令和4年度入学者選抜学力検査問題 〈前期日程〉

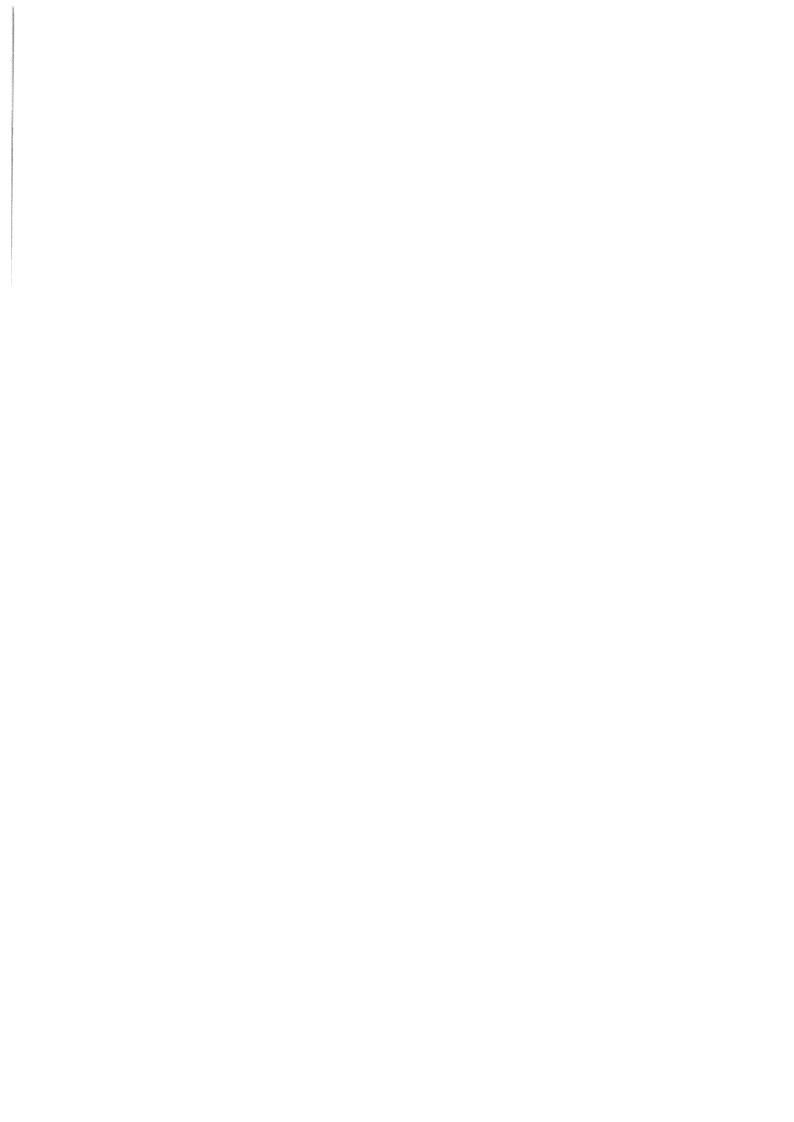
外 国 語 英 語

(医学部 医学科)

注 意 事 項

- 1 試験開始の合図があるまでこの冊子を開いてはいけない。
- 2 問題は \mathbf{I} から \mathbf{N} まである。 試験開始の合図のあとで問題冊子の頁数 $(1 \sim 13 \ \mathbf{I})$ を確認すること。
- 3 解答は必ず解答用紙の所定の欄に記入すること。 所定の欄以外に記入したものは無効である。
- 4 解答用紙は持ち帰ってはいけない。
- 5 問題冊子は持ち帰ってよい。





The Himalayan wolf is considered an ancient wolf as it evolved prior to the contemporary grey wolf* which is found in large parts of North America and Eurasia. Very little is known about the Himalayan wolf, because science and conservation have (1) these high-altitude wolves as just another grey wolf until recently. As a result, very little research had been conducted on this wolf and no conservation action has been in place, risking a silent population decline of this wolf.

This research, published today in the *Journal of Biogeography*, reveals this wolf's evolutionary (2) based on many different genetic markers; including a genetic adaptation to cope with the high-altitude environment, which is an adaptation that is not found in any other wolf. The Himalayan wolf is a top carnivore* in the Asian high-altitudes, which hold some of the last (3) large wilderness areas on our planet. The protection of the Himalayan wolves is critical to preserve these ecosystems given that top carnivores are key to keep an ecosystem healthy and balanced. This becomes even more (4) when considering that the Asian high-altitudes hold the water resources for billions of people in south-east Asia and it is of global interest to keep those ecosystems and their wildlife populations healthy.

The insights gained in this research by scientists at the University of Oxford's Department of Zoology further inform the development of long-term sustainable conservation plans for these wolves and their high-altitude ecosystems.

Lead researcher, Dr Geraldine Werhahn of WildCRU, Department of Zoology, says: 'The outcome of this research is absolutely astonishing. When we started out in 2014 it was surprising how little was known about these wolves inhabiting a relatively large region of our planet. At the time the (5) data available was indicating a genetic difference, but we had no explanation for why these wolves are different from a grey wolf.'

'Now we know that these wolves are different from genetics to ecology, and we have an indication of what the reason may be: the evolutionary fitness (6) posed by the low oxygen levels in the extreme high altitudes. When we started this research we thought this wolf is found only in the Himalayas, but now we know that they are found in the entire high altitude regions of Asia comprising the habitats of the Himalayas and the Tibetan Plateau. Much still remains to be (7) about their ecology, behaviour and population size. But the time to protect them is now!'

The researchers observed where the wolves chose their den* sites and found that in

Nepal the Himalayan wolf pack* sizes are on average five animals and hence smaller than usual grey wolf packs. These insights into the wolves' social life combined with observations on the livestock herding practices in these high-altitudes helps to identify areas of (8) conflict between herding and wolf pup* rearing and propose mitigation* action. The researchers observed exclusive denning* behaviour of Himalayan wolves and their pups.

The studies used wolf scat* sampling for genetic and genomic* research to understand their evolutionary history based on a wide array of different genetic regions. It also used the scats for a dietary* study, investigating what prey species the wolves and other carnivores have eaten. The researchers studied which prey species and at which amount were eaten by the wolves and compared that to the (99) of these same prey species in the landscape to understand what the wolves had available and what they have actually taken.

The researchers found that the Himalayan wolf use more wild prey species than livestock when considering their availability and identified the main prey species for the Himalayan wolf. Livestock is seasonally often more abundant in the habitats than wild prey species, which poses two problems. Firstly, the wolves encounter much more livestock than wild prey. Secondly, livestock competes with wild prey for food and space and often displaces wild prey species. As a result, the wolves are left with little (10) but to kill livestock. This is a key finding for developing conservation action for the Himalayan wolf, with solutions being to restore and protect wild prey populations and working towards sustainable livestock herding practices.

The main conservation threats appear to be the killing of wolves to retaliate* livestock depredation*, as well as for selling body parts in the (11) illegal wildlife trade. Livestock is a major livelihood* of many local communities in these harsh high-altitude environments, and the loss of livestock has serious financial consequences for people. Improving livestock protection and sustainable management can mitigate* depredation conflict substantially. Illegal wildlife trade involves many wildlife species found in these high-altitude regions, with the animal parts often traded for high prices. This illegal wildlife trade needs to be drastically (12) from political to ground level across the countries to the benefit of many wild species.

In addition, a social survey study with local communities helps to understand what people want and need to be able to commit to wildlife protection in these regions. Local people expressed the wish to be closely involved in conservation work. Community conservation groups have (13) successful in Himalayan areas.

These research findings can now be used as a data basis to formerly recognize the Himalayan wolf as an own wolf taxon* (giving it a scientific (Latin) name). This formal

taxonomic* recognition paves the way* to assign it an IUCN* conservation status. These are the two pivotal* steps now required to (14) the conservation of these wolves and their habitats.

With these fundamental researches now (15), moving forward research is planned to explore behavioural and more detailed ecological aspects around these wolves, while also piloting* a conservation action plan with the local communities to develop a plan for the Himalayan wolf that shall be applicable across the Himalayan region in the long term.

— From University of Oxford, "Himalayan wolf discovered to be a unique wolf adapted to harsh high altitude life" https://www.ox.ac.uk/news/2020-02-21-himalayan-wolf-discovered-be-unique-wolf-adapted-harsh-high-altitude-life

Notes: grey wolf ハイイロオオカミ den 巣穴 pup (オオカミの)子 denning 巣穴に住むこと genomic ゲノムの retaliate 報復する livelihood 生活手段 taxon 分類群 pave the way 道を開く pivotal 重要な

carnivore 肉食動物
pack 群れ
mitigation 緩和
scat (動物の) 糞
dietary 食物の
depredation 略奪行為
mitigate 緩和する
taxonomic 分類上の
IUCN 国際自然保護連合
pilot 導く

語 群 (A) abundance (B) accomplished (D) challenge (C) advance (E) choice (F) combated (G) flourishing (H) immediate (I) intact (J) overlooked (K) proven (L) relevant (N) (M) revealed scarce (O) uniqueness

(白 紙 頁)

II

My guide dog* crossed the street, then jerked* to a halt. "Mylo, forward." My left hand held the leather harness* that wrapped around his shoulders. "Forward," I repeated. The harness shifted, and I knew he was peering back at me. Some barrier, unseen and unheard by me, blocked our passage.

Cars created little earthquakes in the street on our left. Behind us ran the road we just crossed. I made the decision: "Mylo, right." He turned and headed down the sidewalk. I directed him around the block to bypass* whatever had stood in our way.

My dog never knows where I'm going. He has his theories, of course. You went to this cafe yesterday, so clearly you're going there again, right? Or he'll veer toward* an open door. Seriously, Haben, we need to step in here for a sniff*.

People assume guide dogs lead blind people, and once upon a time, I thought so, too. My senior year of high school, I fretted about* navigating college as a Deafblind student. Perhaps I would get a guide dog to ferry* me wherever I needed to go. A companion would give me the confidence I needed.

"You want to depend on a dog for confidence?" a blind friend asked over an instant messenger*.

"It sounds funny when you put it that way," I typed.

"If a blind person doesn't have confidence, then the dog and person both end up lost. Don't depend on a dog for confidence. Build up your own."

So instead of training alongside a service animal at guide dog school, I spent my precollege summer honing* my blindness skills at the Louisiana Center for the Blind. I learned nonvisual techniques for crossing busy streets with a white cane*, baking banana cream pie, even using electric saws.

I tapped my way through college with confidence. My self-assurance didn't come from the cane but from my hard-earned orientation and mobility skills. How could I have thought that would be different with a four-legged guide?

Still, confident as I was, something felt missing from my life. My heart ached for a travel partner whose eyes and ears would share more of the world I navigated.

Maxine the Seeing Eye dog joined me for my last year at Lewis & Clark College and all three at Harvard Law. We glided* around obstacles so much more smoothly than when I traveled with a cane—imagine switching from a bicycle to a Tesla*.

I learned to read her body language, and together we strode* with six legs. Her big, brown eyes and pointy ears opened new dimensions for me. Having a German shepherd at

my side even curtailed* the sexual harassment I faced. For nine years, she stood by my side.

In 2018, Maxine died of cancer. I missed her intensely, and the loss still pains me. I also knew I could not, would not, go back to life with only a cane. I was without my partner of nearly a decade, but I was not without direction.

The school that trained Maxine matched me with another dog. That summer, I joined Mylo for three weeks at the school's campus in New Jersey. We lurched over* curbs and crashed into chairs, but in each new experience, through gentle corrections and an abundance of praise, our teamwork improved.

Now, we wander as one. In the year we've spent together, we've traveled to 12 states and four countries. One morning during a trip to Park City, Utah, for a friend's wedding, I woke to Mylo bounding onto my hotel bed, ready to start the day. After a few strokes of his puppy-soft ears and some tugging* of his toy whale, we left our room.

Mylo beelined* for the elevator, and then, reading the Braille* labels, I pressed the button for the main level. The doors opened, and I directed Mylo across the lobby toward the front doors. "Right." He turned down a hallway. "Right." He turned into a room that felt empty. "Sorry, not this one. Mylo, left." I gestured for him to go back to the hall. "Right." He turned into the next room.

The delightful aroma* of food and coffee at last wafted* over from the far wall. "Here it is! Forward." After I ordered my hard-earned breakfast, another wedding guest approached us.

"Haben, hi! It's Michael. Who brought you here?"

<u>I</u> passed the credit to Mylo; constantly confronting ableism* is tiring work. But someday the world will recognize that a Deafblind person charts her own path through the unknown. For now, I know it — and so does Mylo. He takes his lead from me.

— From Haben Girma, "Guide Dogs Don't Lead Blind People. We Wander as One," *The Washington Post*, August 7, 2019.

Notes: guide dog 盲導犬 jerk ぐいと引く

harness 胴輪 bypass 迂回する

veer toward に向きを変える sniff 匂いを嗅ぐこと

fret about 悩ます ferry 運ぶ

instant messenger ネットワークにつながったコンピュータ端末間で、即時にメッ

セージのやり取りができるアプリケーションソフト

hone 磨く cane 杖

glide 滑らかに歩く

stride 大またで歩く

lurch over よろめく

beeline 最短コースを行く

aroma 匂い

ableism 障害者差別

Telsa アメリカ合衆国の自動車会社名

curtail 減らす

tugging 強く引くこと

Braille 点字の

waft 漂う

- 問1 高校最後の年に視覚障害をもつ友人とのやり取りを通して、大学生活を送るにあたって筆者にどのような変化が生じたのかを述べなさい。
- 問2 下線部(1)を和訳しなさい。
- 問3 下線部(2)と同じ意味に相当する英単語一語を本文中から抜き出しなさい。
- 問4 筆者が Maxine と行動を共にして経験した利点を2点挙げなさい。
- 問5 下線部(3)は具体的に何を意味しているのかを説明しなさい。
- 問6 下線部(4)について下記の質問に答えなさい。
 - 1) 下線部を和訳しなさい。
 - 2) 筆者が Michael の一言に対してこのように反応をした理由を説明しなさい。
- 問7 本文の内容に関する以下の英文に関して、正しいものには○、間違っているものには×で答えなさい。
 - (1) The relationship between the author and guide dog is that of master and servant.
 - (2) The author thought that she should be independent with or without a guide dog by her side.
 - (3) The main theme of this story is to address how society discriminates against people with visual and hearing disabilities.

(白 紙 頁)

Ш

Multitasking has traditionally been perceived as a woman's domain. A woman, particularly one with children, will routinely be juggling* a job and running a household—in itself a frantic* mix of kids' lunch boxes, housework, and organising appointments and social arrangements.

But a new study, published today in PLOS One, shows women are actually no better at multitasking than men.

The study tested whether women were better at switching between tasks and juggling multiple tasks at the same time. The results showed women's brains are no more efficient at either of these activities than men's.

Using robust* data to challenge these sorts of myths is important, especially given women continue to be bombarded* with work, family and household tasks.

Multitasking is the act of performing several independent tasks within a short time. It requires rapidly and frequently switching attention from one task to another, increasing the cognitive* demand, compared to completing single tasks in sequence.

This study builds on an existing body of research showing human brains cannot manage multiple activities at once. Particularly when two tasks are similar, they compete to use the same part of the brain, which makes multitasking very difficult.

But human brains are good at switching between activities quickly, which makes people feel like they're multitasking. The brain, however, is working on one project at a time.

In this new study, German researchers compared the abilities of 48 men and 48 women in how well they identified letters and numbers. In some experiments, participants were required to pay attention to two tasks at once (called concurrent multitasking), while in others they needed to switch attention between tasks (called sequential multitasking).

The researchers measured reaction time and accuracy for the multitasking experiments against a control condition (performing one task only). They found multitasking substantially affected the speed and accuracy of completing the tasks for both men and women. There was no difference between the groups.

My colleagues and I recently busted* another relevant myth—that (A). We found men and women equally rated a space as messy. The reason men do less cleaning than women may lie in the fact that women are held to higher standards of cleanliness than men, rather than men's "dirt blindness".

Recent data shows Australian men are spending more time doing domestic work than they used to, but women still do the vast majority of housework.

Working Australian women have seen their total time across work and family activities increase over time, with bread-winning* mothers spending four hours more across these activities per week than bread-winning fathers.

This means working mums are balancing planning birthday parties, childcare drop offs and ballet lessons all on top of their regular jobs, commutes* and careers.

If women's brains are equally strained by multitasking, (B) And, more importantly, what are the consequences?

Our recent study shows mothers are more time pressed* and report poorer mental health than fathers. We found the birth of a child increases parents' reports of feeling rushed or pressed for time, but the effect is twice the size for mothers than it is for fathers. Second children double mothers' time pressure again and, as a consequence, lead to a deterioration* in their mental health.

Women are also more likely to drop out of paid work when children are born or family demands intensify. They carry a larger mental load tied to organising the needs of the family—who has clean socks, who needs to be picked up from school, whether there is enough Vegemite* for lunch. All of this labour is at the expense of time planning for the next day's work, the next promotion, and so on.

Women are also asked to multitask family demands at night. Children are more likely to interrupt their mother's than their father's sleep.

Although gender roles are changing and men are assuming a larger share of the housework and childcare than in the past, gender gaps remain in many important domains of work and family life. These include the allocation of childcare, the division of housework, the wage gap, and the concentration of women in top positions.

So, the multitasking myth means mothers are expected to "do it all". But this obligation can affect women's mental health, as well as their capacity to excel at work.

Public opinion persists that women have a biological edge as super-efficient multitaskers. But, as this study shows, this myth is not supported by evidence.

This means the extra family work women perform is just that — extra work. And we need to see it as such.

Within the family, this work needs to be catalogued, discussed and then equally divided. More men today are invested in gender equality, equal sharing and co-parenting than ever before.

As well as in the home, we need to dismantle* these myths in the workplace. The assumption that women are better multitaskers can influence the allocation of administrative tasks. Tasks like taking minutes and organising meetings should not be allocated based on

gender.

Finally, governments need to dismantle these myths within their policies. Children add work that cannot be easily multitasked. Women need affordable, high-quality, and widely available childcare.

Men also need access to flexible work, parental leave and childcare to share in this labour, and protections to ensure they aren't penalised* for taking time to share in the care.

Debunking* these myths that expect women to be superheroes is a good thing, but we need to go further and create policy environments where gender equality can thrive.

— From Leah Ruppanner, "Women Aren't Better Multitaskers than Men — They're Just Doing More Work," *The Conversation*, August 15, 2019. https://theconversation.com/women-arent-better-multitaskers-than-men-theyre-just-doing-more-work-121620.

Notes: juggle 手際よくこなす frantic 慌ただしい robust 確固たる bombard 攻め立てる cognitive 認知的な bust 打ち破る bread-winning 家計を支える commute 通勤 time pressed 時間に追われた deterioration 悪化 Vegemite ベジマイト (パン等に塗るペーストの一種) dismantle 打ち破る penalise 罰する debunk 誤りを証明する

- 問1 multitasking について以下の問いに答えなさい。
 - 1) multitasking はどのように定義されているのか述べなさい。
 - 2) multitasking はどのように認識されてきたのか述べなさい。
- 問2 ドイツの multitasking に関する実験について以下の問いに答えなさい。
 - 1) どのような実験が行われたか述べなさい。
 - 2) 実験結果からどのような知見を得ることができたのか説明しなさい。
- 問3 (A)に入る文を、次の空欄に適切な英単語を補い完成させなさい。
 - () are () at seeing mess than ()
- 問4 (B)に入る適切な英文を以下の選択肢から選びなさい。
 - ① why do we keep asking women to do this work?
 - 2 what role should parents play?
 - 3 how come men's brains work differently?
 - 4 what is wrong with doing women's work?
- 問5 下線部(1)に関して筆者が挙げている具体的な例を2つ示しなさい。

問6 下線部(2)に**対する取り組みとして**,筆者はどのような提言を女性・男性に分けて示していますか。その提言の具体的な内容をそれぞれ説明しなさい。

IV 社会に起きている現象を「若者の○○離れ」という言葉で表すことがあります。あなたはどのような「若者の○○離れ」が現在起きていると考えますか。その現象が起きている理由や背景とともにあなたの考えを110~120語の英文で述べなさい。なお、文末に使用した語数を記すこと。





