

令和 8 年度 大学院医学研究科博士課程
前期入学 第 2 回 入学試験問題
(一般選抜・社会人選抜・外国人選抜)

【1】 Read the text and answer the following questions in English or Japanese.

著作権の関係上、公開しておりません。

(The Lancet. [https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(25\)00189-6/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(25)00189-6/fulltext))

Q1. According to the passage, what is the primary novel contribution of the study by Carolin Kilian and colleagues?

- a. It proves that alcohol price increases always reduce violence in U.S. cities.
- b. It is the first nationally representative modeling of beverage-specific pricing policies in the USA.
- c. It introduces a new taxation law for spirits and beer at the federal level.
- d. It shows that pricing policies are always fiscally progressive.
- e. It provides multi-state, real-world trial evidence confirming policy effects.

Q2 In the study, SIMAH is best described by which of the following?

- a. A city-level agent-based model predicting alcohol-related violence.
- b. A cost–utility analysis framework based on hospital billing data.
- c. An individual-level microsimulation model estimating effects of beverage-specific price increases across subgroups.
- d. A systematic review of U.S. alcohol taxation literature.
- e. A national household survey on alcohol purchases.

Q3. Which scenario is reported to yield the largest relative reductions in consumption among high-risk groups?

- a. Uniform price increases applied to wine only.
- b. Beverage-specific increases targeting beer and spirits, which are favored by heavier drinkers.
- c. Decreases in beer prices offset by increases in wine prices.
- d. A one-time temporary tax on all beverages during 2019.
- e. Minimum unit pricing applied only to wine products.

Q4. Compared with microsimulation, what is highlighted as a key advantage of agent-based models (ABMs)?

- a. They require less technical expertise and computational power.
- b. They can simulate feedback loops and interactions within complex systems (for example, between individuals and environments).
- c. They guarantee policy adoption regardless of political climate.
- d. They eliminate the need for high-quality input data.
- e. They rely solely on closed-form equations for price elasticities.

Q5. List one advantage of microsimulation and one advantage of agent-based modeling (ABM) in alcohol policy scenarios.

【2】 Read the text and answer the following questions in English or Japanese.

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(From *Nature*. 24 October 2025; <https://www.nature.com/articles/d41586-025-03487-6>)

Q1. Choose two diseases that correspond to (1) in the passage.

- a. influenza
- b. paratyphoid fever
- c. relapsing fever
- d. trench fever
- e. typhus

Q2. According to the passage, what is the technical advantage of PCR technology?

- a. It can screen ancient DNA for any known pathogen simultaneously.
- b. It is well suited for identifying unsuspected diseases.
- c. It can detect a wide array of pathogens all at once.
- d. It can create millions of copies of a short DNA segment.
- e. It sequences millions of different DNA fragments from a sample.

Q3. Choose the best word to fill in the blank (3) in the passage.

- a. that
- b. which
- c. who
- d. whom
- e. whose

Q4. Based on the passage, what were the 2 reasons why the team found no traces of the diseases identified in 2006.

Q5. Describe Rascovan's views on the future direction of research into the pathogens that led to the downfall of Napoleon's army.

【3】 Read the text and answer the following questions in English or Japanese.

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(Adapted from *Ann NY Acad Sci.* 2025; 1547:24–32 doi: 10.1111/nyas.15326)

Q1. According to this passage, what characteristics of adolescence might link adolescent well-being to lifelong flourishing?

Q2. In this passage, which of the following sentences about the social media use of adolescents is NOT correct?

- a. US law limits social media access to those 13 and older.
- b. Sixty-two percent of teens aged 13–18 use social media every day.
- c. Age-appropriate use guidelines of social media have been established.
- d. Sixty-eight percent of children below age 13 use social media applications.
- e. The age group that was the most sensitive to social media effects was around puberty.

Q3. Choose the most appropriate word for (1).

- a. result
- b. definition
- c. description
- d. explanation
- e. knowledge

Q4. Why does the author argue that YouTube should not be considered a social media platform?

Q5. What is one of the differences between social media and traditional media or traditional communication technologies stated by the author?

【4】 Read the text and answer the following questions in English or Japanese.

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(Adapted from <https://www.nationalgeographic.com/science/article/first-pig-to-human-lung-transplant-china>)

Q1. Based on the passage, describe the characteristics of the pigs used for lung xenotransplantation as described.

Q2. Which of the following is the closest meaning of ⁽¹⁾ “is like buying a used car” in the passage?

- a. The quality of pig transplant organs for donors is guaranteed.
- b. Human transplant organs for donors are abundant.
- c. The quality of human transplant organs for donors is not guaranteed.
- d. The quality of transplant surgery can be standardized.
- e. Recipients' health and organ conditions are varied.

Q3. Which of the following sentences correspond with the underlined statement ⁽²⁾ lungs can be far more complicated to transplant than other organs in the passage? Select two.

- a. Thousands of patients are constantly waiting for organ donations.
- b. Pig organs for transplantation have a risk of unknown infectious microbes.
- c. Xenotransplantation has various ethical concerns to resolve.
- d. Human donor lungs have been exposed to pollutants.
- e. The larger organ size must be susceptible to rejection.

Q4. Based on the passage, describe the background behind the initiation of pig lung xenotransplantation trails.

Q5. In the passage, what does the term ⁽³⁾ “two-tiered system” refer to?