

令和4年度 入学者選抜試験問題

一般選抜 令和4年1月28日

英語 (60分)

I 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 この問題冊子は23ページあります。ただし、出題ページは下記のとおりです。
4～23ページ
- 3 試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁および解答用紙の汚れ等に気づいた場合は、手を挙げて監督員に知らせなさい。
- 4 解答用紙には解答欄以外に次の記入欄があるので、その説明と解答用紙の「記入上の注意」を読み、それぞれ正しく記入し、マークしなさい。
 - ① 受験番号欄
受験番号を記入し、さらにその下のマーク欄にマークしなさい。正しくマークされていない場合は、採点できないことがあります。
 - ② 氏名欄
氏名・フリガナを記入しなさい。
- 5 試験開始後30分間および試験終了前5分間は退出できません。
- 6 この表紙の受験番号欄に受験番号を記入しなさい。この問題冊子は試験終了後回収します。

II 解答上の注意

- 1 解答はすべて解答用紙の所定の欄へのマークによって行います。たとえば、

3

と表示のある問いに対して②と解答する場合は、次の〈例〉のように解答番号3の解答欄の②をマークします。

〈例〉

解答 番号	解 答 欄									
	1	2	3	4	5	6	7	8	9	0
3	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

受 験 番 号				

獨協医科大学 医学部

(問題は次ページから始まる)

1 次の各問に答えなさい。

A 次の英文を読み、問に答えなさい。

Among the many holiday traditions *scuttled by pandemic restrictions this year are live concerts featuring skilled musicians. These gifted performers can often play music with such ease that 1 that went into *honing their craft.

But could there be more to mastering music? Is there, as some have suggested, a developmental period early in life when the brain is especially receptive to musical training? The answer, according to new research published in the journal *Psychological Science*, 2 .

“It is a common observation that successful musicians often start their musical training early,” said Laura Wesseldijk, a researcher at the Karolinska Institute in Sweden and first author on the paper. “One much-discussed explanation is that there may be a period in early childhood during which the brain is particularly susceptible to musical stimulation. We found, however, that 3 may be more complicated and interesting than previously believed.”

While the new study supports the idea that an early start is associated with higher levels of musical skills and achievement in adulthood, the underlying reasons for this may have more to do with familial influences — such as genetic factors and a supportive musical family environment — along with accumulating more total practice time 4 .

To *untangle these effects, Wesseldijk and her colleagues recruited 310 professional musicians from various Swedish music institutions, such as orchestral and music schools. The researchers also used data from an existing research project, the Study of Twin Adults: Genes and Environment (STAGE). Participants from both studies were tested on musical aptitude and achievement. They also answered a series of questions that gauged how often they practiced and 5 . The STAGE data also provided genetic information on its participants.

By comparing the results from these two independent studies, the researchers were

able to show that an earlier start age is associated with musical aptitude, both in amateurs and professional musicians, even after controlling for accumulated practice time. They then evaluated starting age in a manner that accounted for the genetic data from the STAGE study.

The results indicate that genetic factors — possibly related to musical interest and talent — have a substantial influence on the age individuals start music practice and their future musical aptitude. When controlling for familial factors, namely shared genetic and environmental influences, such as a home environment that is steeped in music, there was no additional association between an earlier start age and musicality.

A possible explanation for these results could be that children who display more talent in a particular field, such as music, . Another possibility is that a musically active, interested, and talented family provides a musical environment for the child, while also passing on their genetic predispositions to engage in music.

“I think we have really investigated effects of the age you start musical training to the fullest,” said Wesseldijk. “Personally, as someone who practices music, it is always great to shed light on some of the factors, within the gene environmental interplay, that influence music skills.”

Notes:

scuttle 「台無しにする」 hone 「磨きをかける」 untangle 「解く. わかりやすくする」

問1 ~ の空所を補うのに最も適切なものを、下の①~④の中からそれぞれ1つ選びマークしなさい。

- ① one cannot help easily admiring their patience
② it is easy to underestimate the countless hours of practice
③ concert-goers want to know what lies behind the hard training
④ it is always a mystery how they handle the strenuous practice

2

- ① is probably not
- ② might not be wrong
- ③ has been already found
- ④ may be imagined easily

3

- ① the implications of long and hard training sessions
- ② the trend of hastening the start of practice
- ③ the explanation to why an early start matters
- ④ the question of whether one is musically talented

4

- ① than they do in later life
- ② than they would in less musical environments
- ③ than those who start later in life
- ④ than those with more enthusiasm for music

5

- ① what led them to be absorbed in music
- ② how deeply their families were involved
- ③ what musical instruments they played
- ④ the age of onset of musical training

6

- ① are influenced by someone outside the family
- ② are encouraged to start practicing earlier
- ③ often do so without being forced to
- ④ begin musical training as late as possible

問2 次の ・ の各問の答えとして最も適切なものを、下の①～④の中からそれぞれ1つ選びマークしなさい。

Which of the following is the closest to the idea of Laura Wesseldijk?

- ① The starting age is a decisive factor in musical development in adulthood.
- ② There is hardly any relationship between an early start of training and musicality.
- ③ An early start of training alone cannot account for later musical achievement.
- ④ How early one starts training should not be overly emphasized.

According to the passage, which of the following is TRUE?

- ① It can safely be said that genetic factors tend to contribute more to musical achievement than family environment.
- ② The earlier children start musical training, the more success they are likely to enjoy, regardless of their family environment.
- ③ Compared with an early start of training, genes do not play so great a role in fostering musical development.
- ④ The research suggests that the age of starting musical training and genetic factors could correlate with each other.

B 次の英文を読み、問に答えなさい。

It all started with mosquito nets. Or, before that, with a million yards of wool in the mountains of Sweden. Or, taken back another generation, to uniforms for hotel and supermarket workers.

There are plenty of charitable foundations and public agencies devoted to helping the world's poor, many with instantly recognizable names like UNICEF or the Bill and Melinda Gates Foundation. But (A) private companies with that as their sole focus are rare. Even the best-known is by no means a familiar name to us: Vestergaard-Frandsen.

Its products are in use in refugee camps and disaster areas all over the third world: PermaNet, a mosquito net soaked with insecticide; ZeroFly, a tent *tarp that kills flies; and the LifeStraw, a filter worn around the neck that makes filthy water safe to drink. Some are . The turquoise and navy blue LifeStraw is in museum design collections.

"Vestergaard is just different from other companies we work with," said Kevin Starace, malaria adviser for the United Nations Foundation. "They think of the end user as a consumer ." For example, he said, they have added a cell phone pocket to the PermaNet and make window curtains on the ZeroFly that kill bugs. The company, begun in Denmark 51 years ago to make work uniforms, is now run by Mikkel Vestergaard-Frandsen, the grandson of the founder.

After finishing high school in 1991, he said he had " ." Instead, he went backpacking through India and Africa, holding thought of going to Kuwait to fight the oil field fires set during the Gulf War. Stranded in Egypt, he met two Nigerians who told him he could make good money in their country importing used cars from Europe.

"When you're 19, you don't have much of a business plan," he said. "So I went to Lagos, selling cars and truck engines and buses."

But a coup in 1993 sent him back to Denmark. , his father, Torben, had struck a deal to buy a million yards of old, olive-gray wool cloth from Sweden's civil defense supplies.

"Sweden had mountain caves full of everything you need in case of World War III, but they decided [13]," the elder Mr. Vestergaard-Frandsen said. "This was for military uniforms. It was good quality, very expensive wool, but it looked so bad that no housewife would have it on her couch."

Mikkel agreed to take a desk at the back of the factory and work on the next step: having it cut into blankets and sold to the Red Cross. Much of it, he said, ended up in Rwanda and Kurdistan. During that time, the company's main business was facing competition from Asia, and both he and his father found relief work more interesting. Exporting used clothes for distribution in refugee camps was profitable. And there was a market in *tsetse fly traps; the flies which transmit *sleeping sickness are drawn to blue light, so the company had to make its tent tarps with the right shade [14] .

The company also recreated an idea from nomads in Western Africa: packing the filter into a short plastic pipe so the user could lie down and drink from any puddle. That pipe [15] , a 10-inch plastic cylinder that filters out or kills bacteria, parasites, and some viruses and can be made for less than \$3.

Relief agencies have bought tens of thousands for use after the Myanmar cyclone and earthquakes in Asia. The company now makes a bigger version that filters 5 gallons an hour and will last a typical family three years.

While Torben is sometimes described as the company's mad scientist, Mikkel has gone beyond being a supplier to helping set global policy. Mr. Starace of the United Nations Foundation said, "Mikkel's always the most daring thinker in the room. And (B)he's willing to roll up his sleeves or even throw his own employees at a problem. He lent Roll Back Malaria his chief financial officer to help it do better *audits. Nobody else would do that."

Vestergaard-Frandsen, which is family-owned, does not disclose financial data, but it has sold 165 million nets and makes a profit, Mikkel said. But he also has a passion for the work, he said, and the challenge of trying to invent a new product each year.

"Very few companies take the attitude that (C)doing good is good money," he said. "They make a net, or they make a filter, and sell it. But make no mistake — as soon as we've proven this is a good idea, they'll come in. They're sitting there right now,

watching us.”

Notes:

tarp 「防水シート」 tsetse fly 「ツエツェバエ」 sleeping sickness 「睡眠病」
audit 「会計監査」

問1 ～ の空所を補うのに最も適切なものを、下の①～④の中からそれぞれ1つ選びマークしなさい。

- ① good for the environment as well as easy to use
② very economical as well as health-oriented
③ not only life-saving but even beautiful
④ not just user-friendly but perfectly well-made

- ① rather than as a patient or a victim
② not as a corporate client
③ who wants to pay for whatever helps them out
④ who hopes for a safe environment

- ① no interest in growing the market for men's shirts
② an interest in making contributions to free trade
③ no interest in going backpacking abroad
④ an interest in turning into an import business

- ① Consequently ② Meanwhile
③ Like that ④ Despite that

- ① they were likely to win the war
② they were likely to lose the war
③ the risk was not so great anymore
④ the risk was just as great as ever

- ① that protected mosquitoes
② that did not fade in sunlight
③ under which flies couldn't gather
④ in which you could take a good rest

- 15
- ① was replaced by a West African plant
 - ② was made of a West African plant
 - ③ was more popular than the LifeStraw
 - ④ was the inspiration for the LifeStraw

問2 下線部(A)～(C)の意味に最も近いものを、下の①～④の中からそれぞれ1つ選びマークしなさい。

(A) 16

- ① charitable foundations and public agencies are not always recognized as private companies
- ② most private companies are not managed with the intention of helping poor people
- ③ charitable activities are something which private companies should bear in mind
- ④ few private companies are concerned with charitable organizations such as UNICEF

(B) 17

- ① he's determined to put things in order
- ② he's positive about preparing to work
- ③ he's cautious of making drastic changes
- ④ he cares about how he looks in the eyes of other people

(C) 18

- ① something done out of goodwill can lead to a big profit
- ② trying to make huge profits is not always good
- ③ charitable work is a way to evade making dirty money
- ④ to make sufficient money, one should try to pursue good

問3 次の 19 ・ 20 の各問の答えとして最も適切なものを、下の①～④の中からそれぞれ1つ選びマークしなさい。

19 According to the passage, which of the following sentences is TRUE about Vestergaard-Frandsen?

- ① The company decided to make products to be used in the third world, whether they were profitable or not.
- ② Mikkel was devoted to making work uniforms after graduating from high school.
- ③ The wool cloth, which Torben had bought, was used for something other than its originally intended purpose.
- ④ The company shifted their main target after losing out to competition from Asia.

20 According to the passage, which of the following sentences is TRUE?

- ① Vestergaard-Frandsen began its business making useful and inexpensive nets.
- ② Mikkel kept selling used cars in Lagos in the middle of the chaos of a coup.
- ③ Sweden remains on guard against the possibility of World War III.
- ④ Vestergaard-Frandsen has proved that relief work could be established as a business.

英語の試験問題は次に続く。

2 次の各問に答えなさい。

A 次の会話文を読み、問に答えなさい。

Tom : OK, Chris, what is your dream job, if you could have any job in the world?

Chris : My dream job is to become a diplomat representing my country, preferably in Japan. That's why I came to Japan to learn Japanese and hopefully obtain a master's degree in international relations. After getting my master's degree in international relations, I would like to go home and enter the diplomat school for the Ministry of Foreign Affairs, which is a three-year program, and then, after that, hopefully come back to Japan and work for the Norwegian Embassy in Tokyo.

Tom : Must be pretty competitive.

Chris : It's very competitive, but I think if you know a certain language that not many people speak, it gives you a competitive edge. And (1)I know at this stage there are only 300 people from Norway living in Japan, and not all of them are here to study Japanese. Some represent different companies or schools, and others are missionaries. That's why I came to Japan, and that's the track I'm on right now. But we'll see how it goes in the end.

Tom : How about when you were a child, what was your dream job? Did you want to be a diplomat when you were 10?

Chris : No, when I was 10, I probably didn't know what I wanted to do. I was just too busy playing in the street, you know, having fun with my friends. When I was young, I really didn't have a dream job like firefighter, police officer, etc. I never really went through that stage, you know.

Tom : I wanted to be a baseball player.

Chris : All right, fair enough.

Tom : I'm still dreaming.

Chris : Oh, that's good.

問1 Which of the following statements best describes Chris's current situation?

21

- ① He is now taking a training course for diplomats of the Ministry of Foreign Affairs to improve his Japanese.
- ② He has got a master's degree to enter the diplomat school in Norway.
- ③ He's learning Japanese because he wants to use his command of the language for his future career.
- ④ He has taken up his post as a Norwegian Embassy official in Tokyo.

問2 What's the reason why Chris says the underlined part (1)?

22

- ① He wants to say that not so many Norwegians speak Japanese.
- ② There is not so much interaction between Norway and Japan.
- ③ Japan does not have very strong diplomatic ties with Norway.
- ④ Norwegians come to Japan on business rather than to study.

問3 Which of the following statements is TRUE?

23

- ① Norwegians study Japanese to remain competitive with Chris.
- ② Chris thinks the ability to speak Japanese will make him highly desirable.
- ③ Becoming a diplomat has been Chris's dream since childhood.
- ④ Neither Tom nor Chris had any dream jobs when they were boys.

- B 次の英文について、ア～カを論理的に意味が通るように並べかえたものとして最も適切な選択肢を、①～④の中から1つ選びマークしなさい。

24

The characters in *Cinderella* are very easy for children to understand because their roles are clearly defined. Cinderella, the story's good character, provides a very strong contrast to the stepsisters.

- ア. However, the stepsisters desperately want to stop that love from happening.
- イ. Children, then, are immediately able to see that Cinderella is a positive role model, while the stepsisters are what they should try not to be.
- ウ. While Cinderella is gentle and kind, the stepsisters are mean, harsh, and incredibly unlikable.
- エ. Despite this, Cinderella and the prince meet again and get married.
- オ. This is seen in the interactions between Cinderella and the prince, who fall in love.
- カ. *Cinderella* also contains a very clear message for children. The theme of the story is that the evils of the world cannot stop something good.

The message taught is one that all children can easily understand and apply to their lives.

- ① イーウーカーエーアーオ
- ② イーウーアーエーカーオ
- ③ ウーイーアーカーオーエ
- ④ ウーイーカーオーアーエ

C 次の英文において、 ～ の空所を補うのに最も適切なものを、以下の①～⑧の中からそれぞれ1つ選びマークしなさい。ただし、文頭に来るものも書き出しは小文字となっている。

In 2010, Yohey Suzuki, an associate professor at the University of Tokyo, joined a team of researchers on the Integrated Ocean Drilling Program (IODP). The research ship, which took the scientists from the tropical island of Tahiti in the middle of the South Pacific Ocean to Auckland, New Zealand, anchored at three locations to collect mud and rock samples from the Earth's core — about 410 feet (125 meters) below the seafloor. , the specimens were estimated to be 13.5 million, 33.5 million, and 104 million years old.

To prevent surface contamination, the samples were first sterilized using an artificial seawater wash and a quick burn. Then began the tedious search for microbes. At that time, the usual process to discover bacteria in rock samples was to strip the rock's outer layer, grind its center into a powder, and count cells from the crushed stone. Unfortunately, .

Convinced the ancient rocks harbored life, Suzuki has since been seeking a better way to find evidence. He recently came up with the idea of slicing the rock samples. To ensure the specimens would not crumble when sliced, Suzuki first coated them with a special epoxy. The thin rock layers were then washed with DNA staining dye and placed under a microscope. Sure enough, a large number of bacteria, which appeared as glowing green spheres, were clustered inside tunnels of clay mineral deposits that glowed orange. The excited researcher says, "I thought .

DNA analysis revealed that while the species of bacteria from each location were similar, . Suzuki and his colleagues estimate that the cracks, measuring about one millimeter in width, housed as many as 10 billion bacterial cells per cubic centimeter. In comparison, the clay samples extracted from the ocean floor have only about 100 bacterial cells per cubic centimeter. The team speculates the clay mineral-filled cracks contain a large concentration of nutrients upon which the bacteria sustain themselves.

The discovery of organisms in the ancient iron-and-clay-rich rocks is particularly

exciting since 29 . Like Earth's, the red planet's crust was formed nearly four billion years ago from lava that erupted and rapidly cooled and hardened. Though the lakes and other bodies of water that 30 , they left behind craters of mineral-rich clay, similar to the clay found underneath the Earth's seafloor.

- ① it was a dream, seeing such rich microbial life in rocks
- ② once existed have dried up
- ③ they were not identical
- ④ finding any evidence of life on Mars has proved elusive
- ⑤ the researcher found no evidence of bacteria
- ⑥ depending on the location
- ⑦ the environment is similar to that found on Mars
- ⑧ may be changing the game for the search for life

3 日本文の意味に合うように () 内の語 (句) を正しく並べかえ、3番目と7番目に来る番号をマークしなさい。ただし、文頭に来る単語も書き出しは小文字となっている。

(1) 自身の悪い習慣の中で、やめるのが最も困難なものはどれだと思いますか。

3番目 7番目

(1) the (2) your bad habits (3) do you (4) which of
(5) get rid of (6) difficult (7) most (8) to (9) find)?

(2) 人間の活動が地球温暖化をもたらしているという証拠がますます増えてきている。

3番目 7番目

(1) global (2) human activities (3) is (4) there
(5) temperatures (6) that (7) are making (8) growing
(9) evidence) higher.

(3) 出荷が適切に完了したかどうかについて気になる点がございましたら、どうぞお気軽にお問い合わせ下さい。

3番目 7番目

(1) worried (2) been (3) finished properly (4) should
(5) the shipment (6) you (7) if (8) be (9) has), please feel free
to contact us.

(4) 彼は謝りたくなかったのではなく、むしろ、謝るのにより良い機会を待っていたのです。

3番目 7番目

It (1) that (2) wasn't (3) as that (4) waiting for
(5) he didn't (6) so much (7) want to (8) he was (9) apologize)
a better opportunity to apologize.

(5) チャレンジャー号の乗船者達の最大の発見は、その当時知られていた海底で最も深い場所を突き止めたことだった。

3 番目 7 番目

The biggest discovery of (1) the Challenger (2) identified
(3) in the sea (4) that (5) aboard (6) was (7) the deepest place
(8) those (9) they) known at that time.

4 日本文の意味に合うように [41] ~ [50] に入れるのに最も適切な語(句)を、下の①~④の中からそれぞれ1つ選びマークしなさい。

(1) 幼年時代に重労働をさせられたことは、若いアンにとって極めて辛い経験だったにちがいない。

[41] into hard labor in her childhood must have been a tremendously trying experience for young Anne.

- ① Forced
- ② Being forced
- ③ Having forced
- ④ Forcing

(2) 痛みは大怪我をするのを防いでくれるので、私たちにとって非常に重要な感覚である。

Pain is a very important sense because it [42] being seriously injured.

- ① avoids us
- ② protects us
- ③ warns us not to
- ④ keeps us from

(3) 大損害を起こさない地震のレベルは、マグニチュード0から4までである。

An earthquake that doesn't cause great damage is [43] magnitudes 0 and 4.

- ① in the middle of
- ② ranging from
- ③ somewhere between
- ④ from among

(4) 最新のファッションのおかげで、彼は実年齢よりも若く見えた。

The latest fashion [44] younger than he really was.

- ① showed him
- ② seemed to be
- ③ made him look
- ④ saw him

(5) 上司は部下たちに、指示があるまでは情報を開示しないように厳命した。

The boss strictly ordered his men not to disclose the information until [45].

- ① he told them to
- ② he spoke them to
- ③ they were said
- ④ they were talked to

- (6) 私は学生たちに、この本を熟読し、感想文を書くよう勧めた。

I recommended that the students read this book carefully, and a book report.

- ① wrote ② has written ③ write ④ would write

- (7) 我々一人一人が差別に対して声高に反対する勇気があって初めて、社会を変えることができるのだ。

each of us finds the courage to speak out against discrimination can we change our society.

- ① As soon as ② As far as ③ Only if ④ If any

- (8) 彼はどのようにして、最高機密情報を手に入れることができたのだろうか。

I wonder how he was able to the top-secret information.

- ① take in ② come by ③ get into ④ hit upon

- (9) 幸運なことに、弟がヴァン・ゴッホを金銭面で援助してくれた。

Fortunately, Van Gogh's younger brother money.

- ① supported him ② supported for his
③ helped his ④ helped him with

- (10) 宇宙空間の膨張のため、宇宙のすべての銀河は互いに離れる動きをしている。

All galaxies in the universe move away because of the expansion of space in the universe.

- ① each other ② one another
③ from the other ④ from one another

