

# 令和7年度 入学試験問題

## 英語（後期）

試験時間	90分
問題冊子	1～13頁

### 注意事項

1. 指示があるまで問題冊子は開かないこと。
2. 問題冊子および解答用紙に落丁，乱丁，印刷の不鮮明な箇所があったら，手を挙げて監督者に知らせること。
3. 解答が終わっても，または試験を放棄する場合でも，試験終了までは退場できない。
4. スマートフォン等の電子機器類は電源を必ず切り，鞆の中にしまうこと。
5. 机上には，受験票と筆記用具（鉛筆，シャープペンシル，消しゴム）および時計（計時機能のみ）以外は置かないこと。（耳栓，コンパス，定規等は使用できない。）
6. 問題冊子および解答用紙に受験番号と氏名を記入すること。
7. 解答はすべて解答用紙の所定の解答欄に記入すること。欄外には何も書かないこと。
8. この問題冊子の余白は自由に用いてよい。
9. 質問，トイレ，体調不良等で用件のある場合は，無言のまま手を挙げて監督者の指示に従うこと。
10. 監督者の指示により離席する場合は，問題冊子および解答用紙を裏返しにすること。
11. 受験中不正行為があった場合は，試験の一切を無効とし，試験終了時刻まで別室で待機を命じる。
12. 試験終了後，解答用紙は裏返しにすること。問題冊子は持ち帰ること。

受験番号	
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氏名	
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[ I ] 次の英文を読み、設問に答えよ。設問のうち、問1～問6は解答用紙(記述用)に記入すること。その後の問7～問12は解答用紙(マークシート)に記入すること。

In 1981 Barry Marshall began working with Robin Warren, the Royal Perth Hospital pathologist who, two years earlier, discovered the gut could be overrun by hardy, corkscrew-shaped bacteria called *Helicobacter pylori*. Examining ulcer patients, Marshall traced not just ulcers but also stomach cancer to this gut infection. But the reaction of other medical professionals was not what they anticipated. Marshall recently sat down with *Discover* senior editor Pam Weintraub, and talked talk about his work. For this work on *H. pylori*, Marshall and Warren shared a 2005 Nobel Prize.

**Question:** What sparked your interest in science?

**Answer:** In high school I had Bs and Cs, not too many As, but I must have done well on that medical school test and I must have had some charisma in the interview, so I  up in medicine. Being a general practitioner was all I aspired to. I was good with patients and very interested in why things happened. Eventually I developed a more mature approach: I realized that at least 50 percent of patients were undiagnosable.

**Q:** You found yourself confronting <sup>(1)</sup>unexplainable diseases?

**A:** In medical school it's quite possible to get taught that you can diagnose everybody and treat everything. But then you get out in the real world and find that for most patients walking through your door, you have no idea what's causing their symptoms. You could slice up that person into a trillion molecules and study every one and they'd all be completely normal. I was never satisfied with saying that by ruling out all these diseases, a person must have a fake disease, so I accepted the fact that lots of times I couldn't reach a fundamental diagnosis, and I tried to have an open mind.

**Q:** Is that how you came to rethink the cause of ulcers?

**A:** Before the 20th century, the ulcer was not a respectable disease. Doctors would say, "You're under a lot of stress." Nineteenth-century Europe and America had all these crazy health spas and quack treatments. By the 1880s doctors had developed surgery for ulcers, in which they cut off the bottom of the stomach and reconnected the intestine. We're pretty certain now that by the start of the 20th century, 100 percent of mankind was infected with *Helicobacter pylori*, but you can go through your whole life and never have any symptoms.

**Q:** What was the worst-case scenario for ulcer patients?

**A:** An ulcer with a hole in it, called a duodenal ulcer, is acutely painful due to stomach acid. When you eat a meal, the food washes the acid away temporarily. When the meal is digested, the acid comes back and covers the raw base of the ulcer, causing pain to start up again. These problems were so common that the Mayo Clinic was built on gastric surgery.

After that surgery, half the people would feel better. But about 25 percent of them became so-called gastric cripples, lacking appetite and never regaining complete health.

**Q:** With so much physical evidence of a real condition, why were ulcers routinely classified as being caused by mental or emotional problems?

**A:** Eventually doctors realized they could see the ulcers with X-ray machines, but, of course, those machines were in big cities like New York and London—so doctors in those cities started 2 ulcers in urban businessmen who probably smoked a lot of cigarettes and had a high-pressure lifestyle. Later, scientists induced ulcers in rats by tying them up and dropping them in ice water. Then they found they could protect the rats from these stress-based ulcers by giving them antacids. They made the connection between ulcers, stress, and acid without any proper experimental studies, but it fit in with what everybody thought.

**Q:** How did you come to challenge <sup>(i)</sup>this prevailing theory?

**A:** I was in the third year of my internal medicine training, in 1981, and I had to take on a project. Robin Warren, the hospital pathologist, said he had been seeing these bacteria in ulcer and stomach cancer patients for two years, and they were all identical.

**Q:** What was distinctive about these infections?

**A:** The bacteria all had an S-shaped or helical form, and the infections coated the stomach. Warren had found them in about 20 patients who had been sent to him because doctors thought they might have cancer. Instead of cancer, he had found these bacteria. So he gave me the list and said, “Why don’t you look at their case records and see if they’ve got anything wrong with them.” It turned out that one of them, a woman in her forties, had been my patient. She had come in feeling nauseated, with chronic stomach pain. We put her through the usual tests, but nothing showed up. So of course she got sent to a psychiatrist, who put her on an antidepressant. When I saw her on the list, I thought, “This is pretty interesting.” Then another patient turned up, an old Russian guy who had severe pains. He got sent to a heart specialist for angina, pain that 3 when blood to the heart can’t pass through a narrowed artery. It’s rare, but you can theoretically get that in your gut, too. There was no treatment for an 80-year-old man in those days, so we put him on tetracycline and sent him home. He goes off, and two weeks later he comes back. He’s got a spring in his step, he’s practically doing somersaults into the consulting room. He’s healed. Clearing out the infection had cured him. So, I set up a proper clinical trial with 100 patients to look for the bacteria causing the gut infection; that started in April of 1982.

**Q:** But at first nothing was turning up, right?

**A:** Yes—not until patients 34 and 35, on Easter Tuesday, when I got this excited call from the microbiologist. So I go down there and he shows me two cultures, the grand slam, under

the microscope. The laboratory technicians had been throwing the cultures out after two days because with *Streptococcus*, on the first day we may see something, but by the second day it's covered with contamination and you might as well throw it in the bin. That was the mentality of the lab: Anything that didn't grow in two days didn't exist. But *Helicobacter* is slow-growing, we discovered. After that we let the cultures grow longer and found we had 13 patients with duodenal ulcer, and all of them had the bacteria.

**Q:** When did you realize *H. pylori* caused stomach cancer, too?

**A:** We observed that everybody who got stomach cancer developed it on a background of gastritis, an irritation or inflammation of the stomach lining. Whenever we found a person without *Helicobacter*, we couldn't find gastritis, either. So as far as we knew, the only important cause of gastritis was *Helicobacter*. Therefore, it had to be the most important cause of stomach cancer as well.

**Q:** How did you get the word out about your discovery?

**A:** I presented that work at the annual meeting of the Royal Australasian College of Physicians in Perth. That was my first experience of people being totally skeptical. To gastroenterologists, the concept of a germ causing ulcers was like saying that the Earth is flat. After that I realized my paper was going to have difficulty being accepted. You think, "It's science; it's got to be accepted." But it's not an absolute given. The idea was too weird.

**Q:** Then you and Robin Warren wrote letters to one of the top medical journals.

**A:** Robin's letter described the bacteria and the fact that they were quite common in people. My letter described the history of these bacteria over the past 100 years. We both knew that we were standing at the edge of a fantastic discovery. At the bottom of my letter I said the bacteria were candidates for the cause of ulcers and stomach cancer.

**Q:** That letter must have 

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 an uproar.

**A:** It didn't. In fact, our letters were so weird that they almost didn't get published. By then I was working at a hospital in Fremantle, taking samples from every patient who came through the door. I was getting all these patients and couldn't keep tabs on them, so I contacted all the drug companies to request research funding for a computer. They all wrote back saying how difficult times were and they didn't have any research money. But they were making a billion dollars a year for the antacid drug Zantac and another billion for Tagamet. You could make a patient feel better by removing the acid. Treated, most patients didn't die from their ulcer and didn't need surgery, so it was worth \$100 a month per patient, a hell of a lot of money in those days. In America in the 1980s, 2 to 4 percent of the population had Tagamet tablets in their pocket. There was no incentive to find a cure.

**Q:** But one drug company did provide useful information, right?

**A:** I got an interesting letter from a company that made an ulcer product called Denel, which contained bismuth. The company had shown that it healed ulcers just as quickly as Tagamet, even though the acid remained. The weird thing was that if they treated 100 patients with this drug, 30 of them never got their ulcer back, whereas if you stopped Tagamet, 100 percent would get their ulcer back in the next 12 months. So the company said: “**A**” They sent me their brochure with “before” and “after” photographs. On the “before” photograph they had *Helicobacter* in the picture, and in the “after” picture there was none. So I put their drug on *Helicobacter* and it killed them like you wouldn’t believe. They helped me present at an international microbiology conference in Brussels. The microbiologists in Brussels loved it, and by March of 1983 I was incredibly confident. During that year Robin and I wrote the full paper. But everything was rejected. Whenever we presented our stuff to gastroenterologists, we got the same campaign of negativism. I had this discovery that could undermine a \$3 billion industry, not just the drugs but the entire field of endoscopy. Every gastroenterologist was doing 20 or 30 patients a week who might have ulcers, and 25 percent of them would. Because it was a recurring disease that you could never cure, the patients **5** coming back. And here I was handing it on a platter to the infectious-disease guys.

**Q:** To move forward you needed solid experimental proof. What obstacles did you meet?

**A:** We had been trying to infect animals to see (7) that they would develop ulcers. It all failed; we could not infect pigs or mice or rats. Until we could do these experiments, we would be open to (1) criticize. So I had a plan to do the experiments in humans. It was (7) desperate: I saw people who were (1) almost dying from bleeding ulcers, and I knew all they needed (7) was some antibiotics, but they weren’t my patients. So a patient would sit there bleeding away, taking the acid blockers, and the next morning the bed would be empty. I would ask, “Where did he go?” He’s in the surgical ward; he’s had his stomach (7) removed.

**Q:** What led up to your most famous and most dangerous experiment?

**A:** I had a patient with gastritis. I got the bacteria and cultured them, then worked out which antibiotics could kill his infection in the lab—in this case, bismuth plus metronidazole. I treated the patient and did an endoscopy to make sure his infection was gone. After that I mixed the bacteria around in a cloudy broth and drank it the next morning. My stomach gurgled, and after five days I started waking up in the morning saying, “Oh, I don’t feel good,” and I’d run to the bathroom and vomit. Once I got it off my stomach, I would be good enough to go to work, although I was feeling tired and not sleeping so well. After 10 days I had an endoscopy that **B**. There was all this inflammation, and gastritis had developed.

**Q:** You published a synthesis of this work in *The Medical Journal of Australia* in 1985. Then did people change their thinking?

**A:** No, it sat there as a hypothesis for another 10 years. Some patients heard about it, but gastroenterologists still would not treat them with antibiotics. Instead, they would focus on the possible complications of antibiotics. By 1985 I could cure just about everybody, and patients were coming to me in secret—for instance, airline pilots who didn't want to let anyone know that they had an ulcer.

**Q:** So how did you finally convince the medical community?

**A:** After I came to work in the States, publicity would come out. Stories had titles like “Guinea-Pig Doctor Experiments on Himself and Cures Ulcer.” Our credibility might have dropped a bit, but interest in our work built. Whenever someone said, “Oh, Dr. Marshall, it's not proven,” I'd say: “Well, there's a lot at stake here. People are dying from peptic ulcers. We need to accelerate the process.”

<Notes>

**endoscopy:** a medical examination of a hollow organ in the body, such as the stomach

**gastroenterologist:** a doctor who specializes in diseases of the stomach and other organs of the digestive system

次の問 1～問 6 に答えよ。

答えは解答用紙(記述用)に記入すること。

問 1  ～  に入れるのに最もふさわしい動詞を次の語群から選び、必要ならば適切な形に直して 1 語で書け。なお、同じものを 2 度以上用いてはならない。

abolish	avoid	end	identify	keep
occur	operate	provoke	stay	suffer

問 2 下線部(i)で言及される this prevailing theory は、具体的にはどのような内容を表しているか。本文の内容に照らし、日本語で説明せよ。

問 3 本文の内容に照らし、次の英文を完成させるのに適当でないものを(あ)～(え)から 1 つ選び、その記号を書け。さらにそのように判断した理由を、本文および選択肢の具体的な内容に照らして日本語で説明せよ。

In the study that began in April of 1982, ...

- (あ) the findings suggested that *Helicobacter pylori* was the primary cause of gastritis and possibly stomach cancer.
- (い) the laboratory technicians detected *Helicobacter pylori* following their regular procedures.
- (う) the objective was to determine if certain bacteria were common among ulcer patients.
- (え) the results showed that all of the patients with duodenal ulcers had *Helicobacter pylori* present.

問 4 本文において、下線部(ア)～(カ)のうち 2 か所に文法的な誤りがある。誤りの記号をそれぞれ解答欄に書き、正しい英語 1 語を矢印の右側に書け。

問5 本文の内容に照らし、次の英文を完成させるのに適当でないものを(あ)～(え)から1つ選び、その記号を書け。さらにそのように判断した理由を、本文および選択肢の具体的な内容に照らして日本語で説明せよ。

Regarding Marshall's "most famous and most dangerous experiment," ...

- (あ) he decided to test his theory on himself without knowing whether or not he could recover from it.
- (い) he was driven by his concern about patients not receiving adequate care for ulcers.
- (う) patients who had heard about his findings were seeking treatment directly from him, often secretly.
- (え) the findings from his research were not immediately put into practice by other gastroenterologists.

問6 次の指示にしたがって英文を書け。

Answer the following questions regarding the two patients sent to Warren.

- (1) Based on the treatment the woman previously received, what can be inferred about her initial diagnosis? Write your answer in English in a complete sentence.
- (2) Based on what happened to the Russian man, what can be inferred about the role of tetracycline? Write your answer in English in a complete sentence.

次の問 7～問 12 に答えよ。

答えは解答用紙(マークシート)に記入すること。各問の末尾に示された、  
内の数字に対応する欄に解答せよ。

問 7 What is the name of the person who was interviewed in this article?  1

- a. Barry Marshall
- b. Pam Weintraub
- c. Robin Warren
- d. None of the above

問 8 Which one of the following is closest to the interviewed person's view of "unexplainable diseases," marked (1) in the text?  2

- a. They are consistent with what is taught at medical school.
- b. They are frequently seen by practicing physicians.
- c. They are often created in the patient's head.
- d. They can be explained by studying them at the molecular level.

問 9 Choose ALL of the following that can be inferred about "antacid drugs" from the text.  3

- a. They cure ulcers without the need for surgery.
- b. They generally prevented deaths from ulcers.
- c. They made a lot of money for pharmaceutical companies.
- d. They remove acid from the stomach.

問 10 Which one of the following would best fill  in the text?

- a. Continuing to take Tagamet should cure the ulcer permanently.
- b. Denel must do something to cure the underlying problem.
- c. Denel seems to be less effective than Tagamet.
- d. Tagamet must do more to heal ulcers than just removing the acid.

問 11 Choose 4 of the following that are mentioned in the text. In what order are they mentioned in the text?

- a. Giving a presentation at a physician's association in Australia.
- b. Presenting at a conference in the United States about effective ulcer treatment.
- c. Presenting findings to microbiologists at an international conference in Belgium.
- d. Publishing a paper on his experimental findings in a medical journal.
- e. Writing to a scientific journal indicating that bacteria may be responsible for ulcers.

1st

2nd

3rd

4th

問 12 Which one of the following would best fill  in the text?

- a. proved the treatment had worked
- b. revealed no significant stomach irritation
- c. showed no effect of the treatment
- d. showed the bacteria were everywhere

[ II ] 次の指示にしたがって英文を書け。解答用紙(記述用)に記入すること。

In the first paragraph of the text in [ I ], it is written that “the reaction of other medical professionals was not what they anticipated.” How was their discovery received by other medical professionals? Why do you think their discovery was received that way? Write your answer in an essay, including examples and details from the text to support your ideas.

- Use your own words.
- Write your essay in academic style.

[III] 以下の設問に答えよ。

答えは解答用紙(マークシート)に記入すること。各問の末尾に示された、  
内の数字に対応する欄に解答せよ。

問1 a～eのうち、最も強く発音される部分が第1音節にあるものをすべて選べ。 **10**

- a. background
- b. campaign
- c. disease
- d. product
- e. stomach

問2 a～eのうち、最も強く発音される部分が第2音節にあるものをすべて選べ。 **11**

- a. absolute
- b. condition
- c. distinctive
- d. internal
- e. synthesis

問3 次の単語において、最も強く発音される音節をa～dから1つ選べ。 **12**

elevator

- a. 第1音節
- b. 第2音節
- c. 第3音節
- d. 第4音節

問 4 次のそれぞれの意味をもつ単語を a～e から 1 つずつ選べ。

(1) having a very close friendship or personal relationship **13**

(2) suggested but not communicated directly **14**

- a. imperative
- b. implicit
- c. impulsive
- d. infinite
- e. intimate

問 5 次のそれぞれの意味をもつ単語を a～e から 1 つずつ選べ。

(1) the ability to do something well or effectively **15**

(2) the part of your mind that tells you whether your actions are right or wrong **16**

- a. competence
- b. compliance
- c. conscience
- d. consistency
- e. conspiracy

問 6 次のそれぞれの意味をもつ単語を a～e から 1 つずつ選べ。

(1) having only a short distance from the top to the bottom **17**

(2) very strict and difficult to change **18**

- a. abrupt
- b. mighty
- c. rigid
- d. scarce
- e. shallow

問7 次のそれぞれの意味をもつ単語を a～e から 1 つずつ選べ。

(1) to officially join a course or school **19**

(2) to order someone to come to a place **20**

- a. articulate
- b. enroll
- c. indulge
- d. plead
- e. summon

問8 次のそれぞれの意味をもつ単語を a～e から 1 つずつ選べ。

(1) an angry argument or disagreement **21**

(2) a field with wild grass and flowers **22**

- a. apprentice
- b. massacre
- c. meadow
- d. offspring
- e. quarrel

使用著作物：

Adapted from an article by Pamela Weintraub, Discover Magazine (online), April 8, 2010.