

関西医科大学 一般

2013 年 度 入 学 試 験 問 題

英 語 (問 題)

注 意

- 1) 英語の問題冊子は 10 ページあり，問題は 4 問である。白紙・空白の部分は下書きに使用してよい。
- 2) 別に解答用紙 1 枚があり，解答はすべてこの解答用紙の指定欄に記入すること。指定欄以外への記入はすべて無効である。
- 3) 解答用紙の所定欄に受験番号を記入せよ。氏名を記入してはならない。
また，＊印の欄には何も記入してはならない。
- 4) 問題冊子，解答用紙はともに持ち出してはならない。
- 5) 途中退場または試験終了時には，解答が他の受験生の目に触れないよう，解答用紙の上に問題冊子を重ねるなど十分配慮の上，監督者の許可を得た後に退出しない。

I 日本語の意味に合うように、指定されたアルファベットから始まる語を空所に入
れなさい。

1 この暑さは信じられないほどだ。

This heat is almost (b) belief.

2 右足を上げて片足で立つんだ。

Lift up your right leg and stand on (o) foot.

3 体温計で熱を測って見たら？

Why don't you (t) your temperature with a thermometer?

4 このハイキングコースは健脚向きだ。

This hiking course is for people with (s) legs.

5 彼は本を小脇に抱えて立っていた。

He stood there holding his book (u) his arm.

6 手をこまねいて見ている時じゃないよ。

This is no time to just sit back (w) your arms folded.

7 年がいくと、だんだん骨がもろくなるらしい。

They say our bones get weaker and weaker (a) we grow.

8 白血球数は、10000 から 80000 の範囲にある。

The white blood cell count may (r) from 10000 to 80000.

9 部屋の内と外との温度差が激しい。

The temperatures inside and outside the room are quite (d).

10 お菓子ばかり食べて十分運動しないと、スタイルがくずれるよ。

Too many sweets and not enough exercises will cause you to lose your
(f).

II 日本語の意味に合うように[]の中の語(句)を正しく並べ替えなさい。解答は*の位置に入る語(句)のみを記入しなさい。ただし、大文字にすべき語も小文字にしてある。

- 1 医師は何が何でも秘密を漏らしてはいけない。

A doctor [all/at/has/his mouth/keep/shut/to] costs.

A doctor [_____ * _____] costs.

- 2 過剰な食物摂取は体内の脂肪沈着を引き起こす。

[of/to/food/leads/intake/excessive/the deposition] fat in the body.

[_____ * _____] fat in the body.

- 3 気温は少なくとも零下10度を下っていた。

[at/below/degrees/least/ten/the temperature/was] zero.

[_____ * _____] zero.

- 4 この病院には、患者たちに適切な看護をする有能なスタッフがいます。

This hospital has [brilliant/care/of/proper/staff/take/to] patients.

This hospital has [_____ * _____]
patients.

- 5 病院は、患者から求めがあれば診療情報を開示しなければならない。

Hospitals [access/give/medical/must/patients/the right/to] records.

Hospitals [_____ * _____] records.

III 英文を読んで、設問に答えなさい。

Exercise has a number of effects that benefit the heart and circulation. These benefits include improving cholesterol and fat levels, reducing inflammation in the arteries, helping weight loss programs, and helping to keep blood vessels flexible and open. Studies continue to show that physical activity and avoiding high-fat foods are the two most successful means of reaching and maintaining heart-healthy levels of fitness and weight.

The American Heart Association recommends that individuals perform moderately-intense exercise for [ア ; 30 minutes/at/days/least/most/on] of the week. This recommendation supports similar exercise guidelines issued by the Centers for Disease Control and Prevention, and the American College of Sports Medicine.

People who maintain an active lifestyle have a 45% lower risk of developing heart disease than (イ) sedentary people. Experts have been attempting to define [ウ ; exercise/how/is/much/needed/to] produce heart benefits. Beneficial changes in cholesterol and lipid levels occur even when people performed low amounts of moderate- or high-intensity exercise, such as walking or jogging 12 miles a week. However, [エ ; exercise/is/intense/more/required/to] significantly change cholesterol levels. An example of this kind of intense program would be jogging about 20 miles a week. Benefits occur even with very modest weight loss, suggesting that overweight people who have trouble losing pounds can still achieve considerable heart benefits by exercising.

Some studies suggest that for the greatest heart protection, it is (オ) the duration of a single exercise session that counts but the total weekly amount of energy expended.

Resistance training has also been associated with heart protection. It may

offer a complementary benefit to aerobics. If you have heart disease or risk factors for heart disease, check with your doctor before starting resistance training.

Regular exercise helps keep arteries elastic, even in older people. This, (カ), ensures good blood flow and normal blood pressure. Sedentary people have a 35% greater risk of developing high blood pressure than physically active people (キ).

It should be noted that (ク)-intensity exercise may not lower blood pressure as effectively as (ケ)-intensity exercise. In one study, moderate exercise (jogging 2 miles a day) controlled high blood pressure so well that more than half the patients who (コ ; be) taking drugs for the condition were able to discontinue their medication.

Experts recommend at least 30 minutes of exercise on most — if not all — days. Studies show that yoga and tai chi, an ancient Chinese exercise involving slow, relaxing movements, may lower blood pressure almost as well as moderate-intensity aerobic exercises.

Anyone (サ) existing high blood pressure should discuss an exercise program with their doctor. Before starting to exercise, people with moderate-to-severe high blood pressure should lower their blood pressure, and be able to control it (シ) medications. Everyone, especially people (ス) high blood pressure, should breathe as normally as possible through each exercise. Holding the breath increases blood pressure.

Traditionally, heart failure patients have been discouraged from exercising. Now, exercise performed (セ) medical supervision is proving to be helpful for select patients with stable heart failure.

Progressive resistance training may be particularly useful for heart failure patients, since it strengthens muscles, which commonly weaken in this disorder.

Simply performing daily handgrip exercises can improve blood flow through the arteries.

Experts warn, (ソ), that exercise is not appropriate for all heart failure patients.

【Adapted from “Exercise’s Effects on the Heart”, The new York Times, June 25, 2012】

inflammation 炎症 arteries 動脈

sedentary 座っている lipid 脂質

- 1 [ア], [ウ], [エ]の中の語を正しい順に並べ替えて, 記しなさい。
- 2 (イ)と(キ)に共通して入る語を記しなさい。
- 3 (オ)に入る最も適した語を記しなさい。
- 4 (カ)と(ソ)に入る表現を下から選んで, 記しなさい。
however moreover therefore in turn out of turn
- 5 (ク)と(ケ)に, high または moderate を, それぞれの空所に入れなさい。
- 6 (コ)の be を適当な形に直しなさい。
- 7 (サ)(シ)(ス)に共通して入る語を記しなさい。
- 8 (セ)に入る最も適した語を記しなさい。

IV 英文を読んで設問に答えなさい。

Americans have been getting fatter for years, and with the increase in waistlines has come a surplus of conventional wisdom. If we could just return to traditional diets, if we just walk for 20 minutes a day, exercise experts and government officials maintain, America's excess pounds would slowly but surely melt away.

Scientists are less optimistic. Many of the so-called facts about obesity, they say, amount to speculation or oversimplification of the medical evidence. Diet and exercise do matter, they now know, but these environmental influences alone do not determine an individual's weight. Body composition also is dictated by DNA and monitored by the brain. Bypassing these physical systems is not just a matter of willpower.^①

More than 66 percent of Americans are overweight or obese, according to the federal Centers for Disease Control and Prevention, in Atlanta. Although the number of obese women in the United States appears to be holding steady at 33 percent, for most Americans the risk is growing. The nation's poor diet has long been the scapegoat. There have been proposals to put warning labels on sodas like those on cigarettes. There are calls to ban junk foods from schools. New York and other cities now require restaurants to disclose calorie information on their menus.

But the notion that Americans ever ate well is suspect. In 1966, when Americans were still comparatively thin, more than two billion hamburgers already had been sold in McDonald's restaurants, noted Dr. Barry Glassner, a sociology professor at the University of Southern California. The recent rise in obesity may have more to do with our increasingly sedentary lifestyles than with the quality of our diets.

"The meals we romanticize in the past somehow leave out the reality of what people were eating," he said. "The average meal had whole milk and ended with

pie. . . . The typical meal had plenty of fat and calories.” “Nostalgia is going to get us nowhere,” he added.

② Neither will wishful misconceptions about the efficacy of exercise. First, the federal government told Americans to exercise for half an hour a day. Then, dietary guidelines issued in 2005 changed the advice, recommending 60 to 90 minutes of moderate exercise a day. There was an uproar; many said the goal was unrealistic for Americans. But for many scientists, the more relevant question was whether such an exercise program would really help people lose weight.

The leisurely after-dinner walk may be pleasant, and it may be better than another night parked in front of the television. But modest exercise of this sort may not do much to reduce weight, evidence suggests.

“People don’t know that a 20-minute walk burns about 100 calories,” said Dr. Madelyn Fernstrom, director of the weight-management center at the University of Pittsburgh Medical Center. “People always overestimate the calories consumed in exercise, and underestimate the calories in food they are eating.”

Controlling the balance is far more difficult than most people imagine, said Dr. Jeffrey Friedman, an obesity researcher at Rockefeller University. The math ought to work this way: There are 3,500 calories in a pound. If you subtract 100 calories per day by walking for 20 minutes, you ought to lose a pound every 35 days. Right?

Wrong. First, it’s difficult for an individual to hold calorie intake to a precise amount from day to day. Meals at home and in restaurants vary in size and composition; the nutrition labels on purchased foods—the best guide to calorie content—are at best rough estimates. Calorie counting is therefore an imprecise art.

Second, scientists recently have come to understand that the brain exerts astonishing control over body composition and how much individuals eat. “There are physiological mechanisms that keep us from losing weight,” said Dr.

Matthew W. Gilman, the director of the obesity prevention program at Harvard Medical School/Pilgrim Health Care.

Scientists now believe that each individual has a genetically determined weight range spanning perhaps 30 pounds. Those who force their weight below nature's preassigned levels ^③ become hungrier and eat more; several studies also show that their metabolisms slow in a variety of ways as the body tries to conserve energy and regain weight. People trying to exceed their weight range face the opposite situation: eating becomes unappealing, and their metabolisms shift into high gear.

The body's determination to maintain its composition is why a person can skip a meal, or even fast for short periods, without losing weight. It's also why burning an extra 100 calories a day will not alter the judgment on the bathroom scales. Struggling against the brain's innate calorie counters, even strong-willed dieters make up for calories lost on one day with a few extra bites on the next. And they never realize it. "The system operates with 99.6 percent precision," Dr. Friedman said.

The temptations of our environment — the sedentary living, the ready supply of rich food — may not be entirely to blame for rising obesity rates. In fact, new research suggests that the environment that most strongly influences body composition may be the very first one anybody experiences: the womb.

According to several animal studies, conditions during pregnancy, including the mother's diet, may determine how fat the offspring are as adults. Human studies have shown that women who eat little in pregnancy, surprisingly, more often have children who grow into fat adults. More than a dozen studies have found that children are more likely to be fat if their mothers smoke during pregnancy.

The research is just beginning, true, but already it has upended some old myths about dieting. The body establishes its optimal weight early on, perhaps even before birth, and defends it vigorously through adulthood. As a result,

weight control is difficult for most of us. And obesity, the terrible new epidemic of the developed world, is almost impossible to cure.

【Adapted from “For the Overweight, Bad Advice by the Spoonful”, The new York Times, August 30, 2007】

obesity 肥満

scapegoat 罪を負わされるもの

uproar 大騒ぎ

physiological 生理学上の

metabolism 新陳代謝

innate 生まれつきの

upend ～をひっくり返す

optimal 最適の

epidemic 流行病

1 本文の内容に合っている英文には○を, 合っていない英文には×をつけなさい。

ア An individual's weight is determined only by environmental influences such as diet and exercise.

イ In the United States, the number of obese women has been increasing recently.

ウ The restaurants in New York now have to put warning labels on high-calorie food on their menus.

エ Today, people spend a longer time sitting than those in the past, which may have much to do with the recent rise in obesity.

オ Evidence suggests that the leisurely after-dinner walk may not help us reduce weight.

カ If you walk for 20 minutes every day, you will lose a pound in 35 days.

キ We can count on the nutrition labels on purchased foods because they tell us the precise calories contained in them.

ク It is the mechanisms in our brain that prevent us from losing weight.

ケ The body's determination to maintain its composition is so strong that burning an extra 100 calories a day will not change the figure on the scales.

コ If women eat little in pregnancy, their children are likely to grow into lean adults.

2 下線部①を, these の内容を明らかにして日本語に直しなさい。

3 下線部②と③を日本語に直しなさい。