

2019 (平成31) 年度

一般後期入学試験

英 語

注意：第1問から第3問まではマークシートに解答しなさい。
第4問と第5問は記述用解答用紙に解答しなさい。

マークシートの記入について(注意事項)

- 解答の作成には、H、F、HBの鉛筆を使用して正しくマークすること。
よい解答例 ● (正しくマークされている)
悪い解答例 ⊙ ⊖ (マークが部分的で解答とみなされない)
- 解答を修正する場合は、必ず「プラスチック製消しゴム」であとが残らないように完全に消すこと。
鉛筆の色が残っていたり、「」のような消し方などをした場合は、修正したことにならないので注意すること。
- 解答用紙は、折り曲げたりメモやチェック等で汚したりしないよう特に注意すること。
- 受験番号欄の記入方法《 受験番号記入例(右図)参照 》
 - ① 受験番号を数字で記入する
 - ② 受験番号の数字を正しくマークする
 正しくマークされていない場合、採点できないことがあります。

— 受験番号記入例 —
受験番号1001の場合

受 験 番 号 欄			
千位	百位	十位	一位
1	0	0	1
○	●	●	○
●	○	○	●
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○

注：選択する数字は『0』から順番に並んでいます。

藤田医科大学医学部

第1問から第3問では、問題文の中の[]内の数字はマークシートの間番号を示している。該当する問番号の解答記入欄に答をマークしなさい。

第1問 次の問1～6の空所[1]～[6]に入れるのに最も適当なものを(1)～(4)から1つ選び、その番号をマークしなさい。

問1. It was essential that he [1] kept there for the purpose of maintaining production.

- (1) be (2) is (3) must be (4) were

問2. My car needs [2] within a couple of weeks.

- (1) being repaired (2) repaired
(3) repairing (4) to repair

問3. That student had difficulty [3] keeping up with the rest of class.

- (1) for (2) in (3) on (4) to

問4. The idea doesn't make [4] to the investigators who have examined the case over the years.

- (1) believe (2) difference (3) sense (4) sure

問5. The idea of stepped care has [5] to find its way into mental health services.

- (1) so (2) up (3) what (4) yet

問6. We finally persuaded her [6] the necessity to tell him the truth.

- (1) for (2) in (3) of (4) to

第2問 次の問1～4においては、それぞれ日本語の意味に最もよく合うように下の(1)～(7)の語句を並べかえて空所を補い、適当な文を完成させなさい。解答は[7]～[14]に入れるものの番号のみをマークしなさい。

問1. 彼女には近づかないように彼に言ったのに、彼はそうした。

He approached _____ [7] _____ [8] _____.

- (1) after (2) her (3) him (4) I
(5) not (6) to (7) told

問2. 彼はメンバーのほとんどが貧しい共同体をいくつか調査した。

He surveyed _____ [9] _____ [10] _____ poor.

- (1) are (2) communities (3) members (4) most
(5) of (6) some (7) whose

問3. 来年度あの支店の業績が回復しなければ、きっとここでも従業員が何人か解雇されるだろう。

If business results at that branch do not recover in the next fiscal year, _____ [11] _____ [12] _____, too.

- (1) employees (2) laid off here (3) likely be (4) most
(5) some (6) there (7) will

問4. 彼女は計算機科学の優秀な学生であるにもかかわらず、日常的な計算が苦手だ。

As _____ [13] _____ [14] _____, she is poor at everyday calculations.

- (1) a (2) as (3) computer science
(4) excellent (5) is (6) she (7) student

第3問 次の英文を読み、後の問いに答えなさい。

Snakes and spiders evoke fear and disgust in many people. Even in developed countries lots of people are frightened of these animals although hardly anybody comes into contact with them. Until now, there has been debate about whether this aversion involves innate factors. Scientists at the Max Planck Institute for Human Cognitive and Brain Sciences (MPI CBS) in Leipzig and the Uppsala University, Sweden, have recently discovered that it has an evolutionary origin: Babies as young as six months old feel stressed when seeing these creatures — long before they could have learnt this reaction.

Presumably, most people have (あ) come across a poisonous spider or snake in the wild in Germany, where there are no spiders that pose a threat to humans. Likewise for snakes there are just two species that are indeed poisonous but they are so rare that you hardly ever encounter them. Nevertheless, there are few people that would not shiver at the thought of a spider crawling up their arm, however harmless it may be.

This fear can even develop into anxiety which limits a person's daily life. Such people are always on edge and cannot enter a room before it is declared "spider free" or cannot venture out into nature for sheer fear that they may encounter a snake. In developed countries one to five per cent of the population are affected by a real phobia of these creatures.

Until now, it was not clear where this widespread aversion or anxiety stems from. While some scientists assume that we learn this fear from our surroundings when we are a child, others suppose that it is innate. The drawback of most previous studies on this topic was that they were conducted with adults or older children — making it hard to distinguish which behavior was learned and which was inborn. Such studies with children only tested whether they spot spiders and snakes faster than harmless animals or objects, not whether they show a direct physiological reaction underlying fear.

Scientists at the MPI CBS and the Uppsala University recently made a crucial observation: Even in infants a stress reaction is evoked when they see a spider or a snake. And this already occurs at the age of six months, when they are still very immobile and have had little opportunity to learn that these animals can be dangerous.

"When we showed pictures of a snake or a spider to the babies instead of a flower or a fish of the same size and color, they reacted with significantly bigger pupils," says Stefanie Hoehl, lead investigator of the underlying study and neuroscientist at MPI CBS and the University of Vienna. "In constant light conditions this change in size of the pupils is an important signal for the activation of the noradrenergic system in the brain, which is responsible for stress reactions. Accordingly, even the youngest babies seem to be stressed by these groups of animals. ... We conclude that fear of snakes and spiders is of evolutionary origin. ... The obviously inherited stress reaction in turn predisposes us to learn these animals as dangerous and hence fearful and disgusting."

(い), it is known from other studies that pictures of rhinos, bears or other theoretically dangerous animals cause no stress reaction in babies. "We assume that the reason for this innate reaction upon seeing spiders and snakes is due to the coexistence of these potentially

dangerous animals with humans and their ancestors for more than 40 to 60 million years — and therefore much longer than with today’s dangerous mammals. The reaction which is induced by spiders and snakes could have been embedded in the brain for an evolutionarily long time.”

For modern risks such as knives, syringes or sockets, presumably the same is true. From an evolutionary perspective they have only existed for a short time, and there has been no time to establish reaction mechanisms in the brain from birth. “Parents know just how difficult it is to teach their children about everyday risks such as not poking their fingers into a socket,” Hoehl adds with a smile.

<http://www.cbs.mpg.de/Fear-of-spiders-and-snakes-is-deeply-embedded-in-us> (改変あり)

注 aversion: 嫌悪	phobia: 恐怖症	drawback: 欠点
physiological: 生理的な	immobile: 動けない	pupil: 瞳孔
noradrenergic: ノルアドレナリン作動性の		
predispose ~ to ...: ~を…しやすくさせる		rhino: サイ
embed: ~を埋め込む	syringe: 注射器	poke: ~を突っ込む

問 1. 下線部《A》の研究者たちが行った実験がそれ以前の実験の多くと異なる点として、正しいものを(1)～(4)から2つ選び、その番号を[15]、[16]にマークしなさい。

- (1) Their experiment saw the subjects’ reaction to harmless animals as well, while most previous studies conducted experiments only with dangerous animals.
- (2) Their experiment enabled them to distinguish inherited from acquired aversion, while most previous ones were not informative in this respect.
- (3) They compared infants younger than one year with their parents, while most previous experiments were carried out only on grown-ups.
- (4) They directly measured the subjects’ physiological reaction, while most previous experiments saw how quickly the subjects noticed the objects shown.

問 2. 空所(あ)に入れるのに最も適切なものを(1)～(4)から1つ選び、その番号を[17]にマークしなさい。

- (1) never (2) often (3) sometimes (4) usually

問 3. 下線部《B》と最も近い意味を表すものを(1)～(4)から 1 つ選び、その番号を [18] にマークしなさい。

- (1) blank (2) eager (3) excited (4) nervous

問 4. 空所(い)に入れるのに最も適切なものを(1)～(4)から 1 つ選び、その番号を [19] にマークしなさい。

- (1) Frankly (2) Interestingly (3) Regrettably (4) Similarly

問 5. 下線部《C》についての本文の記述と合致するものを(1)～(4)から 1 つ選び、その番号を [20] にマークしなさい。

- (1) The reaction is limited to spiders and snakes out of all dangerous animals.
(2) The reaction is only to real spiders and snakes and not to their pictures.
(3) The reaction is seen in infants of several months but not in older children.
(4) The reaction is solely physiological, never causing any psychological effects.

問 6. 本文の内容と合致するものを(1)～(5)から 2 つ選び、その番号を [21]、[22] にマークしなさい(順不同)。

- (1) ある生物が人類やその祖先と共存してきた時間の長さと、それを提示された際の乳児のストレス反応の違いの間には関連がある。
(2) クモやヘビを見つけさせる実験により、それらに対する被験者の生理的反応の強さを確かめることができる。
(3) 実験に用いるクモやヘビと花や魚の写真の色や大きさを揃えることで、色・大きさの生理的反応への影響を確認できる。
(4) 瞳孔の散大の速度を観察することで、被験者がストレスを感じているかどうか知ることができる。
(5) 乳児を対象に実験を行うことによって、クモやヘビに対するストレス反応が先天的なものかどうか明らかにすることができる。

この後の第4問と第5問は記述用解答用紙に解答しなさい。

Windom

第4問 次の英文を読み、後の問いに答えなさい。

If you walked the cobblestone streets and bustling markets of 16th and 17th century Mexico City, you would see people born all over the world: Spanish settlers on their way to mass at the cathedral built atop Aztec ruins; Indigenous people from around the Americas, including soldiers who had joined the Spanish cause; Africans, both enslaved and free, some of whom had been among the first conquistadors; Asians, who traveled to Mexico on Spanish galleons, some by choice and some in bondage. All these populations met and mingled for the first time in colonial Latin America.

Historical documents describe this cultural mixture, but now international teams of researchers are enriching our view by analyzing the genomes of people today. Aided by sophisticated statistics and worldwide genetic databases, they can tease apart ancestry and population mixing with more nuance than ever before. The results, reported at a meeting here this week and in a preprint, tell stories of Latin America that have been largely forgotten or were never recorded in historical documents. From the immigration of enslaved Filipinos to that of «A» formerly Jewish families forbidden to travel to the colonies, hidden histories are being uncovered.

“It’s helping us to recognize the ways that really fine-scale historical experiences and practices have left this deeply significant imprint on our genomes,” says Deborah Bolnick, an anthropological geneticist at the University of Texas here.

【 あ 】

Juan Esteban Rodríguez, a graduate student in population genetics at the National Laboratory of Genomics for Biodiversity (LANGEBIO) in Irapuato, Mexico, initially planned to study a recent thread in the global tapestry that is Mexican ancestry. Starting in the 19th century, many Chinese immigrants moved to Mexico to construct railroads in the country’s northern states. Growing up near the U.S. border, Rodríguez knew this history well, and he wanted to see whether he could identify the Chinese immigrants’ genetic contribution to the modern Mexican population.

But when he searched a database of 500 Mexican genomes — initially assembled for biomedical studies — and sought genetic variants more common in Asian populations, he found «B» a surprise. Some people from northern Mexico did have significant Asian ancestry, but they weren’t the only ones. Rodríguez discovered that about one-third of the people sampled in Guerrero, the Pacific coastal state that lies nearly 2000 kilometers south of the U.S. border, also had up to 10% Asian ancestry, significantly more than most Mexicans.

【 い 】

Rodríguez and his adviser, Andrés Moreno-Estrada, a population geneticist at LANGEBIO, turned to the historical record to figure out who these people’s ancestors might be. They learned from historians

who study ship manifests and other trade documents that during the 16th and 17th centuries, Spanish galleons sailed between Manila and the port of Acapulco in Guerrero, carrying goods and people, including enslaved Asians. Although historians knew of this transpacific slave trade, the origins of its victims were lost. Once they landed in Mexico, they were all recorded as “chinos” — Chinese, says Moreno-Estrada, who will present the work this weekend at the American Association of Physical Anthropologists (AAPA) annual meeting here. “We’re uncovering these hidden stories of slavery and people who lost their identities when they disembarked in a whole new country.”

【 う 】

Other data also suggest a strong African presence in colonial Mexico. Bioarchaeologist Corey Ragsdale of Southern Illinois University in Edwardsville and his colleagues examined skeletons for dental and cranial traits that tend to be more common among Africans. They estimated that 20% to 40% of the people buried in cemeteries in Mexico City between the 16th and 18th centuries had some African ancestry, as they will present this weekend at the AAPA meeting. “It could be that «C» Africans played as much of a role in developing population structure, and in fact developing the Spanish empire, as Europeans did,” Ragsdale says.

【 え 】

Ávila-Arcos hopes to use genetic data to trace the ancestors of those in her study back to specific West African groups or regions. She’s also found significant Asian ancestry in some of her volunteers, likely an echo of communities once formed by enslaved Africans and Asians on the Pacific coast.

Some Europeans carried hidden histories with them to colonial Latin America. A preprint recently posted on the bioRxiv server used genetic data from more than 6500 people born in Brazil, Chile, Colombia, Mexico, and Peru to tease apart how specific Native American groups and multiple populations from the Iberian peninsula contributed to modern genomes. “It’s undoubtedly the most comprehensive genetic analysis of Latin American populations to date,” Ávila-Arcos says. (The authors declined to comment because the paper has been submitted to a peer-reviewed journal.) One striking finding was that genetic variants common in the eastern Mediterranean and North Africa, and especially in Sephardic Jews, show up all over Latin America, in nearly a quarter of the individuals sampled.

【 お 】

The authors, led by geneticists Andrés Ruiz-Linares of Fudan University in Shanghai, China, and Garrett Hellenthal of University College London, trace a significant portion of this ancestry to conversos, or Jews who converted to Christianity in 1492, when Spain expelled those who refused to do so. Conversos were prohibited from migrating to the Spanish colonies, though a few are known to have made the trip

anyway. But widespread Sephardic ancestry in Latin America implies that migration was much more common than records suggest.

For Ragsdale, the work serves as a reminder that even migrations scientists think are well understood can contain surprises. “The way we think about colonization is simplified,” Ragsdale says. “《D》We’re missing a lot of subtleties here.”

<http://science.sciencemag.org/content/360/6385/137.full> (改変あり)

注	cobblestone: 丸石	bustling: 混雑して騒がしい	mass: ミサ
	atop: ~の上に	Aztec: アステカ文明の	indigenous: 現地の
	cause: 大義	enslave: ~を奴隷にする	conquistador: スペイン人征服者
	galleon: ガレオン船	bondage: とらわれの境遇	mingle: 混ざる
	tease apart: ~を解明する	ancestry: 祖先、家系、血統	Guerrero: グレロ州(メキシコ)
	manifest: 積荷目録	Acapulco: アカプルコ	disembark: 降りる、上陸する
	cranial: 頭蓋の	cemetery: 墓地	
	Sephardic Jew: スペイン・ポルトガル系ユダヤ人		

- 問 1. (i) 下線部《A》と同じ人々を指す本文中の 1 語を抜き出さない。
(ii) また、遺伝学的研究によりその人々について明らかになったことを本文の内容に即して日本語で述べなさい。
- 問 2. 次の 2 点について、本文に即して日本語で述べなさい。
(i) 下線部《B》はどのような事態に対する驚きか。
(ii) また、その事態の原因と考えられる歴史的事実は何か。
- 問 3. Ávila-Arcos がこれから明らかにしたいと考えていることを本文の内容に即して日本語で述べなさい。
- 問 4. 下線部《C》の結論はどのような手法によって導かれたものか、本文の内容に即して日本語で述べなさい。
- 問 5. 下線部《D》はどのような状況を述べたものか、本文の趣旨に基づいて日本語で説明しなさい。

問 6. 次の段落は本文のどの位置に置くのが最も適切か、【あ】～【お】の記号で答えなさい。

Other researchers study the legacy of another marginalized group in colonial Mexico: Africans. Tens of thousands of enslaved and free Africans lived in Mexico during the 16th and 17th centuries, outnumbering Europeans, and today almost all Mexicans carry about 4% African ancestry. The percentage is much higher in some communities, says geneticist María Ávila-Arcos of the International Laboratory for Human Genome Research in Juriquilla, Mexico. She found that in Afro-descendent communities in Guerrero and Oaxaca, people had about 26% African ancestry, most of it from West Africa.

注 marginalize: ～を周辺に追いやる outnumber: ～より数が多い

Windom

第5問 次の英文を読み、下線部(1)～(4)の日本語の内容を英語にしてください。

The ultimate goal for many aspiring video game designers and animation artists is to work at one of the world's most famous video game production companies, like Square Enix, the makers of "Final Fantasy." To have your name roll up on the production credits of future beloved games would be an absolute dream come true. Yet the world of game design is competitive, and applicants to those big name companies will need to have a lot of tools under their belt if they want to be chosen for the job.

But don't worry! Tokyo University of the Arts is hoping to help you in that regard with its brand-new graduate course in video game design. (1) 詳細は明らかにされていないものの、公式発表からするとこれはビデオゲームデザイン業界入りを目指す人々にとって素晴らしい経験となるものに違いない。

The new program, which for now is simply titled "Video Game Course," will start with the new school year in April as part of the Graduate School of Film and New Media, and some say it will be the first of its kind among Japanese universities. (2) これは2年間の課程で、その目的は、研究とゲーム制作を通してビデオゲームデザインの可能性を広げ視覚的表現を向上させることである。

The course sounds like an aspiring game designer's dream come true for multiple reasons. First, students will get to study video games (presumably by playing them) and work on mastering their art for two years under the guidance of experienced professors, and what artist wouldn't want that? (3) また、この2年間はビデオゲーム制作に焦点を合わせた講義と演習で構成されており、独自のゲームのデザインも可能な最終プロジェクトがその集大成となる。

Furthermore, the program will be done in collaboration with the University of Southern California's School of Visual Arts, which means that there will be guest lecturers from the U.S., and that students can participate in USC's classes as well. There are also plans for joint work with students at USC on various projects throughout the program, so it looks like it will be a well-rounded, and well-networked, educational experience.

But perhaps the coolest thing about the upcoming program is that it will be done with industry cooperation. The university plans to invite professionals in the field to conduct seminars for students, starting with what seems to be an already organized visit from Square Enix themselves. With the opportunity to meet, learn from, and potentially work with real-world professionals from the very companies students might be aiming for, this program certainly has a lot to offer.

If your heart is racing with excitement and you want to know how you can get in, you must apply through the Animation Department or the Media Department, and pass the entrance exams that will be held in January and February. The application process for this department will begin in December; overseas applicants should get started early as it could be a time-consuming process.

Since this might be the first graduate course solely focused on the art of video games, applications might get a little competitive. (4) とは言え、もしビデオゲームの世界で職に就きたいのなら、これは能力を向上させ経歴を積む素晴らしい機会と言え、応募に値する。 Just think about how much this could boost your resume when you apply to be one of the designers of the next Legend of Zelda game.

<https://soraneews24.com/2018/11/04/tokyo-university-of-the-arts-to-offer-graduate-program-in-video-game-design-next-year> (改変あり)

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