奈良県立医科大学　後期

令 和 2 年 度

試 験 問 題

英　　語

【注 意】

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ならない。

2. 監督者の指示に従って, すべての解答用紙の受験番号欄に受験番号を記入せよ。

3. 問題冊子は表紙のほか 8 ページ, 解答用紙は 4 枚である。

4. 問題冊子の印刷不鮮明, ページの落丁・乱丁及び解答用紙の汚れ等に気付いた 場合には, 手を挙げて監督者に知らせよ。

5. 解答はすべて解答用紙の対応する場所に記入せよ。

6. 解答用紙は切り離してはならない。

7. 解答用紙は持ち帰ってはならない。問題冊子は持ち帰ってよい。

Ⅰ. 次の英文を読んで，設問に答えよ．(＊印の語には注がある．)(70点)

What separates us humans from other creatures is our highly developed sense of morality, an inborn* understanding of good and bad, of right and wrong, of what it means to suffer not only our own pain—something any creature with a basic nervous system can do—but also the pain of others. We go beyond simple empathy* to a complex consideration of feelings and responses, of the results of our actions on deep, even intimate levels. That quality is the essence of what it means to be human. Why (1)it's an essence that so often goes wrong, no one can say.

Morality may be a hard concept to grasp, but we acquire it fast. A young child will learn that it's not all right to eat in the classroom, because the teacher says it's not. If the rule is changed and eating is approved, the child will happily follow the rule. But if the same teacher says it's also OK to push another student off a chair, the child hesitates. "He'll respond, 'No, the teacher shouldn't say that,'" says psychologist Michael Schulman, co-author of *Bringing Up a Moral Child.* In both cases, somebody taught the child a rule, but the rule against pushing is one that children are unlikely to break even if someone in authority allows it. (2)That's the difference between a matter of morality and one of mere social convention, and Schulman and others believe kids feel it naturally.

Of course, the fact is a child will sometimes hit someone and won't feel particularly bad about it either—unless he's caught. The judgments we make about morality—knowing what's right and wrong and recognizing both kinds of behavior in ourselves and others—are pretty common to all of us. The choices we make, to behave morally or immorally, are a different matter, and there is a wide variety across groups of people. Simply knowing or naturally understanding a rule does not mean we will follow it.

Where do those instincts come from? (3)そしてなぜ私たちが本能の導きに従うかどうかについて一定しないのであろうか？ 科学者たちはこのような疑問に今は答えることはできないが，だからといって見つめることを止めたわけではない． Brain scans are providing some clues. Animal studies are providing others. Investigations of group behavior are providing still more. None of this research may make us behave better, not

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right away at least. But all of it can help us understand ourselves—a small step up from savagery*, perhaps, but an important one.

The deepest foundation of morality is the phenomenon of empathy, the understanding that what hurts me would feel the same way to you. This is a quality nonhumans share.

It's not surprising that animals far less complex than we are would display a characteristic such as empathy. (4)<u>Behavioral scientists often reduce what we call empathy to a kind of business arrangement known as reciprocal altruism.</u> A favor done today—food offered, shelter given—brings a return favor tomorrow. If a group of animals practices that give-and-take well, the group does well.

But (5)<u>even in animals, there's something deeper going on.</u> One of the first and most meaningful observations of empathy in nonhumans was made by Russian primatologist* Nadia Kohts, who studied nonhuman thinking in the first half of the 20th century and raised a young chimpanzee in her home. When the chimp would make his way to the roof of the house, ordinary methods for bringing him down—calling, scolding, offers of food—would rarely work. But if Kohts sat down and pretended to cry, the chimp would go to her immediately. "He runs around me as if looking for the person who hurt me," she wrote. "He gently takes my face in his hands...as if trying to understand what is happening."

注

inborn*　生まれながらにもつ，生得的な

empathy*　感情移入

savagery*　野蛮［未開］状態

primatologist*　霊長類学者

設問

1. 下線部(1) の指す内容を，日本語でわかりやすく説明せよ．(15 点)

2. 下線部(2) の意味を，"a matter of morality" と "one of mere social convention"が何に
言及しているかを明示して，日本語で記せ．(10 点)

3. 下線部(3) を英訳せよ．(15 点)

4. 下線部(4) で示された行動科学者の見解 "reciprocal altruism"とはどのようなものか，
日本語で具体的に記せ．(15 点)

5. 下線部(5) の意味を，"something deeper"が何との比較を指しているかを明らかにし
て，日本語で記せ．(15 点)

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問Ⅱは次のページから始まります.

II．次の英文を読んで，設問に答えよ．（＊印の語には注がある．）(65点)

Meat has received a renewed wave of attention from environmentalists since the October U.N. climate change report which says that cattle damage the climate, destroy ecosystems*, increase deforestation* and make us unhealthy all at once. (1)<u>Campaigns such as "Meatless Monday" and "Eat Less Meat"</u> encourage individual consumption changes to reduce agriculture's impact. But that solution is too simple: Not all animal agriculture is the same. Greenhouse gas emissions* from cattle farming vary by geographic region, production system and even management practices. While some practices are harmful, others can be good for the environment, provide important nutrients and even supply carbon to the soil, helping fight climate change. "How" these animals are farmed is at least as important as "how many" animals are farmed.

Cattle production in the United States happens primarily in two ways: by feeding the cattle with grass or corn. All cattle start out eating grass on farmland; (2)<u>草で育てられる家畜は屠殺されるまで草を食べ続けるものだが，大半の合衆国の家畜は，急速な体重増加を促すために，一生の終わりの時期には穀物を食べさせられる</u>. As you can imagine, the two systems' environmental impacts can be very different.

The production of beef from corn-fed cattle is well known to be harmful. These farms are some of the worst water polluters* (including water which is polluted from manure* lakes), and contribute to antibiotic resistance* and poor air quality. Corn-fed cattle consume more U.S.-grown corn than any other purpose, worsening the negative impacts of industrial, commercial crop production, including intense soil loss, high greenhouse gas emissions and nitrogen* loss. In many ways, (3)<u>the problem is the corn, not the cow</u>.

By contrast, a growing body of research shows that grass-fed beef from sustainable systems can supply substantial soil carbon (canceling out some or most of the emissions), maintain wildlife habitats*, improve water filtration* and produce healthy food from otherwise unusable land—most cattle farming land can't be used for other purposes. Because so much land is used to grow corn for cattle, moving toward grass-based systems could free up one-quarter of all usable land on Earth for producing

crops directly for human consumption or for other purposes.

But if grass-fed systems offer so many benefits, why do some studies say otherwise? Partly, it's because we haven't been studying beef production holistically*. By focusing only on greenhouse gas emissions, we ignore all other ecosystem benefits that arise from these practices—for example, increasing soil health and resistance to droughts* and floods. Many studies only look at systems where cattle are continuously farmed on the same land, which can lead to soil loss and high methane* emissions.

By contrast, (4)well-managed rotational systems are designed to follow the natural moving patterns of species of grass-eating animals that evolved along with grass and rangeland* ecosystems. The animals are farmed intensely and moved regularly, which prevents damage, increases production, lowers emissions, and supplies more carbon. This is done without any of the chemicals used in standard crop production.

The historical change of grass and rangeland ecosystems for the growing of crops, and the disappearance of native grass-eating animals on these lands has destroyed soil and released huge amounts of CO_2 into the atmosphere. It makes sense to reintroduce cattle farming using well-managed rotational systems as it can renew lost soil carbon on almost useless land at a very low cost.

If we're really going to face the climate challenge, (5)the U.S. government needs to separate itself from the influence of the farming industry and reduce the commercial corn subsidies* that sustain high levels of industrial meat production.

注

ecosystems*　生態系

deforestation*　森林破壊

greenhouse gas emissions*　（二酸化炭素等）温暖化ガスの排出

polluters*　汚染するもの〔pollute（動詞）〕

manure*　堆肥

antibiotic resistance*　抗生剤耐性

nitrogen*　窒素

wildlife habitats*　野生生物生息環境

filtration*　濾過

holistically*　（関連する種々の側面を）総体的に見て

droughts*　干ばつ

methane*　メタン

rangeland*　放牧場

subsidies*　〈政府の〉補助金

設問

1. 下線部(1)のキャンペーンが行われた背景と目的について, 日本語で記せ. (10 点)

2. 下線部(2)を英訳せよ. (15 点)

3. 下線部(3)の指す内容を日本語で（直訳ではなく）具体的に記せ. (10 点)

4. 下線部(4)の方式と利点はどのようなものか, 日本語で記せ. (15 点)

5. 下線部(5)の主張の根拠は何か, 日本語で記せ. (15 点)

III. Write approximately 120 words in English about some changes to their diet that individuals could make to have a positive effect on the environment. You should give examples of how your ideas will achieve these changes. This task will be marked on both content and the accuracy of the English language used.
(別紙解答用紙Ⅱの様式にしたがって論述せよ.)(40 点)

IV. Write approximately 80 words in English about one member of your family. This task will be marked on both content and the accuracy of the English language used. (20 点)