読解問題演習 131

(神戸大 2002)

次の文章を読んで、問 1～問 4 に答えなさい。

Prehistoric humans spent only 40 percent of their waking hours on the necessities of life, such as food and shelter, according to anthropologists*. That left 60 percent for "leisure" pursuits — napping, storytelling, painting pictograms* on cave walls, and so on. Despite the increase of "labor-saving" devices ranging from microwave ovens to drip-irrigation systems*, modern humans seem to have less leisure time than (1)their long-lost ancestors. Visions of a twenty-hour work week, a noble idea proposed by philosopher Bertrand Russell in the 1930s, have never come to pass. In fact, as the global and domestic economy declines, many people find themselves working fifty to sixty hours a week just to (2)get by.

In this culture, our sense of identity and even self-worth is measured largely by the work that we do, rather than by what we do with our spare time. In fact, the very adjective "spare" suggests that any time left over from work is of lesser importance. (3)Paradoxically, however, what we do in our spare time more often defines our personalities than what we do nine to five. Certainly for some people, their professional career is identical with personal satisfaction, but for many, work is the way to pay the bills, while leisure is an opportunity to pursue activities that truly nurture them. Juliet Schor, in her essay "Exiting the Squirrel Cage," takes this argument a step further. Drawing a distinction between "(4)unpaid work" and "true leisure," she argues that much of what we do in our "non-working" hours, routine activities such as house cleaning and trimming our toenails, is actually work. Therefore, when we add this unpaid work time to forty-odd hours per week on the job, we're left with almost no "true leisure" time. Yet ironically, it is this tiny fraction of "true leisure" time that plays what some would argue the most important role in defining us as unique individuals.

With so little "true leisure," the pressure to have fun and fill that time with satisfying activities becomes greater. Our weekends should be filled with great parties, hot dates, productive creativity, and meaningful spiritual activity, or we feel as though we've failed in some way. Although we look forward to the parts of our lives away from work, the pressure to occupy free time with stimulating activity can actually become as oppressive as work itself. A sociologist calls (5)this sense of the burden of leisure "the lifestyle trap." When the stress of work flows over into non-working hours, then leisure becomes restless, action-packed and anything but relaxing.

注　anthropologists:　人類学者
pictograms:　絵文字
drip-irrigation systems　農業などで使われる細流灌漑システム

問1　下線部(1)と(2)の語句とほぼ同じ意味を表す語句を、本文中からそれぞれ抜き出して書きなさい。

問2　下線部(3)を日本語に訳しなさい。

問3　本文中で下線部(4)の具体例としてあげられているものを二つ、日本語で書きなさい。

問4　下線部(5)が意味する内容を 35 字以内の日本語で書きなさい。

				35					

読解問題演習 132

(神戸大 2000)

飛行船はもともとガス袋(envelope)と骨組みの関係から、硬式(rigid)、半硬式(semi-rigid)、軟式(non-rigid)の三種類に分けられていたが、現在使用されている飛行船はほとんど小型軟式飛行船(blimp)で、最近まで他の型式は忘れ去られていた。このことを参考に次の文章を読んで、問1～問4に答えなさい。

Engineers, dreamers and businessmen have been talking about reviving the airship for decades. Soon, some of their ideas may start to get off the ground.

When Count von Zeppelin* took off in his first airship on July 2nd 1900, it seemed that the flying machine of the future had arrived. (1)The next few decades saw a succession of ever larger and more ambitious craft, culminating in the 245-meter *Hindenburg*, which was launched in 1936. The *Hindenburg* could carry as many as 120 people. Indeed, it made several transatlantic crossings. But the glorious days of these graceful flying machines came to an end when the *Hindenburg* — filled, like most airships of the time, with explosive hydrogen — burst into flames in 1937.

(a)Airship enthusiasts have been trying to pick up the pieces ever since. Modern advocates of the technology dream of a new generation of the machines, buoyed by inert helium* rather than by hydrogen, and taking advantage of space-age materials and modern avionics*. There are now signs that the long-awaited airship revival is starting. (2)A handful of firms around the world have begun work on large airships, comparable in size to the great Zeppelins of the 1930s. Aiming at new markets in freight and luxury travel, they hope to fly within two years.

At present, the main use for airships is advertising. Colorful blimps, tiny by Zeppelin standards, are a common sight in the skies above cities. They are based on a non-rigid design, in which the pressure of the helium inside the envelope is used to maintain the airship's shape.

Larger modern airships rely on a semi-rigid design, in which engines and passenger compartments are suspended from a metal keel* that runs along the bottom of the envelope and prevents it from distorting under the load. Since 1997 Zeppelin Luftschifftechnik*, the direct descendant of the original Zeppelin company, has been testing the new model, a 75-meter semi-rigid design that can carry 12 passengers. But this is a pygmy compared with the Zeppelins of old. Several other companies have been thinking bigger.

Evidently (3)there is still plenty of life in the airship concept. Before his death in 1917 von Zeppelin was hailed, somewhat prematurely, as the greatest German of the 20th century. Perhaps, with a few new twists, the form of transport he pioneered will do better in the 21st.

注	Count von Zeppelin	ツェッペリン伯爵(硬式飛行船の考案者)
	inert helium	不活性ヘリウムガス
	avionics	航空電子工学
	keel	竜骨(船体の背骨にあたる)
	Zeppelin Luftschifftechnik	ツェッペリン飛行船技術者

問1　下線部(1)と(2)を日本語に訳しなさい。

問2　下線部(a)の内容とほぼ同じ意味をもつ文を本文中から抜き出し、その最初の１語を書きなさい。

問3　下線部(3)の内容をもっとも適切に表すものを下から選びなさい。

ア.　飛行船にはまだまだ活用する余地がある。
イ.　飛行船にはまだまだたくさんの人が乗れる。
ウ.　飛行船は研究者が人生の大半をかける課題である。

問4　将来の大型飛行船の用途として考えられていることを本文中から２つ抜き出し、英語で書きなさい。

読解問題演習 133

(九州大 2022)

次の英文を読み、設問に答えなさい。

During the late nineteenth and early twentieth century the race between education and technology was the impetus behind governments making primary and secondary schooling compulsory. Technological advances also shaped how people learnt. In the early twentieth century the principles of (1) 'Taylorism' took hold in the factory, creating a focus on the standardisation of processes, the efficiency of work and the mass production of goods. As a result, schools unified their teaching practices, specialised curriculums, and measured success by student grades. This standardisation helped manage the increasing volume of students and, more importantly, equipped them for the needs of the modern workplace — getting students used to continuous assessment, sitting down for long periods of set hours and taking instruction from a leadership figure.

This form of education system, however, will simply be preparing people for a life that no longer exists and for jobs that are no longer available, because obvious changes need to occur. People will need more education as they live and work for longer. This extra education will need to be *spread out* over time rather than be front-loaded at the beginning of life. (2)And if learning is no longer front-loaded then what needs to be learnt *at the beginning* must focus less on specific skills and knowledge and more on learning how to build the foundations for a lifetime of learning. As the social philosopher Eric Hoffer remarked: 'In times of drastic change it is the learners who inherit the future. The learned usually find themselves equipped to live in a world that no longer exists.'

(3)The foundation of much current education assumes a scarcity of knowledge. The role of the teacher is to convey facts and test students on their memorisation of them. However, in 2018 Internet traffic was estimated to be 1. 8 zetta* bytes — or more than all the words humans have written in their entire history. The world has transformed from having a scarcity to an abundance of knowledge.

This transformation requires a major change in how and what we learn. A shift in the education system from the idea of 'students' who acquire knowledge, to the notion of 'learners' who acquire skills and the ability to apply them. As Satya Nadelal, the CEO of Microsoft, briefly remarked: 'The "learn it all" will always beat the "know it all" in the long run.' The implication is that from an early stage, teaching has to focus on discovering where knowledge lies, dealing with ambiguity and uncertainty and assessing

and evaluating insights to solve a particular problem. (4)These are the very human skills which Hans Moravec describes in his 'landscape of human competencies' as being least likely to be performed by a machine. Superimposing onto this the implications of longer working lives serves only to emphasise the crucial role of learning how to learn and discover (as well as how to `unlearn').

It isn't just the human skills of critical thinking, hypothesis framing and synthesis that will be in demand from the education system. Given the rising tide of Moravec's landscape, the salary premium attached to communicating, teamwork and interpersonal skills will also inevitably increase. Angela Ahrendts, former vice president of retail at Apple Inc., understands the importance of this when she says: 'the more technologically advanced our society becomes, the more we need to go back to the basic fundamentals of human connection.'

The New Long Life by Andrew J. Scott and Lynda Gratton, Bloomsbury Publishing

Notes: zetta*: 10^{21}

問1 下線部(1)`Taylorism'が教育にどのような具体的な影響を与えたかについて、150 字以内の日本語でまとめなさい。ただし、句読点も文字数に含む。

									150

問2　下線部(2)を日本語に訳しなさい。

問3　下線部(3)が表す内容として最も適切なものを以下の(A)～(D)から一つ選びなさい。

(A) Our education system is failing to teach us the truth.
(B) Our education system prepares us for working in industry.
(C) Our schools assume we have too much information.
(D) Our schools teach what they think students don't know.

問4　下線部(4)<u>These</u> が<u>指さない</u>ものを以下の(A)～(D)から一つ選びなさい。

(A) Critical thinking and problem-solving
(B) Finding the source of information
(C) Handling data that is inconclusive
(D) Memorization of facts and definitions

問5　以下の(A)～(D)のうち、本文の内容に<u>合わない</u>ものを一つ選びなさい。

(A) Acquiring skills will be more important than the acquisition of knowledge in the future.
(B) Focusing on IT-related skills is sufficient to prepare students for the new marketplace.
(C) Progress will also include a return to traditional methods of working together with others.
(D) Society needs to re-think the priorities of its educational systems.

読解問題演習 134

(九州大 2022)

次の英文を読み、設問に答えなさい。

(1)＿＿＿＿＿＿＿＿＿＿ Why did you fall in love with your partner? When we start to examine the basis of our life choices, whether they are important or fairly simple ones, we might come to the realization that we don't have much of a clue. We might even wonder whether we really know our own mind, and what goes on in it outside of our conscious awareness.

Luckily, psychological science gives us important and perhaps surprising insights. One of the most important findings comes from psychologist Benjamin Libet in the 1980s. He devised (2)an experiment which was deceptively simple, but has created an enormous amount of debate ever since.

Participants were asked to sit in a relaxed manner in front of an adapted clock. On the clock face was a small light revolving around it. All those taking part had to do was to bend their finger whenever they felt the urge, and remember the position of the light on the clock face when they experienced the initial urge to move their finger. At the same time as that was all happening, the participants had their brain activity recorded via an electroencephalogram* (EEG), which detects levels of electrical activity in the brain.

What Libet was able to show was that timings really matter, and they provide an important clue as to whether or not the unconscious plays a significant role in what we do. He showed that the electrical activity in the brain built up well before people consciously intended to bend their finger, and then went on to do it.

In other words, unconscious mechanisms, through the preparation of neural activity, set us up for any action we decide to take. But this all happens before we consciously experience intending to do something. Our unconscious appears to rule all actions we ever take.

But, as science progresses, we are able to revise and improve on what we know. (3)We now know that there are several basic problems with the experimental set-up that suggest the claims that our unconscious fundamentally rules our behavior are significantly exaggerated. However, the original findings are still fascinating even if they can't be used to claim our unconscious completely rules our behavior.

Another way of approaching the idea of whether we are ultimately ruled by our unconscious is to look at instances where we might expect unconscious manipulation to occur. The most common example was marketing and advertising. This may not be a surprise given that we often

come across terms such as "subliminal advertising", which implies that we are guided towards making consumer choices in ways that we don't have any control over consciously.

James Vicary, who was a marketer and psychologist in the 1950s, brought the concept to fame. He convinced a cinema owner to use his device to flash messages during a film screening. Messages such as "Drink Coca-Cola" flashed up for a 3, 000th of a second. He claimed that sales of the drink shot up after the film ended. After significant public anger concerning the ethics of this finding, Vicary came clean and admitted the whole thing was fake ― he had made up the data.

In fact, it is notoriously difficult to show in laboratory experiments that the flashing of words below the conscious threshold* can prepare us to even press buttons on a keyboard that are associated with those stimuli, (4)_____ manipulate us into actually changing our choices in the real world.

As with the Libet study, this research motivated intense interest. Unfortunately, efforts to reproduce such impressive findings were extremely difficult, not only in the original consumer contexts, but beyond into areas where unconscious processes are thought to be common such as in unconscious lie detection, medical decision-making, and romantically motivated risky decision-making.

(5)That said, there are of course things that can influence our decisions and steer our thinking that we don't always pay close attention to, such as emotions, moods, tiredness, hunger, stress and biases. But that doesn't mean we are ruled by our unconscious ― it is possible to be conscious of these factors. We can sometimes even counteract them by putting the right systems in place, or accept that they contribute to our behavior.

To what extent are we ruled by unconscious forces?, The conversation on May 26, 2021 by Magda Osman

Notes:
electroencephalogram*: 脳波図(脳波電位の記録)
threshold*: 人が何かを感じ、反応し始める水準

問1 下線部(1)の空所に入る最も適切なものを以下の(A)～(D)の中から一つ選びなさい。

(A) What is a cause of climate change?
(B) What is the meaning of life?
(C) Why did you buy your car?
(D) Why were you born where you were born?

問2　下線部(2)an experiment の手順(結果や意義は含まない)を、100～120 字の日本語でまとめなさい。ただし、句読点も字数に含む。また、英文字も 1 字とする。

（草稿用）

									100
									120

（解答用）

									100
									120

問3　下線部(3)を日本語に訳しなさい。

問4　下線部(4)の空所に入る最も適切なものを以下の(A)～(D)の中から一つ選びなさい。

(A)　as well as
(B)　in addition
(C)　let alone
(D)　or it could

問5　下線部(5)That said に最も近い意味を表すものを以下の(A)～(D)の中から一つ選びなさい。

(A)　As is often the case,
(B)　As mentioned above,
(C)　Moreover,
(D)　Nevertheless,

問6　以下の(A)～(D)のうち、本文の内容に合わないものを一つ選びなさい。

(A)　Electrical activity in the brain very often predicts what behavior will follow.
(B)　Our feelings and current mental condition likely steer some of our behavior.
(C)　The experiments of James Vicary are concrete proof that unconscious processes influence our decision-making.
(D)　The research of Benjamin Libet was an important step in our understanding of unconscious influence.

読解問題演習 135

(九州大 2022)

次の英文を読み、設問に答えなさい。文中の(A)～(D)については、問1を見ること。

Imagine that four teams of friends have gone to a shooting arcade. Each team consists of five people; they share one rifle, and each person fires one shot to hit the bull's-eye, the small circular area at the center of a target. Figure 1 shows their results.

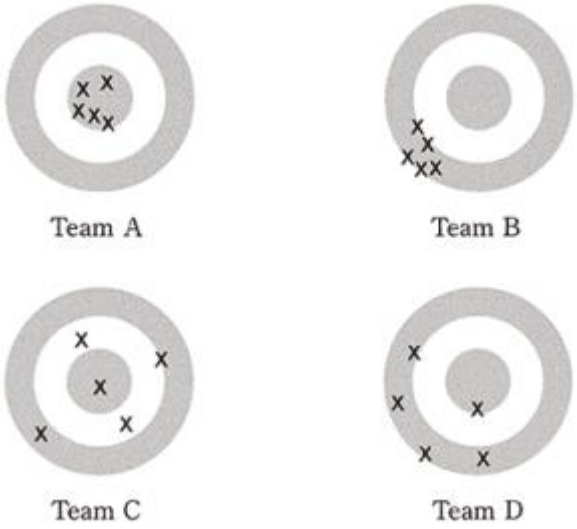

Figure 1: *Four teams*

TEAM A: (A)

TEAM B: (B)

TEAM C: (C)

TEAM D: (D)

But this is not a book about target shooting. Our topic is human error. Bias and noise — systematic deviation and random scatter — are different components of error. The targets illustrate the difference.

The shooting arcade is a metaphor for what can go wrong in human judgment, especially in the diverse decisions that people make on behalf of organizations. In these situations, we will find the two types of error illustrated in figure 1. Some judgments are biased; they are systematically off target. Other judgments are noisy, as people who are expected to agree end up at very different points around the target. Many organizations, unfortunately, are afflicted by both bias and noise.

Figure 2 illustrates an important difference between bias and noise. (1)It shows what you would see at the shooting arcade if you were shown only the

backs of the targets at which the teams were shooting, without any indication of the bull's-eye they were aiming at.

From the back of the target, you cannot tell whether Team A or Team B is closer to the bull's-eye. But you can tell at a glance that Teams C and D are noisy and that Teams A and B are not. Indeed, you know just as much about scatter as you did in figure 1. A general property of noise is that you can recognize and measure it while knowing nothing about the target or bias.

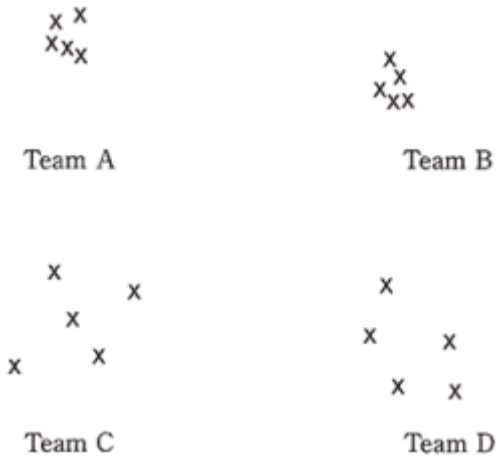

Figure 2: *Looking at the back of the target*

(2)The general property of noise just mentioned is essential for our purposes in this book, because many of our conclusions are drawn from judgments whose true answer is unknown or even unknowable. When physicians offer different diagnoses for the same patient, we can study their disagreement without knowing what troubles the patient. When film executives estimate the market for a movie, we can study the variability of their answers without knowing how much the film eventually made or even if it was produced at all. (3)We don't need to know who is right to measure how much the judgments of the same case vary. All we have to do to measure noise is look at the back of the target.

To understand error in judgment, we must understand both bias and noise. Sometimes, noise is the more important problem. But in public conversations about human error and in organizations all over the world, noise is rarely recognized. Bias is the star of the show. Noise is a minor player, usually offstage. The topic of bias has been discussed in thousands of scientific articles and dozens of popular books, few of which even mention the issue of noise. This book is our attempt to set the balance right.

Noise by Daniel Kahneman, Little, Brown and Company

問1　Figure 1 の Team A, B, C, D の説明として最も適切なものを以下の(ア)～(エ)からそれぞれ一つ選びなさい。

(ア)　This team is both *biased* and *noisy*. Its shots are systematically off target and widely scattered.

(イ)　In an ideal world, every shot would hit the bull's-eye. This team's shots are tightly clustered around the bull's-eye, close to a perfect pattern.

(ウ)　This team is *noisy* because its shots are widely scattered. There is no obvious bias, because the impacts are roughly centered on the bull's-eye. If one of the team's members took another shot, we would know very little about where it is likely to hit. Furthermore, no interesting hypothesis comes to mind to explain the results of this team. We know that its members are poor shots. We do not know why they are so noisy.

(エ)　This team is *biased* because its shots are systematically off target. As the figure illustrates, the consistency of the bias supports a prediction. If one of the team's members were to take another shot, we would bet on its landing in the same area as the first five. The consistency of the bias also invites a causal explanation: perhaps the gunsight on the team's rifle was bent.

問2　本文中の語“bias”に最も近い意味を表す２語の句を本文から探して書きなさい。

問3　下線部(1)を日本語に訳しなさい。

問4　下線部(2) The general property of noise just mentioned がこの文脈で指す内容を、日本語で書きなさい。

問5　下線部(3)を日本語に訳しなさい。

問6　以下の(A)～(D)のうち、本文の内容に合わないものを一つ選びなさい。

(A)　*Bias* and *noise* provide difficulties for many organizational decisions.
(B)　*Noise* needs to be the focus of more analysis in the future.
(C)　"Target shooting" is an easy-to-understand metaphor for decision-making mistakes.
(D)　The terms *bias* and *noise* can be used to describe the same phenomenon.

読解問題演習 136

(同志社大 2020・全学部日程(理系))

次の文章を読んで設問に答えなさい。[＊印のついた語句は注を参照しなさい。]

Our evolutionary success is usually attributed to our ancestors' flashiest achievements: upright walking, control of fire, tool use and social cooperation. "Sleep isn't generally listed," says David Samson, an anthropologist* at the University of Toronto, Mississauga. "But (ア)my bias is it should be ― because it is expressed so uniquely in humans."

Roughly 8 million years ago in Africa, hominins ― the evolutionary branch that includes humans and our extinct ancestors ― diverged from* other primates*. Since that split, hominins evolved distinctive sleep habits still with us today. First off, we sleep less. While humans average seven hours, other primates range from just under nine hours to seventeen. Chimps, our closest living evolutionary relatives, average about nine and a half hours. And although humans doze* (X) less time, a greater proportion is rapid eye movement sleep (REM) (中略).

These differences were first noticed in the 1960s, when scientists recorded monkey sleep phases using electroencephalogram (EEG)* machines. But only recently (あ) anthropologists (い) (う) (え) the role (お) sleep in human evolution. "Which is kind of wild to me because it's something we spend a third of our lives doing," Samson says. Thanks to a (a)surge of new research, Samson and his colleagues are finding that our unique sleep habits may have been as essential to hominins' success as walking on two feet ― even though (イ)scientists aren't sure why we sleep at all.

Some animals do sleep (Y) one or two eyes open, but others tend to go for the full shut-eye. Within that state, they cycle through degrees of consciousness. During non-REM stages, heart rate and breathing slow, muscles relax and awareness of external stimuli fades. Brain activity settles into comalike*, low-frequency electrical waves, detectable by EEG. Next comes REM sleep, characterized by quick brain waves and dreams. (中略)

While the costs of sleep are obvious ― an animal is vulnerable to (b)predators and other threats, and loses opportunities to find food and mates ― the benefits are not. Different hypotheses about why we need sleep include neural* development and (c)upkeep, memory processing and immune defense, but there's no consensus.

Sleep habits also differ drastically* among species. Elephants get by with two hours of shut-eye, while armadillos need 20. Researchers have found

several factors that influence these variations in sleep patterns. For example, animals with high metabolisms* sleep less ― (d)presumably because they spend more time awake and eating. And animals with bigger brains spend a greater portion of sleep in REM. As a result, different species need different amounts of sleep based on their diets, brain size and other variables. An armadillo-hour does not equal an elephant-hour when it comes to catching Zs*.

In a 2018 study in the *American Journal of Physical Anthropology*, Samson and colleague Charles Nunn, an anthropologist at Duke University, employed a sophisticated statistical method to compare the sleep patterns found in 30 primate species, including our own. They found, says Samson, that humans are significant "evolutionary outliers*." (中略) Human sleep is shorter and deeper ― in other words, more efficient ― than that of our closest relatives. The finding supports a hypothesis proposed by the duo in 2015. Efficient sleep gave our hominin ancestors an evolutionary (e)edge. By shortening total duration, hominins reduced their time as unconscious targets for predators, and added waking hours to complete essential tasks, like learning, securing resources and maintaining social bonds.

It's also still unknown when our ancestors evolved this unusual sleep pattern. Samson (f)speculates it may have emerged when they became too large to sleep in trees, roughly 2 million years ago with *Homo erectus**. While other apes avoid predators by building arboreal* nests, it's possible that hominins sleeping on the ground evolved more efficient sleep to allow them to spend more time awake ― and on the alert (　Z　) potential threats.

Based on nearly 70 studies across cultures, including those without electricity or 9-to-5 workdays, Samson and Nunn determined that humans sleep an average of seven hours out of every twenty four. But, says Samson, "where it gets tricky is that when you look across cultures, (ウ)the way those seven hours are expressed can be pretty flexible."

In contemporary industrialized societies, people typically sleep for one continuous bout*. But other cultures divide sleep over multiple sessions, through daytime napping or two nighttime (g)episodes, separated by about an hour of wakefulness. The latter was the (h)norm for humans before the Industrial Revolution, according to research by historian Roger Ekirch. In preindustrial documents, Ekirch identified over a thousand mentions of so-called first and second sleep, and activities done between, such as chores, prayers, even visiting neighbors. (中略) The habit of segmented sleep was (i)shed by the early 1900s, likely due to artificial lighting and changing societal views that equated* single-bout sleep with productivity and

prosperity. Yet Ekirch believes it persists, among Westerners who spontaneously wake in the middle of the night, "a persistent echo of a pattern of sleep ... dominant for literally thousands of years."

(By Bridget Alex, writing for *Discover* 電子版, January 1, 2019)

[注]		
	anthropologist	人類学者
	diverged from	(diverge from　～から分岐する)
	primates	霊長類の動物
	doze	眠る
	electroencephalogram (EEG)	脳波図
	comalike	昏睡状態のような
	neural	神経の
	drastically	劇的に
	metabolisms	新陳代謝
	catching Zs	眠ること
	outliers	アウトライヤー(通常の分布から大きく外れたもの)
	Homo erectus	ホモ・エレクトス(旧石器時代に存在していたヒト科の一種)
	arboreal	樹木の
	bout	一期間
	equated	(equate～with...　～を...と等しいとみなす)

I-A　空所(X)～(Z)に入るもっとも適切なものを次の 1～4 の中からそれぞれ一つ選びなさい。

(X)	1 at	2 by	3 for	4 of
(Y)	1 in	2 over	3 to	4 with
(Z)	1 by	2 for	3 into	4 on

I-B　下線部(a)～(i)の意味・内容にもっとも近いものを次の 1～4 の中からそれぞれ一つ選びなさい。

(a) surge

1 detailed analysis		2 radical discovery	
3 rapid increase		4 slow flow	

(b) predators

1 disasters	2 hunters	3 monsters	4 traps

(c) upkeep

1 maintenance	2 movement	3 prevention	4 progress

(d) presumably

1 precisely	2 probably	3 uniquely	4 usually

(e) edge

1 advantage	2 corner	3 phase	4 sharpness

(f) speculates

1 fears	2 hopes	3 hypothesizes	4 proves

(g) episodes

1 dreams	2 patrols	3 periods	4 stories

(h) norm

1 desire	2 evolution	3 obligation	4 standard

(i) shed

1 abandoned	2 applied	3 established	4 valued

I-C　破線部(ア)～(ウ)の意味・内容をもっとも的確に示すものを次の 1～4 の中からそれぞれ一つ選びなさい。

(ア)　my bias is it should be

1. I am inclined to put sleep on the list
2. I believe that people generally sleep
3. my colleagues insist on adding sleep
4. researchers do not believe in bad sleep

(イ)　scientists aren't sure why we sleep at all

1. scientists don't believe sleep is all important
2. scientists are wondering why some humans never sleep
3. scientists are not certain why we have our own sleep habits
4. scientists don't know why humans need sleep

(ウ)　the way those seven hours are expressed can be pretty flexible

1. different cultures may have different devices to measure seven hours' sleep
2. how seven hours' sleep is structured varies a good deal between cultures
3. people explain their need for seven hours' sleep in very different ways
4. written texts concerning seven hours' sleep are not very consistent

I-D　二重下線部の空所(あ)～(お)に次の 1～7 の中から選んだ語を入れて文を完成させたとき、(あ)と(う)に入る語の番号を記しなさい。同じ語を二度使ってはいけません。選択肢の中には使われないものが二つ含まれています。

But only recently (　あ　) anthropologists (　い　) (　う　) (　え　) the role (　お　) sleep in human evolution.

1 as	2 begun	3 consider	4 have
5 it	6 of	7 to	

I-E 本文の意味・内容に合致するものを次の 1～8 の中から三つ選びなさい。

1. Humans' advanced development has traditionally been attributed to several unique human achievements, including sleep habits.
2. Hominins started to follow a different evolutionary path from other primates around 8 million years ago.
3. David Samson, a researcher at the University of Toronto, and his colleagues have devoted about a third of their lives to studying the sleep habits of apes.
4. While elephants can manage with two hours' sleep, armadillos need to sleep ten times more, as different animals have different sleep patterns.
5. David Samson and Charles Nunn found that because humans sleep for a shorter period of time than other primate species, they tended to be more tired, and thus an easier target for predators.
6. Human beings and other primates could sleep much more efficiently in trees than on the ground because they did not have to worry about potential threats.
7. In some cultures today, a decent amount of sleep is achieved by taking more than one sleep in a twenty-four hour period.
8. Before the Industrial Revolution, people worked between their periods of nighttime sleep, on the condition that they did not have to go out.

読解問題演習 137

(同志社大 2020・全学部日程(理系))

次の文章を読んで設問に答えなさい。[＊印のついた語句は注を参照しなさい。]

The Konya Plain stretches for hundreds of miles across central Turkey. Almost 60 years ago, in a remote spot some 30 miles from the regional capital of Konya, a team of archaeologists began exploring two small hills. A fork in a local footpath and the two mounds themselves gave the site its modern name. Fork (*çatal* in Turkish) and mound (*höyük*) combine to form Çatalhöyük*. Today the site is regarded by UNESCO as the most significant human settlement (a)documenting early settled agricultural life.

Founded over 9,000 years ago on the bank of a river that has since dried up, Çatalhöyük is believed to have been home to an egalitarian* Stone Age society who built distinctive homes, arranged back-to-back without doors or windows. They went in and out through openings in the roof. On the inside, they left wall paintings and enigmatic figurines*. These (b)dwellings also played an important role in their funerary practices. Residents buried the dead under their homes. (X) its peak, the town housed as many as 8,000 people, who supported themselves through agriculture and raising (c)livestock.

(あ) (い) (う) fascinating details (え) (お) what life in a Stone Age town was (か) , the site chronicles* a critical moment in human history: when people were starting to abandon nomadic* ways. Prior to the settlement at Çatalhöyük, humanity had been wanderers for hundreds of thousands of years. Çatalhöyük marks a time when people (d)embarked on one of the earliest experiments in "urban" living.

(ア)Çatalhöyük's earliest occupation has been dated to 7400 B.C., as part of the westward spread of settled farming associated with the Neolithic, or New Stone Age. (中略) The eastern mound was inhabited for as many as 1,500 years. Its later period (e)coincided with the Copper Age, which began around 5500 B.C. In this later phase, the eastern mound was abandoned, and the western mound developed. Pottery decorated with colored paint, a feature associated with the Copper Age, has been found on this later, western mound.

Much of the economic, social, and ritual life of Çatalhöyük was organized around the home. The houses, all very similar in size, (f)sheltered families of five to ten people. A typical home had no windows, one main room, and two ancillary* rooms for storage or domestic work. The walls were made of adobe* and covered with plaster. They measured some 20 inches thick and stood more than eight feet tall.

The use of clay and plaster as building materials made archaeologists' work easier. Floors, walls, and art had to be renewed continually. In some buildings more than 450 layers of fine plastering have been documented on just four inches of wall. Each of these layers provides information about the period when the building was constructed and (　Y　) occasion gives subtle details about the occupants' daily lives, such as the marks left by baskets or rugs on floors. (中略)

The occupants of Çatalhöyük grew grains and legumes*, kept sheep and goats, and hunted wild animals such as bison, deer, elk, boar, and birds. The surrounding countryside offered wild food sources, such as apples, almonds, pistachios, fish, and waterfowl* eggs. Building materials such as plaster and mud were also readily available near the settlement itself. Archaeologists were surprised to find that homes were not located close to their fields, which was unexpected for an agricultural community of several thousand people. (中略) One possible explanation lies in the high demand for plaster and clay in the village. If people had lived closer to their farmland, they would have been forced to travel to get clay to build their homes. The cane baskets they used to transport it were unsuited to (イ)hauling vast quantities over large stretches of territory. It was easier to transport their harvests and store them. Traveling was evidently not a problem, as the citizens of Çatalhöyük engaged in long-distance trade. Archaeologists found baskets of date palm* leaves that originated from Mesopotamia or the Levant*. Shells suggest they traded with peoples near the Red Sea* or the Mediterranean. (中略)

(　Z　) date, no monumental constructions (temples, grand (g)communal buildings, or burial grounds) have been found at Çatalhöyük. Archaeologists believe this lack suggests a remarkably egalitarian society ― at least in its earlier stages. Some buildings with more burials and more elaborate architecture have been identified, notable for the presence of bull's horns on pedestals* or other elements. However, the people who lived in these homes did not control food production, (ウ)nor were their burials more elaborate than others. It is thought they served to keep the historical and cultural memory of the community alive. (中略)

There are also many mysteries surrounding why the site was eventually abandoned. Evidence suggests that the social system gradually broke down due to cultural shifts and climate change. In the later period, archaeologists (h)detected an increase in the differences dividing social classes. Homes were no longer the center of ritual and social relations and became centers of production and consumption. Archaeologists are still searching for explanations. Only 4 percent of the entire surface area of Çatalhöyük has

been studied, which means that there are thousands of unexcavated* buildings that perhaps hold the answers to these and many other questions about the "urban" dwellers of Çatalhöyük.

(By Cristina Belmonte, writing for *National Geographic History*, March/April, 2019)

[注]

Çatalhöyük	チャタルヒュユク(遺跡名)
egalitarian	平等主義の
enigmatic figurines	なぞめいた小さな彫像
chronicles	(chronicle　記録にとどめる)
nomadic	移動生活の
ancillary	補助の
adobe	アドービ粘土
legumes	マメ科植物
waterfowl	水鳥
date palm	ナツメヤシ
the Levant	レバント地方
the Red Sea	紅海
pedestals	台座
unexcavated	未発掘の

Ⅱ-A. 空所(X)～(Z)に入るもっとも適切なものを次の 1～4 の中からそれぞれ一つ選びなさい。

(X)	1 At	2 For	3 In	4 On
(Y)	1 at	2 for	3 in	4 on
(Z)	1 From	2 On	3 To	4 Up

Ⅱ-B. 下線部(a)～(h)の意味・内容にもっとも近いものを次の 1～4 の中からそれぞれ一つ選びなさい。

(a) documenting

1 recording	2 reforming	3 rejecting	4 returning

(b) dwellings

1 doors	2 houses	3 people	4 walls

(c) livestock

1 animals	2 children	3 grains	4 vegetables

(d) embarked on

1 abandoned	2 began	3 resumed	4 stopped

(e) coincided with

1 occurred a long time after	2 occurred at the same time as
3 occurred in addition to	4 occurred slightly before

(f) sheltered

1 accommodated	2 hid	3 placed	4 produced

(g) communal
1 detached　2 public　3 renovated　4 specific
(h) detected
1 demanded　2 overlooked　3 traced　4 valued

Ⅱ-C. 破線部(ア)～(ウ)の意味・内容をもっとも的確に示すものを次の 1～4 の中からそれぞれ一つ選びなさい。

(ア)　Çatalhöyük's earliest occupation has been dated to 7400 B.C.
1. Çatalhöyük ceased to exist in 7400 B.C.
2. Çatalhöyük was not populated in 7400 B.C.
3. Çatalhöyük was inhabited from around 7400 B.C.
4. Çatalhöyük was only conquered prior to 7400 B.C.

(イ)　hauling vast quantities over large stretches of territory
1. carrying a large amount of clay over long distances
2. getting stretched out after excessive, long-term use
3. trading various agricultural products for a long time
4. transporting trade goods to distant countries

(ウ)　nor were their burials more elaborate than others
1. and their earlier burials varied greatly from each other
2. and their tombs were decorated much more than others'
3. and they were buried in an obviously poorer fashion than others
4. and they were not buried in a more sophisticated way than others

Ⅱ-D. 二重下線部の空所(あ)～(か)に次の 1～6 の中から選んだ語を入れて文を完成させたとき、(あ)と(え)と(か)に入る語の番号を記しなさい。同じ語を二度使ってはいけません。選択肢は文頭に入るものも含め、すべて小文字にしてあります。

(　あ　) (　い　) (　う　) fascinating details (　え　) (　お　) what life in a Stone Age town was (　か　) , the site chronicles* a critical　moment in human history
1 as　2 aside　3 from　4 like
5 revealing　6 to

Ⅱ-E. 本文の意味・内容に合致するものを次の 1～8 の中から三つ選びなさい。

1. Çatalhöyük, which is considered to be an extremely important archeological site, was named after local landscape features.
2. People who lived in Çatalhöyük entered their houses from the back, which was decorated with a large number of enigmatic figurines.
3. Çatalhöyük shows us how people lived in the Neolithic Age, and it tells us when humanity became wanderers instead of settling in one place.
4. In the Copper Age, people in Çatalhöyük left the eastern hill, although they had resided there for a long time, and the western hill became prosperous instead.
5. Houses in Çatalhöyük usually had primitive windows and four rooms with clay walls that were about 20 inches thick and more than eight feet tall.
6. Çatalhöyük people had access to various kinds of food, including the apples, almonds, and pistachios that were cultivated in their fields.
7. Those who lived in houses that had more complex styles and more burials in them are thought to have been responsible for preserving the memory of the community's deeds.
8. After archeologists finished excavating Çatalhöyük, it became clear why homes had stopped being the center of ritual and social relations.

Ⅱ-F. 本文中の太い下線部を日本語に訳しなさい。

If people had lived closer to their farmland, they would have been forced to travel to get clay to build their homes.

読解問題演習 138

Read the following passage.

(北海道大 2014)

In 2003, hundreds of people suddenly turned up at a department store and asked confused shop assistants where they could buy a "love rug", an item that does not exist. This kind of event soon became popular and is now referred to as a "flash mob". A "flash mob" is a group of people who use email, Twitter and social networking sites to organize sudden public gatherings at which they participate in pointless activities that only last for a short time.

The idea soon took off and flash mobs started appearing all over the world. Sometimes they made headline news. For example, twelve thousand people descended on Liverpool Street Station in London in 2009. They waited until seven o'clock and then suddenly started dancing. This flash mob was started by a twenty-two year old man who posted his idea on a social networking site. Other flash mob events include mass pillow fights in Taipei, Toronto and New York, posing like statues, again in Liverpool Street Station, a water fight in Vancouver, and asking employees in book shops in Rome for non-existent books.

Supporters say that flash mobs are a way for people to come together and express themselves in a unique way. They claim that participation creates a sense of unity that breaks through the cold anonymity of public spaces. It also fights against conformity and, at the end of the day, is just a bit of harmless fun.

Not everyone agrees. Critics argue that there is nothing spontaneous about organized events at which everyone does the same thing. Opponents also insist that flash mobs can disturb others who are trying to go about their business. For example, British transport police reported that the flash mob dance disrupted rush hour services because the trains could not stop at the station.

Answer questions A to C **in English**. You may use words and ideas from the text, but you **must not** copy complete sentences.

Question A

According to the text, what are the four defining characteristics of a "flash mob"? Complete the following sentence.

A flash mob is a sudden public gathering of people which _____
_____
_____
_____. It only lasts for a short time.

Question B

Supporters and critics view flash mobs from different perspectives. Complete the following sentence.

Supporters would say that flash mobs encourage _____
_____, whereas critics argue that flash mobs prevent _____
_____ .

Question C

Imagine that you have received the following email invitation from a close friend to attend a flash mob event: "Hi! Let's get together at Odori Park during the Sapporo Snow Festival this Friday at 6 pm and have a big snowball fight!" Do you think this activity would be worth participating in? In 70-100 words, state your opinion and give THREE specific reasons to support your position.

読解問題演習 139

(鹿児島大 2021)

次の英文を読み、設問に答えなさい。

In a recent *Rolling Stone* feature reflecting on her career, the musician and actress Kate Nash explained that the boredom she experienced as a teenager led her to start writing her music. "I wrote a lot because there wasn't much else going on in my life." Later, when her friends were off at university and she was stuck at home and working in a clothes shop, a lack of things to do spurred her on again. "There was a lot of sighing and staring out of the windows. (1)Again boredom became a great motivator. I started writing songs again; I posted them on *MySpace*, and very quickly and unexpectedly became a pop star with a Number One record."

The topic of boredom has come up a lot recently. With much of the world spending weeks in lockdown, and usual forms of socialising and entertainment off limits, there's a suggestion more of us could be experiencing moments of boredom. In fact, some researchers see this as a once-in-a-lifetime opportunity to study its effects.

So what is it about boredom that leads to creativity? Researchers have been exploring the link for some time. In (2)one 2013 study, British psychologist Sandi Mann divided subjects into two groups and gave one the boring task of copying numbers from a phone book. Each group was then given a creative task of coming up with as many uses as possible for a plastic cup. The 'bored' group outperformed the other. Another set of students, who had the even duller task of simply reading the phone numbers, did even better. The thinking is that boredom gives us a push to explore creative outlets to fill the (　A　) our brain is noticing.

But though some of us may have more time on our hands now (while others are busier than ever), boredom is not as simple as having nothing to do. "When we're bored, there are two key things happening in our mind," says John Eastwood, a psychologist at the Boredom Lab at York University, Canada. "The first thing is what I would call (3)a 'desire bind'. That's when someone is kind of stuck because they desperately want to do something but they don't want to do anything that's on offer. Secondly, when you're bored, your mental capacity is lying fallow. We're itching to engage our mind. These are the two core things that are what it means to feel bored."

Boredom is not in itself creative, argues Eastwood, who is the co-author of a new book on boredom called *Out of My Skull: The Psychology of Boredom*. It's (　B　) that is important. "When you feel bored, because it's an aversive and uncomfortable state, you're motivated to look for something else. In that gap there's a real chance to discover something new. What

matters to me and what am I passionate about? I think that looking can be a source of creativity."

(Adapted from BBC: How boredom can spark creativity, https://www.bbc.com/culture/article/20200522-how-boredom-can-spark-creativity)

(注) Rolling Stone: ローリング・ストーン(雑誌の名前)　spur: 駆り立てる
subject: 被験者　outperform: ～をしのぐ
lie fallow: (才能などが)眠っている　itch: (～したくて)むずむずする
aversive: 嫌悪を示す

設問

(1) 下線部(1)において Again boredom became a great motivator と述べられているが、Kate Nash にとって最初に boredom became a great motivator となった状況はどのようなものだったか、日本語で簡潔に説明しなさい。

(2) 下線部(2)の研究の実験において、①被験者グループの creativity をはかるために共通しておこなわせた作業は何か、日本語で説明しなさい。また、②この実験で最も creativity が高いと判断されたグループは最初にどのような作業をしたグループか、日本語で説明しなさい。

(3) 空欄(　A　)に入る最も適切な語を、後に続く二つの段落(下線部は除く)のなかから英語一語で答えなさい。

(4) 下線部(3)の a ‘desired bind’とはどのような状態か、日本語で説明しなさい。

(5) 空欄(　B　)に入る最も適切な語句を、以下の選択肢から一つ選びなさい。

(ア) what you hope　　(イ) what you are
(ウ) what it is about　　(エ) what it leads to

読解問題演習 140

(青山学院大・経営 2021)

次の文章を読み、設問に答えなさい。

Suppose you are a doctor faced with a patient who has cancer. Unless the cancer cells are destroyed, the patient will die. There is a kind of ray that can be used to destroy the cancer cells. If the rays reach the cancer cells all at once at a sufficiently high intensity, the cancer cells will be destroyed. Unfortunately, at this intensity, healthy tissue that the rays pass through on the way to the cancer cells will also be destroyed. At lower intensities, the rays are harmless to healthy tissue, but they will not affect the cancer cells either. What type of procedure might be used to destroy the cancer cells with the rays, and at the same time avoid destroying healthy tissue?

How do you think this problem can be solved? While you are thinking, here is a little story to pass the time: There once was a general who needed to capture a fort. If the general could get all of his troops to the fort at the same time, they would have no problem taking it. There were plenty of roads leading to the fort, but they had landmines on them, so only small groups of soldiers could safely walk on any one road. He divided the army into small groups, and each group traveled a different road leading to the fort. They made sure to meet at the fort at the same time by way of their separate roads. The general finally was able to capture the fort.

Have you (1) yet? Just one last story while you are trying to figure it out. A fire chief arrived at a cottage fire. The cottage was next to a lake, so there was plenty of water. Dozens of neighbors were already taking turns with buckets throwing water on the cottage fire, but they were not making any progress. The fire chief yelled at them to stop and to all go fill their buckets in the lake. When they returned, the chief arranged them in a circle around the cottage, and on the count of three had everyone throw their water at the same time. The fire was finally put out.

Are you done saving your patient? Don't feel bad, almost no one solves this problem. At least not in the beginning, but eventually almost everyone solves it. Only about 10 percent of people solve the ray problem (2) . Presented with both the ray problem and the fort story, about 30 percent solve it and save the patient. Given both of those plus the fire chief story, half solve it. Given the fort and the fire chief stories and then told to use them to help solve the ray problem, 80 percent save the patient.

The answer is that you could direct multiple low-intensity rays at the cancer cells from different directions, leaving healthy tissue undamaged, but concentrate on the cancer cells with enough combined intensity to destroy them. Just like how the general divided up troops and directed them to meet at the fort, and how the fire chief arranged neighbours with their buckets around the cottage so that their water would join together to put the fire out at the same time.

Whether you got it or not is unimportant. The important thing is what this shows about problem solving. A gift of (3)[a different field / a single analogy / from / got / multiplied by three / the proportion of solvers / the ray problem / who] . Two analogies from different fields further increased the proportion.

The most successful strategy employed multiple situations that were not at all similar on the surface, but held deep structural similarities. Most problem solvers will stay inside of the problem at hand, focused on the details, and perhaps call on other medical knowledge, since it is on the surface a medical problem. They will not automatically turn to (4)disistant

analogies to look for solutions. But they should, and they should make sure that some of those analogies are far removed from the current problem on the surface. Relying upon experience from a single field is not only limiting, it can be harmful.

Here is an episode that shows how harmful it can be. Psychologist Kevin Dunbar documented how creative laboratories worked in the 1990's. He focused on biology laboratories and spent a year with four laboratories, visiting them every day for over four months.

Dunbar saw that the laboratories most likely to turn unexpected findings into new knowledge made a lot of analogies, and made them from a variety of fields. The laboratories in which scientists had more various professional backgrounds were the ones where more and more various analogies were offered, and where findings were more steadily produced when unexpected things happened. (5)They included members with a wide variety of experiences and interests.

In one instance, Dunbar actually saw two laboratories encounter the same experimental problem at around the same time. One of the laboratories included only experts on bacteria, and the other had scientists with chemistry, physics, biology, and genetics backgrounds, plus medical students. "One laboratory made an analogy drawing on knowledge from the person with a medical degree, and they solved the problem right there at their meeting," Dunbar told me. "The other laboratory used knowledge on bacteria to deal with every problem. That did not work here so they had to just start experimenting for weeks to get rid of the problem."

In the (6) of the unexpected, the range of available analogies helped determine who learned something new. In the only laboratory that did not make any new findings during Dunbar's project, everyone had similar and highly specialized backgrounds, and analogies were almost never used. "When all the members of the laboratory have the same knowledge at their disposal, and then when a problem arises, a group of similar-minded individuals will not provide more information to make analogies than a single individual," Dunbar concluded. "You need a mixture of strategies," he told me.

The trouble with using no more than a single analogy, particularly one from a very similar situation, is that (7)it does not help fight the natural urge to employ the inside view. (B)We take the inside view when we make judgments based narrowly on the details of a particular project that are right in front of us. Our natural tendency to take the inside view can be defeated by following analogies to the outside view. The outside view looks for deep

structural similarities to the current problem in different ones. The outside view requires a mental switch from narrow to broad.

設問 A

(1) カッコ内に入るべき最も適切なものはどれか。
1. captured the fort　2. come up with a new story　3. saved the patient

(2) カッコ内に入るべき最も適切なものはどれか。
1. at first　2. at risk　3. at work

(3) [　　]内を適切な語順に並べる場合、6 番目に来るのはどれか。
1. from　2. got　3. who

(4) 下線部の意味として最も適切なものはどれか。
1. あまり役に立たない類推　2. かけ離れた分野からの類推
3. 遠い昔の出来事からの類推

(5) "They"が指しているのはどれか。
1. findings　2. the laboratories　3. various analogies

(6) カッコ内に入るべき最も適切なものはどれか。
1. course　2. face　3. name

(7) "it"が指しているのはどれか。
1. using no more than a single analogy　2. the inside view
3. the trouble

(8) "the ray problem", "the fort story", "the fire chief story" の三つが類似しているのはどの点か。
1. 構造　2. 難易度　3. 分野

(9) 本文の題名として最も適切なものはどれか。
1. 科学的新発見の価値　2. よい医者になるために　3. 類推の大切さ

(10) 本文をふまえた大学生への進言として最も適切なものはどれか。
1. 自分が選んだ分野を徹底的に深く学びなさい。
2. 少しでも早く自分の学びたいことを決めなさい。
3. なるべく多様な分野を幅広く学びなさい。

設問 B

下線部(B)を和訳しなさい。