

2021 年度

医学部医学科一般・学士入学者選抜試験問題

(英 語)

- 注意事項
1. この科目の問題用紙は 14 ページ、解答用紙はマークカード 1 枚である。
 2. 解答用紙(マークカード)に、氏名・受験番号の記入および受験番号のマークを忘れないこと。
 3. マークは HB の鉛筆、シャープペンシルで、はっきりとマークすること。
 4. マークを消す場合、消しゴムで完全に消し、消しくずを残さないこと。
 5. 解答用紙(マークカード)は折り曲げたり、メモやチェックなどで汚したりしないように注意すること。
 6. 各問題の選択肢のうち質問に適した答えを 1つだけ 選びマークすること。1 問に 2 つ以上解答した場合は誤りとする。
 7. 問題用紙は解答用紙(マークカード)とともに机上に置いて退出すること。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。

Foodborne illness (sometimes called “foodborne disease,” or “food poisoning”) is a common, costly — yet preventable — public health problem. Each year, 1 in 6 Americans gets sick by consuming contaminated foods or beverages. More than 250 different foodborne diseases have been described. Most of these diseases are infections, caused by a variety of bacteria, viruses, and parasites that can be foodborne. Other diseases are poisonings, caused by harmful toxins or chemicals that have contaminated the food; for example, poisonous mushrooms. These different diseases have many different symptoms, so there is no one “syndrome” that represents foodborne illness. However, the microbe or toxin enters the body through the gastrointestinal tract*¹, and (1) the first symptoms there, so nausea, vomiting, abdominal cramps*² and diarrhea are common symptoms in many foodborne diseases.

Anyone can get food poisoning, but certain groups of people are more likely to get sick and to have a more serious illness. Those groups include: older adults, young children, people with immune systems weakened from medical conditions, and pregnant women. Older adults have a higher risk because as people age, their immune systems and organs don't recognize and (2) harmful germs as well as they once did. Young children have immune systems that are still developing, so their body's ability to fight germs and sickness isn't as strong. (ア) Getting dehydrated*³ is the most common serious complication of food poisoning. Children younger than 5 are three times more likely to be hospitalized if they get a *Salmonella**⁴ infection. People with weakened immune systems due to diabetes*⁵, liver or kidney disease, alcoholism, and HIV/AIDS; or receiving chemotherapy or radiation therapy cannot fight germs and sickness as effectively. (イ) Pregnant women are more likely than other people to get sick from certain germs. (ウ) If you or someone you care for is in one of these groups, it's especially important to take steps to prevent food poisoning and to know which foods are (3) illness than others.

There are many opportunities for food to become contaminated as it is produced and prepared. Many foodborne microbes are present in healthy animals (usually in their intestines) that are raised for food. Meat and poultry carcasses*⁶ can become contaminated during slaughter*⁷ (4) small amounts of intestinal contents. Similarly, fresh fruits and vegetables can be contaminated if they are washed or irrigated with water that is contaminated with animal manure*⁸ or human sewage. Some types of *Salmonella* can infect a hen's ovary so that the internal contents of a normal looking egg can be contaminated with *Salmonella* even before the shell is formed. Oysters and other filter feeding shellfish*⁹ can concentrate *Vibrio**¹⁰ bacteria that are naturally present in seawater, or other microbes such as norovirus that are present in human sewage dumped into the sea.

Later in food processing, other foodborne microbes can be introduced from infected humans who handle the food, or by cross contamination*¹¹ from some other raw agricultural product. In the kitchen, microbes (5) one food to another food by using the same knife, cutting board, or other utensils to prepare both, without washing the surface or utensils in between. A food that is fully cooked can become recontaminated from raw foods that contain pathogens*¹².

The way that food is handled after it is contaminated can also make a difference in whether or not an outbreak occurs. Many bacterial microbes need to multiply to a larger number before enough are present in food to cause disease. Given warm, moist conditions and an ample supply of nutrients, one bacterium that reproduces by dividing itself every half hour can produce 17 million progeny*¹³ in 12 hours. As a result, lightly contaminated food (6) overnight can be highly infectious by the next day. In general, refrigeration or freezing prevents virtually all bacteria from growing but generally preserves them in a state of suspended animation. This general rule has a few surprising exceptions. Two foodborne bacteria, *Listeria monocytogenes**¹⁴ and *Yersinia enterocolitica**¹⁵ can actually grow at refrigerator temperatures. High salt, high sugar or high acid levels keep bacteria from growing, (7) salted meats, jam, and pickled vegetables are traditional preserved foods.

If food is heated to an internal temperature above 160°F, or 71°C, for even a few seconds, this is sufficient to kill pathogens, except for specific bacteria that produce a heat-resistant form called a spore*¹⁶. *Clostridium**¹⁷ spores are killed only at temperatures above boiling. This is why canned foods must be cooked to a high temperature under pressure as part of the canning process. Moreover, the toxins produced by bacteria vary (8) to heat. Hence, staphylococcal toxin*¹⁸ is not inactivated even if it is boiled, whereas botulinum toxin which causes botulism*¹⁹ is completely inactivated by boiling.

[注] *¹gastrointestinal tract 「胃腸管」 *²abdominal cramp 「腹部痙痛」

*³dehydrate 「脱水する」

*⁴*Salmonella* 「サルモネラ菌」サルモネラ属の桿菌[かんきん]

*⁵diabetes 「糖尿病」

*⁶carcass 「(食肉用)屠畜体」

*⁷slaughter 「屠殺」

*⁸animal manure 「家畜糞尿」

*⁹filter feeding shellfish .「ろ過摂食性の貝」

*¹⁰*Vibrio* 「ビブリオ菌」らせん菌科ビブリオ属の細菌の総称

*¹¹cross contamination 「二次(交差)汚染」

*¹²pathogen 「病原体, 病原菌」

*¹³progeny 「子孫」

*¹⁴*Listeria monocytogenes* 「リステリア・モノサイトゲネス」

*¹⁵*Yersinia enterocolitica* 「腸炎エルシニア」

*¹⁶spore 「芽胞」一部の細胞が形づくる特殊な細胞構造のこと

*¹⁷*Clostridium* 「クロストリジウム」バチルス科クロストリジウム属の桿菌の総称

*¹⁸staphylococcal toxin 「ブドウ球菌毒素」 *¹⁹botulism 「ボツリヌス中毒」

問 1 本文中の(1)～(8)の各空欄に入る最も適切なものを、それぞれ①～⑤の中から一つずつ
選びなさい。

- (1) ① seldom carries on ② sometimes calls for
 ③ sometimes results from ④ mostly stands by ⑤ often causes
- (2) ① give rise to ② distribute ③ get rid of
 ④ go with ⑤ yield to
- (3) ① more associated with ② rather sought after ③ less absorbed in
 ④ less acquainted with ⑤ rather resorted to
- (4) ① with reference to ② by contact with ③ at the expense of
 ④ in the matter of ⑤ at the mercy of
- (5) ① would be possessed by ② should maintain with
 ③ can be transferred from ④ might communicate with
 ⑤ should have converted to
- (6) ① partaking in ② left out ③ being partaken by
 ④ having been searched for ⑤ searching it in
- (7) ① where is what ② where is which ③ what is when
 ④ which is why ⑤ which is what
- (8) ① for those friction ② as its allowance ③ with its accordance
 ④ at their temperament ⑤ in their sensitivity

問 2 本文中の下線部(9)と(10)の語(句)に最も意味の近いものを、それぞれ①～⑤の中から選びなさい。

(9) irrigate

- ① to provide nutrition to a plant or animal
- ② to prepare land and grow crops on it, or to grow a particular crop
- ③ to put into a neat or orderly condition by clipping, paring, pruning, etc.
- ④ to supply land with water so that crops and plants will grow
- ⑤ to cause to stay in a liquid, especially in order to become soft or clean

(10) suspended animation

- ① permanent interruption of biological functions
- ② being unusually or abnormally active
- ③ temporary cessation of the vital functions
- ④ being enthusiastic and energetic
- ⑤ being strong and active

問 3 第二段落の空欄(ア)～(ウ)にはそれぞれ(11)の(a)～(c)の英文のいずれかが入ります。

(ア)～(ウ)に入る最も適切な順序を、①～⑤の中から選びなさい。

(11)

- (a) For example, people on dialysis* are 50 times more likely to get a *Listeria* infection.
- (b) They are 10 times more likely to get a *Listeria* infection.
- (c) Food poisoning can be particularly dangerous for them because illness can lead to diarrhea and dehydration.

[注] *dialysis 透析療法

- ① (c)→(b)→(a) ② (b)→(a)→(c) ③ (a)→(c)→(b)
- ④ (b)→(c)→(a) ⑤ (c)→(a)→(b)

問 4 次の(12)と(13)の英文の問いの答えとして最も適切なものを、それぞれ①～⑤の中から一つずつ選びなさい。

(12) Which of the following statements is true, according to the passage?

- ① All bacteria tend to multiply very rapidly even when in refrigerated conditions, forming colonies of millions or even billions of organisms.
- ② Although many foodborne illnesses are caused by a variety of pathogens, there is one “syndrome” that can be described in most cases.
- ③ When healthy animals are slaughtered, we would not expect any contamination problems at all because such animal carcasses will only rarely be exposed to the animals’ own intestinal contents.
- ④ The staphylococcal toxin itself is destroyed by heat and the bacterial spores that produce the toxin require temperatures above 71°C to be destroyed.
- ⑤ In the kitchen, poor food handling and manipulation with commonly used, contaminated utensils and surfaces can lead to cross contamination with microbes.

(13) Which of the following statements can be properly inferred from the passage?

- ① Canned foods have been available for our food supply systems but they create some challenges because of the complicated canning process in the first phase.
- ② The quality of the water used for washing and chilling fruits and vegetables after they are harvested is not critical in terms of preventing foodborne illness.
- ③ Because some foodborne bacteria such as *Listeria monocytogenes* grow fastest at refrigerator temperatures, preserved foods have become one of the biggest segments of our food supply, and they also eliminate foodborne illnesses.
- ④ Because filter feeding shellfish strain microbes from the sea over many months, they are particularly likely to be contaminated if there are any pathogens in the seawater.
- ⑤ With globalization, more unique plant and animal toxins are being dispersed and spread around the world, but this is unlikely to introduce new problems with our food supply.

(20) The first European colleges originally consisted of groups of individuals () joined their efforts to study the sciences, medicine, and law.

① and whose living together

② and who live together

③ whose life together and

④ who lived together and

⑤ whom live together and

(21) Approximately 400 million to 250 million years ago, the ability of a specific group of primitive plants to reproduce by seeds () to cope with harsher habitats than could the flora that reproduced by spores.

① have been enabled them

② enable them

③ will enable them

④ allowed them

⑤ was allowed by them

Ⅲ 次の(A)の(22)～(26)の各英文の続きとして最も適切なものを、(B)の①～⑩の中からそれぞれ一つずつ選びなさい。ただし、選択肢は一度しか使えません。

(A)

- (22) Sometimes we are judged by our appearance and ethnicity...
- (23) People who have a positive sense of self-esteem...
- (24) He has not shown any signs of learning from classroom materials but that is not surprising when you consider that he...
- (25) Staying indoors all day long could harm your health...
- (26) His teachers and parents suggested that...

(B)

- ① because it provides him with a good salary and self-confidence.
- ② does not have any obvious interests in class.
- ③ so does anyone in the class.
- ④ he go abroad to study at university after graduation.
- ⑤ usually act with confidence.
- ⑥ we will spend the whole evening on the new project.
- ⑦ in order to judge others in a negative way.
- ⑧ in place of becoming fat and sluggish.
- ⑨ because you will likely not get enough sunshine.
- ⑩ rather than by what we have accomplished.

IV 次の英文が論理的に意味の通る内容となるように、(27)～(32)の空欄に入る最も適切なものを、それぞれ①～⑤の中から一つずつ選びなさい。

The tornado, one of nature's most dangerous weather (27), is a whirling windstorm. It looks like a moving funnel (28) down from a dark cloud. Tornadoes are often characterized by, and feared for, their intensely destructive winds, and a tornado's intensity is rated according to the Enhanced Fujita scale, which rates tornadoes primarily on the damage they (29) on human-built structures and vegetation. Winds within the tornado can be so fierce and strong that they can pick up (30) an automobile and blow away everything along their path. Major tornadoes are highly dangerous not only because of their immense power but also because of their unpredictable nature. There is no way to determine when and where a tornado will form. However, scientific research and careful, continuous observations may help us (31) and track tornadoes as they form and move about. Such scientific analyses and inputs are absolutely vital but must go hand in hand with improved communication and (32) systems that may, working in concert, help reduce deaths and injuries in tornado-prone areas.

- (27) ① phenomenon ② phenomena ③ phenomenal
 ④ phenomenons ⑤ phenomenas
- (28) ① hang ② been hung ③ hanging ④ to hang ⑤ hanged
- (29) ① inflict ② sustain ③ investigate ④ explore ⑤ suffer
- (30) ① as heavy as objects ② as heavy objects like
 ③ such heavy objects like ④ objects so heavy as
 ⑤ objects as heavy as
- (31) ① vanish ② understanding ③ depicted
 ④ trace ⑤ believe
- (32) ① protected ② warning ③ intact ④ obscene ⑤ advocates

V 次の英文を読み、(33)と(34)の英文に続くものや、(35)の英文の質問への解答として最も適切なものを、①～⑤の中からそれぞれ一つずつ選びなさい。

The oldest humanitarian relief organization in the world is the International Committee of the Red Cross (ICRC). It was started by Jean-Henri Dunant, a Swiss citizen, and is headquartered in Geneva. Although the symbol of the organization looks like the Swiss flag, it has neither official ties to Switzerland nor is it related to the United Nations (UN). It is funded and supported by public and private agencies as well as from governments, and all such funding is on a voluntary basis.

Although the ICRC is highly respected for its field operations in aid of victims of armed conflict and internal violence all over the world, the organization does, by virtue of its strict adherence to a doctrine of neutrality, also court controversy because, unlike most other relief organizations, the ICRC helps the wounded and the sick on both sides of any armed conflict. The ICRC believes that although war cannot be abolished, it can be “controlled” to a point such that it can be considered to have become “civilized.” To “civilize conflict,” the ICRC promotes the Geneva Conventions*¹, which are internationally agreed sets of rules that apply only in times of armed conflict and that seek to protect people who are not, or are no longer, taking part in hostilities.

Other humanitarian groups do not make similar attempts to “control” or to “civilize” conflicts. Instead, such groups act according to the UN’s Universal Declaration of Human Rights*². If human rights are violated, then these groups spare no effort to denounce abuses and help the victims. Among the best known of these are Amnesty International and Doctors without Borders.

[注] *¹Geneva Conventions 「ジュネーブ条約」

*²Universal Declaration of Human Rights 「世界人権宣言」

(33) According to the information provided here, the ICRC is associated with all of the following except _____.

- ① carrying out humanitarian relief work
- ② having a symbol that resembles the Swiss flag
- ③ speaking out against human rights violations
- ④ relying on voluntary donations
- ⑤ attempts to civilize conflict

(34) In a hypothetical war between America and Iraq, if an American soldier and an Iraqi soldier were both injured, the ICRC would make considerable efforts to aid

-
- ① only the American soldier
 - ② only the Iraqi soldier
 - ③ only the one who was more severely wounded
 - ④ both the American and the Iraqi soldiers
 - ⑤ only those not openly engaged in hostilities

(35) According to the information in this passage, which of the following statements is NOT true?

- ① The ICRC has no official affiliations with Switzerland or with the United Nations.
- ② Doctors without Borders would very quickly denounce any human rights violations its members might witness.
- ③ The ICRC's goal is to abolish war by means of the Geneva Conventions.
- ④ With the exception of its stance on neutrality in armed conflicts, the ICRC is widely respected for much of what it does and represents.
- ⑤ By promoting the Geneva Conventions, the ICRC hopes that war will be "controlled."

VI 次の会話文を読んで、各設問の答えとして最も適切なものを、①～⑤の中から一つずつ選びなさい。

Man: Erika, I'm thinking of introducing a new internship program to our branch here in Japan. It'll be based on the American system. Do you know about this?

Woman: (36) Typical Japanese internship programs only last for one or two weeks, but American internships go on for three to four months, right?

Man: Yes, by working as temporary employees over a long period of time, undergraduates will have a valuable opportunity to learn about our company in detail. (37)

Woman: That's a good idea. (38) Because of this, an alarming number of new graduates quit their jobs within three years. About 30 percent of Japanese university graduates leave their jobs after deeming such positions unsuitable. (39)

Man: Yes, you're right. Actually, this system carries advantages for both companies and interns. For companies, it provides an opportunity to check how competent prospective employees are. (40) Plus, interns can see whether a job is suitable for them or not. ⁽⁴¹⁾ _____, they can change their mind about what to do in the future.

問 1 会話が論理的に意味が通るように(36)～(40)の各空欄に入る最も適切なものを、①～⑤の中から選びなさい。ただし、選択肢はそれぞれ一度しか使えません。

- ① Then they can have more experience and motivation when they become full-time employees.
- ② For interns, if they perform well, they are offered jobs before other graduates.
- ③ I've heard of it.
- ④ These people should have had a chance to experience their would-be jobs before they started working full-time.
- ⑤ Few young people understand the wide gap between the image of a job and the actual job itself.

問 2 下線部(41)に入る最も適切なものを、①～⑤の中から一つ選びなさい。

- ① Subsequent to such an experience
- ② However he can work out
- ③ On the contrary, we expect that
- ④ Seldom, if ever tried
- ⑤ Try as they might

問 3 次の英文の質問の答えとして最も適切なものを、①～⑤の中から一つ選びなさい。

(42) Which of the following details is NOT found in the conversation?

- ① Japanese college students who will be able to experience this new internship program might reap many benefits such as being able to gain valuable opportunities to learn, in detail, about the companies that utilize such internship programs.
- ② About 70% of Japanese university graduates will remain at their new, full-time jobs.
- ③ Most young people have a poor understanding of how there can typically be very large differences that exist between their perceptions of a particular job and the way that specific job actually works.
- ④ These special types of longer internship programs will be advantageous for both the companies offering such internships as well as for the interns who participate in such programs.
- ⑤ American students in Japan will have more benefits from this internship program than will the Japanese students enrolled in the same program.

VII 次の(A)と(B)の日本語の文の意味を表すように、それぞれ①～⑩の語(句)を各空欄に一つずつ入れて英文を完成させ、(43)～(48)の空欄に入るものを選びなさい。ただし、選択肢は一度しか使えません。

(A) 科学の第一の目的は、真理を発見することであり、そのような試みは通常新しい真理を生み出す。この種の科学的探求は、もし、どんな実用的な使用や応用の可能性とも無関係に、真理そのもののためにそれを発見しようとする方向により純粋に向けられていれば、成功を収める可能性は大きい。新しく獲得した知識はほとんどの場合人間生活を向上させるが、そのような純粋な追求はまた、たいてい同様に実際の利用に結び付く。

The primary aim of science is to find truth, and such endeavours can typically yield new truths. This type of scientific pursuit is more likely to be successful () it is () () purely towards (43) truth () its (44)(), regardless of any () practical uses or applications. Newly acquired knowledge almost always elevates the human experience and condition, but such pure pursuits will often also, ()(45), find practicable applications.

- | | | |
|------------|------------|------------|
| ① more | ② parallel | ③ sake |
| ④ finding | ⑤ for | ⑥ if |
| ⑦ in | ⑧ own | ⑨ possible |
| ⑩ directed | | |

(B) 自分の意見を発表し、ほぼすべての疑問や問題を議論し合う自由を断固として守る開かれた社会を促進し支えることは、多くの利益と利点をもたらすことができるということを、最も見識のある国民の多くにさえ、納得させるのに幾世紀もの年月を要したのである。

It has () centuries ()() many of (46)()(47) promoting and supporting open societies that determinedly protect the () to () opinions and to discuss (48) all questions and issues () bring many benefits and advantages.

- | | | |
|-----------------------|-------------|-----------|
| ① the most | ② virtually | ③ taken |
| ④ enlightened peoples | ⑤ convince | ⑥ freedom |
| ⑦ to | ⑧ publish | ⑨ can |
| ⑩ that | | |



