

令和 5 年度入学者選抜学力検査問題(前期日程)

外 国 語

英 語

(注 意)

1. 問題冊子は指示があるまで開かないこと。
2. 問題冊子は 10 ページ，解答用紙は 2 枚である。
指示があってから確認すること。
3. 解答はすべて解答用紙の指定のところに記入すること。
4. 解答用紙は持ち帰ってはならないが，問題冊子は必ず持ち帰ること。

〔 I 〕 次の英文を読んで、以下の設問に答えよ。

“Don’t you hate it,” says Jon the Robot, gesturing with tiny arms at an expecting crowd, “when you’re trying to solve inverse kinematics equations* to pick up a cup and then you get ‘Error 453, no solution found?’” The crowd laughs. “Don’t you hate that?”

Jon is the creation of Naomi Fitter, an assistant professor at Oregon State University. The tiny robot performs when an operator presses a button, then tells the same jokes in the same order, like a professional comedian*.

But the robot’s act is more human than it might first appear. Jon is learning how to respond to its audience⁽¹⁾ — it can now vary the timing of its delivery based on the length of the audience’s laughter, and add different responses to jokes based on the level of noise in the room. The prospect of an Artificial Intelligence (AI) that understands why we are laughing, and that can produce its own genuinely funny material, is sort of a holy grail* for a group of AI researchers.

AI can diagnose* cancers, read maps and play games, often faster and more accurately than humans can. For the moment, however, linguistic* humor is still primarily a people thing. Finding a way to teach machines to be funny on their own would be a major step forward — one that could fundamentally change the way we relate to the devices around us. To understand a person’s humor is to know what they like, how they think and how they see the world. An AI that understands all that has the power to do a lot more than just tell jokes.⁽²⁾

The first step is to attempt to break down the fundamentals of human humor. Machines learn by taking vast amounts of data and feeding it through algorithms* — in other words, formulas or detailed sets of instructions — in search of patterns or unique features. But it can effectively destroy a joke through a painfully unfunny operation. “Explanations are to jokes (a) autopsies* are to bodies: if the subject isn’t already dead, it soon will be,” wrote Tony Veale, an associate professor at University College Dublin.

Humans have vast mental libraries of cultural references and linguistic meanings to draw upon when hearing or telling a joke. AI has access only to the information that humans choose to give it, which means that if we want an AI to make us laugh, we have to be clear about the kind of humor we want to teach it.⁽³⁾

On the other hand, of course, a tool with the power to influence and entertain can also be used to control. Understanding someone's sense of humor is a window into how they see the world, what their preferences are, maybe even where they are open to attack. It's not a power that people are entirely comfortable with computers having.

In one 2019 study, researchers recruited pairs of people who already knew each other as friends, partners or family members. They gave participants* a list of jokes and asked them to choose which ones their friend or partner would find funny, based on a limited sample of the person's responses to other jokes. They had computers guess the same thing, based on the same data, then showed the list to the participants so that they could confirm which jokes they liked. The machines predicted people's favorite jokes more accurately than their friends or partners did. The computers performed better than humans at guessing which jokes a participant would like in a second experiment as well. But in this one, people liked the recommended jokes less if they thought the jokes came from a machine. They didn't trust the computers. Other studies have also found that people rate humor as one of the tasks they trust humans with far more than AI, along with writing news articles, composing songs and driving trucks (all of which AI has some success in doing).

Jokes are about a shared view of the world, a willingness to violate the same conventions and laugh at the same things. We know what it means when a friend sends something along and says, "I thought you'd find this funny." What's a robot getting at when it does the same thing? And who ultimately benefits if its humor wins us over? There's a common saying that robots should do the jobs that are too dirty, dangerous or dull for humans. Comedy could be all of those

things, but we still want it for ourselves.

As for Jon the Robot, its live appearances have so far been limited to a series of pre-pandemic* shows. The act is not at the point where it might threaten the career of comedians yet. Before powering down, Jon always signs off with the same line: “If you like me, please book me and help me take your jobs.”

出典：Corinne Purtill, “Funny Equals Ha Ha.” (*Time*, January 17/January 24, 2022). 上の英文は、抜粋の上、一部を変更している。

*inverse kinematics equation 逆運動方程式(コンピュータの図形処理でロボットの骨組み構造を制御するための方程式)

*comedian コメディアン, 喜劇俳優

*holy grail 長期の努力目標 (the Holy Grail 聖杯)

*diagnose 診断する

*linguistic 言葉の

*algorithm アルゴリズム, (一連の)算法

*autopsy 検死解剖

*participant 参加者

*pre-pandemic (新型コロナウイルス感染症の)世界的流行以前の

問 1 下線部(1)の意味する内容を本文から二点選んで、日本語で簡潔に述べよ。

問 2 下線部(2)を和訳せよ。

問 3 文脈に則して、(a)に入る最も適切な単語を次の 1～5 から一つ選び番号で答えよ。

1. whose
2. which
3. why
4. that
5. what

問 4 下線部(3)を和訳せよ。

問 5 本文の内容と合致するものを次の 1～7 から二つ選び番号で答えよ。

1. 人工知能のロボットは、人間が笑う理由を理解して冗談を飛ばすことができる。
2. ユーモアのセンスは、その人の考え方や好みを表している。
3. 人間は、ユーモアのセンスを持つ人工知能に弱みを握られている。
4. 実験では、人々はコンピュータが勧める冗談をより好んでいる。
5. 調査によると、新聞記事を書くことでは人間の方が人工知能よりも信頼されているという結果が出ている。
6. ロボットがするのに好ましい仕事は特に想定されていない。
7. ロボットのジョンの活躍で、コメディアンの職が危うくなっている。

〔Ⅱ〕 次の英文を読んで、以下の設問に答えよ。

Can natural gas — a fossil fuel* that puts out 50% less carbon dioxide* (CO₂) than coal, but still contributes (a) global warming — help us achieve a transition* to green energy? The question has long divided politicians.

After years of delays, the European Union (E.U.) wants to reach a decision on its “taxonomy*” — an official list of investments the E.U. classifies as sustainable* for the planet. The taxonomy aims to help Europe’s private sector, which is trying to adjust spending to meet recent environmental targets, move its money to the right places. Any new natural-gas project must replace a more harmful fossil-fuel plant, receive a construction permit by December 31, 2030, and be equipped to transition to lower-carbon gas by 2035.

The taxonomy has become the focus of a political debate over the future, as the E.U. aims to cut its greenhouse gas* emissions* by 55% by 2030 to stay on track to avoid the worst of climate change. France has backed it, largely because it allows nuclear energy, the country’s main energy source. The taxonomy’s inclusion* of nuclear power, which does not put out greenhouse gases but carries other environmental risks, as a green investment has also attracted conflicting opinions.

On one side, countries including Italy and many Central and Eastern European nations argue that Europe needs to invest more (b) natural gas, which provides 22% of the E.U.’s energy, as a “bridge fuel” and addition to renewables* like solar and wind power. Classifying some natural gas as green is a practical decision to help member states shift off even dirtier coal and oil more quickly, according to Christian Ehler, a German member of the European Parliament (MEP) from the European People’s Party. “Some countries are not jumping from coal to wind — there will be a step in between. So politically there needs to be a compromise,” he says.

The other side — including Spain, Ireland and Green Party politicians across

the E.U. — rejects that idea, and says that the E.U. needs to push all possible investment toward renewables, which make up only around 16% of Europe’s energy supply. “This way of thinking in favor of ‘less bad’ energy sources could have worked a couple of decades ago,”⁽²⁾ says Jakop Dalunde, a Green MEP. “But today, in a climate emergency, we have to have full focus on energy sources that are truly sustainable.” Granting natural gas a “green stamp” will encourage more fossil-fuel infrastructure*, Dalunde argues, and could shift funding from clean energy — a problem, given renewables capacity needs to expand by 12% every year to stay on track for zero carbon gas emissions by 2050.

And although the taxonomy includes fairly strict conditions for natural-gas projects to be classed as green, campaigners are concerned that it will be difficult to hold projects responsible for meeting them, says Tsvetelina Kuzmanova, a sustainable-finance-policy adviser. She also argues that any expansion of natural gas will threaten the E.U.’s 2030 goal to reduce methane* emissions by 30%. The main component of natural gas, methane is a powerful greenhouse gas with more than 80 times the short-term warming power of CO₂.

Many observers worry about the signal that the move⁽³⁾ sends to the rest of the world, which looks to the E.U. as a leader in climate policy. Researchers say politicians in South Korea followed the E.U.’s discussion closely when drafting their own sustainable-energy taxonomy, which also classifies natural gas as a transitional fuel.

In January 2022, a group of investors including most of the world’s largest asset managers sent an open letter to E.U. representatives urging them not to classify natural gas as green. Such a move, they wrote, “would seriously compromise Europe’s status as a global leader in sustainable finance, potentially causing a ‘race to the bottom’ that could reduce the level of climate ambition” in other regions. “As the E.U., we are losing a lot of the authority we need to convince others to shift their policies in order to achieve climate sustainability,” says Mounir Satouri, a Green MEP from France. “This is a huge mistake.”

出典：Ciara Nugent, “A Fossil-Fuel Future.” (*Time*, January 31/February 7, 2022). 上の英文は、抜粋の上、一部を変更している。

- *fossil fuel 化石燃料
- *carbon dioxide 二酸化炭素
- *transition 移行
- *taxonomy 分類法(分類表)
- *sustainable 持続可能な
- *greenhouse gas 温室効果ガス
- *emissions 排出量
- *inclusion 含むこと
- *renewables 再生可能エネルギー
- *infrastructure インフラ(社会の基礎となる施設)
- *methane メタン

問 1 本文中の(a)と(b)に入る適切な語の組み合わせを次の 1～4 から一つ選び番号で答えよ。

1. (a) to (b) in
2. (a) for (b) to
3. (a) on (b) in
4. (a) to (b) with

問 2 下線部(1)の“right”の意味に最も近い使われ方をしているものを次の 1～4 から一つ選び番号で答えよ。

1. It began to rain right after he left home.
2. He is the right person for the position.
3. She has no right to talk to her teacher like that.
4. Turn to the right and you'll see the tall building.

問 3 下線部(2)を和訳せよ。

問 4 下線部(3)の意味する内容を日本語で簡潔に述べよ。

問 5 本文の内容と合致するものを次の 1～7 から二つ選び番号で答えよ。

1. 天然ガスは、石炭や石油と異なり化石燃料ではない。
2. 新規の天然ガスプロジェクトは 2030 年までに建設の許可を得る必要がある。
3. フランスは天然ガスを主要なエネルギー源としている。
4. ドイツは原子力を主要なエネルギー源としていることから、分類表を支持している。
5. 欧州連合は、現在の計画で 2030 年までにメタンの排出量を 55 % 削減可能である。
6. 欧州連合のエネルギーの分類に関する議論が世界に影響を与える兆しがある。
7. 投資家は欧州連合が天然ガスに対する規制をもっと緩和するべきだと考えている。

〔Ⅲ〕 下線部を英訳せよ。

日常、われわれが何気なく使っている言葉には、実は意外な意味が含まれていることがあります。あるいはまた、われわれの思い込みによって言葉の意味を誤って理解していることもしばしばあるのです。歴史の勉強をしていると、そういうケースに直面することが少なからずあります。

出典：網野善彦『歴史を考えるヒント』（新潮社，2001年）

〔Ⅳ〕 以下の英文を読んで、英語で答えよ。

The coronavirus pandemic* has caused many changes in society and daily life. Describe either one positive or one negative change that has appeared in society or daily life due to the coronavirus pandemic.

Be sure to explain the reason why you think this change is positive or negative. Your answer should be at least 40 words.

*coronavirus pandemic 新型コロナウイルス感染症の世界的流行

