

平成 20 年度  
医学部医学科選抜・学士入学試験問題  
(英 語)

**注意事項**

- I. この科目は問題用紙が 14 ページ、解答用紙(マークカード)が 1 枚である。
- II. 解答用紙(マークカード)記入上の注意をよく読み、誤りのないように記入すること。
- III. 問題用紙は解答用紙(マークカード)とともに机上において退出すること。持ち帰ってはいけない。

## I 次の英文を読み、下記の設問に答えなさい。

Tobacco is the second deadliest threat to adult health in the world and causes 1 in every 10 adult deaths. Although smoking rates have fallen in rich countries over the past two decades, more than three-quarters of the world's 1.2 billion smokers now live in low- and middle-income countries, where smoking is ( 1 ) the rise.

Compared with controlling other ( 2 ), stopping the deadly effects of smoking requires changing personal behavior rather than undergoing complex medical procedures. Despite the (11) clear health and economic benefits, quitting is extremely hard. In addition to having to combat the addictive nature of nicotine, those seeking to reduce cigarette consumption are hampered by the fact that smoking is an ingrained social norm whose popularity is sustained through billions of dollars worth of cigarette advertising.

( 3 ) changing the behavior of smokers is difficult, it can be done—and it has been done. As the following story from Poland shows, ( 4 ) that concerted efforts to tackle the growing smoking problem in low- and middle-income countries can succeed. In many instances, this will likely take a very high level of political commitment to counter the significant economic (12) influence of the tobacco industry.

Before the fall of the Berlin Wall in 1989, Poland had the highest cigarette consumption in the world. The impact on the health of the Poles was astonishing. (13) Half of these early deaths were attributable to tobacco consumption.

Largely because of the political and social climate of the time, few Poles were quitting. Since the state-run tobacco production was a significant source of revenue, the government—which controlled information—did not fully disclose the negative consequences of smoking. As a result, Polish smokers ( 5 ) the dangers of smoking than most of their European neighbors.

As the tobacco epidemic was escalating in the early 1990s, historic changes in Poland set in motion powerful influences that helped amplify antitobacco voices. Poland's scientific community laid the foundation of the antitobacco movement when they first established in-country scientific evidence illustrating the devastating health impact of smoking. ( 6 ), Poland's budding civil society took up the call for tobacco control measures. Antitobacco groups began to interact with the WHO and the International Union Against Cancer. In the new democratic era, the Polish press could cover health issues which raised awareness about the dangers of smoking. Finally, democracy provided a window for the most powerful tool in the fight against smoking: tobacco control ( 7 ).

In November 1995, the Polish parliament passed the “Law on the Protection of Public Health

Against the Effects of Tobacco Use" with a huge majority of 90 percent of the votes. The groundbreaking ( 7 ) included the requirement of the largest health warnings on cigarette packs in the world, a ban on smoking in health centers and enclosed workplaces, a ban on radio and TV advertising of tobacco products, and a ban on tobacco sales to minors under 18 years of age.

In 1999 and 2000, the tax on cigarettes in Poland increased 30 percent each year, and a total ban on advertising was passed in 1999. In just a few years, Poland had transformed from one of the ( A ) favorable climates in Europe for tobacco control to one of the ( B ) favorable. (15) (15)

In the early 1990s, the Health Promotion Foundation launched an annual campaign each November called the "Great Polish Smoke-Out" to encourage Poles to quit. This public health campaign included a competition that invited Poles who quit smoking in the past year to send a postcard for the chance to win a week-long stay in Rome and a private audience with the Polish-born Pope John Paul II. The campaign attracted media attention and used television, radio, and print media to spread the core messages of ( 8 ) to quit. This campaign was popular, and each year, between 200,000 and 400,000 Poles credited the campaign with their successful quitting.

Thanks to the ( 9 ) tobacco controls and the health education efforts, far fewer Poles now smoke. The ( 10 ) smoking led to 10,000 fewer deaths each year, a 30 percent decline in lung cancer among men aged 20 to 44, and a nearly 7 percent decline in cardiovascular disease.

問 1 本文中の(1)～(10)の空欄に入るもっとも適切なものを、それぞれ①～⑤の中から一つずつ選びなさい。

(1) ① to                    ② on                    ③ with                    ④ in                    ⑤ for

(2) ① health providers            ② health codes            ③ healthful habits  
    ④ healthy behaviors            ⑤ health menaces

(3) ① Now that                    ② Since                    ③ While  
    ④ Provided                    ⑤ In case

(4) ① there is reason to hope            ② it should be obscure  
    ③ it is far from evident            ④ it is no use believing  
    ⑤ there is no evidence which demonstrates

問 2 下記の(11)～(18)の各問の答えとしてもっとも適切なものを、それぞれ①～⑤の中から一つずつ選びなさい。

(11) Which of the following expressions is closest in meaning to the word undergoing? (11)

- ① going on about
- ② going out of
- ③ going without
- ④ going away with
- ⑤ going through

(12) Which of the following is NOT related to a very high level of political commitment (12) against smoking?

- ① Politicians need to build and sustain a national tobacco control policy campaign.
- ② Lawmakers must become willing to take responsibility for the misery that smoking can cause.
- ③ The parliament is prepared to enact tobacco control measures.
- ④ Policymakers have to overcome the economic power of the tobacco industry.
- ⑤ Politicians believe that making rules against smoking in public restricts freedom.

(13) Which of the following sentences can best fit in the box (13) ?

① Life expectancy during the 1990s in Poland increased by four years for men and more than three years for women.

② In 1990, Poland hosted “A Tobacco-Free New Europe” conference of western and eastern European health advocates, which resulted in a set of policy recommendations.

③ In 1990, the probability that a 15-year-old boy born in Poland would reach his 60<sup>th</sup> birthday was lower than that in most countries in the world.

④ In the 1980s, Poland had the highest rate of smoking in the world. Nearly three-quarters of Polish men aged 20 to 60 smoked every day.

⑤ One can be sure that current smoking patterns will kill about 1 billion people this century, ten times more than the deaths from tobacco in the 20<sup>th</sup> century.

(14) Which of the following CANNOT be an example of the devastating health impact of (14) smoking?

① Smoking is responsible for about one-half of all cancer deaths.

② Smoking raises the risk of heart attacks.

③ Passive smoking contributes to respiratory illnesses among children including ear infections and asthma.

④ Smoking places an economic burden on individuals because of the high cost of tobacco related taxes.

⑤ Tobacco use in and around pregnant women can contribute to low birth weight and growth retardation.

(15) Which of the following sets is the best suitable combination of words that can fit in the blanks ( A ) and ( B )?

① A. least (15) B. most (15) ② A. highest (15) B. lowest

③ A. more (15) B. less (15) ④ A. greatest (15) B. meanest

⑤ A. hyper (15) B. super (15)

(16) According to the passage, which of the following statements is NOT true?

- ① Before the fall of the Berlin Wall, tobacco production in Poland had been under government management.
- ② Because of nicotine, smokers become addicted to tobacco use, which makes quitting difficult.
- ③ Throughout the latter half of the 20<sup>th</sup> century, scientists in Poland made efforts to show the negative health consequences of the tobacco use in their country.
- ④ The story of Poland's fight against tobacco shows the importance of presenting information to the public concerning health issues.
- ⑤ The tobacco industry spends a huge amount of money on advertisement, leading to the popularity of tobacco.

(17) According to the passage, which of the following statements is NOT true?

- ① Poland has become one country free of tobacco advertising.
- ② About 900 million smokers now live in low- and middle-income countries.
- ③ Compared with 1998, the tax on tobacco in Poland became much higher in 2000.
- ④ Democracy opened a way to generate media attention to the hazards of tobacco use in Poland.
- ⑤ A campaign named the "Great Polish Smoke-Out" prevented smokers from making up their mind to give up cigarettes.

(18) Which of the following health warnings on cigarette packages of various countries has the weakest impact as a tobacco control message?

- ① Quitting now greatly reduces serious risks to your health.
- ② Smoking when pregnant harms your baby.
- ③ It is feared that smoking may harm your health.
- ④ Smoking can cause a slow and painful death.
- ⑤ Heart attacks before the age of 50 strike almost only those who smoke.

問 3 次の(19)～(23)の各英文の具体的説明としてもっとも適切なものを、下の①～⑤の中からそれぞれ一つずつ選びなさい。

(19) In all of Poland's tobacco control efforts, solid scientific evidence against smoking has played a key role.

(20) Smoking places an enormous burden on societies as to the work force.

(21) Nicotine addiction is a medical problem, so supporting those who want to quit or have quit is a special task for doctors.

(22) Smoking causes an astonishingly long list of diseases.

(23) The European Union followed the Polish precedent in 2003 and required similar warnings on all cigarette packs.

① Poland's sweeping tobacco regulations have served as a model for other countries.

② Approximately fifty percent of all deaths from cancer are directly related to tobacco use.

③ Health providers in Poland are becoming more involved in helping patients stop smoking.

④ Poles were able to compare the data provided by the scientists with news about the health of their relatives and friends who were smokers.

⑤ Because cigarettes claim the lives of half of their users, often during their prime years, smoking robs countries of valuable labor.

## II 次の英文を読み、下記の設問に答えなさい。

Diabetes is a chronic disease that occurs when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. An increased concentration of glucose in the blood (hyperglycaemia) is a common effect of uncontrolled diabetes and over time leads to serious damage to many of the body's systems, especially the nerves and blood vessels.

In 1788, the British physician Thomas Cawley used a microscope to examine the pancreas.  
(29) He described damage to the gland and a loss of pancreatic cells in patients suffering from diabetes. We now know that the cells which are lost belong to the special group called beta cells which manufacture and secrete insulin ( 24 ) changes in the amount of glucose sugar in the blood. Insulin is a protein hormone which acts on most organs and tissues to promote the use or storage of glucose.

There are two distinct types of diabetes, i.e., type 1 and type 2. About 90 percent of patients with diabetes have the type 2 disease.

Type 1 diabetes, previously known as insulin dependent or juvenile-onset diabetes, is (30) characterized by loss of the insulin-secreting beta cells. The pancreas of those affected by type 1 diabetes produces little or no insulin. The beta cell loss appears to be the result of the body's (ア) immune system attacking and destroying the pancreas, a form of autoimmune disease. Some destruction may occur after infection ( 25 ) certain viruses, especially those causing measles

and mumps, leading to diabetes. There is, however, a hereditary influence, indicating some <sup>(4)</sup> genetic susceptibility of the pancreatic cells.

Type 2 diabetes, formally called non-insulin dependent or maturity-onset diabetes, is due to a combination of defective insulin secretion and reduced insulin sensitivity. The symptoms are the same as for type 1 — the presence of sugar in the urine, <sup>(31)</sup> marked thirst, and weakness with a wasting of muscles. The problem is partly that the cells of the body do not respond ( 26 ) to the insulin — they are insulin-resistant. The reason why cells become resistant is not known, but it is usually ( 27 ) with the patient's excess body weight and physical inactivity. In fact, diet and exercise are often sufficient to reduce the resistance to insulin and to allow patients to control their own glucose levels once again without the use of drugs.

People with type 1 diabetes cannot make their own insulin, so daily insulin injections are needed. Insulin cannot be given by mouth because it is a protein and would be rapidly destroyed by enzymes in the stomach. Human insulin is now produced from bacteria which have been genetically engineered to manufacture large amounts of the hormone. Although several other <sup>(32)</sup> proteins can now be produced in this way, insulin was the first, a breakthrough made possible by the earlier work of Frederick Sanger, a British biochemist who was awarded the Nobel Prize in 1958 for working out the complicated molecular structure of insulin.

Unlike type 1 diabetes, type 2 diabetes may respond to treatment with exercise, diet, and medicines taken by mouth. For example, new tablets such as the thiazolidinediones improve insulin sensitivity and it is very likely that new medicines that improve this will be developed in the not too distant future.

As diabetes is a common condition and seems to be increasing in incidence worldwide, there <sup>(33)</sup> is a great deal of research into prevention. Recent research experimenting on mice in the UK <sup>(ウ)</sup> has raised the exciting prospect of a vaccine to prevent type 1 diabetes. This preliminary work ( 28 ) lead to widespread treatment for some time, however.

Notes : diabetes 「糖尿病」      pancreas 「胰臓」      thiazolidinedione 「チアゾリジン系薬剤」

問 1 本文中の(24)～(28)の各空欄に入るもっとも適切なものを、それぞれ①～④の中から一つずつ選びなさい。

(24) ① in spite of      ② in response to      ③ in favor of      ④ in the light of

(25) ① to      ② through      ③ with      ④ in

(26) ① well      ② barely      ③ indeed      ④ hardly

(27) ① filled                    ② provided                    ③ supplied                    ④ associated

(28) ① is unlikely to            ② is inclined to            ③ is about to                    ④ is compelled to

問 2 下記の(29)～(34)の各英文の空欄に入るものとしてもっとも適切なものを、それぞれ①～④の中から一つずつ選びなさい。

(29) A microscope is \_\_\_\_\_.  
<sup>(29)</sup>

- ① a simple lens that produces an enlarged image, typically set in a frame with a handle
- ② a knife with a sharp blade used by a surgeon
- ③ an optical instrument designed to make distant objects appear nearer, containing an arrangement of lenses
- ④ an instrument used for viewing very small objects typically magnified several hundred times

(30) From the name juvenile-onset diabetes, we can infer that \_\_\_\_\_.  
<sup>(30)</sup>

- ① patients usually acquire type 1 diabetes in the late adulthood
- ② type 1 diabetes usually starts at a young age
- ③ patients with type 1 diabetes are born with the disease
- ④ type 1 diabetes is a lifelong disease

(31) The word sensitivity is closest in meaning to \_\_\_\_\_.  
<sup>(31)</sup>

- ① responsiveness    ② response                    ③ responsibility    ④ respondent

(32) The expression marked thirst means \_\_\_\_\_.  
<sup>(32)</sup>

- ① a strong desire for something delicious
- ② a craving for something to eat
- ③ an intense feeling of needing something to drink
- ④ a powerful desire for avoiding eating

(33) The word manufacture can be best replaced by \_\_\_\_\_.  
<sup>(33)</sup>

- ① newly invent
- ② effectively prevent
- ③ negatively affect
- ④ naturally produce

(34) The word that CANNOT replace incidence in this context is \_\_\_\_\_.  
(34)

① commonness ② occurrence ③ reverence ④ prevalence

問 3 下記の(35)～(39)の各問の答えとしてもっとも適切なものを、それぞれ①～④の中から一つずつ選びなさい。

(35) Which of the following statements is NOT the intended meaning of the underlined part (ア)?

① The body's defense system is thought to be involved in the destruction of pancreas cells.  
② Type 1 diabetes appears to be caused by the immune system's attacks of pancreas resulting in the abnormal shapes of beta cells.  
③ The autoimmune attack against the pancreas' insulin-producing cells seems to be one cause of type 1 diabetes.  
④ An autoimmune disease results when the body's system for fighting infection turns against an organ of the body such as the pancreas.

(36) Which of the following statements CANNOT be inferred from the underlined part (イ)?

① There is a genetic element in individual susceptibility to type 1 diabetes.  
② A tremendous proportion of people with type 1 diabetes inherit a gene from their parents that can cause the disease.  
③ It is possible that type 1 diabetes runs in families.  
④ Some of those who are affected with type 1 diabetes have inherited the susceptibility.

(37) Which of the following statements is equivalent to the underlined part (ウ)?

① A vaccine that can cure type 1 diabetes is on the market.  
② The diabetes vaccine was proved to be safe with patients.  
③ Many patients with type 1 diabetes were recruited to be tested with the diabetes vaccine.  
④ If the vaccine trial turns out to be successful with humans, this will have a huge impact on those at high risk of type 1 diabetes.

(38) According to the above passage, which of the following statements is implied?

- ① Frederick Sanger succeeded in producing genetically engineered insulin and won the Nobel Prize.
- ② Beta cells make and release insulin, a hormone that controls the level of protein in the blood.
- ③ Maintaining an ideal body weight and an active lifestyle may prevent the onset of type 2 diabetes.
- ④ Type 1 diabetes occurs when the body cells fail to respond to insulin in the blood.

(39) According to the passage, which of the following statements is NOT true?

- ① The medication called thiazolidinedione is designed to help increase the cell's sensitivity to insulin.
- ② Obesity and failure to exercise are risk factors for type 2 diabetes.
- ③ Restoring the insulin levels by its daily injection is needed to sustain life for patients with type 1 diabetes.
- ④ Type 1 diabetes is treated by the oral antidiabetic drugs.

III 次の(40)～(44)の各組の①～⑤の単語の中で、もっとも強いアクセントのある音節の位置が、見出し語と同じものをそれぞれ一つずつ選びなさい。

(40) in-stan-ta-ne-ous

① oc-ca-sion-al-ly	② con-sid-er-a-ble	③ in-dus-tri-al-ism
④ e-lec-tric-i-ty	⑤ id-i-o-mat-ic	

(41) cou-ra-geous

① gen-er-ate	② en-ter-tain	③ syn-thet-ic
④ al-co-hol	⑤ rec-om-mend	

(42) com-par-a-tive

① ad-vis-o-ry	② es-ca-la-tor	③ sym-pa-thet-ic
④ su-per-fi-cial	⑤ oc-cu-pa-tion	

(43) sub-sti-tute

① ad-mir-er	② of-fi-cial	③ in-ter-pret
④ per-cep-tion	⑤ odd-i-ty	

(44) al-ter-na-tive

① pref-er-a-ble	② ag-ri-cul-ture	③ pho-to-graph-ic
④ ex-ec-u-tive	⑤ com-pre-hen-sive	

IV 次の(45)～(49)の各英文の①～⑤の下線部の中で誤っているものを、それぞれ一つずつ選びなさい。

(45) Eden was a region which described in the Bible as the place where God created a garden for Adam and Eve.

(46) We handled the chemical with a great deal of cautions, since it was known to be very explosive.

(47) Because of the increase in blood-borne diseases such as AIDS and hepatitis, the Ministry of Health and Labor now requires blood from donors to tested.

(48) Finishing the term paper assigned by Prof. Scott, it is planned by Mary to mail it to school tomorrow.

(49) It is the interaction between people, rather than the events that occur in their lives,  
      ①   ②   ③   ④  
      that are the main focus of social psychology.  
      ⑤

V 次の(ア)～(オ)の各会話が成立するように、(50)～(54)の空欄に入るもっとも適切なものを、それぞれ  
れ①～⑤の中から一つずつ選びなさい。

(ア) Jane: So how's your brother?

Kate: He's out of the hospital now.

Jane: ( 50 )!

Kate: Yeah. Thank you.

(50) ① What a relief                   ② What a pity                   ③ What a good idea  
      ④ You bet                           ⑤ You've got a deal

(イ) Ted: Margaret got fired last week.

Beth: I know. I feel sorry for her.

Ted: And, what is worse, her husband asked her for a divorce.

Beth: ( 51 ).

(51) ① This has to be one of the high points of her life  
      ② That's where she's wrong  
      ③ I'm at a loss for words  
      ④ Give me time to think it over  
      ⑤ It's hard for me to make ends meet

(ウ) John: I'm having trouble opening this file.

Bill: Let me help you. Here just drop it onto this icon.

John: Oh, it worked! Thanks so much.

Bill: ( 52 ).

(52) ① Sometime   ② Anytime   ③ No time   ④ On time   ⑤ In time

(エ) Susan: I messed up.

Patty: ( 53 ). It could happen to anyone. Cheer up! Look on the bright side. You have  
another chance. Don't be discouraged.

Susan: Thank you. You're very kind. Your words mean a lot to me.

(53) ① Don't mess with me  
② Deeds, not words  
③ You're very flattering  
④ That sounds very tempting  
⑤ Take it easy

(+) George: Hello, Miriam? This is George. I'm sorry but ( 54 ). I had to take an important guest to our institution.

Miriam: OK, George. I wondered what happened to you. It was a productive meeting.

George: Was it? Could you let me know the outcome, maybe at lunch?

Miriam: Sure. I'll see you then.

(54) ① I was too uptight about the meeting  
② I've got to excuse myself for a while  
③ I'm not up to it  
④ I couldn't make it to the meeting  
⑤ I'm really overwhelmed

VI 次の(ア)～(エ)の日本語の文の意味を表すように、空欄にそれぞれ①～⑩の語(句)を入れて英文を完成させ、(55)～(62)に入るものを一つずつ選びなさい。ただし、文頭にくる語も小文字の書き出しひいています。

(ア) 近頃、多くの学生が外国で大学教育を受けようとしています。  
(イ) 全く違った世界で学生は新しい生活に適応しなければなりません。  
(ウ) 普段自国では何も問題なく行っていることが、期待するほどうまくいきません。  
(エ) しかし、困難やストレスの経験は、最初の困難をくぐりぬければ喜びへと変わります。

(ア) ( ) are ( ), ( ) days, ( ) ( 55 ) ( ) ( ) ( 56 )  
( ) ( ).

① their college ② seeking ③ many students ④ other  
⑤ there ⑥ these ⑦ education ⑧ to pursue  
⑨ countries ⑩ in

(イ) ( ) ( ) to ( ) ( 57 ) ( ) ( 58 ) ( ) a ( ) ( )  
( ).

① themselves ② completely ③ the students ④ in  
⑤ different ⑥ have ⑦ a new life ⑧ world  
⑨ adjust ⑩ to

(ウ) The ( ) ( ) ( ) ( ) difficulty in their home country ( )  
( 59 ) ( ) ( 60 ) ( ) ( ) do.

① do not ② expect them to ③ do ④ as they  
⑤ smoothly ⑥ they ordinarily ⑦ as ⑧ without  
⑨ go ⑩ things

(エ) But the ( ) and stressful ( ) ( ) ( ) ( 61 ) ( ) ( )  
( 62 ) they ( ) ( ) difficulties.

① into ② the initial ③ hardships ④ overcome  
⑤ are ⑥ once ⑦ ones ⑧ experiences  
⑨ pleasurable ⑩ transformed