

令和5年度 入学者選抜試験問題

一般選抜 令和5年1月29日

英語 (60分)

I 注意事項

- 1 試験開始の合図があるまで、この問題冊子の中を見てはいけません。
- 2 この問題冊子は21ページあります。ただし、出題ページは下記のとおりです。
4～21ページ
- 3 試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁および解答用紙の汚れ等に気づいた場合は、手を挙げて監督員に知らせなさい。
- 4 解答用紙には解答欄以外に次の記入欄があるので、その説明と解答用紙の「記入上の注意」を読み、それぞれ正しく記入し、マークしなさい。
 - ① 受験番号欄
受験番号を記入し、さらにその下のマーク欄にマークしなさい。正しくマークされていない場合は、採点できないことがあります。
 - ② 氏名欄
氏名・フリガナを記入しなさい。
- 5 試験開始後30分間および試験終了前5分間は退出できません。
- 6 この表紙の受験番号欄に受験番号を記入しなさい。この問題冊子は試験終了後回収します。

II 解答上の注意

- 1 解答はすべて解答用紙の所定の欄へのマークによって行います。たとえば、

3

と表示のある問いに対して②と解答する場合は、次の〈例〉のように解答番号3の解答欄の②をマークします。

〈例〉

解答 番号	解 答 欄									
	1	2	3	4	5	6	7	8	9	0
3	①	●	③	④	⑤	⑥	⑦	⑧	⑨	⑩

受 験 番 号				

獨協医科大学 医学部

(問題は次ページから始まる)

1 次の各問に答えなさい。

A 次の英文を読み、問に答えなさい。

The writing of poetry dates back many millennia. In fact, the first poems predate other forms of literature because they began as oral traditions. For example, the Indian *Vedas* were orally composed as early as 1800 *BCE and only written down much later. Another early poem, the Greek *Odyssey*, dates back to around 600 BCE. Poetic works such as these are believed to have been composed because that made it easier for scholars to memorize them and transmit them to later generations. The oldest known poem is *The Epic of Gilgamesh*, which dates from approximately 2600 BCE in Babylon; it was originally written on clay tablets and later on papyrus.

Aristotle was among the first to define what constitutes poetry. In his *Poetics*, he delineated three genres of poetry: tragedy, comedy, and epic verse. Others have described poetry as distinct from prose since poetry is intended to express the beautiful or sublime without a narrative, while prose . This distinction is widely accepted today. In addition, poetry is defined by features such as the use of *meter, rhythm, *alliteration, and musical effects. However, poems, especially modern poems, are quite disparate in how they use these elements.

Poems traditionally employed a specific meter, or sound pattern. Greek poets, such as Homer and Sappho, first utilized the metric system. Beginning with the Greeks, many poets have favored what is known as *iambic pentameter. This is a meter with five *iamb*s, wherein each iamb consists of an unstressed syllable followed by a stressed syllable, resulting in a total of 10 syllables. The English language lends itself naturally to iambic rhythms, but other meters populate poetry in different languages. For example, the meter in Spanish poetry is determined by the positioning of the final accent in a poetic line. Accordingly, a line with the last accent on the seventh syllable in Spanish is called an octosyllable, whether it has seven, eight, or nine syllables.

Poetry has evolved tremendously throughout the centuries, and the poetic forms applied in modern times are far more varied and flexible. Modern poets often choose to

set aside recognizable structures, such as 3 , and instead use *free verse*. Additionally, they may rely on visual designs or incorporate elements of prose. During the historical Victorian era, poets such as Christina Rossetti and Robert Louis Stevenson experimented with unpatterned rhymed verse. Twentieth-century poets, such as Ezra Pound and E.E. Cummings, fully developed these trends and 4 , preferring to invent their own forms of expression.

Prose evolved from its roots in ancient oral poetic tradition. The invention of the printing press allowed for the mass development of varied forms of prose, which primarily involved religious or legal subject matter. Works of fiction, such as novels, *novellas, and short stories developed significantly later. A short story is a form of fiction that tends to be considerably briefer than either novellas or full-length novels. The maximum length of a short story is often limited to 7,500 words, although 5 , thus bordering on novella length. Typically, a short story can be read in one sitting and maintains a single plot, a stricter limit on time and setting, and fewer characters than a novel. Famous stories that illustrate these characteristics include *The Tell-Tale Heart*, by Edgar Allan Poe; *The Legend of Sleepy Hollow*, by Washington Irving; and *The Story of an Hour*, by Kate Chopin.

Like modern poets, short story writers of this era 6 . One recent development is flash fiction; James Thomas, Denise Thomas, and Tom Hazuka introduced it in a 1992 anthology. Also called micro-fiction, postcard fiction, and short fiction, this sub-classification of the short story has fewer than 2,000 words, falling typically into the 250 to 1,000-word range. Many twenty-first-century writers are attracted to flash fiction because they feel it is well suited for the current fast-paced culture.

Notes:

BCE 「紀元前」 meter 「歩格: 韻律の単位」 alliteration 「(詩の) 頭韻法」
iambic pentameter 「弱強5歩格: 韻律の一種」 novella 「中編小説」

問1 ~ の空所を補うのに最も適切なものを, 下の①~④の中からそれぞれ1つ選びマークしなさい。

- ① in academically complex form
② in extravagantly elegant form
③ in fairly lengthy form
④ in relatively concise form
- ① combines the sublime and logical explanation
② employs logical explanation and a linear story
③ gets rid of the idea of beauty and narrative
④ incorporates musical effects like meter and rhythm
- ① unpatterned rhymed verse
② free sound patterns
③ meter and rhyme
④ visuals, images, and designs
- ① refined the elements forgotten in the previous century
② refuted the aspects developed during the Victorian era
③ rejected a great deal of the customary structures of poetry
④ restored the customary structures of traditional poetry
- ① most novellas run as long as 20,000 words
② several short stories consist of within 5,000 words
③ almost all novellas consist of within 5,000 words
④ some short stories run as long as 20,000 words

- 6
- ① continue to create new forms for story telling
 - ② no longer try to develop varied forms of prose
 - ③ are becoming more unvaried and inflexible
 - ④ are all interested in classical literature

問2 次の 7 ・ 8 の各問の答えとして最も適切なものを、下の①～④の中からそれぞれ1つ選びマークしなさい。

- 7 Which of the following is TRUE about the ancient development of poetry?
- ① Aristotle was one of the first poets to invent the literary genres of poetry and prose.
 - ② Homer and Sappho were the first poets to apply the metric system to their work.
 - ③ *The Epic of Gilgamesh* is the oldest known poem, dating back to 2600 years ago in Babylon.
 - ④ The *Vedas* developed in India about 3800 years ago in written form.

- 8 Which is TRUE about the development of prose?
- ① Fictional works had already developed long before the printing machine was introduced.
 - ② Prose shared its roots with poetry in that it employed the metric system.
 - ③ Religious or legal subject matter had nothing to do with prose writing.
 - ④ The invention of the printing machine made it possible for various types of prose to develop.

B 次の英文を読み、問に答えなさい。

As the effects of climate change accelerate, the UN says the strongest lever we have to reduce global warming is to curb the emissions of the greenhouse gas: methane. But emissions continue to accelerate.

There may, however, be method to slow methane emissions. On Prince Edward Island in Canada, (A) farmer Joe Dorgan's unlikely discovery has incredibly powerful potential.

Dorgan, who founded North Atlantics Organics, which produces and distributes organic seaweed, stumbled upon what is nothing short of a climate miracle — the seeds of which were planted through five generations of family farming along the shores of the island. Back then, farmers harvested seaweed for feed and fertilizer.

While beachgoers may , Dorgan knew from experience it was full of potential. He sent samples of it to Dalhousie University in Nova Scotia to test for organic certification. Through that, it was discovered that the high uptake of natural vitamins and minerals in seaweed drove up reproduction and milk production in cows.

Dorgan knew instinctively that seaweed would be healthy for cows, but research revealed an unintended consequence: seaweed made cows . Globally, methane is responsible for 30% of global warming. Of that, livestock, such as cattle, account for about one-third of all methane emissions. “The researchers found out that feeding seaweed to cattle would reduce greenhouse gases by as much as 40%,” Dorgan said. Digesting roughage requires extra digestion from cows and causes cows to burp more. Those burps emit methane, a heat-trapping greenhouse gas that’s 80 times more potent than carbon dioxide. In a year, a cow emits as much greenhouse gas as a small car. Besides, there is another problem nowadays. Because animal numbers have skyrocketed to help feed a growing human population, livestock now accounts for 15% of global emissions.

The increase motivated chief scientist at Futurefeed, Rob Kinley, who worked with Dorgan on his organic certification 15 years ago, to find a seaweed species with even more methane-reducing power. “We started testing seaweeds from coastal Australia,

and it wasn't long before the *Asparagopsis* species showed up, and it showed up in a big way. So big that we didn't even believe (B) what we were seeing," Kinley said. "It took multiple runs of testing this before we finally believed the fact: we couldn't find methane anymore."

Kinley's research showed *Asparagopsis*, a common type of red seaweed, has the potential to virtually eliminate methane emissions from livestock. But there are 12 — it's not easy to harvest from the ocean, so scientists are experimenting with farming it.

Kinley's team, along with others like Josh Goldman, project leader at Greener Grazing, are getting much closer to perfecting the techniques. "The way that it shifts the *ruminant function in the cow also makes the animal more energy efficient," Goldman said. He is encouraged by the seaweed's *versatility. He said cultivation only takes about 90 days, allowing for multiple cycles per year, and it can be grown by *aquaculture operations almost anywhere if the climate is suitable.

Feeding the 1.5 billion cows in the world, however, is a big lift. "There are a lot of mouths to feed. But the good news is we only need to feed those cows 0.2% of their daily ration," said Goldman.

Still, there's the challenge of encouraging cow owners to use the seaweed supplement. For that, Goldman says there's an incentive: adding seaweed to a cow's diet means 13. And, he says, dairy farmers and cattle *ranchers will likely be able to cash in, selling *carbon credits for the emissions they reduce.

Eliminating almost all methane from almost all cows on Earth "would have 14, roughly equivalent to eliminating all the emissions from the U.S., or the equivalent of taking every car off the road globally," Goldman said.

That's a long way off, but then again, Kinley's work has come a long way since his initial discovery 15 years ago. "This will be a much bigger story even 12 months, 18 months from now. ... (C) I am optimistic," Kinley said.

While you could see some positive sides of this seaweed product, critics say it hasn't yet been proven at scale. It is clear that methane reduction from seaweed is effective in the short term, but there's some fear that its effects 15 as the cows' digestive

問2 下線部(A)～(C)の意味に最も近いものを、下の①～④の中からそれぞれ1つ選びマークしなさい。

(A)

- ① Dorgan established a way to use the seaweed for fertilizer, which hardly anyone had considered
- ② Dorgan didn't expect to find that what he was dealing with daily could help reduce global warming
- ③ Dorgan happened to find a new species of seaweed on the beach on Prince Edward Island
- ④ Dorgan didn't want to promote the method as it is unlikely to curb methane emissions

(B)

- ① Asparagopsis appeared to have a greater ability to get rid of methane than any other species
- ② Asparagopsis could be found easily, not just in Canada but even in Australia
- ③ Asparagopsis was finally proved to be just as effective at reducing methane as the other seaweed
- ④ Asparagopsis was classified into the same group as the seaweed found in Canada

(C)

- ① Kinley feels satisfied that he was the first to discover the technique of reducing methane more than a decade ago
- ② Kinley is convinced that the media will write a big story about their achievement in the future
- ③ Kinley knows the method hasn't changed for 15 years, but it will be widely used one day
- ④ Kinley thinks without doubt what he has done so far could be even more successful in the future

問3 次の ・ の各問の答えとして最も適切なものを、下の①～④の中からそれぞれ1つ選びマークしなさい。

- According to the passage, which of the statements is NOT TRUE about cows?
- ① It was not until researchers revealed their findings that Dorgan realized it was good to give seaweed to cows.
 - ② Cows can give birth to more calves when they take in more vitamins and minerals.
 - ③ A cow is likely to promote global warming in the same manner as a small car.
 - ④ As the owners give more seaweed to their livestock, they could have a chance to earn more money.

- According to the passage, which of the statements is TRUE?
- ① What we must do now is to find an alternative to methane, which the UN believes is the most effective way to reduce global warming.
 - ② Methane from livestock is responsible for about 30 percent of global warming in the world.
 - ③ Kinley's team purposefully developed advanced techniques to make cows more energy efficient 15 years ago.
 - ④ It was Goldman who mentioned that it would be possible to harvest seaweed about four times a year.

英語の試験問題は次に続く。

2 次の各問に答えなさい。

A 次の会話文を読み、問に答えなさい。

Riko : Lisa, I heard you bought a car recently. Could you give me some advice? I've been thinking of getting one myself, but I'm not sure where to start.

Lisa : Yes, that's right. Well, first things first, you need to decide what kind of car you want. For example, do you want to buy a new car or a used one?

Riko : Well, I'm not exactly sure what I want, but I suppose buying a used car is more eco-friendly since you're essentially reusing something. All I know so far is that I want to help the environment as much as possible.

Lisa : In that case, how about an electric car? That's what I've got. They are the most eco-friendly option as they don't emit any greenhouse gases. While they do cost more upfront, because of the continual rise in gas prices, they say you actually save money in the long run.

Riko : That sounds great, but I'm not sure an electric car would be a good fit for me. I haven't seen any charging stations nearby, and I live in a rental apartment building. I'm not sure I'd ever be able to charge it!

Lisa : That might be a problem. You could always get a hybrid then. They may require gasoline to run, but they are still low-emission vehicles. A hybrid might be ideal for you. And you could reduce your carbon footprint 22 !

Riko : That sounds perfect. You've given me a lot to think about. Thanks so much for your help.

Lisa : No problem. Let me know if you want me to go look at cars with you.

問 1 Which of the following is the most important factor to Riko? 21

- ① That the car has been used enough previously.
- ② That the car doesn't negatively impact the Earth.
- ③ That she can save a lot of money on the car.
- ④ That the car is the most economical one on the market.

問 2 Which of the following statements is the best to fill in 22 ?

- ① even further by buying one used
- ② even further by buying a new one
- ③ if you bought a new electric car
- ④ if you bought a used electric car

問 3 Which of the following statements is TRUE of Lisa? 23

- ① She thinks Riko should buy an electric car like she did.
- ② She is strongly against the idea of buying a used car.
- ③ She doesn't know what type of car would be best for Riko.
- ④ She is knowledgeable about the benefits of various types of cars.

B 次の英文において、 ～ の空所を補うのに最も適切なものを、以下の①～⑧の中からそれぞれ1つ選びマークしなさい。ただし、文頭に来るものも書き出しは小文字となっている。

Ludwig van Beethoven is undoubtedly one of the greatest musicians that ever lived. The German composer and pianist completed 722 musical works — including nine symphonies — despite being completely deaf during the last decade of his life. Unfortunately, the maestro died . Now, a team of musicians and scientists have used artificial intelligence (AI) to complete the artist's final masterpiece.

Dr. Matthias Röder first came up with the idea to complete the composition in 2019. The director of the Karajan Institute in Austria thought it was an appropriate way to celebrate Beethoven's 250th birthday in December 2020. to help him with the gargantuan task. They included music composer Walter Werzowa and Dr. Ahmed Elgammal, the creator of an innovative AI technology for the art market.

Elgammal and his colleagues started the process by familiarizing the AI software initially with a broad range of classical music, . Meanwhile, Werzowa and his group tried to decipher the rough sketches and the handful of notes that detailed Beethoven's plans for the 10th Symphony.

The team then began the deliberate task of feeding the AI software musical notes from the unfinished composition. Elgammal says that since music is very structured and mathematical, AI can predict the next note reasonably accurately. However, it starts to deviate from the central theme after a few notes. , Elgammal's team sent Werzowa hundreds of AI-generated musical note variations every evening. Werzowa would listen to them and then select the one that he thought was closest to what the artist would have written. The AI team would add the music and rerun the software to generate the next suggestions. And piece by piece, !

The composition — delayed by a year due to the COVID-19 pandemic — debuted at the Telekom Forum in Beethoven's birthplace of Bonn, Germany, on October 9, 2021. Not surprisingly, . Critics believe technology should not be used to replicate the human creative process. Elgammal and his team agree with their stance and say

their AI software is not out to replace humans — it is just a tool to help artists to express themselves in new ways.

- ① to stay true to Beethoven's original composition
- ② because if it's done algorithmically well, then every attempt is plausible
- ③ the team was able to complete Beethoven's 10th Symphony
- ④ the AI-generated masterpiece is causing some controversy
- ⑤ and then, narrowed it to just Beethoven's work
- ⑥ by mixing and overlaying different pieces of music
- ⑦ while still working on his 10th Symphony
- ⑧ he began by enlisting an international team of music experts

3 日本文の意味に合うように () 内の語 (句) を正しく並べかえ、3 番目と 7 番目に来る番号をマークしなさい。

- (1) 弊社社長は、幼児にもっともふさわしいと思われる方法で基礎的な技能を教えることが大切であると考えています。

3 番目 7 番目

Our president thinks that (① basic skills (② it's (③ a way (④ to teach (⑤ seems (⑥ that (⑦ in (⑧ most appropriate (⑨ important) to young children.

- (2) 私たちが一息つく間もなく、先生は次の課題に向けての準備をするように命じた。

3 番目 7 番目

We (① had (② told (③ to (④ before (⑤ relax (⑥ our teacher (⑦ hardly (⑧ us (⑨ a chance) to prepare for the next assignment.

- (3) 小規模会社と優良企業を合併すれば、経済の強化になるだろう。

3 番目 7 番目

The incorporation (① is (② small firms (③ to (④ of (⑤ strengthen (⑥ leading companies (⑦ going (⑧ the economy (⑨ into).

- (4) 自分にとって最重要に見える事柄よりも、他人のために必要な事柄が優先される場合がある。

3 番目 7 番目

Sometimes (① of (② the benefit (③ what is (④ most important (⑤ others (⑥ what seems (⑦ for (⑧ may outweigh (⑨ needed) to us.

(5) 保証期間が切れた途端に製品が壊れるという状況が増えてきている話をよく聞く。

3 番目 7 番目

We often (1) situations (2) a product breaks down (3) on
(4) right after (5) have been (6) where (7) hear that
(8) expires (9) its warranty) the rise.

- (6) 他人のお節介をやくの、私たちの貴重な時間を費やすだけの価値がほんとうにあるのでしょうか。

Is it really our precious time to poke our noses into others' business?

- ① deserving ② valuable ③ worth ④ worthy

- (7) 彼は一人娘に 300 ドルもする人形セットを買ってあげた。子供のおもちゃにしては少し高すぎると思う。

He bought his only daughter a doll set that cost \$300. I think it's a little too expensive a child's toy.

- ① to ② with ③ at ④ for

- (8) 地球が太陽の周りを 1 周するのに 365 日と 4 分の 1 日かかるので、4 年ごとにうるう年が必要になる。

It takes three hundred sixty-five and for the earth to orbit the sun, which is why we need a leap year every four years.

- ① a quarters day ② a quarter days
③ quarters of a day ④ quarter of days

- (9) 今すぐ車を動かしたほうがいいよ。そうでないと、違反切符を切られてしまうよ。

You should move your car right now. you will be ticketed.

- ① Unless ② Rather,
③ Or else ④ If so,

- (10) 問い合わせをして 3 か月経つのに、はっきりした返答は今のところまだもらっていない。

since we made an inquiry, but we haven't got any definite answer so far.

- ① There had been three months ② Three months had passed
③ It has passed three months ④ It's been three months

