平成27年度 金沢医科大学医学部入学試験問題
一般入学試験（英語）

1 次の英文の［ 1 ］～［ 8 ］に入る最も適切な語句を，それぞれ①～⑤から1つ選びなさい。

(1) A: I'm attending tonight's lecture on DNA structure and function. How about you?
B: Me, too. It's supposed to be very interesting. Is Tim coming, too?
A: No, he isn't, ［ 1 ］ he's changed his mind.

① although ② as soon as ③ sooner or later ④ so that ⑤ unless

(2) A: Oh, hi Jane. I heard that you are leaving for Atlanta tomorrow to attend the conference.
B: Yes, early tomorrow morning. I have to work hard on this project all day today.
A: Who will ［ 2 ］ your responsibilities while you're away?

① take over ② take off ③ take into account ④ take care ⑤ take turns

(3) A: Lungs and kidneys purify our body by ［ 3 ］ waste matter.
B: Are those the only organs in our body that do that?

① polluting ② eliminating ③ securing ④ assigning ⑤ fastening

(4) A: I'm going to Australia for the spring break and I need someone to feed my cat while I'm gone.
B: ［ 4 ］

① Of course not! ② Don't hesitate to say no. ③ She's already been fed.
④ Don't count on me. ⑤ I'll do it right away.

(5) There ［ 5 ］ no hospital on the island, the injured were transported to a hospital across the bay by helicopter.

① being ② to be ③ were ④ has been ⑤ have been

(6) All newborn mammals are designed to be nourished with mother's milk, which contains lactose as its primary carbohydrate. Appropriately called milk sugar, lactose is a double sugar molecule ［ 6 ］ one glucose and one galactose molecule linked together.

① to consist ② that consists ③ consist of ④ consisting of ⑤ are consisted of

(7) Language is many things. It's a system of communication, a ［ 7 ］ for thought, a vehicle for literary expression, a matter for political controversy, and a factor in nation building. All normal human beings speak at least one language, and it is hard to imagine much significant social or intellectual activity taking place in ［ 8 ］.

［ 7 ］ ① mean ② medium ③ conduct ④ recognition ⑤ developing
［ 8 ］ ① absences ② his absence ③ its absence ④ the absent ⑤ those absences

2 次の英文を読み，問いに答えなさい。

Chemistry is the study of matter and energy and the interactions between them. This is an extremely broad and inclusive ［ 9 ］, but quite an accurate one. There is no aspect of the description of the material universe which does not depend on chemical concepts, both practical and theoretical.

Although chemistry is as old as the history of humankind, it remained a speculative and somewhat mysterious art until about 300 years ago.［ ① ］At that time it became clear that matter comes in many different forms and kinds.［ ② ］Therefore, some kind of classification was needed, if only to organize data.［ ③ ］There was red matter and white matter, liquid matter and solid matter, but it did not take long to realize that such broad qualitative descriptions, although important, were not sufficient to differentiate one kind of matter from another.［ ④ ］It was found that these properties could be separated into two basic classes: physical and chemical.［ ⑤ ］Changes in physical properties involve only changes in form or appearance of a substance; its fundamental nature remains the same.［ ⑥ ］For example, the freezing of water involves only its conversion from liquid to solid. The fact that its fundamental nature remains the same is easily demonstrated by melting the ice. By passing an electric current through water, however, two new substances are created: hydrogen and oxygen. The fundamental nature of water is changed; it is ［ 10 ］ water, but has been transformed into new substances through chemical change.

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Without knowing anything about the fundamental nature of matter, chemists were also able to establish that matter could be separated into simpler and simpler substances through physical separation methods and through chemical reactivity. They developed methods for measuring physical properties such as density, hardness, color, physical state, and melting and boiling points to help (ア)them decide when these operations could no longer change the nature of the substance. From these considerations, another classification scheme (イ)emerged, based on composition. In this scheme, matter is divided into two general classes: pure substances and mixtures.

There are two kinds of pure substances: elements and compounds. An element is a substance that cannot be separated into simpler substances by ordinary chemical methods; nor can it be created by combining simpler substances. All the matter in the universe is composed of one or more of these fundamental substances. When elements are combined, they form compounds—substances having definite, fixed proportions of the combined elements with none of the properties of the individual elements, but with their own unique set of new physical and chemical properties.

[11] the unique properties of compounds, the properties of mixtures are variable and depend on composition. An example is sugar in water. The most recognizable property of this mixture is its sweetness, which varies depending on its composition (the amount of sugar dissolved in the water). A mixture is then composed of at least two pure substances. In addition, there are two kinds of mixtures. Homogeneous* mixtures, or solutions, are visually [12] throughout the sample. Heterogeneous* mixtures reveal visual differences throughout the sample (pepper and salt, sand and water, whole blood).

注＊：Homogeneous　同種の，同質の；　Heterogeneous　異種の，異質の

問1　文章中の空欄 [9] ～ [12] に入る最も適切な語句を，それぞれ①～⑤から1つ選びなさい。

[9]	① possibility	② definition	③ opportunity	④ law	⑤ issue
[10]	① somewhat	② similar	③ not any more	④ different	⑤ no longer
[11]	① By the way,	② As if	③ In contrast to	④ In spite	⑤ As a matter of fact,
[12]	① form	② forms	③ format	④ uniform	⑤ transform

問2　次の文が入る最も適切な箇所を，文章中の【　①　】～【　⑥　】から1つ選びなさい。 [13]

Additional criteria, now called properties, were required.

問3　下線部(ア)them が指しているものを，①～⑦から1つ選びなさい。 [14]

① operations	② methods	③ chemists	④ substances
⑤ reactivities	⑥ properties	⑦ points	

問4　文脈から下線部(イ)emerged に意味の上で最も近い語句を，①～⑤から1つ選びなさい。 [15]

① became vague　② discharged　③ was developed　④ was cleared　⑤ abandoned

問5　本文の内容に一致した英文を完成させるのに最も適切な選択肢を，それぞれ①～⑤から1つ選びなさい。

Chemists established [16].

① that physical separation methods are used to cause chemical reactivity
② the fact that the fundamental nature of ice changes when melted
③ the theory that the fundamental nature of matter could change slightly over time
④ that qualitative descriptions were not important for separating matter
⑤ that matter could be divided into less complex substances

Compounds are substances [17].

① with specified combinations of hydrogen and oxygen
② that have different properties at the same level
③ that have individual sets of chemical and physical properties
④ made by combining three or more mixtures
⑤ composed of several elements and cannot be separated into simpler forms

3 次の英文を読み，問いに答えなさい。

Driving is one of the most momentous steps that a teenager will take toward personal independence. Being able to drive [18] mobility, the gratification of not having to rely on parents or friends for a ride, and a definite sense of prestige. Like every other new freedom that beckons the adolescent moving toward adulthood, there are a number of risks and responsibilities that must be acknowledged and addressed. Because of the safety issues that (1)accompany taking the wheel for the first time, new drivers and their parents should prepare for this next phase of life with the utmost diligence.

The fact that automobile insurance rates are greatly increased for adolescent drivers, especially for males, is no accident. Motor-vehicle accidents are the leading cause of death of young people ages fifteen through twenty, killing more than five thousand youths in America each year. Even though this age group comprises less than 7 percent of the driving population, it accounts for 14 percent of vehicle-related deaths. Over the past decade, over sixty-eight thousand teens have died in car crashes.

【 あ 】 Inexperience is a major risk factor for teens involved in accidents. Driving is, after all, an amazingly complex task. New drivers must learn to control their vehicle and its speed, while at the same time detecting and responding to dangerous driving conditions and emergency situations. The vast majority of teens are not lacking in the motor skills and coordination necessary to be an excellent driver. Indeed, they are probably better equipped than their parents. But what isn't fully developed is their judgment, decision-making ability, or a healthy respect for the unexpected, and their own mortality.

Indeed, an important factor (ア)contributing to accidents involving teens is their willingness to engage in risky behaviors. Speeding is a factor in about 30 percent of all traffic deaths, and putting pedal to the metal* is a major temptation for teenage drivers, especially males. Alcohol is involved in more than a third of all traffic deaths for young people ages sixteen through twenty. One survey found that at least 12 percent of high school students reported driving after drinking (2)alcohol, and more than 30 percent of teens [19] with a driver who had been drinking.

Teenagers love to hang out and drive around with their friends, but for a sixteen-year-old driver having one other passenger in the car increases the chance of being killed by 39 percent. If there are two riders, the likelihood of a fatal accident is 86 percent greater, and for three or more passengers it is 282 percent higher than if that teenager is driving solo (or with a parent). Eighteen percent of high school students report that they never or hardly ever use a safety belt when riding in a car driven by someone else. 【 い 】

After reading such discouraging information, some parents may vow never to let their children sit behind the wheel of a car until they are in their twenties and living on their own. Aside from being unrealistic, such a mind-set is counterproductive* and [20] to teens who really want to learn to drive safely. A more constructive outlook is to view the adolescent years as a time when adults can teach safe driving habits and (3)influence a young driver's behavior for life, passing on skills and knowledge that will perhaps save lives many years in the future. Becoming an expert driver requires years of experience, and overseeing the first few years of that experience is a wonderful, though at times very stressful, privilege.

As a parent you can pass on a wealth of driving wisdom in many ways. 【 う 】 Their learning to drive may be stressful for you, but it's much more so for them. Second, as with other behaviors they want their children to adopt, parents must model safe driving habits; children will imitate their parents. Also, parents should not only learn the traffic laws but also be prepared to [21] additional limits and expectations based on their adolescents' attitude and skill.

Always require your children to fasten their seatbelt before the engine is started, whether driving or riding. Your children should never drive if they are drowsy. Additionally, while there are many good reasons for them to abstain from alcohol and drugs, make sure they understand that drinking kills thousands of people every year, many of them teens. 【 え 】 And no matter how strongly you might feel about the use of alcohol, let your children know that they can always call you for a ride in order to avoid being in a car with a drunk driver—whether themselves or someone else.

Unfortunately, no matter how calmly and rationally you explain the conditions you are placing on your children, they may see these restrictions as unreasonable. If they protest against your limitations, stand your ground. And if you see unsafe driving patterns or habits that your children refuse to correct, don't let them have the keys. The first commandment for potential drivers to learn is that driving is a privilege, not a right. Your first priority is to keep them and others on the road alive and well [22] they learn to operate an automobile safely and skillfully.

注＊： putting pedal to the metal ペダルを思い切り踏み込む（全速力で走る）； counterproductive 逆効果

問 1 文章中の空欄 [18] ～ [22] に入る最も適切な語句を，それぞれ①～⑤から 1 つ選びなさい。

[18]	① verifies	② proposes	③ provides	④ regards	⑤ specifies
[19]	① ridden	② was riding	③ was ridden	④ had ridden	⑤ had been ridden
[20]	① insulting	② declining	③ depending	④ forcing	⑤ destroying
[21]	① enforce	② dominate	③ persist	④ insist	⑤ qualify
[22]	① during	② while	③ by	④ whether	⑤ in which

問2　下線部 (1) ～ (3) の語において，最も強く発音される母音と同じ母音を持つ語を，それぞれ①～⑩から1つ選びなさい。

(1)accompany [23]　　(2)alcohol [24]　　(3)influence [25]

① feel　② wrist　③ head　④ hand　⑤ short　⑥ cut　⑦ face　⑧ eye　⑨ nose　⑩ tooth

問3　次の (A) ～ (D) の英文は文章中の【　あ　】～【　え　】に入る。その最も適切な順番を，①～⑩から1つ選びなさい。[26]

(A) All of these behaviors increase the odds of a teenager being involved, injured, and/or killed in an automobile accident.
(B) Not only should your teenage children never drink and drive, but they should also never get into a car if the driver has been drinking.
(C) First, be patient with your teenage children.
(D) If you're a little anxious about your teenager becoming a driver, your concerns are not unfounded.

① (A)-(C)-(B)-(D)　② (A)-(D)-(C)-(B)　③ (B)-(A)-(C)-(D)　④ (B)-(D)-(C)-(A)　⑤ (C)-(A)-(D)-(B)
⑥ (C)-(B)-(D)-(A)　⑦ (C)-(D)-(A)-(B)　⑧ (D)-(A)-(C)-(B)　⑨ (D)-(A)-(B)-(C)　⑩ (D)-(C)-(B)-(A)

問4　文脈から下線部 (ア)contributing to に意味の上で最も近い語を，①～⑤から1つ選びなさい。[27]

① addressing　② drawing　③ donating　④ occurring　⑤ causing

問5　本文の内容と一致しない英文を，①～⑦から2つ選びなさい。[28]

① Car insurance rates are reduced for young male drivers because they are not involved in accidents as much as elderly drivers.
② Drivers ages fifteen through twenty are less than 7 percent of the driving population, but this group accounts for more than 10 percent of traffic deaths.
③ It is possible that the motor skills and coordination of teens are better than those of their parents.
④ About a third of all vehicle-related deaths involve speeding.
⑤ Teenage drivers' risk of being killed in a car accident is higher when they are driving alone than when they are carrying passengers.
⑥ Some parents might think that they should not let their children drive until they are over twenty.
⑦ Teenagers should be told that they can always call their parents to give them a ride if they drink.

4　次の英文を読み，問いに答えなさい。

It is probably possible to lead an inactive life and still experience healthy aging, but it isn't likely. Maintenance of physical activity throughout life and successful aging go hand in hand; this was one of the strongest correlations found in the MacArthur Foundation's Study of Aging in America, [29] reported in 1998 in the book *Successful Aging.* Almost all of the healthy seniors I know were physically active throughout life, and many of them still are. They walk, dance, play golf, swim, lift weights, and do yoga. Some of them are more engaged in physical activity than their middle-aged counterparts.

In Japan, which still boasts the world's highest (ア)longevity at an average of almost eighty years, not only are numbers of centenarians* increasing but so are the numbers of "super seniors," extraordinarily fit old persons. Here is a description of one:

> As dawn breaks over the world's largest metropolis, Keizo Miura, a powerfully built centenarian, is already dressed in his charcoal gray tracksuit and ready to run. Before a healthy breakfast of seaweed and eggs, Miura races through his indoor exercises. He winces* as his neck, still tender from a collarbone* injury, momentarily reminds him that he was born in 1904. The man who has become a role model in graying Japan* ignores the pain the way he did last year when he skied down Europe's Mont Blanc at age ninety-nine. In no time, he is out the front door for his daily two-mile power walk. "I still feel good," said Miura, who in 1981 became the oldest man to climb Mount Kilimanjaro, Africa's tallest peak, and is training for an expedition to the Italian Alps next year. "There's really nothing so amazing about me...but my son, now he is amazing." That would be Yuichiro Miura, seventy-two, who in May 2003 became the oldest man to climb the summit of Mount Everest.

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I could [30] with accounts of old people who are setting records and astonishing the rest of us with their physical achievements, people in their eighties and nineties still lifting weights, surfing, competing in triathlons, and otherwise showing us that the human body can keep going in ways our ancestors [31] able to imagine. As friends and acquaintances learned that I was writing on healthy aging, they invited me to meet American super seniors and watch them doing power yoga, dance marathons, and other (イ)extraordinary achievements.

All of this is inspiring and of special interest to anti-aging enthusiasts, but it is secondary to what I have to tell you now. I am concerned with ordinary life and with [32] all of us need to know about physical activity and aging, even if we are not planning to climb mountains. In traditional cultures, (ウ)【 ____ ____ ____ ____ ____ 】. For example, the healthy old people I met in Okinawa had not run marathons; they worked the soil by hand, chopped wood, carried water, went into the mountains to gather wild vegetables, cast fishing nets, and walked all their lives.

The human body is designed for this kind of regular and varied use. Modern life often hinders that purpose, forcing too many of us to spend most of our days sitting at desks and getting around in cars. We have to get our physical activity by taking periods of exercise, which is often not varied. This is regrettable, but that's the way it is. Given the limitations of modern life, how can we fulfill the body's requirement for the physical activity (エ)it needs in order to age gracefully? To do so, a person needs to understand both the benefits and the risks of physical activity.

注*： centenarians = people who are a hundred years old or more ； winces たじろぐ ； collarbone 鎖骨 ；
graying Japan 日本の高齢化社会

問1 文章中の空欄 [29] ～ [32] に入る最も適切な語句を，それぞれ①～⑤から1つ選びなさい。

[29]	① that	② as	③ which	④ who	⑤ by whom
[30]	① go on	② go out	③ put on	④ put off	⑤ figure out
[31]	① haven't	② wouldn't	③ couldn't	④ hasn't been	⑤ might not have been
[32]	① them	② that	③ what	④ which	⑤ where

問2 下線部 (ア)longevity，(イ)extraordinary で最も強く発音される部分（第1強勢のあるところ）の位置の組み合わせとして最も適切なものを，①～⑨から1つ選びなさい。組み合わせは（ア）－（イ）の順番とすること。[33]

（ア）lon-gev-i-ty　　（イ）ex-traor-di-nar-y
1 2 3 4　　1 2 3 4 5

① 1－1　② 1－2　③ 1－3　④ 2－1　⑤ 2－2　⑥ 2－3　⑦ 3－1　⑧ 3－2　⑨ 3－3

問3 (ウ)【 ____ ____ ____ ____ ____ 】の空欄に入る下記の（あ）～（お）の語句を並べかえて文を完成させ，第2番目と第4番目に入る語句の記号の最も適切な組み合わせを，①～⑩から1つ選びなさい。[34]

（あ）of daily living　（い）that condition　（う）the physical body　（え）the activities　（お）it is

① （あ）－（お）　② （う）－（あ）　③ （う）－（え）　④ （う）－（お）　⑤ （え）－（あ）
⑥ （え）－（い）　⑦ （え）－（お）　⑧ （お）－（あ）　⑨ （お）－（い）　⑩ （お）－（え）

問4 下線部 (エ)it が指しているものを，①～⑧から1つ選びなさい。[35]

① life　② purpose　③ activity　④ exercise
⑤ limitation　⑥ body　⑦ requirement　⑧ age

問5 本文の内容と一致する英文を，①～⑥から1つ選びなさい。[36]

① MacArthur Foundation's Study of Aging is the name of a book published in 1998.
② The author knows almost all of the healthy seniors in America who play golf, swim, and do yoga.
③ The author says that eating a healthy breakfast is essential to become a super senior.
④ Keizo Miura was born in 1904 and is proud of his father, Yuichiro Miura.
⑤ American super seniors invited the author to do power yoga with them.
⑥ The author met old people in Okinawa who were healthy and did physically active work.