2024年度 保健学部 一般選抜 1月29日 英語 70分

【 次の問い(問1 ~15)の ① ∼ ④ の中から一つずつ)	2	~ [ソニに入る最も	き適当	当なものを、それぞれの
問 1 You cannot () me while I'm s	speak 3	ing. interrupt	4	talk
問 2 He majors in () at Harvard. @ mechanism	3	machinery	4	a machinist
問 3 We should find a p	peaceful (ウ) ② conflict	to th	ne war through int separation	erna 4	tional cooperation.
問 4 Rain (工) ① prevented	us from completing e	very 3	thing on the sched	lule. 4	disturbed
問 5 Do they (オ) talk with)French in Belgiun ② talk to	ı? 3	speak	4	tell about
問 6 The cat (カ) who normally m) all the time is quie	et thi	s morning. which is normall	y me	eowing
3 that is rarely ba	rking	4	which normally l	bark	ing
問7 (‡) I'd l	ike to attend the party ② Because	, I'm ③	too busy to go. For	4	Although
問 8 If I were you, I (① can) call her ar ② had better	nd tel	l her you're sorry. would	4	will
問 9 I will (ケ nake) my son apologize to ② get	your 3	daughter at once.	4	take
問10 We are all citizens ① in spite of ③ no matter where		② ④) we may be. no matter when whenever		

問11	A: Do you have any hotel rooms available for tonight?
	B:(サ)
1	Almost every room has one.
2	We've just had a cancellation.
3	They are due soon.
4	I am really sorry, I'm afraid I'm not free tonight.
問12	A:(シ)
	B: Mr. Yamamoto can help you with that.
1	Who should I contact to rent an office space in this building?
2	Can I help with the presentation for the new client this afternoon?
3	Is that going to be a problem for him?
4	How many assistants have been hired to help us?
問13	A: The meeting is in Akita City, isn't it?
	B:(ス)
1	No, I've not yet been to Akita City but I would really love to go there someday.
2	Yes, it was in a gorgeous conference center by the river.
3	No, I'm not going. Are you?
4	Yes, I hope we can participate online.
問14	A:(tz)
	B: Every hour on the hour.
1	How long does it take to get to the airport?
2	What time should I meet you so that we aren't late for the recital?
3	How much time should I allow for your opening remarks?
4	When does the bus leave for the city center?
問15	A:(y)
	B: Don't they leave as soon as it's over?
1	Yes, usually they are the first ones out the door!
2	When do you want to leave?

3 Will you stay after the show to meet the musicians?

4 I think it's still too soon to announce that I'll be retiring next month.

問		([), ()	() () his
	① finished	2	for	3	dinner	4	studying
	6 early	6	cooked	Ø	having	8	he
問	2 その発見の真の重要 The true signification			_	でした。 ウ) ()	() (<u>I</u>)
	()()().	_			
	1 not	2	discovery	3	was	4	years
	⑤ later	6	many	Ø	until	8	recognized
問	3 彼はどんなプロの	バス〜	ケットボール選手に	こも多	おらず才能豊かです	۲.	
	He () ()	(才) (一)	(力) ()())()).
	① as	2	as	3	basketball	4	professional
	6 any	6	player	7	is	8	talented
		がちこ	なことですが, 簡単	色な角	解決策を見つける こ	ことに	は困難です。
問	4 複雑な問題にありた					,	
問	4 複雑な問題にあり。() (キ) () ()	() (5	') () ()
問) () ()
問	() (‡				with	4	as

B: そったよね!!	コンピニとか学り	良とか、いろ	いいつりつこ	間甲になる) / 44°		
A:私はよくキャッ	ッシュレス決済を	を使うから,	現金をほと	んど持ち歩	いてない	よ。	
B:そうそう, 私も	5!財布には 50	0円しか入っ	ってないよ。				
A: Using cashless	s payments on o	campus is so	convenient	•			
B: I know, right!	It makes eve	erything mu	ich easier i	n the conv	enience s	store and	the
cafeteria.							
A: I often use cas	shless payments	s, so I hardl	y ever carry	any cash.			
B: Yeah, me ne	ither! () ()	(ケ) () () 500	yen
()() (]).					
) more	2 my	3	than	4	I		
) wallet	6 have	7	in	8	no		
	A:私はよくキャッ B:そうそう、私も A:Using cashless B:I know, right! cafeteria. A:I often use cash B:Yeah, me ne	A:私はよくキャッシュレス決済をB:そうそう、私も!財布には50 A:Using cashless payments on of B:I know, right! It makes ever cafeteria. A:I often use cashless payment B:Yeah, me neither! (A:私はよくキャッシュレス決済を使うから、B:そうそう、私も!財布には500円しか入っ A:Using cashless payments on campus is so B:I know, right! It makes everything mu cafeteria. A:I often use cashless payments, so I hardl B:Yeah, me neither! () () () (コ). more ② my ③	A:私はよくキャッシュレス決済を使うから、現金をほとB:そうそう、私も!財布には500円しか入ってないよ。 A:Using cashless payments on campus is so convenient B:I know, right! It makes everything much easier is cafeteria. A:I often use cashless payments, so I hardly ever carry B:Yeah, me neither! () (ケ () (コ).	A:私はよくキャッシュレス決済を使うから、現金をほとんど持ち歩B:そうそう、私も!財布には500円しか入ってないよ。 A: Using cashless payments on campus is so convenient. B:I know, right! It makes everything much easier in the convergeteria. A:I often use cashless payments, so I hardly ever carry any cash. B:Yeah, me neither! () (ケ) (ケ) (ケ) (B:そうそう、私も!財布には500円しか入ってないよ。 A: Using cashless payments on campus is so convenient. B: I know, right! It makes everything much easier in the convenience scafeteria. A: I often use cashless payments, so I hardly ever carry any cash. B: Yeah, me neither! () (ケ) (ケ) (() () () () () (A: 私はよくキャッシュレス決済を使うから、現金をほとんど持ち歩いてないよ。 B: そうそう、私も! 財布には 500 円しか入ってないよ。 A: Using cashless payments on campus is so convenient. B: I know, right! It makes everything much easier in the convenience store and cafeteria. A: I often use cashless payments, so I hardly ever carry any cash. B: Yeah, me neither! () (ケ) (ケ) () 500 () (コ). more ② my ③ than ④ I

問 5 A:大学でキャッシュレス決済が使えて便利だよね。

〔英文1〕

Looking into cats' genetic makeup may help reveal how wild cats have become domesticated pets.

Five genes involved with embryo development differ between wild and domesticated cats, researchers reported in the *Proceedings of the National Academy of Sciences*, on November 10. The new genetic data support a recent hypothesis about why domesticated animals often have a juvenile appearance.

In July, three scientists proposed that certain physical features shared by domestic animals, described as domestication syndrome, might all result from mild defects in the function of cells known as *neural crest cells. Neural crest cells migrate to different parts of an embryo and (A) several tissues including the bone and cartilage that shape faces, muscles, pigment cells, and the adrenal glands, which control the fight-or-flight response.

The new findings are consistent with the hypothesis that changes in neural crest cell functions can lead to tameness, the researchers say. Genes involved in the memory, fear, and reward systems in the brain also differed between domestic and wild cats.

It's still too early to say how these genetic changes might affect brain development and lead to the evolution of tameness, says Greger Larson, an evolutionary biologist at the University of Oxford. Researchers are learning that many genes contribute to domestication. The combination of the neural crest cell hypothesis and supporting genetic evidence such as that provided by this study give researchers clues about which genes or biological systems might be most important for domestication, he says.

Most scientists consider cats only semi-domesticated, says geneticist and study co-author Wesley Warren of Washington University School of Medicine in St. Louis. Tame cats are independent and breed freely with their wild cousins. So, the researchers were surprised that they could find genetic signatures of domestication in the animals at all.

Warren and colleagues first compiled the genome of a female Abyssinian cat (B) Cinnamon as a reference to compare with the DNA of multiple cats and other species. To look for genetic variants associated with domestication, the researchers examined DNA from 22 cats from six domestic breeds (Felis silvestris catus), two European wildcats (Felis silvestris silvestris), and two African wildcats (Felis silvestris lybica).

The team looked for regions of the genome (C) domestic cats are genetically similar to each other but differ substantially from wildcats. The researchers concluded that the 13 genes

in five genome regions that they found were associated with domestication. Five of those genes are involved in controlling the survival and migration of neural crest cells in the embryo.

The researchers may be overinterpreting their data, says Anna Kukekova, a geneticist at the University of Illinois at Urbana-Champaign who studies tame and aggressive silver foxes. "They cannot say that the changes they found are associated with tameness," she says.

Comparing the cat genome with those of other species, the researchers also discovered some genetic variants that help explain some *feline characteristics, such as their keen eyesight and hearing.

Genes may also reveal what it takes to be a real *carnivore. Cats are obligate carnivores: They can't produce some necessary nutrients found only in meat. They also have trouble digesting plant-based foods. "No tofu for *felids," says study co-author Leslie Lyons, a comparative geneticist at the University of Missouri College of Veterinary Medicine in Columbia.

Researchers have wondered how cats avoid heart disease when they eat such protein-laden and fat-laden diets. The researchers' genetic analysis revealed that several genes involved in processing lipids have evolved rapidly in cats. Those fat-processing genes help the animals *stave off the artery-clogging effects of a high-fat diet. Polar bears also eat a lot of meat and (D) similar adaptations, suggesting that those genetic changes may be a signal of a carnivorous lifestyle.

(Source: Tina Hesman Saey, Science News, Nov 10, 2014. Used with permission.)

- *neural crest cells 「神経堤細胞」
- *feline 「ネコ科の動物」
- *carnivore 「肉食動物」
- *felids 「ネコ科の動物」
- *stave off 「食い止める」「避ける」

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1強勢)のある音節を、それぞれ次の①~④の中から一つ選べ。

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 pick up ② give rise to	3 take after 4 call on
空欄(B) 工	
① whose name ② naming	3 named 4 to name
空欄(C) オ	
① which ② in that	3 places 4 where
空欄(D) カ	
① were developing	2 have developed
3 had been developing	4 had developed
問 3 下線部(1)の内容として最も適当なものを,	次の①~④の中から一つ選べ。 キ
① 神経堤細胞の機能が変化すると、飼いな	
② 神経堤細胞が、胚の様々な部位に変化を	:もたらすこと
③ 遺伝子の変化が、脳の発達に影響を与え	.azと
4 多くの遺伝子が、飼いならされる過程に	寄与していること
問 4 下線部(2)の理由として最も適当なものを,	次の①~④の中から一つ選べ。 ク
① 飼いネコが動物としておとなしいとは思	
② 飼いネコの遺伝子が野生のネコの遺伝子	と異なっていたから。
③ 野生のネコであっても飼いネコと交配す	· ·ることがあったから。
4 飼いネコの遺伝子に野生の片鱗を示す特	徴がみられたから。
問 5 下線部(3)を調べた対象に 含まれないもの を	·, 次の①~ ④ の中から一つ選べ。 ケ
① Felis silvestris silvestris and two African	wildcats
Pelis silvestris lybica and a female Abys	sinian cat
3 six domestic breeds and Felis silvestris	lybica
4 two European wildcats and Felis silvestr	ris catus
問 6 下線部(4)の意味として最も適当なものを,	次の①~④の中から一つ選べ。 コ
10 to test by questioning in order to determ	nine progress, fitness, or knowledge
2 to conduct an official inquiry by interro	gation
3 to inspect thoroughly in order to determ	nine its nature or condition
4 to make or give an examination in writing	ng or in speaking

- **問 7** 本文内の記述に合致するものを、次の $\mathbf{0}$ 〜 $\mathbf{4}$ の中から一つ選べ。 \mathbf{t}
 - (1) 今回の研究の結果、全ての動物の家畜化に関連する遺伝子は5つにまで絞られた。
 - ② 家畜は、顔を形成する骨や軟骨の病気にかかりやすい。
 - ③ ネコなどの肉食動物は脂肪の多い食事をしているため、心臓病にかかりやすい。
 - 4 ネコが豆腐を食べないのは、植物由来の食べ物を消化する力がないからである。
- **問8** 本文内の記述に**合致しないもの**を、次の①~**②**の中から一つ選べ。 **シ**
 - ① 今回の研究により、ネコの持つ鋭敏な視覚や聴覚を説明できる、遺伝子の多型が特定された。
 - ② 今回の研究により、飼いネコと野生のネコでは、記憶・恐怖・報酬系の遺伝子が異なることが分かった。
 - **③** 今回の研究により、ホッキョクグマには脂質を処理する能力がネコと同程度あることが分かった。
 - **④** 今回の研究により、多くの家畜はなぜ幼い外見なのかということについての最近の仮説が 支持された。

Capitalism, an economic system characterized by private ownership and profit, has long been a source of wealth, resulting in industrial, technological, and social progress both in North America and Western Europe. But even as standards of living rise today due to the global openmarket society, large numbers of people are left behind. This is why Bill Gates, founder of Microsoft Corporation, pointed out that while capitalism is "responsible for the great innovations that have improved the lives of billions, we need to improve the system so that it benefits everyone, especially the very poor."

Enter the missing piece of the global development puzzle: social business. Social business can be defined as a business with a social purpose. It is aimed at improving and transforming social, environmental, educational, and economic conditions. The goal is to make a positive impact on society while at the same time making enough to cover its costs, and, if possible, earn a profit to help the business develop. It is structured as a non-loss, non-*dividend company, where the owner never intends to take any of the profit for himself. We need social businesses to link the human heart to the capitalist system. This is a sure way of meeting needs that remain unmet through the efforts of *philanthropy.

Traditional philanthropy — the practice of giving money and time to help make life better for other people — creates a social gain, but it is not designed as a self-sustaining business model. A charitable dollar can be used only once. A dollar invested in a self-sustaining social business is recycled endlessly. A social business is designed to be self-sustaining by reinvesting in society for people's basic needs, such as housing, health care, education, and job-skills training. This is more effective than giving money to an individual in need. An investor in a social business retains an ownership interest to hold management accountable and to get the investment back over time, but no dividends are expected and any profits should be reinvested in the business or used to start new, similar businesses.

Through the social-business model, we can use the desire to do good that exists in all of us in addition to human creative power to help the world's poor become self-sustaining with confidence and self-respect. Muhammad Yunus first launched the microcredit system in a rural village in Bangladesh back in 1976, giving small loans to people too poor to qualify for traditional loans. Then in 1983, he opened the first Grameen Bank in Bangladesh, based on the microcredit model. At that time, no one thought low-cost loans for poor people would be possible on a large scale, but today we can say it is truly the "bank for the poor" around the world. As of 2008, there were 8.33 million borrowers in Bangladesh, 97 percent of them women. Worldwide, the Grameen Bank model has been established in over 56 countries including Japan. Just as microcredit has proved to be a success, so too can social business. This new perspective will

move us one step closer to bringing all people into prosperity, and one step closer to a world without poverty.

(How social business can create a world without poverty by Muhammad Yunus, from Christian science monitor, February 15, 2008.)

*	divi	dend	「配当」	
	uivi	uenu	181.3	

- **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, what is capitalism? ス
 - 1) an economic system that helps everyone to make a profit and become wealthy
 - 2 a system in which individuals own businesses and seek to make money
 - 3 a system of raising the standards of living for the wealthy and socially progressive people of Western Europe and North America
 - [B群] According to the passage, which of the following is true about social business?
 - (1) A social business aims to make a profit for the company owner.
 - While the capitalist system is aimed at ensuring technological and industrial innovations, a social business is aimed at ensuring that a company has no losses and no dividends.
 - 3 The goal of a social business is to help those left behind in the capitalist system.
 - [C群] According to the passage, what is the difference between philanthropy and a social business? フ
 - ① Philanthropy is the outdated system that was used in the past and social business is the system that investors are using nowadays.
 - With philanthropy, you donate money and this helps society, but with a social business, investors donate money to gain partial ownership of a company in order to ensure they eventually make a profit.
 - 3 A social business is more effective than philanthropy because the same investment can be used repeatedly.

^{*}philanthropy 「慈善事業」

[D群] According to the passage, what is Grameen Bank? 夕
1 a bank where poor people can get a loan in order to become self-sustaining
2 the microcredit banking system that started in Bangladesh in 1976 which grants
traditional loans to poor people
3 a "bank for the poor" that gives money to poor people who have no duty to repay
[E群] According to the passage, which of the following is probably true?
1 Bill Gates and Muhammed Yunus both think that capitalism favors the wealthy over
the poor.
2 While Bill Gates thinks that social business is a beneficial system, Muhammed Yunus
believes that philanthropy and microcredit are the best way to help poor people.
3 When Muhammed Yunus opened the first Grameen Bank, many other people
supported his ideas.
[F群] What is the main idea of this passage?
① The traditional capitalist system is the best way to reduce poverty in the world.
② Integrating social business into the capitalist system can improve the lives of many
poor people.
3 Social business is a good way for investors to reduce poverty by expanding the open
market system.