

2024年度 外国にルーツを持つ生徒対象特別選抜

学力検査 英語

【1】 次の英文を読んで、問1～問4に日本語で答えなさい。

In 1950, Alan Turing asked what it would mean for a computer to think like a human. He suggested a practical test, which he called “the imitation game,” but every AI researcher since then has called it (1) the “Turing test.” For all practical purposes, a computer could be called a thinking machine if an ordinary human, communicating with the computer by typewriter, could not tell whether he was talking with a human or a computer. Turing was very confident that this was quite possible. “I believe that in about fifty years’ time it will be possible to program computers,” he wrote, “to make them play the imitation game so well that an average interviewer will not have more than a 70 percent chance of making the right identification after five minutes of questioning.”

(2) Turing’s prediction was slightly off. Every year the Loebner Prize competition identifies the most humanlike “chatbot” in the world, with a gold medal and \$100,000 offered to any program that succeeds in fooling all four judges into thinking it is human. As of 2015, in twenty-five years of competition, not a single program has fooled all of the judges or even half of them.

Turing didn’t just suggest the “imitation game”; he also proposed (3) a strategy to pass it. “Instead of trying to produce a program to simulate the adult mind, why not rather try to produce one which simulates the child’s?” he asked. If you could do that, then you could just teach it the same way you would teach a child and, twenty years later (or less, given a computer’s greater speed), you would have an artificial intelligence. “Presumably the child brain is something like a notebook as one buys it from the stationer’s,” he wrote. “Rather little mechanism, and lots of blank sheets.” He was wrong about that: The child’s brain is rich in mechanisms and pre-stored templates.

Nonetheless, I think that Turing was on to something. We probably will not succeed in creating humanlike intelligence until we can create childlike intelligence, and a key component of this intelligence is the mastery of causation.

How can machines acquire causal knowledge? This is still a major challenge that will undoubtedly involve a complex combination of inputs from active experimentation, passive observation, and (not least) the programmer — much the same inputs that a child receives, with evolution, parents, and peers substituted for the programmer.

However, we can answer a slightly less ambitious question: How can machines (and people) represent causal knowledge in a way that would enable them to access the necessary information quickly, answer questions correctly, and do it with ease, as a three-year-old child can?

I call this (4) the mini-Turing test. The idea is to take a simple story, encode it on a machine in some way, and then test to see if the machine can correctly answer causal questions

that a human can answer. It is “mini” for two reasons. First, it is limited to causal reasoning, excluding other aspects of human intelligence such as vision and natural language. Second, we allow the contestant to encode the story in any convenient representation, removing the burden from the machine of the task of acquiring the story from its own personal experience. Passing this mini-test has been my life’s work — consciously for the last twenty-five years and subconsciously even before that.

(Adapted from Judea Pearl and Dana Mackenzie, *The Book of Why: The New Science of Cause and Effect*, pp. 36–38. London, UK: Penguin Books, 2019)

問1 下線部(1) the “Turing test”とありますが，その内容はこういったものですか。本文に即して具体的に説明しなさい。

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問2 下線部(2) Turing’s prediction was slightly off.とありますが，チューリングの予測はどのようなもので，実際の結果はどのようなものでしたか。本文に即して具体的に説明しなさい。

① チューリングの予測：

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② 実際の結果：

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問3 下線部(3) **a strategy to pass it** とありますが，その内容はどのようなものですか。本文に即して具体的に説明しなさい。

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問4 下線部(4) **the mini-Turing test** とありますが，その内容はどのようなものですか。本文に即して具体的に説明しなさい。

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【2】 次の問1～問5の下線部の意味として最も近いものを、それぞれ選択肢①～④から一つ選び、番号を[ ]に記入しなさい。

問1 Last night I went downtown to see a play.

- |      |      |
|------|------|
| ① 遊び | ② 演劇 |
| ③ 演奏 | ④ 役割 |

[ ]

問2 We like to hang out at the beach on weekends.

- |        |        |
|--------|--------|
| ① 泳ぐ   | ② 眺める  |
| ③ 船をこぐ | ④ ぶらつく |

[ ]

問3 I've just bought this shirt, but it doesn't match my pants.

- |         |        |
|---------|--------|
| ① 一致する  | ② 組み込む |
| ③ 試合をする | ④ 似合う  |

[ ]

問4 I need to go to hospital, because I can't bear this pain any longer.

- |       |        |
|-------|--------|
| ① 産む  | ② 熊にあう |
| ③ 耐える | ④ 運ぶ   |

[ ]

問5 You guys are a great team! Who is in charge of the new building project?

- |         |        |
|---------|--------|
| ① 完成させる | ② 請求する |
| ③ 担当する  | ④ 突進する |

[ ]

【3】 次の問1～問10の英文を作るために、( )内に入れる語句として最も適切なものを、それぞれ選択肢①～④から一つ選び、番号を[ ]に記入しなさい。

問1 Right, I'll ( ) you a call this Friday, then.

- ① ask                      ② give                      ③ make                      ④ send  
[                      ]

問2 My parents have finally agreed to ( ) me go abroad this summer.

- ① allow                      ② force                      ③ let                      ④ refuse  
[                      ]

問3 While I ( ) my dog for a walk, it suddenly started raining.

- ① have taken                      ② took                      ③ was taking                      ④ would take  
[                      ]

問4 You won't pass the exam ( ) you study hard. There's so much to learn!

- ① because                      ② however                      ③ if                      ④ unless  
[                      ]

問5 Of all the books I've ever read, this one has the ( ) plot.

- ① interested                      ② interesting                      ③ most interested                      ④ most interesting  
[                      ]

問 6 The town ( ) I grew up is famous for its beautiful castle.

- ① when                      ② where                      ③ which                      ④ who

[                      ]

問 7 In this cake recipe, instead of using a whole egg, we only need ( ).

- ① a few eggs                      ② a little egg                      ③ few eggs                      ④ little egg

[                      ]

問 8 The plan is ( ) complete. We just need to add the finishing touches.

- ① almost                      ② already                      ③ always                      ④ sometimes

[                      ]

問 9 Two years ago my father was still ( ) and actively participating in the business.

- ① alive                      ② life                      ③ live                      ④ lived

[                      ]

問 10 His work has been ( ) six different languages.

- ① changed to    ② interpreted about  
③ referred to    ④ translated into

[                      ]





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学力検査 小論文

## 小論文課題

「外国語学習は幼児期から始めることが望ましい」とする考え方について、600字程度（句読点を含む）でああなたの意見を理由とともに述べなさい。

（楷書で丁寧に記すこと）