

# 見本

## 令和5年度前期日程入学試験学力検査問題

令和5年2月25日

### 外国語(英語)

志望学部	試験科目	試験時間
経済学部, 理学部, 医学部保健学科, 歯学部, 薬学部, 工学部, 農学部	英語	10:00~11:40 (100分)
文学部, 教育学部, 法学部, 医学部医学科	英語, ドイツ語, フランス語のうち から1科目選択	

- ・ドイツ語, フランス語の問題冊子は, 出願時に, それぞれの科目を希望した者に配付します。

#### 注意事項

1. 試験開始の合図があるまで, この問題冊子, 解答用紙を開いてはいけない。
2. この問題冊子は, 21 ページである。問題冊子の白紙のページや問題の余白は草案のために使用してよい。なお, ページの脱落, 印刷不鮮明の箇所などがあった場合には申し出ること。
3. 解答は, 必ず黒鉛筆(シャープペンシルも可)で記入し, ボールペン・万年筆などを使用してはいけない。
4. 解答用紙の受験記号番号欄(1枚につき2か所)には, 忘れずに受験票と同じ受験記号番号をはっきりと判読できるように記入すること。
5. 解答は, 必ず解答用紙の指定された箇所に記入すること。
6. 解答用紙を持ち帰ってはいけない。
7. 試験終了後, この問題冊子は持ち帰ること。

I 次の英文を読み、下の問いに答えなさい。

‘You can’t code people, Millie. That’s basically impossible.’

I was eleven, and arguing with my older sister. ‘Then how do we all think?’

It was something I knew instinctively then, but would only come to understand properly years later: the way we think as humans is not so different from how a computer program operates. <sup>(A)</sup> Every one of you reading this is currently processing thoughts. Just like a computer algorithm, we ingest and respond to data — instructions, information and external stimuli. We sort that data, using it to make conscious and unconscious decisions. And we categorize it for later use, like directories within a computer, stored in order of priority. The human mind is an extraordinary processing machine, one whose awesome power is the distinguishing feature of our species.

We are all carrying a supercomputer around in our heads. But despite that, we get tripped up over everyday decisions. (Who hasn’t agonized over what outfit to wear, how to phrase an email or what to have for lunch that day?) We say we don’t know what to think, or that we are overwhelmed by the information and choices surrounding us.

That shouldn’t really be the case when we have a machine as powerful as the brain at our disposal. If we want to improve how we make decisions, we need to make better use of the organ dedicated to doing just that.

Machines may be a poor substitute for the human brain — lacking its creativity, adaptability and emotional lens — but they can teach us a lot about how to think and make decisions more effectively. By studying the science of machine learning, we can understand the different ways to process information, and fine-tune our approach to decision making.

There are many different things computers can teach us about how to make decisions, which I will explore in this chapter. But there is also a singular, counter-intuitive lesson. To be better decision makers, we don’t need to be more

organized, structured or focused in how we approach and interpret information. You might expect machine learning to push us in that direction, but in fact the opposite is true. As I will explain, algorithms excel by their ability to be unstructured, to thrive \*amid complexity and randomness and to respond effectively to changes in circumstance. By contrast, ironically, it is we humans <sup>(B)</sup> who tend to seek conformity and straightforward patterns in our thinking, hiding away from the complex realities which machines simply approach as another part of the overall data set.

We need some of that clear-sightedness, and a greater willingness to think in more complex ways about things that can never be simple or straightforward. It's time to admit that your computer thinks outside the box more readily than you do. But there's good news too: it can also teach us how to do the same.

### *Machine learning: the basics*

Machine learning is a concept you may have heard of in connection with another two words that get talked about a lot — artificial intelligence (AI). This often gets presented as the next big sci-fi nightmare. But it is merely a drop in the <sup>(C)</sup> ocean of the most powerful computer known to humanity, the one that sits inside your head. The brain's capacity for conscious thought, intuition and imagination sets it apart from any computer program that has yet been engineered. An algorithm is incredibly powerful in its ability to \*crunch huge volumes of data and identify the trends and patterns it is programmed to find. But it is also painfully limited.

Machine learning is a branch of AI. As a concept it is simple: you feed large amounts of data into an algorithm, which can learn or detect patterns and then apply these to any new information it encounters. In theory, the more data you input, the better able your algorithm is to understand and interpret equivalent situations it is presented with in the future.

Machine learning is what allows a computer to tell the difference between a

cat and a dog, study the nature of diseases or estimate how much energy a household (and indeed the entire National Grid) is going to require in a given period. Not to mention its achievements in outsmarting professional chess and Go players at their own game.

These algorithms are all around us, processing unreal amounts of data to determine everything from what film Netflix will recommend to you next, to when your bank decides you have probably been \*defrauded, and which emails are destined for your junk folder.

Although they \*pale into insignificance to the human brain, these more basic computer programs also have something to teach us about how to use our mental computers more effectively. To understand how, let's look at the two most common techniques in machine learning: supervised and unsupervised.

### *Supervised learning*

Supervised machine learning is where you have a specific outcome in mind, and you program the algorithm to achieve it. A bit like some of your maths textbooks, in which you could look up the answer at the back of the book, and the tricky part was working out how to get there. It's supervised because, as the programmer, you know what the answers should be. Your challenge is how to get an algorithm to always reach the right answer from a wide variety of potential inputs.

How, for instance, can you ensure an algorithm in a self-driving car will always recognize the difference between red and green on a traffic light, or what a pedestrian looks like? How do you guarantee that the algorithm you use to help diagnose cancer screens can correctly identify a tumour?

This is classification, one of the main uses of supervised learning, in which you are essentially trying to get the algorithm to correctly label something, and to prove (and over time improve) its reliability for doing this in all sorts of real-world situations. Supervised machine learning produces algorithms that can

function with great efficiency, and have all sorts of applications, but at heart they are nothing more than very fast sorting and labelling machines that get better the more you use them.

### *Unsupervised learning*

By contrast, unsupervised learning doesn't start out with any notion of what the outcome should be. There is no right answer that the algorithm is instructed to pursue. Instead, it is programmed to approach the data and identify its \*inherent patterns. For instance, if you had particular data on a set of voters or customers, and wanted to understand their motivations, you might use unsupervised machine learning to detect and demonstrate trends that help to explain behaviour. Do people of a certain age shop at a certain time in a certain place? What unites people in this area who voted for that political party?

In my own work, which explores the cellular structure of the immune system, I use unsupervised machine learning to identify patterns in the cell populations. I'm looking for patterns but don't know what or where they are, hence the unsupervised approach.

This is clustering, in which you group together data based on common features and themes, without seeking to classify them as A, B or C in a preconceived way. It's useful when you know what broad areas you want to explore, but don't know how to get there, or even where to look within the mass of available data. It's also for situations when you want to let the data speak for itself, rather than imposing pre-set conclusions.

(Adapted from C. Pang, *Explaining Humans: What Science Can Teach Us about Life, Love and Relationships*)

(注)

\*amid ~の中で

\*crunch (大量のデータを)高速処理する

\*defraud 金をだまし取る

\*pale into insignificance (~に比べて)取るに足りない

\*inherent 内在する

問 1 下線部(A)について, 人間の思考とコンピュータ・プログラムの動作の類似点を, 本文に即して3つ日本語で指摘しなさい。

問 2 下線部(B)を日本語に訳しなさい。

問 3 下線部(C)のように主張する理由を, 本文に即して日本語で説明しなさい。

問 4 unsupervised learning に関するものを, 次の(ア)~(カ)の中から3つ選び, 記号で答えなさい。

(ア) classifying

(イ) detecting trends in shopping

(ウ) differentiating between red and green traffic lights

(エ) grouping

(オ) no outcome in mind

(カ) preconceived outcome

問 5 本文の内容から正しいと判断できる英文を、次の(ア)~(オ)の中から2つ選び、記号で答えなさい。

- (ア) Machine learning tends to seek straightforward patterns in thinking, but humans do not.
- (イ) Machine learning is a subset of artificial intelligence that deals with pattern detection via large data sets processed by algorithms.
- (ウ) The human brain is a far less powerful information processing device than even basic computer programs.
- (エ) Machine learning allows computers to defeat professional chess players, but not Go players.
- (オ) We can learn how to make decisions more effectively by studying machine learning.

## II 次の英文を読み、下の問いに答えなさい。

What makes a man handsome — or beautiful? In past decades, the most famous icons of Western male beauty have been a rather narrow cohort — blue-eyed stars of the screen like Brad Pitt or Leonardo DiCaprio come to mind. But the idea of what the “perfect” male looks like is evolving as the film and fashion worlds embrace greater diversity, and the importance of representation is understood by global brands.

All over the world, the idealised standard of the \*sculpted male shape has rarely reflected the average man’s body. However, social-media apps like TikTok are helping to change male beauty standards by showcasing men who previously would not have had a platform. British model, body-positive activist and TikTok star Ben James is changing the way we view larger men. In 2019, as a plus-sized model, he took part in an advertising campaign for clothing brand Simply Be, appearing alongside other diverse models, and has worked with Ted Baker and Asos. James tells BBC Culture that his work “gives comfort and confident to boys and men alike. It tells them that they are wanted and they are worthy.”

While plus-sized female stars such as Lizzo and model Ashley Graham have been widely celebrated, their male equivalents have been less in the spotlight. However, recently Rihanna’s lingerie brand Savage Fenty has helped to normalise and give a platform to larger men. Is this a sign of a growing democratisation of male beauty? As Ben James puts it: “I’d like to see the industry improved by having different body shapes used in never-before-seen ways. Why can’t we have a ‘dad bod’ in a fragrance campaign, or a lead role in a film? The focus needs to shift from these unnaturally-attained physiques that even the actors themselves can’t sustain.”

Professor of anthropology at the University of Edinburgh, Alexander Edmonds, tells BBC Culture: “Due to the legacy of slavery and colonialism,

Western images of the beautiful man have always been very white, and in the past, there were fewer barriers for this to change but this may be happening now.” Black supermodels like Tyson Beckford and Alton Mason regularly grace the covers of *GQ* and other magazines, and the fashion world is gradually becoming more diverse, perhaps in part because global social changes such as the Black Lives Matter movement have made brands recognise the need for diversity.

“Stereotypical male aesthetics and behaviours are changing,” says Edmonds. “They’re no longer the ideal for younger people. Generation Z \*champion (B) androgyny. This is happening a lot in East Asia, especially in South Korean pop culture.” In South Korea, the ideal has become more feminine, with the rise of K-Pop bands such as BTS, known for their vibrant hair and make-up. This type of beauty would be deemed unorthodox by traditional Western standards — but is now widely sought after and highly influential in mainstream media.

And as with every ethnicity, East Asian beauty standards are also diverse. US-Korean model Dae Na says: “When I first started, there was a handful of Asian models but now you see multiples. Exponentially, it just kind of grew as the industry geared more towards Asian buyers or the Asian market.” With a large population of high-net-worth individuals in Asia, brands want to make models like Dae the face of their campaigns, to create a connection with consumers.

(中略)

And the conventional notion of the Mediterranean “tall, dark and handsome” type is still in demand, despite growing diversity. The phrase came to use in Europe in the early 1900s, and then was commonly used in Hollywood during the 1920s to describe Italian star Rudolph Valentino. It has remained a frequently used idiom, although the exact meaning and inference of “tall, dark and handsome” is now more closely scrutinised and debated. Anthropologist Shafee Hassan tells BBC Culture: “Mediterranean men have a huge advantage in having

dark eyebrows and dark facial hair. You can grow a full beard... dark hair is associated with \*virility.” Beautiful by these standards is Italian actor Michele Morrone. From Puglia, Southern Italy, he was working until last year as a gardener in Rome and auditioning for acting roles. His life changed overnight when he was cast as the lead in Netflix film *365 Days*, which became one of the most-watched films on the platform of 2020. He plays the smouldering Mafia boss Massimo, a figure of fantasy for his many fans.

Morrone tells BBC Culture: “I can’t deny my looks helped me in getting the role, because I fit the exact characteristics of Massimo; he’s tall with brown hair. But if they chose another actor, would it be the same? You can have the look but if you don’t know how to dance...” According to Morrone, he initially found it hard to get acting work because of his looks. “It’s very difficult for a good-looking guy to get work as a serious actor because people think to be an actor you should not be this good looking. I don’t know why they have this concept. I had a casting every week for 10 years. I did not get the roles.”

Yet despite the continuing success of the traditionally handsome, the norm of the male beauty standard is opening up. Older models have seen a significant rise in popularity. Of course, we’re used to conventionally handsome “silver foxes” such as Pierce Brosnan and George Clooney gracing our screens, but now older male models are frequently used in advertising campaigns and on \*runways, among them Anthony Varrecchia, Wang Deshun (who became known as “China’s hottest grandpa”), Ron Jack Foley and Lono Brazil. The 87-year-old model René Glémarec appeared, along with his 86-year-old wife Marie-Louise, at Paris fashion week dressed in gender-neutral clothes made by his grandson Florentin Glémarec.

The male model Orlando Hobechi recently told *The Guardian*: “About four years ago I noticed an increase in the use of older models. Suddenly there was interest in older people’s stories.” Longer lifespans have made the difference, according to Hobechi. “Age isn’t the \*turn-off it used to be. Over the last 30

years, we've seen cool young people age — you can be older now and still cool and relevant... People want to see people who look like themselves represented.

(C)  
(Adapted from Myra Ali, "What does the perfect man look like now?" *BBC Culture*, July 8, 2021)

(注)

\*sculpted 彫りの深い

\*champion androgyny 両性具有性(男女両方の特長を合わせもつこと)を擁護・支持する

\*virility 男らしさ

\*runway ファッションショーでモデルが歩く細長いステージ

\*turn-off 興味を失わせるもの

問 1 第 2 段落の下線部 (ア)~(エ) のうち、文法的な間違いを含むものを 1 つ選び、記号で答えなさい。

(ア) has rarely reflected

(イ) are helping to change

(ウ) an advertising campaign

(エ) gives comfort and confident

問 2 下線部 (A) はどのような現象なのか、文章全体をふまえて日本語で説明しなさい。

問 3 下線部(B)の They の内容に当てはまるものを、次の(ア)~(エ)の中から1つ選び、記号で答えなさい。

- (ア) Western images of the beautiful man
- (イ) black supermodels
- (ウ) *GQ* and other magazines
- (エ) brands

問 4 Michele Morrone について、本文の内容と一致するものを、次の(ア)~(エ)の中から1つ選び、記号で答えなさい。

- (ア) He had some real-life experience of being a mafia boss in Southern Italy.
- (イ) He is categorized into the Mediterranean “tall, dark and handsome” type.
- (ウ) He played a role of gardener in his debut Netflix movie *365 Days*.
- (エ) He is one of the older actors, who are gaining more popularity.

問 5 下線部(C)は具体的に何を主張しているのか、本文に即して日本語で説明しなさい。

問 6 下線部 (1)~(4) の意味と最も近い意味をもつ語を、それぞれ (ア)~(エ) の中から  
1 つ選び、記号で答えなさい。

- |                 |                 |                  |
|-----------------|-----------------|------------------|
| (1) embrace     | (ア) enlist      | (イ) require      |
|                 | (ウ) accept      | (エ) emerge       |
| (2) equivalents | (ア) connections | (イ) celebrities  |
|                 | (ウ) equalities  | (エ) counterparts |
| (3) legacy      | (ア) tradition   | (イ) importance   |
|                 | (ウ) reason      | (エ) revolt       |
| (4) scrutinised | (ア) defined     | (イ) deduced      |
|                 | (ウ) examined    | (エ) related      |

**III** Read the conversation below between Charles and Rebecca and answer questions 1) and 2) at the end of the passage.

**Charles:** Hi Rebecca, can I ask you a favor?

**Rebecca:** Sure, what can I do for you?

**Charles:** You work at the coffee shop on campus, don't you? Do you think you could ask your boss if he is hiring?

**Rebecca:** Sure! Are you looking for a job? I thought you got a loan to help pay for tuition.

**Charles:** Well, I thought I could get one, but it ① that my father makes too much money, so I didn't qualify.

**Rebecca:** Oh, well then can't you ask your father to help pay for some of your tuition?

**Charles:** I suppose I could, but my brother is also in college right now, and I don't want to burden him. I decided that it would be better for me to get a part-time job anyway. If I take out an expensive loan now, I will ② paying a lot of interest on the loan, so if possible, I want to pay for school myself.

**Rebecca:** Wow, that's certainly ambitious of you. But I'm worried that you'll have to work too much and won't be able to focus on your studies.

**Charles:** I know what you mean, and I think you're right that it will be very difficult at first. But if I can just ③ the first year, I think I will be okay. The first year we have a lot of classes, but we have far fewer the second year, and in my department, third- and fourth-year students do a lot of independent research, which means that I can decide my own schedule.

**Rebecca:** That might be true, but just because you have control of your schedule, that doesn't mean that you have less work to do. Are you sure you're going to have the time to do everything?

**Charles:** I think so! If I don't participate in any club activities and focus just

on studying and work, I should be fine.

**Rebecca:** You aren't going to do any club activities? Didn't the soccer club offer to make you a starting player for their team?

**Charles:** They did, but I haven't given them an answer yet...

**Rebecca:** You might want to tell them soon. I think they are expecting you to join the team because of your experience playing in high school.

**Charles:** You're right, I had better ④ their offer soon so that they have enough time to find a replacement.

**Rebecca:** I suppose that's the best thing for the soccer team, but... don't you think you should spend at least a little bit of your time doing something you like?

**Charles:** I'll have plenty of time for that after school.

**Rebecca:** I guess...

1) What phrase most likely goes in each of the blanks? Choose the letter of the best answer and write it on your answer sheet.

- |                      |                  |
|----------------------|------------------|
| ① (A) turned through | (B) came through |
| (C) turned out       | (D) came by      |
| ② (A) wind up        | (B) get up       |
| (C) have up          | (D) make up      |
| ③ (A) get on         | (B) come up      |
| (C) get through      | (D) make across  |
| ④ (A) take on        | (B) flip over    |
| (C) go out           | (D) turn down    |

- 2) Imagine that you want to have a part-time job during your first year at university but only the following three are available. Which one would you choose and why? Give at least three reasons based on the information in the chart and support each reason with at least one personal detail. Your response should be written in English and at least 80 words long.

Characteristic	Convenience Store	Restaurant	Bookstore
Hourly Wage	1,200 yen	1,200 yen	900 yen
Working Hours	4 A.M. ~ 8 A.M. (4 hours)	10 A.M. ~ 3 P.M. (5 hours)	6 P.M. ~ 10 P.M. (4 hours)
Schedule	Monday, Friday	Saturday, Sunday	Tuesday, Wednesday, Thursday,
Benefits	None	1 free meal per shift	Includes transportation fee, 10% store discount
Travel to University	10 minutes (walking)	30 minutes (train)	20 minutes (bus)
Travel Home	10 minutes (walking)	20 minutes (train)	30 minutes (walking)

#### IV 次の文章を読み、下の問いに答えなさい。

現代の学びは急速に変わりつつある。知識は人に学ばなくても、本を読まなくても、インターネットですぐに入手できる<sup>(A)</sup>。だから、学生は知識を学びに大学に来る必要はない。では、何を学びに来るのか。いまの時代にわかっていることではなく、わからないことは何かを知るために、そして自分と異なる個性を持った人との出会いを通して自分の可能性と向き合うために来るのである。インターネットを通じて既知のものは手に入るが、未知のものはわからない。この世界はまだ多くの未知のことが眠っている。それは、適切な問いを立てなければ見えてこない。

大学の教員とは、自らの研究を通じてその問いを立て続けてきた経験者である。それらの問いに対する答えはインターネットではなく、それぞれの研究者の中にある。それを学んで自分の問いを立て、自分の答えを見つける。それが自分のアイデンティティになり、自分の可能性を導いてくれる。大学の学びとは、用意された問いと答えの中に自分を見つけるのではなく、未知の世界の中に未知の自分を発見する作業なのだ。大学という環境、教職員、そして学友たちがそれを後押ししてくれる。

だから、大学の教員は自分の学問分野の中でこれまで立てられた問いや答えとともに、自分独自の問いと答えを持っていなければならない。大学の教員には教員免許はない。研究者であるという自負と実績があるだけである。その理由は、小中高の教育のように既存の知識を教えるのではなく、未知の答え<sup>(C)</sup>にたどり着く方法を教え、未知の自分に出会う道へと学生を送り出すことが求められているからだ。そのため、大学の教員は常に自分の学問分野の広がりや深さについて熟知し、自分も未知への挑戦を続けていなくてはならない。大学教育で学んだ学生は、これから社会に順応するだけでなく、これから新しい社会や世界を作っていかなければならない。大学はその可能性を広げる場である。

(山極寿一『京大というジャングルでゴリラ学者が考えたこと』より一部改変)

問 1 下線部(A)の英訳として最も適切な文となるように、次の(ア)~(コ)から8つを選び、並べ替えて、英文を完成させなさい。解答は空欄( ① )( ② )( ③ )に入るものを記号で答えなさい。同じ選択肢を複数回使用しないこと。

We can easily obtain knowledge on the Internet (        ) ( ① ) (        )  
learn ( ② ) (        ) ( ③ ) (        ) (        ) .

(ア) books    (イ) without    (ウ) to    (エ) and    (オ) from    (カ) or  
(キ) others    (ク) having    (ケ) read    (コ) have

問 2 下線部(B)を英語に訳しなさい。

問 3 下線部(C)の内容から正しいと判断できるものを、次の(ア)~(エ)の中から1つを選び、記号で答えなさい。

- (ア) University teachers are asked to help students by teaching them how to answer unsolved questions and guide them to discovering unknown parts of themselves.
- (イ) University teachers are asked to send away students who have answered unsolved questions and guided themselves to discovering unknown parts of themselves.
- (ウ) University teachers are asked to help students by teaching them the answers to unsolved questions and how to journey by themselves.
- (エ) University teachers are asked to send away students who have learned the answers to unsolved questions and know how to journey by themselves.