

I 次の英文を読んで下記の設問に答えなさい。

Anyone with more than passing contact with cats has probably known one that could tell when its owner was arriving home, open the door to get out, scratch on the window to get in, or perform some other feat that suggests that cats have something of note between their ears.

(A) On the other hand, many of us have known a cat that seemed not able to respond to almost any stimuli, made a mess, or injured itself when it overstepped its intelligence bounds, never picked up on learning tricks, or never learned to make its needs known.

Obviously, there are smart cats, and there are not-so-smart cats. Like humans, for every cat that can accomplish a feat of great intelligence, there is another one that bungles it. But, as a species, (are, cats, denying, intelligent, is, no, that, there).

Of course, no one has yet developed an IQ test for cats or has been able to prove the claimed intellectual superiority of certain breeds, such as Siamese. But certain characteristics of cats lead us to believe that they can think.

(C) One clue is their cautiousness. Many other animals are not smart enough to know when there could be danger. Another is their curiosity. They will explore things in situations not essential to their survival — a sure sign of intelligence far beyond the needs of mere existence. They also have a capacity for problem solving. Using their acute awareness of the world around them, they can work out answers to problems and then adapt solutions to different situations.

Cats are also independent-minded, with wills of their own. Unlike Pavlov's dogs, which repeat actions or press buttons so that they get a reward, many cats _(D) would sooner fall asleep than be involved in such experiments. Some of these cats may be judged as not very bright, or lazy, but arguably they are only exerting their independence and refusing to cooperate.

Cats' brains, in order to stay active, need to process a constant flow of information and stimulation from their environments. Electroencephalogram (EEG) readings, recording the brain activity of cats in stimulus-free environments, showed that the cats' brains gradually shut down to a basic body-^(E)maintenance level, without storing any thoughts or ideas.

This experiment also explains why kittens whose senses are not "exercised"^(F)from an early age do not grow up to function normally. The most intelligent cats are those raised by people who handle them, play with them, and provide a variety of stimuli for their amusement and growth.

注

overstep : to go beyond what is normal or allowed

bounds : the accepted or furthest limits of something

electroencephalogram : 脳波図

-free : without the thing mentioned

1. 下線部(A)を日本語に訳しなさい。
2. 下線部(B)の語を並べ替えて、意味の通る文にしなさい。
3. 下線部(C)を日本語に訳しなさい。
4. 下線部(D)を日本語に訳しなさい。
5. 下線部(E)を日本語に訳しなさい。
6. 下線部(F)によれば、どのような猫が正常に成長できないのか、日本語で述べなさい。

Ⅱ 次の英文を読んで下記の設問に答えなさい。

The release of a new drug is a pretty big deal in the world of medicine. The company that made it will throw a lavish party. The stock market will react to the news. Doctors will be inundated with freebies and trial samples. And now ^(A) that the U.S. Food and Drug Administration has lifted its restrictions against direct advertising, the public too will be assaulted with ad campaigns in newspapers, magazines and television.

As a physician, I often hear from patients who have read about a new medication and want me to write a prescription. To them, I must sound like a stick in the mud. Unless the medication they're taking is not working, however, ^(B) I'm generally reluctant to change. They assume that newer drugs are better; I assume the old ones are fine.

So I felt somewhat vindicated recently by a report in the *Journal of the American Medical Association* about the safety problems associated with new medications. Of 548 drugs approved by the FDA over the past 25 years, fully 20% turned out to have serious or life-threatening effects that were unknown or undisclosed at the time of approval, according to an analysis directed by the Harvard Medical School. Sixteen drugs were subsequently withdrawn from the market, but not before millions of people had been exposed. Seven of those drugs had side effects so serious they were cited as possible contributing factors in 1,002 deaths.

How could this ^(C) happen? I put the question to Dr. Karen Lasser, the lead author of the study. Basically, she says, "The drugs aren't adequately studied before being released to the public." As she points out, new drugs are tested first on relatively small numbers of users, who in the past tended to be men. It's only when the drugs are marketed to the general population and taken by large numbers of women, children and the elderly that more obscure side effects emerge.

The Pharmaceutical Research and Manufacturers Association took issue with the study, releasing a statement that called it “misinformed and misleading.” All medications involve some risk, the drug-makers point out, and some new medications have significant additional benefits that are discovered only after they are approved.

But the drug companies, by marketing their newest products so aggressively, are part of the problem. “They push the public and doctors to use new drugs that are more profitable but also more dangerous,” says Dr. Paul Allen, one of the study’s co-authors.

That’s a message patients should take to heart. Don’t assume because you see a lot of ads for a new drug that the one you are taking is no longer desirable. And if you switch to a new medication, be attuned to any unexpected side effects. The most common adverse reactions include liver toxicity, heart problems and fetal damage.

This is not to say that there aren’t plenty of important new drugs in the pipeline. I am sure that if there’s a sound reason for doing so, I will still prescribe newly released medications for my patients. But only when absolutely necessary. And then I will keep a very close eye out for any adverse effects.

注

be inundated with : to receive so much of something that you cannot easily deal with it all

freebie : something that is given to somebody without payment, usually by a company

stick in the mud : a person who refuses to try anything new or exciting

vindicate : to prove that something is true or that you were right to do something, especially when other people thought differently; to justify

attuned : familiar with somebody/something so that you can understand or recognize them or it and act in an appropriate way

in the pipeline : being discussed, planned or prepared and will happen or exist soon

liver toxicity : 肝毒性

1. 下線部(A)の内容を日本語で述べなさい。
2. 下線部(B)を日本語に訳しなさい。
3. 下線部(C)の内容を 40 字(句読点を含む)以内の日本語で述べなさい。
4. 下線部(D)を日本語に訳しなさい。
5. 下線部(E)の内容を日本語で述べなさい。

Ⅲ 次の英文を読んで下記の設問に答えなさい。

A particular problem directly related to continuing population growth is growing global food insecurity. For a variety of reasons the demand for food by the consumer has begun to outrun the capacity to provide. Where all attention was previously focused on population growth as the sole source of demand on available food stocks, today an equally important source of demand has become apparent and that is affluence. As per capita income increases, purchasing power climbs and with it a demand for higher quality foods, especially foods of animal origin such as meat, eggs, milk and milk products. Eating meat can be considered an inefficient way of utilizing grain. ^(A) In the United States it takes three pounds of grain to produce a pound of poultry; 5:1 is the ratio for pork, and 10:1 for beef. In the end, Americans eat eighty percent of all the grain they consume indirectly, first using it for feed and then consuming the meat. On the basis of these data, Americans consume the equivalent of one ton of grain a year while inhabitants of poorer countries consume one fifth as much. Outside our borders, other nations with growing economies but without comparable agriculture have also increased their appetites for animal protein. Hence, sixty percent of North American agricultural sales has been to nations whose people are already rather well fed. At this time, the approximately one billion people of the developed world feed enough grain to their livestock and poultry to provide minimal nutritional requirements to another 2 billion people. Over the last twenty years, the rich minority of the world has doubled its meat consumption. ^(B) This is, however, not due to eating twice as much meat per capita, although there has been some rise here. Rather, there are twice as many people with the money to buy a higher quality protein-rich diet. The net result is that while world population has been growing at 1.6 percent and agricultural production at 2.5 percent, world demand for food has been increasing at 3 percent per year.

It is to our advantage and the world's as well that the United States grain harvests in the years 1975 - 1977 have resulted in bumper yields. Overflowing granaries and low grain prices are the mark of this high productivity. But the ^(c)great increases in food production have not occurred where populations are growing the fastest. Gains in production require modern energy-intensive methods combining irrigation, pesticides, herbicides, fertilizers, genetics, and mechanization. One reason, among several, why poor countries have lagged behind in food production is because their farmers have not had access to appropriate technologies, such as sufficient fertilizers, irrigation, improved seeds, pesticides, storage facilities, and transportation. The world's poor are thus driven to world food markets to supplement their needs. However, they must compete ^(d)there with richer nations whose own increased demands have forced the price of grain upward. Caught in the price-squeeze of competition in which rising food prices outstrip purchasing power, the poor countries can buy less and less with their precious dollars. So today, we have the producer nations with surpluses to sell, the affluent consumer nations who have money to buy, and the low income consumer countries that cannot effectively compete in the world food markets. World hunger is sustained by scarcity promoted by the economic system of rich countries. According to some estimates, world agriculture could produce enough to feed up to 30 billion people. ^(e)What appears to be a food shortage may, in fact, be an uneven worldwide distribution of economic power. These differentials represent an ever-growing number of hungry people. The result is famine in some parts of the world, most notably on the Indian subcontinent and some countries of Africa and Latin America, and an over-abundance of food in a number of others.

注

affluence < **affluent** : having a lot of money and a good standard of living

per capita : for or by each person

poultry : (meat from) chickens, ducks and geese

livestock : the animals kept on a farm, for example, cows or sheep

bumper : unusually large; producing an unusually large amount

granary : a building where grain is stored

irrigation < **irrigate** : to supply water to an area of land through pipes or channels so that crops will grow

herbicide : a substance used to kill unwanted plants

price-squeeze : a situation in which prices are strictly controlled, so that it becomes difficult for someone to do something

outstrip : to be greater in quantity than something else

scarcity : a situation in which there is not enough of something

1. 下線部(A)のように言える理由を 40 字(句読点を含む)以内の日本語で述べなさい。
2. 下線部(B)のようになった主な理由を日本語で述べなさい。
3. 下線部(C)を日本語に訳しなさい。
4. 下線部(D)の指示する語句を英語のまま文中から抜き出しなさい。
5. 下線部(E)を日本語に訳しなさい。