

第一部份：選擇 64%

I. Vocabulary 14%

1. In response to the Philippine government's _____ attitude, Taiwan decided to conduct a military exercise near the waters where the fisherman was shot by the Filipino coastguard.
A. ebullient B. perfunctory C. deferential D. veritable
2. When we are passing _____ judgment on others, the remark can backfire and we find ourselves caught up in an embarrassing situation.
A. disquieting B. wizened C. disparaging D. enigmatic
3. The 2008 global economic meltdown once again showed U.S. dollars' _____ over the financial market. Back in those days, virtually all currencies depreciated dramatically except the U.S. dollars.
A. hedonism B. belligerence C. pinnacle D. hegemony
4. Seeing the people suffering, a government official should be compassionate instead of behaving _____.
A. ubiquitously B. ephemerally C. inexorably D. abstrusely
5. The electronic industry is the _____ of Taiwan's stock market. Unfortunately, it also leads the decline of the market in times of economic slowdown.
A. bellwether B. acolyte C. emeritus D. referendum
6. The judge's comment on our performance seemed _____. It was unrelated. I was wondering if he had just dozed off.
A. illicit B. disconsolate C. omniscient D. tangential
7. The dairy cow found to have mad cow disease was very old for a milk producer and had been _____ after it became lame and started lying down.
A. euthanized B. emulated C. desecrated D. vacillated
8. One solid immediate action to improve the staggering economy is of more substance than a hundred _____ policies.
A. terse B. endemic C. adroit D. tenuous
9. The smell of freshly brewed coffee _____ through the house is one of the pleasures of life.
A. wafting B. abating C. emoting D. habituating
10. Many employees in this corporation are facing compulsory _____ because times are hard.
A. condominiums B. redundancies C. adulations D. hyperboles
11. His tousled hair, wrinkled suit and _____ appearance could hardly be associated

with the image of a renowned professor.

- A. unflagging B. disgruntled C. disheveled D. obviated
12. You shall not be _____ by setbacks; instead, brace up the courage to face yet another challenge.
A. envisaged B. franchised C. helmed D. enervated
 13. The expert gave a (an) _____ analysis of this economic debacle. His remark was to the point.
A. acrid B. trenchant C. equable D. detrimental
 14. After the scandal of plasticizers, the toxic starch further _____ the reputation of Taiwan, whose traditional delicacies were said to satisfy the pickiest taste buds.
A. purged B. defaulted C. compromised D. inundated

II. Cloze Test 20%

(A)

According to Wilson, __1__ we are able to apply the same parameters and mathematical principles to weighing both troops of rhesus macaques and termite colonies will a unified science of sociobiology finally exist. While recognizing that many of his colleagues question such an outcome, Wilson, one of sociobiology's leading proponents, finds himself simultaneously more and more __2__ the functional similarities that characterize both insect and vertebrate societies and less concerned with the structural differences that divide them __3__ such an apparently irreconcilable degree. Thus, he freely compares termites and macaques, pointing out numerous likenesses between them. Both societies are territorial: they occupy a particular home range, which they defend against intruders. Likewise, both are cooperative: members organize themselves into working groups that observe a clearly-defined division of labor. In addition, members of both groups can convey to each other a ranger of basic __4__ and personal information: animosity, fright, hunger, rank within a particular caste, and ability to reproduce. Wilson readily concedes that, from a specialist's perspective, such a likeness may at first appear superficial, even unscientifically glib. Nonetheless, in this eminent scholar's judgment, “__5__ out of such deliberate oversimplification __5__ the beginnings of a general theory are made.”

1. A. only when B. the moment C. no sooner D. it is essential
2. A. struck by B. lashed out at C. awakened to D. hindered from
3. A. at B. by C. of D. to
4. A. perceptions B. tantrums C. emotions D. disparities
5. A. never; will B. it is; that C. whatever; is D. had it not been; would

(B)

Ocean water plays an indispensable role in supporting life. The great ocean basins hold about 300 million cubic miles of water. From this vast amount, about 80,000 cubic miles of water are sucked into the atmosphere each year by evaporation and returned by precipitation and drainage to the ocean. More than 24,000 cubic miles of rain descend annually upon the continents. This vast amount is required to replenish the lakes and streams, springs and water tables __6__ all flora and fauna are dependent. Thus, the hydrosphere permits organic existence.

The hydrosphere has strange characteristics because water has properties unlike __7__ of any other liquid. One anomaly is that water upon freezing expands by about 9 percent, whereas most liquids contract on cooling. For this reason, ice floats on water bodies instead of sinking to the bottom. If the ice __8__, the hydrosphere would soon be frozen solidly, except for a thin layer of surface melt water during the summer season. Thus, all aquatic life would be destroyed and the interchange of warm and cold currents, which moderates climate, would be notably __9__.

Another outstanding characteristic of water is that water has a heat capacity that is the highest of all liquids and solids except ammonia. This characteristic enables the oceans to absorb and store vast quantities of heat, thereby often __10__ climatic extremes. In addition, water dissolves more substances than any other liquid. It is this characteristic which helps make ocean a great storehouse for minerals that have been washed down from the continents. In several areas of the world these minerals are being commercially exploited. Solar evaporation of salt is widely practiced, potash is extracted from the Dead Sea, and magnesium is produced from seawater along the American Gulf Coast.

6. A. which B. by whom C. on which D. whichever
 7. A. these B. which C. that D. those
 8. A. arose B. floats C. goes down D. sank
 9. A. absent B. overwhelming C. prevalent D. contingent
 10. A. to eliminate B. preventing C. leads to D. aggravated

(C)

Cosplay is a Japanese fan term for costume play. The term is __11__ to express a hobby for young teens dressing up like their favorite characters from anime and video games. To get into the heart and soul of their hero or heroine, some cosplayers have been known to __12__ to really become that icon they __13__. Most recently, cosplay has gone international, __14__ costume contests featuring Japanese anime characters held in places as far away as France. With this kind of national and even international appeal, cosplay can no longer be deemed just a fad, __15__ a true mixture of Japanese subculture.

According to one psychologist, this kind of character __16__ is an extension of

children's typical fantasy role-playing, which serves as a kind of escape from reality and gives the participant a chance to vent __17__ feelings. Cosplay's popularity may also stem from the difficulty today's younger generation has __18__ close relation with people. Cosplay __19__ for these people to communicate even with strangers, since they can __20__ identify with their partner's costume character from the outset.

11. A. vulnerable B. liable C. coined D. reconciled
 12. A. take it lightly B. devote themselves
 C. waste their breath D. go to great lengths
 13. A. impeach B. impair C. attach D. adore
 14. A. with B. for C. and D. since
 15. A. and B. or C. but D. nor
 16. A. transportation B. transformation C. transmission D. transcription
 17. A. pervasive B. superfluous C. laid-off D. pent-up
 18. A. to foster B. fostered C. fostering D. with fostering
 19. A. makes a point B. makes it easier C. blames D. allows
 20. A. readily B. deliberately C. reluctantly D. temporally

III. 文意選填：每一空格選出一最適當選項，只填代號 10%

A. suppose that	B. abstract	C. emboldened	D. aesthetic	E. margin
F. compellingly	G. banished	H. favor	I. ingenious	J. given that
K. confounded	L. insolence	M. complemented	N. factor	O. disparity

In 1953, the celebrated chemist Linus Pauling, already on track for a Nobel Prize for his work on chemical bonds, solved a major biochemical mystery by figuring out the structure of DNA—but his solution was utterly wrong. Later that decade, the brilliant astrophysicist Fred Hoyle, who had played a major role in discovering how new elements are forged in the core of the Sun, came up with an explanation for the expanding universe. It was known as the “steady-state” theory, and while it was __1__, it was wrong too. In the early 1900's Lord Kelvin, one of the founders of thermodynamics, calculated the age of the Earth at 98 million years. He was off by a(n) __2__ of 45 or so.

Each of these world-class scientists made whopping mistakes — and as the astrophysicist Mario Livio shows in his deeply researched and __3__ written new book *Brilliant Blunders* (Simon & Schuster), they weren't alone. Darwin and Einstein, too, made significant errors. “Most people imagine that these great luminaries couldn't possibly make mistakes,” says Livio, who holds a position at the Space Telescope Science Institute.

But they did. Some of the bloopers were perfectly understandable based on what was known at the time. Darwin, for example, like many of his contemporaries,

assumed that the characteristics of two parents were “blended” in their offspring, “as in the mixing of paints,” writes Livio. Fair enough, __4__ the existence of genes wasn’t known at the time—except that after a few generations, the contribution of a great-grandparent or a great-great would have been so diluted that none of that ancestor’s genetic material would have been detectable in the descendants. Yet natural selection was supposed to work by having beneficial characteristics reinforced, not diluted. Oops.

Other mistakes were based on a certainty bordering on __5__. Pauling had been so successful at explaining chemical bonds and deducing the structures of proteins that he evidently became overconfident: “His model of DNA,” says Livio, “had the wrong number of strands, and it was built completely inside out from the correct model. It was also unstable, and it wasn’t even an acid”—which biochemists had already established it must be. “It took him 13 years to figure out proteins,” says Livio, “but just a month for DNA. Somehow, he became a victim of his own success.”

Fred Hoyle’s mistake wasn’t in creating the steady-state theory, which posited that new matter was constantly created to fill in the gaps as the expanding universe spread and diluted. “That was brilliant,” admits Livio, but only at first. The blunder was in holding onto that theory long after the rival Big Bang, which started with a single moment of cosmic creation, had built up overwhelming evidence in its __6__.

And then there was Einstein: when he put together General Relativity, the equations told him the universe had to be expanding or contracting; it couldn’t simply be sitting there. Yet as far as anyone knew, it was. To fix things up, he added a “cosmological constant” to the equations of relativity — a sort of antigravity that kept things in perfect balance.

Even Einstein did not care for that idea much, but mostly for __7__ reasons: it marred the beauty of his original equations. A decade later, he could do away with it. Astronomers found that the universe is expanding after all and Einstein __8__ the cosmological constant, declaring its inclusion his “greatest blunder.” But the mistake, explains Livio, was not creating the constant; it was removing it, since it turns out the cosmological constant may be real after all, in the form of what’s now known as dark energy. Einstein, however, valued simplicity in the equations too much to tolerate complexity in the cosmos, so he didn’t stick with his original theory.

It’s not clear that any great harm was done by any of these mistakes, and in fact, they often led to better science in the end. Pauling’s errors __9__ Francis Crick and James Watson to forge ahead with their own, ultimately successful search for the structure of DNA. Hoyle’s brilliant defense of the steady-state theory forced Big Bang defenders to make their case all the more carefully and persuasively. Darwin’s error might have originally held the development of evolution research back. Later in the century, however, when people began to appreciate the work Gregor Mendel had conducted with hereditary traits in pea plants, his and Darwin’s research __10__ each other.

(excerpted from “Science’s Brilliant Blunders: How Oops Moments Became Eureka” by Michael D. Lemonick)

IV. 20% 篇章結構：每一空格選出一最適當選項，使篇章結構清晰有條理，只填代號 ** (選項不考慮大小寫)

(A).

The evidence that humans are causing global warming is strong, but the question of what to do about it remains controversial. Economics, sociology, and politics are all important factors in planning for the future. __1__. Depending on our choices, scientists predict that the Earth could eventually warm by as little as 2.5 degrees or as much as 10 degrees Fahrenheit.

A commonly cited goal is to stabilize GHG concentrations around 450-550 ppm, or about twice pre-industrial levels. __2__. Current concentrations are about 380 ppm, which means there isn't much time to lose. According to the IPCC, we'd have to reduce GHG emissions by 50% to 80% of what they're on track to be in the next century to reach this level.

Many people and governments are already working hard to cut greenhouse gases, and everyone can help. Researchers Stephen Pacala and Robert Socolow at Princeton University have suggested one approach that they call "stabilization wedges." This means reducing GHG emissions from a variety of sources with technologies available in the next few decades, rather than relying on an enormous change in a single area. They suggest 7 wedges that could each reduce emissions, and __3__, putting us on a potential path to stabilize around 500 ppm.

There are many possible wedges, including improvements to energy efficiency and vehicle fuel economy, and increases in wind and solar power, hydrogen produced from renewable sources, biofuels, natural gas, and nuclear power. __4__—a process called "carbon sequestration."

In addition to reducing the gases we emit to the atmosphere, we can also increase the amount of gases we take out of the atmosphere. __5__, "sequestering" carbon naturally. Increasing forestlands and making changes to the way we farm could increase the amount of carbon we're storing.

Some of these technologies have drawbacks, and different communities will make different decisions about how to power their lives, but the good news is that there are a variety of options to put us on a path toward a stable climate.

(excerpted from “Global Warming Solutions: What Can We do?“, National Geographic)

Note: GHG = greenhouse gas ppm = parts per million

- A. the range of published evidence indicates that the net damage costs of global change are likely to be significant and to increase over time
- B. all of them together could hold emissions at approximately current levels for the next 50 years
- C. even if we stopped emitting GHGs today, the Earth would still warm by another degree Fahrenheit or so
- D. plants and trees absorb carbon dioxide as they grow

- E. there is also the potential to capture the carbon dioxide emitted from fossil fuels and store it underground
- F. this is the point at which many believe the most damaging impacts of climate change can be avoided
- G. for the first time in human history, the concentration of climate-warming carbon dioxide in the atmosphere has passed the milestone level of 400 ppm

(B)

Chlorine is supposed to take care of most of the microbes floating around in pools, but __6__.

That's the conclusion of a group of researchers from the Centers for Disease Control (CDC), who collected water samples from 161 filters in public and private swimming pools, as well as water parks in Atlanta last summer. __7__. More than half of the samples were contaminated with E. coli, which the investigators say comes from one primary source — swimmers pooping in the pool.

The study, published in the latest Morbidity and Mortality Weekly Report, specifically looked at pools in Atlanta, but the researchers say such contamination is likely a widespread problem in U.S. pools, thanks to swimmers not washing themselves off before swimming. According to the scientists, each of us carries about 0.14 grams of fecal material into the pool— and that doesn't include accidents or cases of diarrhea. Among municipal pools, the genetic testing for pathogens detected E. coli in 70% of the filters, while 66% of the water parks contained the bacteria and __8__.

"These findings indicate the need for swimmers to help prevent introduction of pathogens," the authors write in their report. When a pool is properly chlorinated, however, bacteria like E. coli should be killed off, since __9__. According to the CDC, it takes less than a minute for E. coli to be inactivated if chlorine levels are adequate, about 16 minutes to control Hepatitis A virus, and about 45 minutes to kill off the Giardia parasite.

Thomas Lachocki, the CEO of the National Swimming Pool Foundation, says that in order to be properly chlorinated, pools should contain 1-4 parts per million of chlorine and pH levels should be within 7.2-7.8. "You can go to any mass market store and go into the pool chemical aisle and buy test stripes. All of these have chlorine and pH tests. In five seconds, __10__," he says. But if you don't have the time to do your own testing, look for clear water. "You should always be able to see the bottom of the pool clearly. Usually if the water is cloudy, something with the filter or chemicals isn't right," says Lachocki.

There may be no way to completely disinfect a pool, but the latest analysis of what could be lurking in the water should motivate lifeguards and pool managers to be more vigilant about testing those waters more frequently.

(excerpted from "Don't Drink The Pool Water!" by Alexandra Sifferlin)

- A. 49% of pools in private clubs showed evidence of the contamination
- B. elemental chlorine at high concentrations is extremely dangerous and poisonous for all living organisms
- C. the testing did not reveal strains of E. coli 0157, a particularly virulent form of the bacteria that was responsible for several outbreaks, and deaths, from serious food-borne illnesses
- D. proper pH levels typically take care of the issue
- E. you can do a quick analysis yourself and have an idea of what the various levels are
- F. human waste, it seems, is stubbornly resistant to being sanitized
- G. what they found trapped in those filters was enough to make you think twice before taking a dip and logging your laps

第二部份：

I. 翻譯 16% (每題四分,錯一處扣一分,請以句首或句中提示字寫英文句子)

1. 那位登山者一到達山頂就盡情地欣賞壯觀的風景。(No ...)
2. 他一刻鐘前才想到那個女配角為何在頒獎典禮上雀躍不已。(... him ...)
3. 戀愛中的情侶理所當然的認為一日不見如三秋。(... take ...)
4. 要不是太太堅持我不要辭職，我現在就無法升到總經理。(But that ...)

II. Essay Questions: 20%

1. What does MUN stand for? What do students do in MUN conferences? What roles do students play in them? Since Taiwan is not a member of United Nations, what's the point of holding MUN conferences? What is the significance of MUN in teaching English as a foreign language? (10%)
2. Do the benefits of technology always outweigh its costs? (10%)