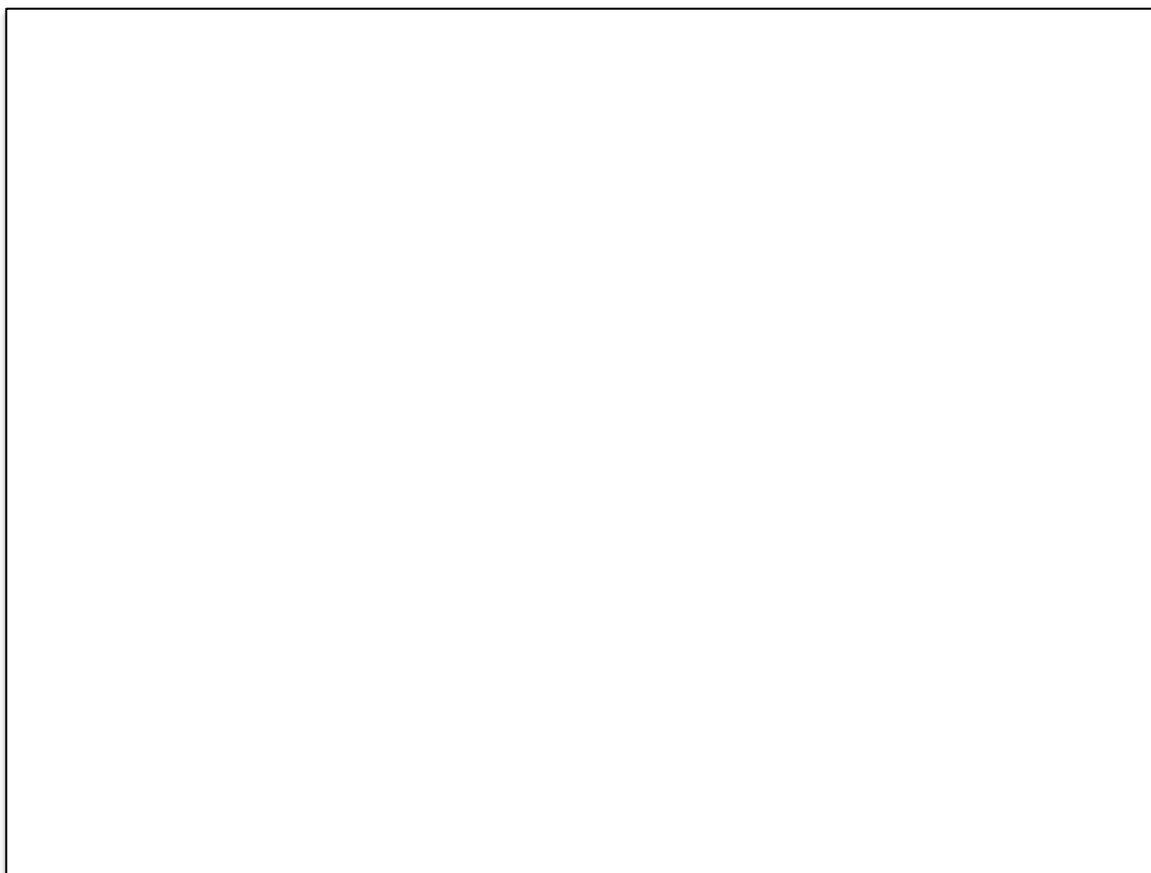


令和2年1月22日実施

名古屋市立大学大学院医学研究科博士課程外国語試験（2回目）外国人－英語

I. Read the paragraphs below and answer the following 4 questions.

この部分に掲載されている文章に就いては、著作権法上の問題から掲載することができませんので、ご了承ください。



Quoted and adapted from: Continence Promotion, Education & Primary Prevention in
INCONTINENCE. 5th EDITION 1789-1793 (2013).

(Questions 1 to 2 are listed on the next page)

Question 1 Regarding the sentence underlined (1), why is consumer education critical for the promotion?

Question 2 Regarding the sentence underlined (2), why is the internet useful for customer education?

(Questions 3 to 4 are listed on the next page)

Question 3 Regarding the sentence underlined (3), what do people with UI do instead of seeking help?

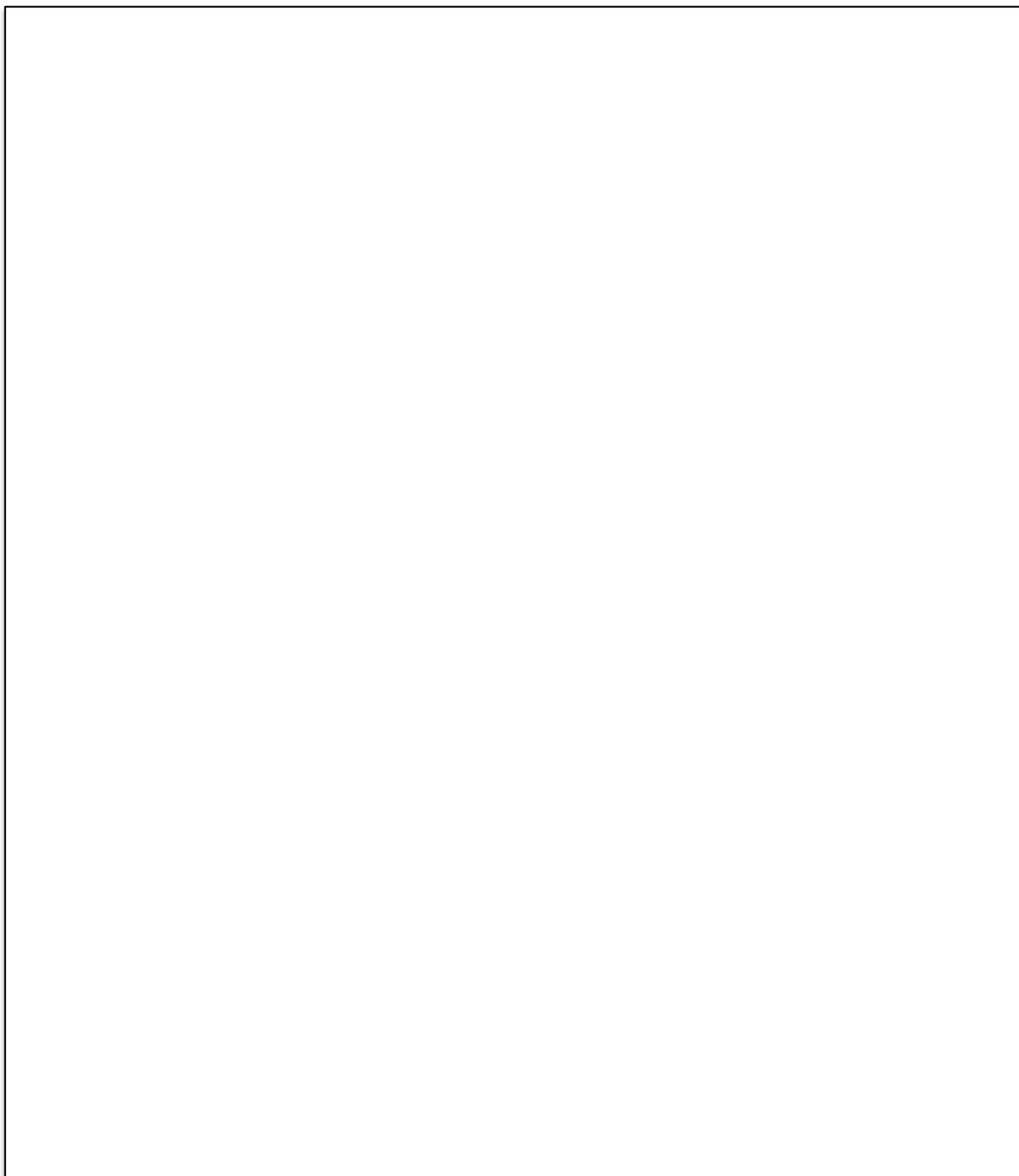
Question 4 Regarding the sentence underlined (4), 'barriers' can be summarized into two categories. Please explain the categories.

令和2年1月22日実施

名古屋市立大学大学院医学研究科博士課程外国語試験（2回目）外国人－英語

II. Read the following sentences and answer the following 4 questions.

この部分に掲載されている文章に就いては、著作権法上の問題から掲載することができませんので、ご了承ください。



Quoted and adapted from: *J. Diabetes. Investig.* **9**, 279-285 (2018).

- * 1) Nocturia: A condition in which you wake up during the night because you have to urinate.
- 2) LUTS: lower urinary tract symptom.
- 3) OAB: overactive bladder.
- 4) BPH: benign prostatic hyperplasia.

(Questions 1 to 2 are listed on the next page)

Question 1 Regarding the sentence underlined (a), what are 'In contrast'? Explain this in your own words.

Question 2 Regarding the sentence underlined (b), what 'The mechanism' by Vegetable intake do authors mention?

(Questions 3 to 4 are listed on the next page)

Question 3 Regarding the sentence underlined (c), explain why there are several limitations.

Question 4 Regarding the sentence underlined (d), what are 'residual confounding factors'? Explain this in your own words.

令和2年1月22日実施

名古屋市立大学大学院医学研究科博士課程入学試験（2回目）

医学・生物学一般問題（問題用紙2枚、解答用紙2枚）

Select any two of the following four questions, and write your answers on answer sheets provided.

Use one sheet per question (if you need more space for answers, continue them on the reverse side of the sheet). Please make sure that you write the number of question you selected in the answer sheet.

Question 1 The Nobel Prize in Physiology or Medicine 2018 was awarded to Prof. James Allison from MD Anderson Cancer Center, USA and Prof. Tasuku Honjo from Kyoto University "for their discovery of cancer therapy by inhibition of negative immune regulation".

- I. What is the molecule targeted by Prof. Allison?
- II. What is the molecule targeted by Prof. Honjo?
- III. Please explain "cancer therapy by inhibition of negative immune regulation".

Question 2 State the current situation of application of artificial intelligence (AI) in medicine. In addition, explain the methods to apply AI to specific fields of medicine.

Question 3 Mendelian characters may be determined by loci on an autosome or on the X or Y chromosomes. The expression of the phenotype can be dominant or recessive. Therefore, there are 5 archetypal Mendelian pedigree inheritance patterns, namely 1) Autosomal dominant, 2) Autosomal recessive, 3) X-linked dominant, 4) X-linked recessive, 5) Y-linked.

Please explain on the patterns and probability of being affected and of carrier status for each of these 5 types of hereditary diseases (Penetrance and *de novo* mutations can be ignored).

(Question 4 is listed on the next page)

Question 4 The figures show the time trend of traffic accidents in Japan. Figure 1, 2, and 3 show the number of traffic accidents, the number of injured persons, and death number from traffic accidents, respectively. Describe the characteristics with possible reasons of traffic accidents in Japan by four timeframes: (1) before 1970, (2) 1970-1974, (3) 1992-2000, and (4) 2006 and later.

