

# 令和3年度入学試験問題(選抜Ⅰ期)

歯学部・薬学部・保健医療学部

## 英 語 数 学・国 語(一教科選択)

### 英 語

歯学部・薬学部 **□1~□5** (1~8 ページ)  
保健医療学部  
全学科 **□1~□4, □6** (1~4, 9~12 ページ)

### 数 学

歯学部・薬学部 **□1~□5** (13~14 ページ)  
保健医療学部  
全学科 **□1, □2, □6~□8** (13, 15 ページ)

### 国 語

歯学部・薬学部 **□1~□3** (16~26 ページ)  
保健医療学部  
全学科 **□1~□3** (16~26 ページ)

#### [注意事項]

- 1 試験時間 8時30分から10時30分まで
- 2 試験問題(冊子、下書き用紙付き) 1部
- 3 解答用紙 英語1枚 数学1枚 国語1枚
- 4 解答用紙の受験番号記入欄に受験番号を、氏名記入欄に氏名を記入して下さい。
- 5 下書き用紙と試験問題冊子の余白は、採点には全く関係しませんので、計算、下書き等に自由に使用して差し支えありません。
- 6 解答は所定の解答欄に記入して下さい。
- 7 途中退場
  - (1) 退場は試験開始後80分までは許可しません。80分以降は途中退場可能ですが、試験終了の5分前からも許可しません。
  - (2) 受験中に緊急な事態が生じた場合は、挙手し監督者の指示に従って下さい。
  - (3) 退場の際は挙手し監督者の許可を得てから、受験票及び所持品を携行の上退場して下さい。
  - (4) 休憩のための退場は認めません。
- 8 試験終了後は解答用紙のみ提出して下さい。この問題冊子と下書き用紙は持ち帰って下さい。

## 選抜Ⅰ期

### 英語

1 次の各組の単語について、1～3は下線部の発音が他と異なるものを、4～5は一番強いアクセントの位置が他と異なるものをそれぞれ1つずつ選び、記号で答えなさい。

1. A. coast      B. cost      C. most      D. toe
  
2. A. cookie      B. food      C. shoot      D. loop
  
3. A. tulips      B. roofs      C. news      D. thesis
  
4. A. ru-mor      B. liq-uid      C. sur-plus      D. sur-vive
  
5. A. cur-ren-cy      B. rap-id-ly      C. ob-vi-ous      D. fa-mil-iar

2

( )に入る最も適切なものをそれぞれ1つずつ選び、記号で答えなさい。

1. His parents ( ) in New York. They have lived there all their lives.  
A. live      B. lives      C. are living      D. will live
2. Let's buy this one. It's ( ) cheaper.  
A. very      B. much      C. too      D. more
3. Jane has two children. One is a boy, and ( ) is a girl.  
A. another      B. others      C. the other      D. the others
4. The police officer stopped us and asked us where ( ).  
A. were we going      B. are we going      C. we are going      D. we were going
5. Still another factor ( ) people feel out of control at work is the absence of opportunity for advancement.  
A. make      B. makes      C. making      D. made
6. I took a deep breath and listened ( ) seemed like hours to his nearly undistinguishable dialect.  
A. to what      B. for which      C. to which      D. for what
7. He has ( ) furniture than you do.  
A. fewer      B. many      C. less      D. most
8. Margaret didn't talk about her mother and neither ( ) Rosa.  
A. did      B. didn't      C. was      D. wasn't
9. ( ) enough money, she would have bought that ring.  
A. Being      B. As      C. Had      D. With
10. The idea is absurd ( ) parrots are linguistic geniuses.  
A. that      B. of which      C. when      D. how

**3** 次の【あ】～【お】について、それぞれに与えられた{}内の語(句)を文脈に合うよう並べ替えたとき、1～10に入るものを記号で答えなさい。

If you need help learning academic material or preparing for a test, consider using a tutor. Schools that have a formal tutoring program usually use graduate students as tutors. While many students understandably do not want to admit that they need help, and thus do not take advantage of the tutoring program, 【あ】.

Many, if not most, students who use tutors have high grades. These students do not want to miss the chance 【い】 in a class. But anyone can benefit from a tutor. Sometimes it helps to hear something explained in a slightly different way 【う】.

Some tutoring is done on a drop-in basis. That is, students 【え】 they have a question. Other times you can arrange a group tutoring session, where a study group can come by to talk with a tutor. Finally, you can arrange for a regular scheduled tutoring session. This option is particularly good for subjects that you are weak in.

As with everything else, the Internet has expanded the possibilities of tutoring. At many schools you can arrange an online chat-style tutoring session or a video conference-style tutoring session. However, most students find that face-to-face tutoring is most effective. A final note: tutoring is free. So 【お】!

【あ】 1 2

- {A. is / B. to / C. a tutor / D. smart / E. use / F. it}

【い】 3 4

- {A. get / B. grade / C. to / D. they / E. the / F. can / G. best}

【う】 5 6

- {A. explained / B. than / C. the teacher / D. how / E. it}

【え】 7 8

- {A. uninvited / B. are / C. arrive / D. anytime / E. free / F. to}

【お】 9 10

- {A. about / B. a little extra help / C. be / D. don't / E. getting / F. shy}

4

次の対話を読み、( 1 )~( 5 )に入る最も適切なものを選択肢の中からそれぞれ1つずつ選び、記号で答えなさい。

**Andrea:** My daughter's about to go to middle school, and my friends were telling me that they send their children to single-gender schools because of all the benefits.

**Melanie:** Really? ( 1 )

**Andrea:** Well, there are lots of reasons. ( 2 ) Research has shown that girls get distracted by noise, so it is much fairer to allow them to study in a quiet environment.

**Melanie:** That seems kind of artificial to me. ( 3 )

**Andrea:** Well, she'll still get to see boys outside of school. But right now, she's kind of shy, so this will help her develop her self-confidence.

**Melanie:** ( 4 )

**Andrea:** Well, single-gender schools are supposed to be pretty competitive.

**Melanie:** That's OK. A little bit of competition won't hurt her. ( 5 )

**Andrea:** Yes, I think so.

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<選択肢>

A. Aren't there any drawbacks?

B. And I'm sure someone will help her adjust, right?

C. Aren't they missing out on the opportunity to interact with boys?

D. To begin with, boys and girls learn differently.

E. I am not aware of any reason why they should put boys and girls in separate classrooms.

5 次の文章を読み、以下の設問に答えなさい。

- [1] When a driver slams on the brakes\* to avoid hitting a pedestrian crossing the road illegally, she is making a moral decision that shifts risk from the pedestrian to the people in the car. Self-driving cars might soon have to make such ethical judgements on their own—but settling on a universal moral code for the vehicles could be a thorny\* task, suggests a survey of 2.3 million people around the world.
- [2] The largest-ever survey of machine ethics, published in *Nature*, finds that many of the moral principles that guide a driver's decisions vary by country. For example, in a scenario in which some combination of pedestrians and passengers will die in a collision, people from relatively prosperous countries with strong institutions, such as law enforcement, were less likely to spare\* a pedestrian who stepped into traffic illegally.
- [3] “People who think about machine ethics make it sound like you can come up with a perfect set of rules for robots, and what we show here with data is that there are no universal rules,” says study co-author Iyad Rahwan, a computer scientist at the Massachusetts Institute of Technology in Cambridge.
- [4] The survey, called the Moral Machine, laid out 13 scenarios in which someone's death was inevitable. Respondents were asked to choose who to spare in situations that involved a mix of variables: young or old, rich or poor, more people or fewer.
- [5] People rarely encounter such stark\* moral dilemmas, and some critics ask whether the scenarios posed in the quiz are relevant to the ethical questions surrounding driverless cars. But the study's authors say that the scenarios stand in for\* the subtle moral decisions that drivers make every day. The findings reveal cultural nuances that governments and makers of self-driving cars must take into account if they want the vehicles to gain public acceptance, they say.
- [6] “It's a remarkable paper,” says Nicholas Christakis, a social scientist at Yale University in New Haven, Connecticut. The debate about whether ethics are universal or vary between cultures is an old one, he says, and now the “twenty-first-century problem” of how to program self-driving cars has reinvigorated\* it.
- [7] Some of the world's biggest tech companies—including Google, Uber and Tesla—and carmakers now have self-driving-car programmes. Many of these companies argue that the vehicles could improve road safety and ease traffic, but social scientists say the cars raise complex ethical issues.

[8] In 2016, Rahwan's team stumbled on\* a paradox about self-driving cars: in surveys, people say they want an autonomous vehicle to protect pedestrians, even if it means sacrificing its passengers — but also that they wouldn't buy self-driving vehicles programmed to act in this way.

[9] Curious to see whether the prospect of self-driving cars might raise other ethical conundrums\*, Rahwan gathered psychologists, anthropologists and economists to create the online Moral Machine quiz. Within 18 months, it had recorded 40 million decisions made by people from 233 countries and territories.

[10] No matter their age, gender or country of residence, most people spared humans over pets, and groups of people over individuals. These responses are in line with rules proposed in what might be the only governmental guidance on self-driving cars: a 2017 report by the German Ethics Commission on Automated and Connected Driving.

[11] But agreement ends there. When the authors analysed answers from people in the 130 countries with at least 100 respondents, they found that the nations could be divided into three groups. One contains North America and several European and other nations where Christianity has historically been the dominant religion; another includes countries such as Japan, Indonesia and Pakistan, which have strong Confucian\* or Islamic traditions. A third group consists of Central and South America, as well as France and former French colonies. The first group showed a stronger preference for sacrificing older lives to save younger ones than did the second group, for example.

[12] Test versions of autonomous cars are cruising through several US cities. By 2021, at least five manufacturers hope to have self-driving cars and trucks in wide use.

[13] Bryant Walker Smith, a law professor at the University of South Carolina in Columbia, says that the study is unrealistic because there are few instances in real life in which a vehicle would face a choice between striking two different types of person. "I might as well worry about how automated cars will deal with asteroid strikes," he says.

[14] But Barbara Wege, who heads a group focused on autonomous-vehicle ethics at the car manufacturer Audi in Ingolstadt, Germany, says that such studies are valuable. Wege argues that self-driving cars would cause fewer accidents, proportionally, than human drivers do each year — but that events involving robots might receive more attention.

[15] Surveys such as the Moral Machine can help to prompt public discussions about inevitable accidents, and so might foster trust. "We need to come up with a social consensus," she says, "about which risks we are willing to take."

＜注＞ **slam on the brakes** press down hard on the brakes of a car to make it stop suddenly

**thorny** complicated; hard to comprehend

**spare** refrain from killing, injuring, or distressing      **stark** severe

**stand in for** replace; substitute for      **reinvigorate** revive; regenerate

**stumble on** come across

**conundrum** a confusing and difficult problem or question

**Confucian** 儒教の

1. 本文のタイトルとして最も適切なものを 1 つ選び、記号で答えなさい。

- A. A template for algorithmic decision-making
- B. Official guidelines for the ethical choices of self-driving cars
- C. Should we choose our own car's moral code?
- D. Global variations in ethical rules of the road for autonomous vehicles

2. 搭乗者あるいは交通ルールを守らない歩行者のいずれかが事故により犠牲者となってしまうとき、搭乗者の命を優先する傾向のある人たちがいるのはどのような国か。選択肢の中から 1 つ選び、記号で答えなさい。

- A. 経済的に豊かで、取り締まりの厳しい国
- B. 資源に恵まれ、捜査機関に強い権限のある国
- C. 将来性があり、世界に影響力を持つ機関のある国
- D. 国力があり、強力な軍事組織を持つ国

3. 本文中で網かけのしてある 4 つの **that** のうち、他とは使われ方が異なるものを 1 つ選び、記号で答えなさい。

- A. 第 3 段落の that
- B. 第 5 段落の that
- C. 第 8 段落の that
- D. 第 14 段落の that

4. 第 5 段落の下線部で述べられているような意見を持つ立場の人物だと思われるるのは誰か。選択肢の中から 1 つ選び、記号で答えなさい。

- A. Iyad Rahwan
- B. Nicholas Christakis
- C. Bryant Walker Smith
- D. Barbara Wege

5. 第 8 段落の下線部 a paradox が表す内容として最も適切なものを 1 つ選び、記号で答えなさい。

- A. 調査により明らかになった人々の意識と、実際に市場に流通している自動運転車のプログラムのあいだには大きな隔たりがあること
- B. 自律走行車は搭乗者より歩行者の安全を重視した作りであるべきだと思うが、自分はそのような車は欲しくないこと
- C. 自動車メーカーが無人自動車の開発に力を入れると、自動車メーカーはますますグーグルなどのハイテク企業のようになっていくこと
- D. 我々の生活・人生を豊かにしてくれると期待されているロボットカーが、命の選別をしてしまっていること

6. 交通事故による犠牲者が避けられない場面において、高齢者より若者を救うことを優先する傾向があると本文から読み取れるのはどの地域の人々か。選択肢の中から 1 つ選び、記号で答えなさい。

- A. 北米
- B. 日本
- C. 南米
- D. フランス

7. 第 14 段落の下線部 events が表す内容として最も適切なものを 1 つ選び、記号で答えなさい。

- A. 「若者あるいは高齢者」、「富裕層あるいは貧困層」といった変数
- B. 誰を犠牲にして誰を助けるのかの選択
- C. 倫理的な問題を孕むシナリオ
- D. 交通事故

8. 第 15 段落の下線部 trust が表す内容について最も適切なものを 1 つ選び、記号で答えなさい。

- A. 自動運転車のソフトウェアに組み込まれる倫理基準に対する評価
- B. 地域により異なる人々の価値観の共有
- C. 無人自動車を作る側と使う側との信頼関係
- D. 性別や年齢によらない人としての尊厳

9. 第 6 段落の下線部 it が表す内容は何か。日本語で答えなさい。

……保健医療学部のみ解答( 6 )……

6 許諾不可の為未掲載

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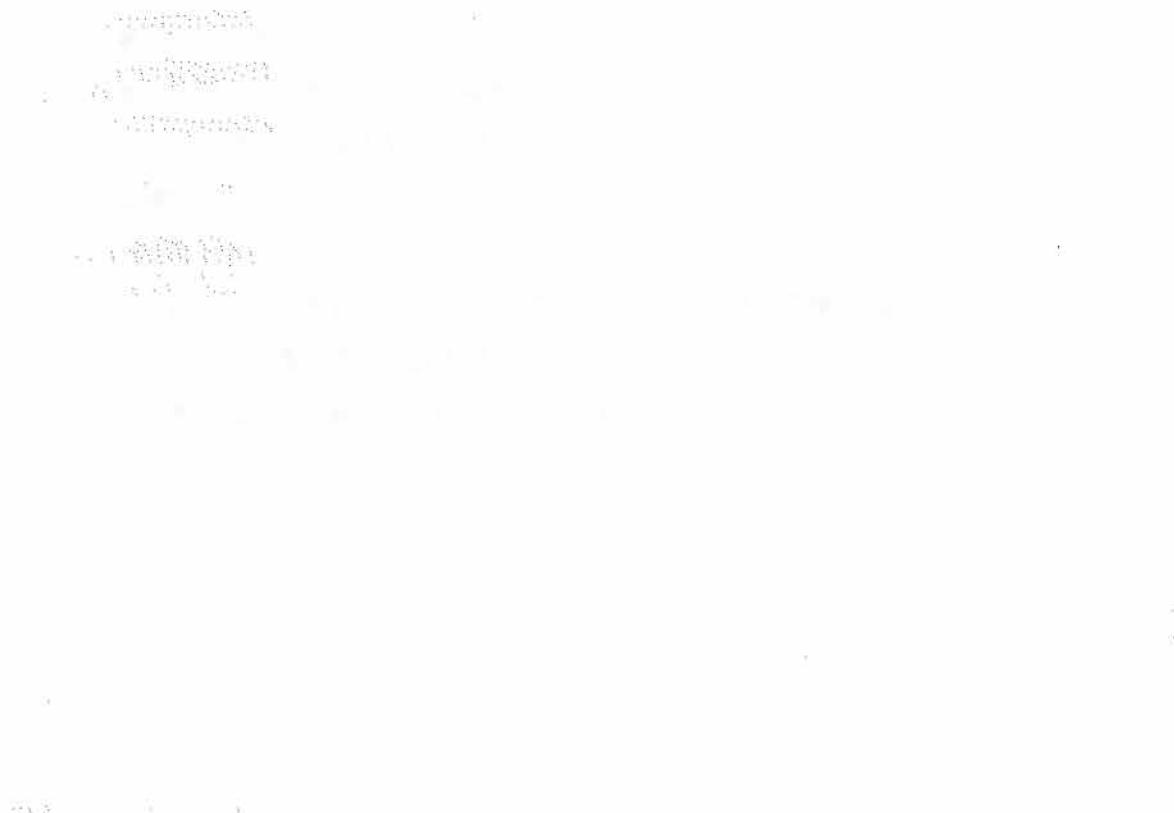


Fig. 1. The number of publications per year.

$$\begin{aligned} & \text{Number of publications} \\ & = \alpha_0 + \alpha_1 \cdot \text{Year} + \alpha_2 \cdot \text{Year}^2 + \alpha_3 \cdot \text{Year}^3 + \dots + \alpha_n \cdot \text{Year}^n \end{aligned}$$