

令和7年度

医学部医学科後期日程

小論文

---

注意事項

1. 試験開始の合図があるまで、この問題冊子を見てはいけません。
2. 落丁、乱丁、印刷不鮮明の箇所がある場合は、申し出ること。
3. 解答はすべて別紙解答用紙のそれぞれの解答欄に記入すること。
4. 解答用紙の指定された欄に、忘れずに氏名、本学の受験番号を記入すること。
5. 試験場内で配付された問題冊子は、試験終了後持ち帰ること。

問題は次のページから始まります。

## 問題 1

以下の文章は、The Japan Times Alpha に掲載されたエッセイである。読んで設問に答えよ。

### Something to cry about

I am a crier. I cry when nice or sad things happen to someone real or fictional. I cry when I see others crying.

I cry pretty easily, which is embarrassing, especially when it's in public. I cry my hardest when something is about to end, particularly on the last day. I once blubbered at a Japanese airport immigration counter. As I handed over my residence card for what I thought was the final time, I spontaneously started thanking the immigration official as if he was responsible for my time in Japan. <sup>(1)</sup> I'm not sure how much of my speech he understood between my sobs, but he managed to force out an awkward smile as he received my card with both hands.

<sup>(2)</sup> In another life, the Japanese style of lifetime employment would've suited me, because it would've meant I'd cry just once on my day of retirement.

Instead, I've changed jobs many times and my last days have always been tearful. In one job, I left the building while everyone was in a quarterly meeting. I sent a goodbye thank-you email and fled the scene to avoid crying.

On the last day of my first job with a Japanese company, I was about to thank everyone when I was suddenly overwhelmed with emotion, and the waterworks started before I finished my first sentence. My manager, a no-nonsense Japanese woman I deeply respected, pulled me into a firm hug – which I appreciated, but which also increased my sobs.

In the U.K., when my manager and I went to talk to the head of Human Resources about extending my visa, we received bad news that it wasn't possible and both of us cried in the H.R. head's office. She pushed a box of tissues towards us, but didn't shed a single tear — which is probably a good skill to have in her job.

But, as shown so well in the movie *Inside Out*, there's no joy without sadness. My first memory of this was my first day at kindergarten. When I realised my mother was leaving me to be alone with all these strangers, I burst into tears.

But through that curtain of tears, I saw a small figure making her way towards me. What I thought was going to be the last time I saw my mother, turned into the first time I met my first-ever friend. <sup>(3)</sup> We were inseparable for the longest time and after all these decades, we're still in touch.

From my experience, it seems like sad “lasts” never last. I cry because I’m either leaving a lot of joy, or there’s some to be found around the corner. I just need to have a lot of tissues ready. (Samantha Loong)

The Japan Times Alpha, 2024.7.19, 一部改変

問1 下線部(1)(2)(3)を日本語に訳せ。

問2 二重下線部の“skill”とはどういう skill か。簡潔に述べよ。

問3 医療において医師が患者や家族に真摯に向き合う姿勢は大切だが、過度な共感・感情移入は禁物ともされている。“I am a crier.”で始まる上記の文の趣旨も踏まえながら、あなたが医師になったときどのように患者や家族への向き合うかについて、500字以内で述べよ。

## 問題 2

以下の文章は、イギリスの科学雑誌 Nature に掲載された記事である。読んで設問に答えよ。

### GOOGLE AI HAS BETTER BEDSIDE MANNER THAN HUMAN DOCTORS

Researchers say their artificial-intelligence system could help to democratize medicine.

By Mariana Lenharo

An artificial intelligence (AI) system trained to conduct medical interviews has matched, or even surpassed, human doctors' performance at conversing with simulated patients and listing possible diagnoses on the basis of the patients' medical history.

The chatbot, which is based on a large language model (LLM) developed by Google, was more accurate than board-certified primary-care physicians in diagnosing respiratory and cardiovascular conditions, among others. Compared with human doctors, it managed to acquire a similar amount of information during medical interviews and ranked higher on empathy.

"To our knowledge, this is the first time that a conversational AI system has ever been designed optimally for diagnostic dialogue and taking the clinical history," says Alan Karthikesalingam, a clinical research scientist at Google Health in London.

Dubbed Articulate Medical Intelligence Explorer (AMIE), the chatbot is still purely experimental. It hasn't been tested on people with real health problems — only on actors trained to portray people with medical conditions. "We want the results to be interpreted with caution and humility," says Karthikesalingam.

Even though the chatbot is a long way from being used in clinical care, the scientists argue that it could eventually play a part in democratizing health care. The tool could be helpful, but it shouldn't replace interactions with physicians, says Adam Rodman, an internal-medicine physician at Harvard Medical School in Boston, Massachusetts. "Medicine is just so much more than collecting information — it's all about human relationships," he says.

## **Learning a delicate task**

Few efforts to harness LLMs for medicine have explored whether the systems can emulate a physician's ability to take a person's medical history and use it to arrive at a diagnosis. Medical students spend a lot of time training to do just that, says Rodman. "It's one of the most important and difficult skills to inculcate in physicians."

----- (中略) -----

## **AMIE acers the test**

The AI system matched or surpassed the physicians' diagnostic accuracy in all six medical specialties considered. The bot outperformed physicians in 24 of 26 criteria for conversation quality, including politeness, explaining the condition and treatment, coming across as honest, and expressing care and commitment.

"This in no way means that a language model is better than doctors in taking clinical history," says Karthikesalingam. He notes that the primary-care physicians in the study were probably not used to interacting with patients through a text-based chat, and this might have affected their performance.

By contrast, an LLM has the unfair advantage of being able to quickly compose long and beautifully structured answers, Karthikesalingam says, allowing it to be consistently considerate without getting tired.

## **Wanted: unbiased chatbot**

An important next step for the research, he says, is to conduct more-detailed studies to evaluate potential biases and ensure that the system is fair across different populations. The Google team is also starting to look into the ethical requirements for testing the system with humans who have real medical problems.

Daniel Ting, a clinician AI scientist at Duke-NUS Medical School in Singapore, agrees that probing the system for biases is essential to making sure that the algorithm doesn't penalize racial groups that are not well represented in the training data sets.

Chatbot users' privacy is also an important aspect to be considered, Ting says. "For a lot of these commercial large language model platforms right now, we are still unsure where the data is being stored and how it is being analysed," he says.

*Nature* 625, 643-644 (2024)より抜粋、一部改変

問1 このチャットボット (AMIE) システム開発者である Karthikesalingam は、このシステムの評価について「慎重でかつ謙虚に解釈してほしい」といった趣旨の発言をしているが、それはなぜか。100字以内で述べよ。

問2 下線部を日本語に訳せ。

問3 Karthikesalingam は「このチャットボットシステムである AMIE が実際の医師よりも上手に病歴聴取ができるということを必ずしも示している結果ではない」といった趣旨の発言をしているが、それはなぜか。150字以内で述べよ。

問4 AIを含めた次世代技術が今後も発展してくるなか、自身が医療現場に立つ時代にはどのような医師が必要とされると思うか。400字以内で述べよ。