored e-cigarette products, except for menthol and tobacco-flavored pods.

At a news conference Thursday, Adams urged people to focus on what the research has shown about e-cigarettes.

A lot of the available studies on whether e-cigarettes can help people quit tobacco, however, involve specific products, so these findings can't be applied to e-cigarettes as a whole, Adams said, (2 : add) that many of the products that were studied have since changed, and that there are countless others on the market.

While the research is ultimately insufficient to draw conclusions about whether e-cigarettes are an effective tool for quitting, Adams said that he encourages companies to submit applications to the FDA for e-cigarettes as a cessation aid.

Indeed, most people who smoke—some 70 percent—want to quit, according to the report, and more than half of smokers try to do so each year.

Many of these smokers, however, are not taking advantage of the available tools to help.

Adams recommended several approaches that have been proven to help people quit. FDA-approved medications, combined with behavioral counseling, doubles the success rate of quitting. Support for quitting is also available through text message and internet-based services.

The report reiterated the benefits of quitting tobacco: Doing so can add 10 years to your life, drastically reduces the risk of heart disease, lung disease and 12 types of cancer, and reduces harmful effects on fertility and pregnancy. Smoking accounts for 1 in 5 deaths in America, and remains the largest preventable cause of death, disease and disability in the country, the report said. Thirty-four million Americans smoke cigarettes.

(NBC News, January 24, 2020. "Not enough evidence that e-cigarettes help to stop smoking, surgeon general says" By Rosemary Guerguerian, M.D.)

- 1 In accordance with the passage, put the letter "O" if each of the following sentences is true and "X" if it is not, on your answer sheet.
- ① E-cigarettes are the culprits for triggering smoking of many young people.
- ② 'Quitting smoking' hadn't been the main theme for thirty years until the 34th 'Surgeon General report' on tobacco.
- 3 Now selling of all flavored e-cigarettes is banned.
- 4 Thus far, many of the studies on whether e-cigarettes can help people quit smoking haven't been comprehensive.
- (5) Many smokers want to quit smoking, but the number of people who actually try to do so is less than 50% of all the smokers every year.
- (6) It has been proven that only medications can help people quit smoking.
- ② 20% of all the causes of death of American people are attributable to smoking.
- 2 Fill in the blank marked (1) with the most suitable English word to complete the sentence.
- 3 Change the verb form in the blank marked (2) to the appropriate one.

 If there is no need to change the form, write the word as it is.
- 4 What does the underlined initialism marked (3) stand for? Find the most suitable phrase from the passage.