

第1课: Section A 词汇理解 (形副篇)

Page 1-4

课堂讲义

☆ 常见形容词后缀总结:

☆ 口诀:
名词前, 系动后, 并列形容一起 go

● 常见填空 adj.的判断

1. 限定词+ adj. + n.

industrialized undergone perceived respective universal conveniences survived

E.g.1 Small communities, with their distinctive character---where life is stable and intensely human---are disappearing. Some have vanished from the face of the earth, others are dying slowly, but all have 27 changes as they have come into contact with an 28 machine civilization.

2. 介词+ adj. + n.

- | | | | |
|-----------------|-------------------|---------------|--------------|
| A) accessing | E) industrialized | I) progress | M) undergone |
| B) conveniences | F) perceived | J) respective | N) universal |
| C) destined | G) practice | K) survived | |
| D) expanding | H) process | L) terminals | |

E.g.2 The Old Order Amish, who arrived on American shores in colonial times, have 29 in the modern world in distinctive, small communities. They have resisted the homogenization 30 more successfully than others. ...Although the Amish have lived with 32 America for over two and a half centuries. They have moderated its influence on their personal lives, their families, communities, and their values.

3. 系动词+adj.

dedicated focused sealed

E.g.3 Let's all stop judging people who talk to themselves. New research says that those who can't seem to keep their inner monologues in are actually more likely to stay on task, remain _____ better and show improved perception capabilities. Not bad, really, for some extra muttering.

● 常见填空 adj.的判断

biological influenced objected reasonably simply reverse

E.g.4 As our nervous systems are a product of evolution and past experience, one can ___30___ expect that how well we memorize information today is ___31___ by natural selection that occurred among our ancestors long ago.

A)attracted B) authorize C)capture D)copy E) display F)eliminate G)essential

H) increase I) particularly J) responsibly K) scam L)services M) simultaneously

N) strategy O) virtual

E.g.5 The spectacular ___29___ in prices last year of bitcoin and many alternative cryptocurrencies has sparked a surge of interest among investors and companies of all kinds. The rampancy has led to schemes that, in some case, promise triple-digit returns and have ___30___ the investigation of the Securities and Exchange Commission (SEC). "Market professionals, especially gatekeepers, need to act ___31___ and hold themselves to high standards," SEC Chairman Jay Clayton said in recent speech. "To be frank, from what I have seen recently, ___32___ in the initial coin offering space, they can do better."

课堂真题讲解：

Passage 1---2016.12 (1)--- 科学的普及及应用

- | | | |
|---------------|---------------|----------------|
| A. arena | B. contextual | C. convincing |
| D. devoted | E. digits | F. hasten |
| G. hypotheses | H. impairing | I. incorporate |
| J. indefinite | K. indulge | L. inertia |
| M. pride | N. reaping | O. warrant |

①It is important that scientists be seen as normal people asking and answering important questions. ②Good, sound science depends on 26, experiments and reasoned methodologies. ③It requires a willingness to ask new questions and try new approaches. ④It requires one to take risks and experience failures. But good science also requires 27 understanding, clear explanation and concise presentation.

①Our country needs more scientists who are willing to step out in the public 28 and offer their opinions on important matters. ②We need more scientists who can explain what they are doing in language that is 29 and understandable to the public. ③Those of us who are not scientists should also be prepared to support public engagement by scientists, and to 30 scientific knowledge into our public communications.

①Too many people in this country, including some among our elected leadership, still do not understand how science works or why robust, long-range investments in research vitally matter. ②In the 1960s, the United States 31 nearly 17% of discretionary (可酌情支配的) spending to research and development, 32 decades of economic growth. ③By 2008, the figure had fallen into the single 33. ④This occurs at a time when other nations have made significant gains in their own research capabilities.

①At the University of California (UC), we 34 ourselves not only on the quality of our research, but also on its contribution to improving our world. To 35 the development of science from the lab bench to the market place, UC is investing our own money in our own good ideas.

课后作业

Passage 2 --- 2016.12 (2) --- 树木的“移动”

- A) ages B) breathing C) climatic D) elsewhere E) exclusively
 F) forever G) fruitful H) habitats I) legacy J) notably
 K) offspring L) replanting M) subsequently N) vulnerable O) withdraws

① The tree people in the Lord of the Rings---the Ents---can get around by walking. But for real trees, it's harder to uproot. Because they're literally rooted into the ground, they are unable to leave and go ____26____.

① When a tree first starts growing in a certain area, it's likely that the ____27____ envelope---the temperature, humidity, rainfall patterns and so on---suits it. Otherwise, it would be unable to grow from a seedling. ② But as it ____28____, these conditions may change and the area around it may no longer be suitable for its ____29____.

① When that happens, many trees like walnuts, oaks and pines, rely ____30____ on so-called “scatter hoarders,” such as birds, to move their seeds to new localities. ② Many birds like to store food for the winter, which they ____31____ retrieve. ③ When the birds forget to retrieve their food---and they do sometimes---a seedling has a chance to grow. ④ The bird Clark's nutcracker, for example, hides up to 100,000 seeds per year, up to 30 kilometers away from the seed source, and has a very close symbiotic (共生的) relationship with several pine species, most ____32____ the whitebark pine.

① As trees outgrow their ideal ____33____ in the face of climate change, these flying ecosystem engineers could be a big help in ____34____ trees. ② It's a solution for us---getting birds to do the work is cheap and effective---and it could give ____35____ oaks and pines the option to truly “make like a tree and leave.”

课堂真题讲解：

Passage 1 --- 2016.12 (1) ---我们处于创新停滞期吗？

36. Consumers are often hesitant to try smart-home devices because they are worried about compatibility problems.
37. This year's electronics show featured the presence of many officials from the federal government.
38. The market demand for electronic devices is now either declining or not growing as fast as before.
39. One analyst suggests it is necessary to accept both the positive and negative aspects of innovative products.
40. The Consumer Electronics Show in recent years has begun to focus more on the practical value than the showiness of electronic devices.
41. Fewer innovative products were found at this year's electronic products show.
42. Consumers are becoming more worried about giving personal information to tech companies to get customized products and services.
43. The Consumer Technology Association is the sponsor of the annual Consumer Electronics Show.
44. Many consumers wonder about the necessity of having their fitness monitored.
45. The electronic industry is maturing even though no wonder products hit the market.

Are We in an Innovation Lull?

[A] Scan the highlights of this year's Consumer Electronics Show (CES), and you may get a slight feeling of having seen them before. Many of the coolest gadgets this year are the same as the coolest gadgets last year---or the year before, even. The booths are still exciting, and the demos are still just as crazy. It is still easy to be dazzled by the display of drones (无人机), 3D printers, virtual reality goggles (眼镜) and more "smart" devices than you could ever hope to catalog. Upon reflection, however, it is equally easy to feel like you have seen it all before. And it is hard not to think: Are we in an innovation lull (间歇期) ?

[B] In some ways, the answer is yes. For years, smartphones, televisions, tablets, laptops and desktops have made up a huge part of the market and driven innovation. But now these segments are looking at slower growth curves--or shrinking markets in some cases---as consumers are not as eager to spend money on new gadgets. Meanwhile, emerging technologies---the drones, 3D printers and smart-home devices of the world--now seem a bit too old to be called "the next big thing. "

[C] Basically the tech industry seems to be in an awkward period now. "There is not any one-hit wonder, and there will not be one for years to come," said Gary Shapiro, president and chief executive of the Consumer Technology Association (CTA). In his eyes, however, that doesn't necessarily mean that innovation has stopped. It has just grown up a little. "Many industries are going out of infancy and becoming adolescents," Shapiro said.

[D] For instance, new technologies that are building upon existing technology have not found their footing well enough to appeal to a mass audience, because, in many cases, they need to work effectively with other devices to realize their full appeal. Take the evolution of the smart home, for example. Companies are pushing it hard but make it almost overwhelming even to dip a toe in the water for the average consumer, because there are so many compatibility issues to think about. No average person wants to figure out whether their favorite calendar software works with their fridge or whether their washing machine and tablet get along. Having to install a different app for

each smart appliance in your home is annoying; it would be nicer if you could manage everything together. And while you may forgive your smartphone an occasional fault, you probably have less patience for error messages from your door lock.

[E] Companies are promoting their own standards, and the market has not had time to choose a winner yet as this is still very new. Companies that have long focused on hardware now have to think of ecosystems instead to give consumers practical solutions to their everyday problems."The dialogue is changing from what is technologically possible to what is technologically meaningful," said economist Shawn DuBravac. DuBravac works for CTA---which puts on the show each year---and said that this shift to a search for solutions has been noticeable as he researched his predictions for 2016.

[F] "So much of what CES has been about is the cool. It is about the flashiness and the gadgets," said John Curran, managing director of research at Accenture. "But over the last couple of years, and in this one in particular, we are starting to see companies shift from what is the largest screen size, the smallest form factor or the shiniest object and more into what all of these devices do that is practical in a consumer's life. " Even the technology press conferences, which have been high- profile in the past and reached a level of drama and theatrics fitting for a Las Vegas stage, have a different bent to them. Rather than just dazzling with a high cool factor, there is a focus on the practical. Fitbit, for example, released its first smartwatch Monday, selling with a clear purpose--to improve your fitness--and promoting it as a "tool, not a toy. " Not only that, it supports a number of platforms: Apple's iOS, Google's Android and Microsoft's Windows phone.

[G] That seems to be what consumers are demanding, after all. Consumers are becoming increasingly bored with what companies have to offer: A survey of 28,000 consumers in 28 countries released by Accenture found consumers are not as excited about technology as they once were. For example, when asked whether they would buy a new smartphone this year, only 48 percent said yes--a six-point drop from 2015.

[H] And when it comes to the hyper-connected super-smart world that technology firms are painting for us, it seems that consumers are growing more uneasy about handing over the massive amounts of consumer data needed to provide the personalized, customized solutions that companies need to improve their services. That could be another explanation for why companies seem to be strengthening their talk of the practicality of their devices.

[I] Companies have already won part of the battle, having driven tech into every part of our lives, tracking our steps and our very heartbeats. Yet the persistent question of " Why do I need that?"--or, perhaps more tellingly, "Why do you need to know that?"--dogs the steps of many new ventures. Only 13 percent of respondents said that they were interested in buying a smartwatch in 2016, for example--an increase of just one percent from the previous year despite a year of high-profile launches. That is bad news for any firm that may hope that smartwatches can make up ground for maturing smartphone and tablet markets. And the survey found flat demand for fitness monitors, smart thermostats (恒温器) and connected home cameras, as well.

[J] According to the survey, that lack of enthusiasm could stem from concerns about privacy and security. Even among people who have bought connected devices of some kind,37 percent said that they are going to be more cautious about using these devices and services in the future. A full 18 percent have even returned devices until they feel they can get safer guarantees against having their sensitive information hacked.

[K] That, too, explains the heavy Washington presence at this year's show, as these new technologies intrude upon heavily regulated areas. In addition to many senior officials from the Federal Trade and Federal Communications commissions, this year's list of policy makers also includes appearances from Transportation Secretary Anthony Foxx, to talk about smart cities, and Federal Aviation Administration Administrator Michael Huerta, to talk about drones.

[L] Curran, the Accenture analyst, said that increased government interest in the show makes sense as technology becomes a larger part of our lives. "There is an incompatibility in the rate at which these are advancing

relative to the way we're digesting it," he said. "Technology is becoming bigger and more aspirational, and penetrating almost every aspect of our lives. We have to understand and think about the implications, and balance these great innovations with the potential downsides they naturally carry with them. "

课后作业

Passage 2 --- 2016.12 (2) --- 美国职场

36. Workplace norms pressure employees to overwork, deterring them from taking paid time off.
37. The overwhelming majority of employees attribute their stress mainly to low pay and an excessive workload.
38. According to Moen, flexibility gives employees better control over their work and time.
39. Flexibility resulting from the use of digital devices benefits employers instead of employees.
40. Research finds that if employees suffer from high stress, they will be less motivated, less productive and more likely to quit.
41. In-office wellness programs may help reduce stress levels, but they are hardly an ultimate solution to the problem.
42. Health problems caused by stress in the workplace result in huge public health expenses.
43. If employees respond quickly to their job assignments, the employer is likely to demand more from them.
44. With technology everywhere in our life, it has become virtually impossible for most workers to keep a balance between work and life.
45. In America today, even teenagers suffer from stress, and their problem is even more serious than grown-ups'.

The American Workplace Is Broken. Here's How We Can Start Fixing It.

[A] Americans are working longer and harder hours than ever before. 83% of workers say they're stressed about their jobs, nearly 50% say work-related stress is interfering with their sleep, and 60% use their smartphones to check in with work outside of normal working hours. No wonder only 13% of employees worldwide feel engaged in their occupation.

[B] Glimmers (少许) of hope, however, are beginning to emerge in this bruising environment: Americans are becoming aware of the toll their jobs take on them, and employers are exploring ways to alleviate the harmful effects of stress and overwork. Yet much more work remains to be done. To call stress an epidemic isn't exaggeration. The 83% of American employees who are stressed about their jobs---up from 73% just a year before---say that poor compensation and an unreasonable workload are their number-one sources of stress. And if you suspected that the workplace had gotten more stressful than it was just a few decades ago, you're right. Stress levels increased 18% for women and 24% for men from 1983 to 2009. Stress is also starting earlier in life, with some data suggesting that today's teens are even more stressed than adults.

[C] Stress is taking a significant toll on our health, and the collective public health cost may be enormous. Occupational stress increases the risk of heart attack and diabetes, accelerates the aging process, decreases longevity, and contributes to depression and anxiety, among numerous other negative health outcomes. Overall,

stress-related health problems account for up to 90% of hospital visits, many of them preventable. Your job is “literally killing you,” as The Washington Post put it. It’s also hurting our relationships. Working parents say they feel stressed, tired, rushed and short on quality time with their children, friends and partners.

[D] Seven in ten workers say they struggle to maintain work-life balance. As technology (and with it, work emails) seeps (渗入) into every aspect of our lives, work-life balance has become an almost meaningless term. Add a rapidly changing economy and an uncertain future to this 24/7 connectivity, and you’ve got a recipe for overwork, according to Phyllis Moen. “There’s rising work demand coupled with the insecurity of mergers, takeovers, downsizing and other factors,” Moen said. “Part of the work-life issue has to talk about uncertainty about the future.”

[E] These factors have converged to create an increasingly impossible situation with many employees overworking to the point of burnout. It’s not only unsustainable for workers, but also for the companies that employ them. Science has shown a clear correlation between high stress levels in workers and absenteeism (旷工), reduced productivity, disengagement and high turnover. Too many workplace policies effectively prohibit employees from developing a healthy work-life balance by barring them from taking time off, even when they need it most.

[F] The U.S. trails far behind every wealthy nation and many developing ones that have family-friendly work policies including paid parental leave, paid sick days and breast-feeding support, according to a 2007 study. The U.S. is also the only advanced economy that does not guarantee workers paid vacation time, and it’s one of only two countries in the world that does not offer guaranteed paid maternity leave. But even when employees are given paid time off, workplace norms and expectations that pressure them to overwork often prevent them from taking it. Full-time employees who do have paid vacation days only use half of them on average.

[G] Our modern workplaces also operate based on outdated time constraints. The practice of clocking in for an eight-hour workday is a leftover from the days of the Industrial Revolution, as reflected in the then-popular saying, “Eight hours labor, eight hours recreation, eight hours rest.”

[H] We’ve held on to this workday structure—but thanks to our digital devices, many employees never really clock out. Today, the average American spends 8.8 hours at work daily, and the majority of working professionals spend additional hours checking in with work during evenings, weekends and even vacations. The problem isn’t the technology itself, but that the technology is being used to create more flexibility for the employer rather than the employee. In a competitive work environment, employers are able to use technology to demand more from their employees rather than motivating workers with flexibility that benefits them.

[I] In a study published last year, psychologists coined the term “workplace telepressure” to describe an employee’s urge to immediately respond to emails and engage in obsessive thoughts about returning an email to one’s boss, colleagues or clients. The researchers found that telepressure is a major cause of stress at work, which over time contributes to physical and mental burnout. Of the 300 employees participating in the study, those who experienced high levels of telepressure were more likely to agree with statements assessing burnout, like “I’ve no energy for going to work in the morning,” and to report feeling fatigued and unfocused. Telepressure was also correlated with sleeping poorly and missing work.

[J] Harvard Business School professor Leslie Perlow explains that when people feel the pressure to be always “on,” they find ways to accommodate that pressure, including altering their schedules, work habits and interactions with family and friends. Perlow calls this vicious cycle the “cycle of responsiveness”: Once bosses and colleagues experience an employee’s increased responsiveness, they increase their demands on the employee’s time. And because a failure to accept these increased demands indicates a lack of commitment to one’s work, the employee

complies.

[K] To address skyrocketing employee stress levels, many companies have implemented workplace wellness programs, partnering with health care providers that have created programs to promote employee health and well-being. Some research does suggest that these programs hold promise. A study of employees at health insurance provider Aetna revealed that roughly one quarter of those taking in-office yoga and mindfulness classes reported a 28% reduction in their stress levels and a 20% improvement in sleep quality. These less-stressed workers gained an average of 62 minutes per week of productivity. While yoga and meditation (静思) are scientifically proven to reduce stress levels, these programs do little to target the root causes of burnout and disengagement. The conditions creating the stress are long hours, unrealistic demands and deadlines, and work-life conflict.

[L] Moen and her colleagues may have found the solution. In a 2011 study, she investigated the effects of implementing a Results Only Work Environment (ROWE) on the productivity and well-being of employees at Best Buy's corporate headquarters.

[M] For the study, 325 employees spent six months taking part in ROWE, while a control group of 334 employees continued with their normal workflow. The ROWE participants were allowed to freely determine when, where and how they worked---the only thing that mattered was that they got the job done. The results were striking. After six months, the employees who participated in ROWE reported reduced work-family conflict and a better sense of control of their time, and they were getting a full hour of extra sleep each night. The employees were less likely to leave their jobs, resulting in reduced turnover. It's important to note that the increased flexibility didn't encourage them to work around the clock. "They didn't work anywhere and all the time---they were better able to manage their work," Moen said. "Flexibility and control is key," she continued.

Passage 3 --- 2016.12 (3) --- 南极洲竞赛

36. According to Chinese officials, their activities in Antarctica lay greater emphasis on scientific research.
37. Efforts to create one of the world's largest ocean sanctuaries failed because of Russia's obstruction.
38. With several monitoring stations operating in Antarctica, Russia is trying hard to counter America's dominance in the field of worldwide navigational facilities.
39. According to geologists' estimates. Antarctica has enormous reserves of oil and natural gas.
40. It is estimated that Antarctica boasts of the richest reserves of fresh water on earth.
41. The demand for energy resources may compel renegotiation of Antarctica's treaties before their expiration.
42. Many countries are racing against each other to increase their business and strategic influence on Antarctica.
43. Antarctica's harsh natural conditions constitute huge obstacles to the exploitation of its resources.
44. With competition from many countries, Antarctica is no longer dominated by the traditional white nations.
45. American scientists complain about lack of sufficient money and equipment for their expansion in Antarctica.

Countries Rush for Upper Hand in Antarctica

A) On a glacier-filled island with fjords(峡湾)and elephant seals, Russia has built Antarctica's first Orthodox church on a hill overlooking its research base. Less than an hour away by snowmobile. Chinese laborers have updated the Great Wall Station, a vital part of China's plan to operate five bases on Antarctica, complete with an indoor badminton court and sleeping quarters for 150 people. Not to be outdone, India's futuristic new Bharathi base, built on stilts(桩子)using 134 interlocking shipping containers, resembles a spaceship. Turkey and Iran have announced plans to build bases, too.

B) More than a century has passed since explorers raced to plant their flags at the bottom of the world, and for decades to come this continent is supposed to be protected as a scientific preserve, shielded from intrusions like military activities and mining. But an array of countries are rushing to assert greater influence here, with an eye not just towards the day those protective treaties expire, but also for the strategic and commercial that already exist.

C) The newer players are stepping into what they view as a treasure house of resources. Some of the ventures focus on the Antarctic resources that are already up for grabs, like abundant sea life. South Korea, which operates state-of-the-art bases here, is increasing its fishing of krill(磷虾), found in abundance in the Southern Ocean, while Russia recently frustrated efforts to create one of the world's largest ocean sanctuaries here.

D) Some scientists are examining the potential for harvesting icebergs from Antarctica, which is estimated to have the biggest reserves of fresh water on the planet. Nations are also pressing ahead with space research and satellite projects to expand their global navigation abilities.

E) Building on a Soviet-era foothold, Russia is expanding its monitoring stations for Glonass, its version of the Global Positioning System(GPS). At least three Russian stations are already operating in Antarctica, part of its effort to challenge the dominance of the American GPS, and new stations are planned for sites like the Russian base, in the shadow of the Orthodox Church of the Holy Trinity.

F) Elsewhere in Antarctica, Russian researchers boast of their recent discovery of a freshwater reserve the size of Lake Ontario after drilling through miles of solid ice. "You can see that we're here to stay," said Vladimir Cheberdak, 57, chief of the Bellingshausen Station, as he sipped tea under a portrait of Fabian Gottlieb von Bellingshausen, a high-ranking officer in the Imperial Russian Navy who explored the Antarctic coast in 1820.

G) Antarctica's mineral, oil and gas wealth are a longer-term prize. The treaty banning mining here, shielding coveted(令人垂涎的)reserves of iron ore, coal and chromium, comes up for review in 2048. Researchers recently found kimberlite(金伯利岩) deposits hinting at the existence of diamonds. And while assessments vary widely, geologists estimate that Antarctica holds at least 36 billion barrels of oil and natural gas.

H) Beyond the Antarctic treaties, huge obstacles persist to tapping these resources, like drifting icebergs that could jeopardize offshore platforms. Then there is Antarctica's remoteness, with some mineral deposits found in windswept locations on a continent that is larger than Europe and where winter temperatures hover around minus 55 degrees Celsius.

I) But advances in technology might make Antarctica a lot more accessible three decades from now. And even before then, scholars warn, the demand for resources in an energy-hungry world could raise pressure to renegotiate Antarctica's treaties, possibly allowing more commercial endeavours here well before the prohibitions against them expire. The research stations on King George Island offer a glimpse into the long game on this ice-blanketed

continent as nations assert themselves, eroding the sway long held by countries like the United States, Britain, Australia and New Zealand.

J) Being stationed in Antarctica involves adapting to life on the planet's driest, windiest and coldest continent, yet each nation manages to make itself at home. Bearded Russian priests offer regular services at the Orthodox church for the 16 or so Russian speakers who spend the winter at the base, largely polar scientists in fields like glaciology and meteorology. Their number climbs to about 40 in the warmer summer months. China has arguably the fastest growing operations in Antarctica. It opened its fourth station last year and is pressing ahead with plans to build a fifth. It is building its second ice-breaking ship and setting up research drilling operations on an ice dome 13,422 feet above sea level that is one the planet's coldest places. Chinese officials say the expansion in Antarctica prioritises scientific research. But they also acknowledge that concerns about "resource security" influence their moves.

K) China's newly renovated Great Wall Station on King George Island makes the Russian and Chilean bases here seem outdated. "We do weather monitoring here and other research." Ning Xu, 53, the chief of the Chinese base, said over tea during a fierce blizzard(暴风雪) in late November. The large base he leads resembles a snowed-in college campus on holiday break, with the capacity to sleep more than 10 times the 13 people who were staying on through the Antarctic winter. Yong Yu, a Chinese microbiologist, showed off the spacious building, with empty desks under an illustrated timeline detailing the rapid growth of China's Antarctic operations since the 1980s "We now feel equipped to grow," he said.

L) As some countries expand operations in Antarctica, the United States maintains three year-round stations on the continent with more than 1,000 people during the southern hemisphere's summer, including those at the Amundsen Scott station, built in 1956 at an elevation of 9,301 feet on a plateau at the South Pole. But US researchers quietly complain about budget restraints and having far fewer icebreakers than Russia, limiting the reach of the United States in Antarctica.

M) Scholars warn that Antarctica's political drift could blur the distinction between military and civilian activities long before the continent's treaties come up for renegotiation, especially in parts of Antarctica that are ideal for intercepting(拦截) signals from satellites or retasking satellite systems, potentially enhancing global electronic intelligence operations.

N) Some countries have had a hard time here, Brazil opened a research station in 1984, but it was largely destroyed by a fire that killed two members of the navy in 2012, the same year that a diesel-laden Brazilian barge sank near the base. As if that were not enough, a Brazilian C-130 Hercules military transport plane has remained stranded near the runway of Chile's air base here since it crash-landed in 2014.

O) However, Brazil's stretch of misfortune has created opportunities for China, with a Chinese company winning the \$100 million contract in 2015 to rebuild the Brazilian station.

P) Amid all the changes, Antarctica maintains its allure. South Korea opened its second Antarctic research base in 2014, describing it as a way to test robots developed by Korean researchers for use in extreme conditions. With Russia's help, Belarus is preparing to build this first Antarctic base. Colombia said this year that it planned to join other South American nations with bases in Antarctica.

Q) "The old days of the Antarctic being dominated by the interests and wishes of white men from European, Australasian and North American states are over." Said Klaus Dodds, a politics scholar at the University of London who specialises in Antarctica. "The reality is that Antarctica is geopolitically contested."6

课堂真题讲解：

Passage 1 --- 2016.12 (1) --巴黎气候协定

- 46. The author is critical of the Paris climate agreement because**
- it is unfair to those climate-vulnerable nations
 - it aims to keep temperature rise below 2°C only
 - it is beneficial to only fewer than 4% of countries
 - it burdens developed countries with the sole responsibility
- 47. Why does the author call some developed countries climate "free-riders"?**
- They needn't worry about the food and water they consume.
 - They are better able to cope with the global climate change.
 - They hardly pay anything for the problems they have caused.
 - They are free from the greenhouse effects affecting "forced riders".
- 48. Why does the author compare the "forced riders" to second-hand smokers?**
- They have little responsibility for public health problems.
 - They are vulnerable to unhealthy environmental conditions.
 - They have to bear consequences they are not responsible for.
 - They are unaware of the potential risks they are confronting.
- 49. What does the author say about the \$100 billion funding?**
- It will motivate all nations to reduce carbon emissions.
 - There is no final agreement on where it will come from.
 - There is no clarification of how the money will be spent.
 - It will effectively reduce greenhouse emissions worldwide.
- 50. what urgent action must be taken to realise the Paris climate agreement?**
- Encouraging high-emitting nations to take the initiative.
 - Calling on all the nations concerned to make joint efforts.
 - Pushing the current world leaders to come to a consensus.
 - Putting in effect the policies in the agreement at once.

① The Paris climate agreement finalised in December last year heralded a new era for climate action. For the first time, the world's nations agreed to keep global warming well below 2°C.

② This is vital for climate-vulnerable nations. Fewer than 4% of countries are responsible for more than half of the world's greenhouse gas emissions. In a study published in Nature Scientific Reports, we reveal just how deep this injustice runs.

③ Developed nations such as Australia, the United States, Canada, and European countries are essentially climate "free-riders": causing the majority of the problems through high greenhouse gas emissions, while incurring few of the costs such as climate change's impact on food and water. In other words, a few countries are benefiting enormously from the consumption of fossil fuels, while at the same time contributing disproportionately to the global burden of climate change.

④ On the flip side, there are many "forced riders", who are suffering from the climate change impacts despite having scarcely contributed to the problem. Many of the world's most climate-vulnerable countries, the majority of which are African or small island states, produce a very small quantity of emissions. This is much like a

non-smoker getting cancer from second-hand smoke, while the heavy smoker is fortunate enough to smoke in good health.

⑤ The Paris agreement has been widely hailed as a positive step forward in addressing climate change for all, although the details on addressing "climate justice" can be best described as sketchy.

⑥ The goal of keeping global temperature rise "well below" 2°C is commendable but the emissions-reduction pledges submitted by countries leading up to the Paris talks are very unlikely to deliver on this.

⑦ More than \$100 billion in funding has been put on the table for supporting developing nations to reduce emissions. However, the agreement specifies that there is no formal distinction between developed and developing nations in their responsibility to cut emissions, effectively ignoring historical emissions. There is also very little detail on who will provide the funds or, importantly, who is responsible for their provision. Securing these funds, and establishing who is responsible for raising them will also be vital for the future of climate-vulnerable countries.

⑧ The most climate-vulnerable countries in the world have contributed very little to creating the global disease from which they now suffer the most. There must urgently be a meaningful mobilisation of the policies outlined in the agreement if we are to achieve national emissions reductions while helping the most vulnerable countries adapt to climate change.

⑨ And it is clearly up to the current generation of leaders from high-emitting nations to decide whether they want to be remembered as climate change tyrants or pioneers.

Passage 2 --- 2016.12 (2) -- 种族划分

51. Du Bois was opposed to the use of race as _____.

- A) a basis for explaining human genetic diversity
- B) an aid to understanding different populations
- C) an explanation for social and cultural differences
- D) a term to describe individual human characteristics

52. The study by Svante Paabo served as an example to show _____.

- A) modern genetics research is likely to fuel racial conflicts
- B) race is a poorly defined marker of human genetic diversity
- C) race as a biological term can explain human genetic diversity
- D) genetics research should consider social and cultural variables

53. The example of the disease cystic fibrosis underdiagnosed in people of African ancestry demonstrates that _____.

- A) it is absolutely necessary to put race aside in making diagnosis
- B) it is important to include social variables in genetics research.
- C) racial categories for genetic diversity could lead to wrong clinical predictions
- D) discrimination against black people may cause negligence in clinical treatment

54. What is Yudell's suggestion to scientists?

- A) They be more precise with the language they use.
- B) They refrain from using politically sensitive terms.
- C) They throw out irrelevant concepts in their research.
- D) They examine all possible variables in their research.

55. What can be inferred from Yudell's remark in the last paragraph?

- A) Clinging to racism prolongs inequity and discrimination.
- B) Physiological disparities are quite striking among races.

- C) Doing away with racial discrimination is challenging.
- D) Racial terms are still useful in certain fields of study.

① More than 100 years ago, American sociologist W. E. B. Du Bois was concerned that race was being used as a biological explanation for what he understood to be social and cultural differences between different populations of people. He spoke out against the idea of “white” and “black” as distinct groups, claiming that these distinctions ignored the scope of human diversity.

② Science would favor Du Bois. Today, the mainstream belief among scientists is that race is a social construct without biological meaning. In an article published in the journal *Science*, four scholars say racial categories need to be phased out.

③ “Essentially, I could not agree more with the authors,” said Svante Paabo, a biologist and director of the Max Planck Institute for Evolutionary Anthropology in Germany. In one example that demonstrated genetic differences were not fixed along racial lines, the full genomes (基因组) of James Watson and Craig Venter, two famous American scientists of European ancestry, were compared to that of a Korean scientist, Seong-Jin Kim. It turned out that Watson and Venter shared fewer variations in their genetic sequences than they each shared with Kim.

④ Michael Yudell, a professor of public health at Drexel University in Philadelphia, said that modern genetics research is operating in a paradox: on the one hand, race is understood to be a useful tool to illuminate human genetic diversity, but on the other hand, race is also understood to be a poorly defined marker of that diversity.

⑤ Assumptions about genetic differences between people of different races could be particularly dangerous in a medical setting. “If you make clinical predictions based on somebody’s race, you’re going to be wrong a good chunk of the time, Yudell told *Live Science*. In the paper, he and his colleagues used the example of cystic fibrosis, which is underdiagnosed in people of African ancestry because it is thought of as a “white” disease.

⑥ So what other variables could be used if the racial concept is thrown out? Yudell said scientists need to get more specific with their language, perhaps using terms like “ancestry” or “population” that might more precisely reflect the relationship between humans and their genes, on both the individual and population level. The researchers also acknowledged that there are a few areas where race as a construct might still be useful in scientific research: as a political and social, but not biological, variable.

⑦ “While we argue phasing out racial terminology (术语) in the biological sciences, we also acknowledge that using race as a political or social category to study racism, although filled with lots of challenges, remains necessary given our need to understand how structural inequities and discrimination produce health disparities (差异) between groups.” Yudell said.

课后作业

Passage 3 --- 2016.12 (2) --- 电池技术

46. What does Dr. Sadoway think of energy storage?

- A) It involves the application of sophisticated technology.
- B) It is the direction energy development should follow.
- C) It will prove to be a profitable business.
- D) It is a technology benefiting everyone.

47. What is most likely to happen when advanced batteries become widely used?

- A) Mobile-first lifestyles will become popular.
- B) The globalization process will be accelerated.
- C) Communications will take more diverse forms.
- D) The world will undergo revolutionary changes.

48. In some rural communities of emerging economies, people have begun to _____.

- A) find digital devices simply indispensable
- B) communicate primarily by mobile phone
- C) light their homes with stored solar energy
- D) distribute power with wires and wooden poles

49. Utility companies have begun to realize that battery technologies _____.

- A) benefit their business
- B) transmit power faster
- C) promote innovation
- D) encourage competition

50. What does the author imply about the centralized electric grid?

- A) It might become a thing of the past.
- B) It might turn out to be a “prosumer.”
- C) It will be easier to operate and maintain.
- D) It will have to be completely transformed.

① Dr. Donald Sadoway at MIT started his own battery company with the hope of changing the world’s energy future. It’s a dramatic endorsement for a technology most people think about only when their smartphone goes dark. But Sadoway isn’t alone in trumpeting energy storage as a missing link to a cleaner, more efficient, and more equitable energy future.

② Scientists and engineers have long believed in the promise of batteries to change the world. Advanced batteries are moving out of specialized markets and creeping into the mainstream, signaling a tipping point for forward-looking technologies such as electric cars and rooftop solar panels.

③ The ubiquitous(无所不在的)battery has already come a long way, of course. For better or worse, batteries make possible our mobile-first lifestyles, our screen culture, our increasingly globalized world. Still, as impressive as all this is, it may be trivial compared with what comes next. Having already enabled a communications revolution, the battery is now poised to transform just about everything else.

④ The wireless age is expanding to include not just our phones, tablets, and laptops, but also our cars, homes, and even whole communities. In emerging economies, rural communities are bypassing the wires and wooden

poles that spread power. Instead, some in Africa and Asia are seeing their first lightbulbs illuminated by the power of sunlight stored in batteries.

⑤ Today, energy storage is a \$33 billion global industry that generates nearly 100 gigawatt-hours of electricity per year. By the end of the decade, it's expected to be worth over \$50 billion and generate 160 gigawatt-hours, enough to attract the attention of major companies that might not otherwise be interested in a decidedly pedestrian technology. Even utility companies, which have long viewed batteries and alternative forms of energy as a threat, are learning to embrace the technologies as enabling rather than disrupting.

⑥ Today's battery breakthroughs come as the world looks to expand modern energy access to the billion or so people without it, while also cutting back on fuels that warm the planet. Those simultaneous challenges appear less overwhelming with increasingly better answers to a centuries-old question: how to make power portable.

⑦ To be sure, the battery still has a long way to go before the nightly recharge completely replaces the weekly trip to the gas station. A battery-powered world comes with its own risks, too. What happens to the centralized electric grid, which took decades and billions of dollars to build, as more and more people become "prosumers," who produce and consume their own energy onsite?

⑧ No one knows which---if any---battery technology will ultimately dominate, but one thing remains clear. The future of energy is in how we store it.

Passage 5 --- 2016.12 (3) --- 大学教育

51. What is the author's opinion of going to university?

- A) It is worthwhile after all.
- B) It is simply a waste of time.
- C) It is hard to say whether it is good or bad.
- D) It is too expensive for most young people.

52. What does the author say about the employment situation of British university graduates?

- A) Few of them are satisfied with the jobs they are offered.
- B) It usually takes a long time for them to find a decent job.
- C) Graduates from elite universities usually can get decent jobs.
- D) Most of them take jobs which don't require a college degree.

53. What does the author say is important for university students besides classroom instruction?

- A) Making sure to obtain an upper-second class degree.
- B) Practical skills they will need in their future careers.
- C) Interactions among themselves outside the classroom.
- D) Developing independent and creative thinking abilities.

54. What is said to be an advantage of going to university?

- A) Learning how to take risks in an ever-changing world.
- B) Meeting people who will be helpful to you in the future.
- C) Having opportunities of playing a leading role in society.
- D) Gaining up-to-date knowledge in science and technology.

55. What can we infer from the last paragraph?

- A) It is natural for students to make complaints about university education.
- B) Few students are willing to bear the burden of debt incurred at university.

- C) University education is becoming attractive to students who can afford it.
D) The prestige of the university influences employers' recruitment decisions.

① What a waste of money! In return for an average of £44,000 of debt, students get an average of only 14 hours of lecture and tutorial time a week in Britain. Annual fees have risen from £1,000 to \$9,000 in the last decade. But contact time at university has barely risen at all. And graduating doesn't even provide any guarantee of a decent job: six in ten graduates today are in non-graduate jobs.

② No wonder it has become fashionable to denounce many universities as little more than elaborate con-tricks (骗术). There's a lot for students to complain about: the repayment threshold for paying back loans will be frozen for five years, meaning that lower-paid graduates have to start repaying their loans, and maintenance grants have been replaced by loans meaning that students from poorer backgrounds face higher debt than those with wealthier parents.

③ Yet it still pays to go to university. If going to university doesn't work out, students pay very little—if any—of their tuition fees back, you only start repaying when you are earning £21,000 a year. Almost half of graduates—those who go on to earn less—will have a portion of their debt written off. It's not just the lectures and tutorials that are important. Education is the sum of what students teach each other in between lectures and seminars. Students do not merely benefit while at university, studies show they go on to be healthier and happier than non-graduates, and also far more likely to vote.

④ Whatever your talents, it is extraordinarily difficult to get a leading job in most fields without having been to university. Recruiters circle elite universities like vultures (兀鹰). Many top firms will not even look at applications from those who lack a 2.1, i.e., an upper-second class degree, from an elite university. Students at university also meet those likely to be in leading jobs in the future, forming contacts for life. This might not be right, but school-leavers who fail to acknowledge as much risk making the wrong decision about going to university.

⑤ Perhaps the reason why so many universities offer their students so little is they know studying at a top university remains a brilliant investment even if you don't learn anything. Studying at university will only become less attractive if employers shift their focus away from where someone went to university—and there is no sign of that happening anytime soon. School-leavers may moan, but they have little choice but to embrace university and the student debt that comes with it.