(第1時限:80分) 2025 年度 ④

英 語 間 額 (全20ページ)

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. 試験開始前に、監督者より解答用紙へ氏名・受験番号を記入・マークす るよう指示があります。指示の後、以下の例を参考に記入・マークしなさ い。試験開始までは、氏名・受験番号欄以外は絶対に記入してはいけませ

<受験票控>

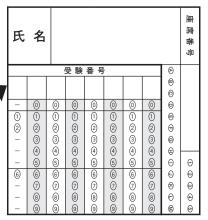
<受験票(控)>

試験当日は受験票・受験票(控)の2枚を持参してください。

入試方式	全学統一方式 (文系)			
試験日	20XX年2月1日(X)	フリガナ	エイゴ タロウ	
座席番号	01TI-A1-1234	氏 名	英語 太郎	
志望学部等 1	法学部 法学科	受験番号1	12345678	
志望学部等 2	****	受験番号 2	****	
試験会場 名称		試験会場 住所		

<解答用紙>

氏名・受験番号を記入・マーク



- 3. 解答はすべて別紙の解答用紙に記入しなさい。
- 4. マークに際しては、マークした部分を機械が直接読み取って採点するの で、下記の注意事項を読み、間違いのないようにしなさい。
 - 1. マークする時は、HBの黒鉛筆(シャープペンシルはHBの0.5ミリ以上の芯)を使用すること。
 - 2. 解答用紙は折り曲げたり、汚したりしないよう注意すること。
- 3. 例えば、③と解答したい場合、次のとおり③のだ円を完全に黒くぬりつぶすこと。 (ぬりつぶしがうすい場合は、解答が正しく読み取れないことがあります。)

1 2 4 5

4. マークする場合の悪い例(次のようなマークは正解と判定されません。)

① ② ④ ④ ⑤ 〇で囲む

(1) (2) (3) (4) (5) |線を引く

(1) (2) (3) (4) (5) √印をつける (1) (2) (3) (4) (5) ねりつぶしが不完全

5. 一度マークした解答を訂正する場合は、消しゴムで完全に消してからマークし直すこと。

① ② **■** ④ ⑤ ×印をつけても消したことになりません。

5. 試験終了後. 問題冊子は持ち帰りなさい。

In 2021, on San Francisco's wettest October day on record, an "atmospheric river" dumped a stunning 4.02 inches of rain downtown, causing highways and neighborhoods in the area to flood. Cars were stuck in rainwater. And the city's combined sewers 1 overflowed in the low-lying Marina neighborhood. City officials estimated that 1.4 million gallons of untreated water could have escaped into San Francisco Bay. For the approximately 700 towns and cities in the United States with combined sewers, overflow can happen during periods of heavy rainfall and can lead to polluted waterways, closed beaches, and dirty drinking water. And with climate change, heavier storms are on the horizon. So about 10 years ago, San Francisco began to turn, in part, to a simple solution: planting dozens of public rain gardens.

At the most basic level, rain gardens function like sponges. They are typically made by digging 5 or so feet (around 2 meters) into the ground, adding layers of rock and soil mixes designed to absorb and filter water, and topping the layers with flowers, trees, and bushes. A finished rain garden should dip like a bowl about half a foot below ground level so that when it rains, the garden can temporarily fill up, allowing water to filter through the ground rather than run into the street.

Research shows that the gardens are remarkably effective at capturing runoff². San Francisco, for instance, installed 30 new rain gardens along a 12-block strip in the city's Outer Sunset neighborhood. This reduced the amount of stormwater entering the sewer by 95 percent for the area, taking in about 6 million gallons—more than the volume of the famous Lincoln Memorial reflecting pool in Washington, D.C.—per year. On a smaller scale, individual homeowners who install rain gardens to collect runoff from roofs can expect to absorb an estimated 30 percent more water

than they would with grass lawns.

Rain gardens, which often include low-maintenance native plants, offer a wealth of other benefits. "Some people think of rain gardens as just kind of fancy ditches³, but they can be more," said Jennifer Cooper, who manages the Landscape Architecture Bureau for San Francisco Public Works. They're commonly used to filter runoff pollution, and they can also reduce urban heat, offer habitats for pollinators⁴, and serve as scenic gathering spaces for people. Cooper and her colleagues designed one of the Outer Sunset rain gardens to be also used as an outdoor classroom.

San Francisco is far from the first place to collect its rain. Portland and Seattle were among the first cities in the United States to adopt rain gardens and other water-absorbing features like green roofs and permeable pavement⁵, which allows water to filter through it rather than making pools on top. Today, cities in Denmark, Poland, Brazil, and other countries are adding rain gardens to their urban landscapes.

But convincing city officials to choose green technology over more traditional, "gray" technology, like concrete pipes, hasn't come without challenges. Rain gardens require green space, which may be limited in crowded urban areas, and workers often need special training to maintain them. Plus, they can look a bit unconventional. Native plants planted in a ditch aren't exactly the clean and well-kept look desired by some people. Many of the experts I spoke with said a major difficulty is the task of convincing those involved in city planning to embrace a new way of thinking. Even with very strong data supporting the benefits of rain gardens, the usual solution among regulators, designers, and engineers is often to use traditional drainage pipes, according to Brendan Shane, the climate director for the Trust for Public Land, a national non-profit organization aimed at expanding access to nature.

Major flooding events occurred recently in Nevada, Arizona, and Texas.

In fact, heavy rain events have increased in much of the country since 1958, according to a 2018 government climate report, with the biggest increases in the Northeast, by 55 percent, and the Midwest, by 42 percent. Often, it's low-income communities, where decades of a lack of investment means greenery is rare, that suffer disproportionately from these events. Rain gardens, of course, are only part of the solution; a 10-foot-wide depression in the ground won't solve the drivers of climate change, and it can't protect us from megastorms on its own.

Even so, individual homeowners can also make a difference. For those who want to add a rain garden to their yard, the EPA⁹ recommends looking for reimbursement programs¹⁰ through local and state public works offices. With city funding, for instance, Shane paid "almost nothing" to put a rain garden capable of holding several hundred gallons of water in his own backyard in 2022. It's one of at least 4,000 properties that the city of Washington, D.C. has improved not only with rain gardens, but also with rain barrels, permeable pavement, or other green projects in the past decade or so. "Each one is small, but when you add them up," Shane said, "you start to see really big impacts on the volume of runoff, and on the quality of water."

(Adapted from a work by Jackie Flynn Mogensen)

(注)

1. combined sewer 合流式下水管

2. runoff 雨水の流出

3. ditch 溝

4. pollinator 授粉動物

5. permeable pavement 透水性の高い舗装道路

6. unconventional 型破りな

7. drainage pipe 排水管

8. disproportionately 不釣り合いに

9. EPA 環境保護庁

10. reimbursement program 助成金制度

- [1] 本文の意味、内容にかかわる問い $(A) \sim (D)$ それぞれの答えとして、本文にしたがってもっとも適当なものを $(1) \sim (4)$ から一つ選び、その番号を解答欄にマークしなさい。
- (A) Which of the problems associated with overflow was directly mentioned as a result of the heavy rainfall in San Francisco in October 2021?
 - (1) Rivers in the city became polluted.
 - (2) Beaches had to be closed to the public.
 - (3) Areas where people lived became flooded.
 - (4) The drinking water became too dirty to drink.

- (B) What is the main function of a rain garden?
 - (1) It collects runoff for local trees, flowers, and bushes.
 - (2) It collects runoff so that water slowly sinks into the soil.
 - (3) It collects runoff in order to increase the flow of water to the sewers.
 - (4) It collects runoff and directs water safely into the surrounding streets.
- (C) Which of the following is NOT mentioned as an added benefit of rain gardens?
 - (1) They provide a means of cleaning dirty rainwater.
 - (2) They provide an attractive place where people can meet.
 - (3) They can help reduce the temperature in towns and cities.
 - (4) They provide a place for local people to grow native plants for food.
- (D) Why are some planners not willing to include rain gardens in their urban designs?
 - (1) They prefer individual homeowners to install rain gardens instead.
 - (2) They prefer to use more conventional methods such as drainage pipes.
 - (3) They don't feel that the data supports the effectiveness of rain gardens.
 - (4) They would rather change green spaces into regular parks for people to use.

- [2]次の(1)~(5)の文の中で、本文の内容と一致するものには1の番号を、一致しないものには2の番号を、また本文の内容からだけではどちらとも判断しかねるものには3の番号を解答欄にマークしなさい。
 - (1) According to the article, the Lincoln Memorial reflecting pool collects runoff from the Outer Sunset neighborhood.
 - (2) The concept of rain gardens has spread to many countries.
 - (3) Low-income communities often have enough green space to create rain gardens.
 - (4) The EPA encourages individuals to seek funding if they want to build a rain garden.
 - (5) The number of individuals installing rain gardens in the San Francisco area has been increasing sharply.
- [3] 本文の内容をもっともよく表しているものを(1) \sim (5) から一つ選び,その番号を解答欄にマークしなさい。
 - (1) A strategy to solve a growing urban problem
 - (2) The increase of rain gardens around the world
 - (3) The problem of rainstorms in the United States
 - (4) How individuals can help to fight climate change
 - (5) The difficulty of including rain gardens in future city planning

In Chicago's Field Museum, behind a series of access-controlled doors, are about 1,500 dinosaur fossils. Jasmina Wiemann, a professor of paleobiology (A) the bleached leg bones, some as big as her. Neither does she glance at the unbroken spinal cord stained red by iron oxides filling the spaces where there was once organic material. She only has eyes for the deep chocolate-brown fossils: these are the ones containing preserved organic matter—long-lasting bones that offer new insights into creatures that went extinct millions of years ago.

Wiemann is part of the growing field of conservation paleobiology, where researchers are looking to the deep past to (B) future extinction vulnerability. At a time when humans could be about to witness a sixth mass extinction, studying fossil records is particularly useful for understanding how the natural world responded to problems before we arrived: how life on Earth reacted to environmental change over time; how species adapted to planet-wide temperature changes; or what to expect when ocean geochemical cycles change. This is not something that we can simulate in the laboratory or meaningfully observe right now in the present day, Wiemann says, "We have to rely on the longest ongoing experiment."

To observe that planet-scale experiment, scientists have developed new methods of gathering information from the bones of the distant past. After collecting her fossils, Wiemann puts them under a microscope that shoots a laser at the specimen⁶. She displays a section on her computer screen, 50 times its original size, and moves across its surface until she finds a dark spot with a smooth surface — this is the fossilised organic matter.

Using this method, Wiemann studied when warm-bloodedness emerged around the Permian-Triassic mass extinction (the biggest in history) and

the Cretaceous-Paleogene (when the dinosaurs went extinct). Warmbloodedness had (C) been established as a factor that made species less likely to go extinct, as they can control their internal temperature in changing climates. But Wiemann found a new result—that many animals developed warm-bloodedness independently after each of these extinctions. This could be important for how animals adapt and find resilience as the planet warms. "If we want to, in any way, even in the short term, make meaningful predictions, we have to demonstrate that we understand these processes," she says.

One of the first people to write about combining approaches to ecology and paleontology to predict extinction vulnerability was Michael McKinney, now the director of environmental studies at the University of Tennessee. After graduating with a degree in paleontology he began working in the same field but he kept feeling a need to be more relevant saying, "I kept thinking that it gives us a great context, but it wasn't teaching me a lot that I could apply directly to the immediate problems." McKinney went on to create his current department, which combines geology and ecology. Now, he sees paleobiology as useful to predict what will happen. | (D) |, understanding what to do about it is more difficult. "If you think about what the world's going to be like 1,000 years from now, I think deep time can help us answer that question, he says. But if I'm worried about the fact that the Amazon rainforest is disappearing in the next 20 years, I'm (E) that deep time can inform that." Humans, he says, have found new ways of causing species to become extinct, from the passenger pigeon to the dodo bird. "We operate by rules that don't really apply to the past. The things that we do are so fast and so unpredictable."

But deep time can offer insights into how species (F) very large changes—such as the temperature shifts we are now seeing. Erin Saupe,

a professor of paleobiology at the University of Oxford, uses large datasets to look at patterns of extinction in the fossil record to see which characteristics increase species' vulnerability most. In a recently published paper, she and her co-authors asked whether characteristics such as body size and geographic range size—the distance a species is distributed over—were more or less important in predicting extinction than external factors such as climate change. "Nobody has looked at this question before," Saupe says. Previous research has shown larger animals are typically less likely to go extinct in marine environments but are more likely to face extinction on land, and larger range sizes help species avoid extinction.

G facing a possible future extinction of yet unknown extent, Saupe says the Earth has advantages it didn't before. For one, we no longer live on one huge continent, which means the climate regulates better and prevents the central areas from becoming so hot and dry. However, similar to McKinney, she is worried that resources are limited and humans are having a significant effect on biodiversity. "In the past when you've had these major climatic changes, (H) it was devastating for biodiversity, species had the time and the resources to eventually recover. Today, we're worried that this will continue, but there is no space and there are more limited resources for species to deal with them," she says.

(Adapted from a work by Tiffany Cassidy)

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1	1_	L.	1

- 1. paleobiology 古生物学
- 2. spinal cord 脊髓
- 3. iron oxide 酸化鉄
- 4. vulnerability もろさ, 脆弱性
- 5. geochemical 地球化学的な
- 6. specimen 標本
- 7. resilience 回復力
- 8. paleontology 化石学
- 9. deep time 地質学で用いられる長い期間を表す概念
- 10. biodiversity 生物多様性
- [1] 本文の (A) ~ (H) それぞれに入れるのにもっとも適当なものを (1) ~ (4) から一つ選び、その番号を解答欄にマークしなさい。
- (A) (1) carefully records
- (2) closely examines
- (3) takes samples from
- (4) walks straight past

(B) (1) dispute

(2) encourage

(3) predict

(4) protect

(C) (1) almost

(2) already

(3) far from

(4) not yet

- (D) (1) Consequently
- (2) However

(3) In particular

(4) Moreover

(E) (1) certain

(2) not afraid

(3) not sure

(4) satisfied

(F)	(1)	avoid	(2)	cause		
	(3)	impact on	(4)	respond to		
(G)	(1)	Because it is	(2)	Rather than		
	(3)	When it comes to	(4)	Whenever		
(H)	(1)	although	(2)	as soon as		
	(3)	because	(4)	if		
[2	〕下	線部あ~おそれぞれの意味ま	またに	は内容として、もっとも適当なものを		
	(1)~	(4)から一つ選び、その番号を負	解答	闌にマークしなさい。		
3	Thi	\mathbf{S}				
	(1)	Mass extinction				
	(2)	A large temperature change				
	(3)	The life-cycle of marine creatures				
	(4)	How nature reacted to past challenges				
(V)	the	se processes				
	(1)	how the climate warms over	r tin	ne		
	(2)	how we can make meaningful predictions				
	(3)	how animals adjust to chan	ges	in the climate		
	(4)	how animals developed warr	m-bl	oodedness before these extinctions		
<u></u>	it					
	(1)	the work in paleontology				
	(2)	the field of environmental s	tudi	es		
	(3)	the fear of extinction vulner	rabil	ity		
	(4)	the combination of ecology a	and	paleontology		

\mathfrak{Z} this question

- (1) why species went extinct
- (2) when extinction will happen
- (3) which species are most vulnerable
- (4) which factors are greater in forecasting extinction

(3) them

- (1) increases in range size
- (2) the losses in biodiversity
- (3) critical shifts in the climate
- (4) the effects of human activity

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Language learning

- A: I did terribly on the listening test. I just can't follow the dialogues. I wish I had your ear for languages.
- B: I have no special talent. (🚳)
- A: Well then, tell me how you study to do so well.
- B: Have you been to the LLC? I go there almost every week.
- A: (W) Let alone where it is!
- B: It's a place on campus for students to practice learning languages.
- A: What do you do there?
- B: There are videos to watch and comics to read. (③) With the teacher's help, we have interesting discussions in them.
- A: A conversation class? I'd be too embarrassed.
- B: Don't be. She's really patient and supportive. Come with me Tuesday afternoon.
- A: (②) Let me think about it.

- (1) I was there all the time.
- (2) Well, I've no classes then.
- (3) I don't know what that is.
- (4) Is this a good time for you?
- (5) Why not practice every day?
- (6) It's decided, so let's meet then.
- (7) I work really hard at it, you know.
- (8) That's why my test scores are so low.
- (9) There was an event with international students last month.
- (10) Tuesdays and Thursdays have open lessons that anyone can join freely.

Weekend camping

- A: Oh, you're awake. We're here!
- B: Wow, that was a long drive, wasn't it? The clean mountain air and the smell of the trees will make it all worth it.
- B: How about climbing to the top of that mountain? It'll be a good workout.
- A: Sounds like a fun idea, but it's almost noon already. (3)
- B: In that case, how about we just hike until the waterfall? It's much shorter.
- A: Excellent. That way, we can get back to the campsite before it gets too dark. (\bigcirc)
- B: Yes, there is. There seems to be a trail by the stream that looks interesting, and from there we can go through the canyon.
- A: ((b))
- B: What if nothing bites?
- A: Well, we'll always have our instant noodles.

- (1) I was tired.
- (2) I'm sure you're right.
- (3) I'll race you to the top.
- (4) I can't wait for us to arrive there.
- (5) Maybe we can catch some fish there.
- (6) I heard the river is great to swim in.
- (7) And your good driving helped me sleep.
- (8) We can take off our boots and soak our feet.
- (9) I'm worried about making it back down before sunset.
- (10) Is there any other place besides the waterfall that we can hang out?

なも	∫のを(1)~(4)から一つ選び,その番号を	解名	答欄にマークしなさい。
(A)	I haven't decided I should a	acce	ept the offer.
	(1) what	(2)	whether
	(3) which	(4)	while
(B)	I heard a knock the door.		
	(1) among	(2)	at
	(3) during	(4)	of
(C)	(3) on my own My friend looked he had not (1) as though	(2) (4) ever (2)	for mine only myself
(E)	, ,	(2)	
(F)	, ,	(2)	

IV 次の(A) ~ (H) それぞれの文を完成させるのに、下線部の語法としてもっとも適当

(G)	It is on a true story that	t many people were moved by the
	movie.	
	(1) as it is based	(2) based
	(3) because it is based	(4) that being based
(H)	We will do it, hard it may	seem.
	(1) however	(2) whatever
	(3) whenever	(4) wherever

	とも	適当なものを(1)~(4)から一つ選び	, そ	の番号を解答欄にマークしなさい。
(A)	She	e has trust in her frien	d.	
	(1)	absolute	(2)	modal
	(3)	persuasive	(4)	prosperous
(D)			41	. ,
(B)		the summer turns into autumn,		
	(1)	allergic	(2)	democratic
	(3)	misty	(4)	trim
(C)	The	ey paid a heavy for the	ir ac	etions.
	(1)	dose	(2)	malady
	(3)	proponent	(4)	toll
(D)	It i	s important to follow s	teps	against influenza.
	(1)	distressing	(2)	picturesque
	(3)	preventive	(4)	tolerant
(E)	The	e city is populated.		
	(1)	attentively	(2)	densely
	(3)	dimly	(4)	pessimistically

[1]次の(A)~(E)それぞれの文を完成させるのに、下線部に入れる語としてもっ

ί2	」次の(A)~(E)の又において、下線部の) 計に	もっとも近い意味になる語を(1)~
(4)から一つ選び、その番号を解答欄にマークしなさい。			
(A)	They <u>adopted</u> the policy.		
	(1) described	(2)	discussed
	(3) passed	(4)	prepared
(B)	Their performance received unexpec	cted s	applause.
	(1) admiration	(2)	jealousy
	(3) publicity	(4)	punishment
(C)	They offered an alternative plan.		
	(1) a definite	(2)	a different
	(3) an acceptable	(4)	an amazing
(D)	I hope you can avoid <u>adversity</u> .		
	(1) dishonesty	(2)	malaria
	(3) misfortune	(4)	perspiration
(E)	The meeting was <u>disrupted</u> .		
	(1) discredited	(2)	disorganized
	(3) dissolved	(4)	disturbed