In the past 12 months, Nigeria has suffered from a shrinking economy, a sliding currency, and a prolonged fuel shortage. Now, Africa's largest economy in facing a food crisis as major tomato fields have been destroyed by an insect, leading to a nationwide shortage and escalating prices.

The insect, Tutaabsoluta, has destroyed 80% of farms in Kaduna, Nigeria's largest tomato-producing state, leading the government there to declare a state of \_\_26\_\_. The insect, also known as the tomato leaf miner, devastates crops by \_\_27\_\_ on fruits and digging into and moving through stalks. It \_\_28\_\_incredibly quickly, breeding up to 12 generations per year if conditions are favorable. It is believed to have \_\_29\_\_ in South America in the early 1900s, and later spread to Europe before crossing over to sub-Saharan Africa.

In Nigeria, where tomatoes are a staple of local diets, the insect's effects are devastating. Retail prices for a \_\_30\_\_ of tomatoes at local markets have risen from $0.50 to $2.50. Farmers are reporting steep losses and a new $20 million tomato-paste factory has \_\_31\_\_ production due to the shortages.

Given the moth's ability also to attack crops like pepper and potatoes, Audu Ogbeh, Nigeria's minister of agriculture, has warned that the pest may "create serious problems for food \_\_32\_\_" in the country. Ogbeh says experts are investigating how to control the pest's damage and prevent its spread, which has gone largely \_\_33\_\_ until now.

Despite being the continent's second-largest producer of tomatoes, Nigeria is \_\_34\_\_ on $1 billion worth of tomato-paste imports every year, as around 75% of the local harvest goes to waste thanks to a lack of proper storage facilities. A further \_\_35\_\_ in local supplies is yet another unwelcome setback to the industry.

A.dependent

B.embarking

C.emergency

D.feeding

E.grazes

F.halted

G.handful

H.multitude

I.originated

J.reduction

K.reproduces

L.security

M.terror

N.unchecked

O.unchecked

Who's Really Addicting You To Technology?

A. "Nearly everyone I know is addicted in some measure to the Internet," wrote Tony Schwartz in The New York Times. It's a common complaint these days. A steady stream of similar headlines accuse the Net and its offspring apps, social media sites and online games of addicting us to distraction.

B. There's little doubt that nearly everyone who comes in contact with the Net has difficulty disconnecting. Many of us, like Schwartz, struggle to stay focused on tasks that require more concentration than it takes to post a status update. As one person ironically put it in the comments section of Schwartz's online article, "As I was reading this very excellent article, I stopped at least half a dozen times to check my email."

C. There's something different about this technology: it is both invasive and persuasive. But who's at fault for its overuse? To find solutions, it's important to understand what we're dealing with. There are four parties conspiring to keep you connected: the tech, your boss, your friends and you.

D. The technologies themselves, and their makers, are the easiest suspects to blame for our diminishing attention spans. Nicholas Carr, author of The Shallows: What the Internet Is Doing to Our Brains, wrote, "The net is designed to be an interruption system, a machine geared to dividing attention."

E. Online services like Facebook, Twitter and the like, are called out as masters of manipulation—making products so good that people can't stop using them. After studying these products for several years, I wrote a book about how they do it. I learned it all starts with the business model. Since these services rely on advertising revenue, the more frequently you use them, the more money they make. It's no wonder these companies employ teams of people focused on engineering their services to be as engaging as possible. These products aren't habit-forming by chance; it's by design. They have an incentive to keep us hooked.

F. However, as good as these services are, there are simple steps we can take to keep them at bay. For example, we can change how often we receive the distracting notifications that trigger our urge to check. According to Adam Marchick, CEO of mobile marketing company kahuna, less than 15 percent of smartphone users ever bother to adjust their notification settings—meaning the remaining 85 percent of us default to the app makers' every preset trigger. Google and Apple have made it far too difficult to adjust these settings so it's up to us to take steps ensure we set these triggers to suit our own needs, not the needs of the app makers'.

G. While companies like Facebook harvest attention to generate revenue from advertisers, other technologies have no such agenda. Take email, for example. This system couldn't care less how often you use it. Yet to many, email is the most habit-forming medium of all. We check email at all hours of the day—we're obsessed. But why? Because that's what the boss wants. For almost all white-collar jobs, email is the primary tool of corporate communication. A slow response to a message could hurt not only your reputation but also your livelihood.

H. Your friends are also responsible for the addiction. Think about this familiar scene. People gathered around a table, enjoying food and each other's company. There's laughter and a bit of kidding. Then, during an interval in the conversation, someone takes out their phone to check who knows what. Barely anyone notices and no one says a thing.

I. Now, imagine the same dinner, but instead of checking their phone, the person belches (打嗝)—loudly. Everyone notices. Unless the meal takes place in a beer house, this is considered bad manners. The impolite act violates the basic rules of etiquette. One has to wonder: why don't we apply the same social norms to checking phones during meals, meetings and conversations as we do to other antisocial behaviors? Somehow, we accept it and say nothing when someone offends.

J. The reality is, taking one's phone out at the wrong time is worse than belching because, unlike other minor offense, checking tech is contagious. Once one person looks at their phone, other people feel compelled to do the same, starting a chain reaction. The more people are on their phones, the fewer people are talking until finally you're the only one left not reading email or checking Twitter. From a societal perspective, phone checking is less like belching in public and more like another bad habit. Our phones are like cigarettes—something to do when we're anxious, bored or when our fingers need something to toy with. Seeing others enjoy a smoke, or sneak a quick glance, is too tempting to resist and soon everyone is doing it.

K. The technology, your boss, and your friends, all influence how often you find yourself using (or overusing) these gadgets. But there's still someone who deserves scrutiny—the person holding the phone.

L. I have a confession. Even though I study habit-forming technology for a living, disconnecting is not easy for me. I'm online far more than I'd like. Like Schwartz and so many others, I often find myself distracted and off task. I wanted to know why so I began self-monitoring to try to understand my behavior. That's when I discovered an uncomfortable truth. I use technology as an escape. When I'm doing something I'd rather not do, or when I'm someplace I'd rather not be, I use my phone to port myself elsewhere. I found that this ability to instantly shift my attention was often a good thing, like when passing time on public transportation. But frequently my tech use was not so benign. When I faced difficult work, like thinking through an article idea or editing the same draft for the hundredth time, for example, a more sinister screen would draw me in. I could easily escape discomfort, temporarily, by answering email or browsing the web under the pretense of so-called "research." Though I desperately wanted to lay blame elsewhere, I finally had to admit that my bad habits had less to do with new-age technology and more to do with old-fashioned procrastination (拖延).

M. It's easy to blame technology for being so distracting, but distraction is nothing new. Aristotle and Socrates debated the nature of "akrasia"—our tendency to do things against our interests. If we're honest with ourselves, tech is just another way to occupy our time and minds. If we weren't on our devices, we'd likely do something similarly unproductive.

N. Personal technology is indeed more engaging than ever, and there's no doubt companies are engineering their products and services to be more compelling and attractive. But would we want it any other way? The intended result of making something better is that people use it more. That's not necessarily a problem, that's progress.

O. These improvements don't mean we shouldn't attempt to control our use of technology. In order to make sure it doesn't control us, we should come to terms with the fact that it's more than the technology itself that's responsible for our habits. Our workplace culture, social norms and individual behaviors all play a part. To put technology in its place, we must be conscious not only of how technology is changing, but also of how it is changing us.

36. Online services are so designed that the more they are used, the more profit they generate.

37. The author admits using technology as an escape from the task at hand.

38. Checking phones at dinners is now accepted as normal but not belching.

39. To make proper use of technology, we should not only increase our awareness of how it is changing but also how it is impacting us.

40. Most of us find it hard to focus on our immediate tasks because of Internet distractions.

41. When one person starts checking their phone, the others will follow suit.

42. The great majority of smartphone users don't take the trouble to adjust their settings to suit their own purposes.

43. The Internet is regarded by some as designed to distract our attention.

44. The author attributes his tech addiction chiefly to his habit of putting off doing what he should do right away.

45. White-collar workers check email round the clock because it is required by their employers.

Passage One

Questions 46 to 50 are based on the following passage.

You may have heard that Coca-Cola once contained an ingredient capable of sparking particular devotion in consumers: cocaine. The "Coca" in the name referred to the extracts of coca leaf that the drink's originator, chemist John Pemberton, mixed with his sugary syrup (浆汁). At the time, coca leaf extract mixed with wine was a common tonic (滋补品), and Pemberton's sweet brew was a way to get around local laws prohibiting the sale of alcohol. But the other half of the name presents another ingredient, less infamous (名声不好的), perhaps, but also strangely potent: the kola nut.

In West Africa, people have long chewed kola nuts as stimulants, because they contain caffeine that also occurs naturally in tea, coffee, and chocolate. They also have heart stimulants.

Historian Paul Lovejoy relates that the cultivation of kola nuts in West Africa is hundreds of years old. The leafy, spreading trees were planted on graves and as part of traditional rituals. Even though the nuts, which need to stay moist, can be somewhat delicate to transport, traders carried them hundreds of miles throughout the forests and grasslands.

Europeans did not know of them until the 1500s, when Portuguese ships arrived on the coast of what is now Sierra Leone. And while the Portuguese took part in the trade, ferrying nuts down the coast along with other goods, by 1620, when English explorer Richard Jobson made his way up the Gambia, the nuts were still peculiar to his eyes.

By the late 19th century, kola nuts were being shipped by the tonne to Europe and the US. Many made their way into medicines, intended as a kind of energy boost. One such popular medicinal drink was Vin Mariani, a French product consisting of coca extract mixed with red wine. It was created by a French chemist, Angelo Mariani, in 1863. So when Pemberton created his drink, it represented an ongoing trend. When cocaine eventually fell from grace as a beverage ingredient, kola-extract colas became popular.

The first year it was available, Coca-Cola averaged nine servings a day across all the Atlanta soda fountains where it was sold. As it grew more popular, the company sold rights to bottle the soda, so it could travel easily. Today about 1.9 billion Cokes are purchased daily. It's become so iconic that attempts to change its taste in 1985—sweetening it in a move projected to boost sales—proved disastrous, with widespread anger from consumers. "Coca-Cola Classic" returned to store shelves just three months after the "New Coke" was released.

These days, the Coca-Cola recipe is a closely guarded secret. But it's said to no longer contain kola nut extract, relying instead on artificial imitations to achieve the flavour.

46. What do we learn about chemist John Pemberton?

A) He used a strangely potent ingredient in a food supplement.

B) He created a drink containing alcohol without breaking law.

C) He became notorious because of the coca drink he developed.

D) He risked breaking local law to make a drink with coca leaves.

47. What does the passage say about kola nuts?

A) Their commercial value was first discovered by Portuguese settlers.

B) They contain some kind of energy boost not found in any other food.

C) Many were shipped to Europe in the late 19th century for medicinal use.

D) They were strange to the Europeans when first imported from West Africa.

48. How come kola-extract colas became popular?

A) Cocaine had become notorious.

B) Alcoholic drinks were prohibited.

C) Fountains were set up to sell them.

D) Rights were sold to bottle the soda.

49. What is known about the taste of Coca-Cola?

A) It was so designed as to create addiction in consumers.

B) It still relies on traditional kola nut extract.

C) It has become more popular among the old.

D) It has remained virtually unchanged since its creation.

50. What is the passage mainly about?

A) The evolution of Coca-Cola.

B) The success story of Coca-Cola.

C) The medicinal value of Coca-Cola.

D) The business strategy of Coca-Cola.

Passage Two

Questions 51 to 55 are based on the following passage.

Twenty years ago, the Urban Land Institute defined the two types of cities that dominated the US landscape: smaller cities that operated around standard 9-5 business hours and large metropolitan areas that ran all 24 hours of the day. Analyzing and comparing cities using the lens of this basic divide gives interesting context to how investment capital flows and housing prices have shifted.

In recent years, many mid-sized cities have begun to adopt a middle-of-the-road approach incorporating the excitement and opportunity of large cities with small cities' quiet after midnight. These 18-hour cities are beginning to make waves in real estate rankings and attract more real estate investment. What is underlying this new movement in real estate, and why do these cities have so much appeal?

18-hour cities combine the best of 24-hour and 9-5 cities, which contributes to downtown revitalization. For decades, many downtown cores in small to mid-sized cities were abandoned after work hours by workers who lived in the suburbs. Movement out of city centers was widespread, and downtown tenants were predominantly made up of the working poor. This generated little commerce for downtown businesses in the evenings, which made business and generating tax revenue for municipal upkeep difficult. With the rise of a new concept in urban planning that aims to make life easier and more convenient, however, increasing popularity for urban areas that cased the real estate pushes, in major cities like San Francisco or New York, has inspired a type of forward thinking urbanity and in smaller cities.

Transforming downtown areas so that they incorporate modern housing and improved walkability to local restaurants, retail, and entertainment—especially when combined with improved infrastructure for cyclists and public transit—makes them appeal to a more affluent demographic. These adjustments encourage employers in the knowledge and talent industries to keep their offices downtown. Access to foot traffic and proximity to transit allow the type of entertainment-oriented businesses such as bars and restaurants to stay open later, which attracts both younger, creative workers and baby boomers nearing retirement alike. Because of their smaller size, most keep hours that allow people to enjoy themselves, then have some quiet after midnight, as opposed to large major cities like New York, where the buzz of activity is ongoing.

These 18-hour cities are rapidly on the rise and offer great opportunities for homeowner investment. In many of these cities such as Denver, a diverse and vigorous economy attracted to the urban core has offered stable employment for residents. The right urban mix has propped up home occupancy, increased property values, and attracted significant investment capital.

51. What do we learn about American cities twenty years ago?

A) They were divided into residential and business areas.

B) Their housing prices were linked with their prosperity.

C) There was a clear divide between large and small cities.

D) They were places where large investment capital flowed.

52. What can be inferred from the passage about 18-hour cities?

A) They especially appeal to small businesses.

B) They have seen a rise in property prices.

C) They have replaced quiet with excitement.

D) They have changed America's landscape.

53. Years ago, many downtown cores in small to mid-sized cities .

A) had hardly any business activity

B) were crowded in business hours

C) exhibited no signs of prosperity

D) looked deserted in the evenings

54. What characterizes the new downtown areas in 18-hour cities?

A) A sudden emergence of the knowledge industry.

B) Flooding in of large crowds of migrant workers.

C) Modernized housing and improved infrastructure.

D) More comfortable life and greater upward mobility.

55. What have 18-hour cities brought to the local residents?

A) More chances for promotion.

B) Healthier living environment.

C) Greater cultural diversity.

D) Better job opportunities.

The Pacific island nation of Palau has become home to the sixth largest marine sanctuary in the world. The new marine reserve, now the largest in the Pacific, will \_\_26\_\_ no fishing or mining. Palau also established the world's first shark sanctuary in 2009.

The tiny island nation has set aside 500,000 square kilometres—80 percent—of its maritime \_\_27\_\_ , for full protection. That's the highest percentage of an \_\_28\_\_ economic zone devoted to marine conservation by any country in the world. The remaining 20 percent of the Palau seas will be reserved for local fishing by individuals and small-scale \_\_29\_\_ fishing businesses with limited exports.

"Island \_\_30\_\_ have been among the hardest hit by the threats facing the ocean," said President Tommy Remengesau Jr. in a statement. "Creating this sanctuary is a bold move that the people of Palau recognise as \_\_31\_\_ to our survival. We want to lead the way in restoring the health of the ocean for future generations."

Palau has only been an \_\_32\_\_ nation for twenty years and has a strong history of environmental protection. It is home to one of the world's finest marine ecosystems, with more than 1,300 species of fish and 700 species of coral.

Senator Hokkons Baules, lead \_\_33\_\_ of the Palau National Marine Sanctuary Act, said the sanctuary will "help build a \_\_34\_\_ future for the Palauan people by honoring the conservation traditions of our past". These include the centuries-old custom of "bul", where leaders would call a temporary stop to fishing for key species in order to give fish \_\_35\_\_ an opportunity to replenish (补充).

A.allocate

B.celebrities

C.commercial

D.communities

E.essential

F.exclusive

G.independent

H.indulge

I.permit

J.secure

K.solitary

L.spectacle

M.sponsor

N.stocks

O.territory

Data sharing: An open mind on open date

[A] It is a movement building steady momentum: a call to make research data, software code and experimental methods publicly available and transparent. A spirit of openness is gaining acceptance in the science community, and is the only way, say advocates, to address a 'crisis' in science whereby too few findings are successfully reproduced. Furthermore, they say, it is the best way for researchers to gather the range of observations that are necessary to speed up discoveries or to identify large-scale trends.

[B] The open-data shift poses a confusing problem for junior researchers. On the one hand, the drive to share is gathering official steam. Since 2013, global scientific bodies have begun to back politics that support increased public access to research. On the other hand, scientists disagree about how much and when they should share date, and they debate whether sharing it is more likely to accelerate science and make it more robust, or to introduce vulnerabilities and problems. As more journals and make it more robust, or to introduce vulnerabilities and problems. As more journal and funders adopt data-sharing requirements, and as a growing number of enthusiasts call for more openness, junior researchers must find their place between adopters and those who continue to hold out, even as they strive to launch their own careers.

[C] One key challenge facing young scientists is how to be open without becoming scientifically vulnerable. They must determine the risk of jeopardizing a job offer or a collaboration proposal from those who are wary of—or unfamiliar with—open science. And they must learn how to capitalize on the movement's benefits, such as opportunities for more citations and a way to build a reputation without the need for conventional metrics, such as publication in high-impact journals.

[D] Some fields have embraced open data more than others. Researchers in psychology, a field rocked by findings of irreproducibility in the past few years, have been especially vocal supporters of the drive for more-open science. A few psychology journals have created incentives to increase interest in reproducible science—for example, by affixing an 'open-data' badge to articles that clearly state where data are available. According to social psychologist Brian Nosek, executive director of the Center for Open Science, the average data-sharing rate for the journal Psychological Science, which uses the badges, increased tenfold to 38% from 2013 to 2015.

[E] Funders, too, are increasingly adopting an open-data policy. Several strongly encourage, and some require, a date-management plan that makes data available. The US National Science Foundation is among these, some philanthropic (慈善的) funders, including the Bill&amp;Melinda Gates Foundation in Seattle, Washington, and the Wellcome Trust in London, also mandate open data from their grant recipients.

[F] But many young researchers, especially those who have not been mentored in open science, are uncertain about whether to share or to stay private. Graduate students and postdocs, who often are working on their lab head's grant, may have no choice if their supervisor or another senior colleague opposes sharing.

[G] Some fear that the potential impact of sharing is too high, especially at the early stages of a career. "Everybody has a scary story about someone getting scooped (被抢先)," says New York University astronomer David Hogg. Those fears may be a factor in a lingering hesitation to share data even when publishing in journals that mandate it.

[H] Researchers at small labs or at institutions focused on teaching arguably have the most to lose when sharing hard-won data. "With my institution and teaching load, I don't have postdocs and grad students," says Terry McGlynn, a tropical biologist at California State University, Dominguez Hills. "The stakes are higher to share data because it's a bigger fraction of what's happening in my lab."

[I] Researchers also point to the time sink that is involved in preparing data for others to view. Once the data and associated materials appear in a repository (存储库 ), answering questions and handling complaints can take many hours.

[J] The time investment can present other problems. In some cases, says data scientist Karthik Ram, it may be difficult for junior researchers to embrace openness when senior colleagues—many of whom head selection and promotion committees—might ridicule what they may view as misplaced energies. "I've heard this recently—that embracing the idea of open data and code makes traditional academics uncomfortable," says Ram. "The concern seems to be that open advocates don't spend their time being as productive as possible."

[K] An open-science stance can also add complexity to a collaboration. Kate Ratliff, who studies social attitudes at the University of Florida, Gainesville, says that it can seem as if there are two camps in a field—those who care about open science and those who don't. "There's a new area to navigate—'Are you cool with the fact that I'll want to make the data open?'—when talking with somebody about an interesting research idea," she says.

[L] Despite complications and concerns, the upsides of sharing can be significant. For example, when information is uploaded to a repository, a digital object identifier (DOI) is assigned. Scientists can use a DOI to publish each step of the research life cycle, not just the final paper. In so doing, they can potentially get three citations—one each for the data and software, in addition to the paper itself. And although some say that citations for software or data have little currency in academia, they can have other benefits.

[M] Many advocates think that transparent data procedures with a date and time stamp will protect scientists from being scooped. "This is the sweet spot between sharing and getting credit for it, while discouraging plagiarism (剽窃)," says Ivo Grigorov, a project coordinator at the National Institute of Aquatic Resources Research Secretariat in Charlottenlund, Denmark. Hogg says that scooping is less of a problem than many think. "The two cases I'm familiar with didn't involve open data or code," he says.

[N] Open science also offers junior researchers the chance to level the playing field by gaining better access to crucial date. Ross Mounce, a postdoc studying evolutionary biology at the University of Cambridge, UK, is a vocal champion of open science, partly because his fossil-based research depends on access to others' data. He says that more openness in science could help to discourage what some perceive as a common practice of shutting out early-career scientists' requests for data.

[O] Communication also helps for those who worry about jeopardizing a collaboration, he says. Concerns about open science should be discussed at the outset of a study. "Whenever you start a project with someone, you have to establish a clear understanding of expectations for who owns the data, at what point they go public and who can do what with them," he says.

[P] In the end, sharing data, software and materials with colleagues can help an early-career researcher to gain recognition—a crucial component of success. "The thing you are searching for is reputation," says Titus Brown, a genomics (基因组学) researcher at the University of California, Davis. "To get grants and jobs, you have to be relevant and achieve some level of public recognition. Anything you do that advances your presence—especially in a larger sphere, outside the communities you know—is a net win."

36. Astronomer David Hogg doesn't think scooping is as serious a problem as generally thought.

37. Some researchers are hesitant to make their data public for fear that others might publish something similar before them.

38. Some psychology journals have offered incentives to encourage authors to share their data.

39. There is a growing demand in the science community that research data be open to the public.

40. Sharing data offers early-career researchers the chance to build a certain level of reputation.

41. Data sharing enables scientists to publish each step of their research work, thus leading to more citations.

42. Scientists hold different opinions about the extent and timing of data sharing.

43. Potential problems related to data sharing should be made known to and discussed by all participants at the beginning of a joint research project.

44. Sharing data and handling data-related issues can be time-consuming.

45. Junior researchers may have no say when it comes to sharing data.

Passage One

Questions 46 to 50 are based on the following passage.

In the beginning of the movie I, Robot, a robot has to decide whom to save after two cars plunge into the water—Del Spooner or a child. Even though Spooner screams "Save her! Save her!" the robot rescues him because it calculates that he has a 45 percent chance of survival compared to Sarah's 11 percent. The robot's decision and its calculated approach raise an important question: would humans make the same choice? And which choice would we want our robotic counterparts to make?

Isaac Asimov evaded the whole notion of morality in devising his three laws of robotics, which hold that 1. Robots cannot harm humans or allow humans to come to harm; 2. Robots must obey humans, except where the order would conflict with law 1; and 3. Robots must act in self-preservation, unless doing so conflicts with laws 1 or 2. These laws are programmed into Asimov's robots—they don't have to think, judge, or value. They don't have to like humans or believe that hurting them is wrong or bad. They simply don't do it.

The robot who rescues Spooner's life in I, Robot follows Asimov's zeroth law: robots cannot harm humanity (as opposed to individual humans) or allow humanity to come to harm—an expansion of the first law that allows robots to determine what's in the greater good. Under the first law, a robot could not harm a dangerous gunman, but under the zeroth law, a robot could kill the gunman to save others.

Whether it's possible to program a robot with safeguards such as Asimov's laws is debatable. A word such as "harm" is vague (what about emotional harm? Is replacing a human employee harm?), and abstract concepts present coding problems. The robots in Asimov's fiction expose complications and loopholes in the three laws, and even when the laws work, robots still have to assess situations.

Assessing situations can be complicated. A robot has to identify the players, conditions, and possible outcomes for various scenarios. It's doubtful that a computer program can do that—at least, not without some undesirable results. A roboticist at the Bristol Robotics Laboratory programmed a robot to save human proxies (替身) called "H-bots" from danger. When one H-bot headed for danger, the robot successfully pushed it out of the way. But when two H-bots became imperiled, the robot chocked 42 percent of the time, unable to decide which to save and letting them both "die." The experiment highlights the importance of morality: without it, how can a robot decide whom to save or what's best for humanity, especially if it can't calculate survival odds?

46. What question does the example in the movie raise?

A) Whether robots can reach better decisions.

B) Whether robots follow Asimov's zeroth law.

C) How robots may make bad judgments.

D) How robots should be programmed.

47. What does the author think of Asimov's three laws of robotics?

A) They are apparently divorced from reality.

B) They did not follow the coding system of robotics.

C) They laid a solid foundation for robotics.

D) They did not take moral issues into consideration.

48. What does the author say about Asimov's robots?

A) They know what is good or bad for human beings.

B) They are programmed not to hurt human beings.

C) They perform duties in their owners' best interest.

D) They stop working when a moral issue is involved.

49. What does the author want to say by mentioning the word "harm" in Asimov's laws?

A) Abstract concepts are hard to program.

B) It is hard for robots to make decisions.

C) Robots may do harm in certain situations.

D) Asimov's laws use too many vague terms.

50. What has the roboticist at the Bristol Robotics Laboratory found in his experiment?

A) Robots can be made as intelligent as human beings some day.

B) Robots can have moral issues encoded into their programs.

C) Robots can have trouble making decisions in complex scenarios.

D) Robots can be programmed to perceive potential perils.

Passage Two

Questions 51 to 55 are based on the following passage.

Our world now moves so fast that we seldom stop to see just how far we have come in just a few years. The latest iPhone 6s, for example, has a dual-core processor and fits nicely into your pocket. By comparison, you would expect to find a technological specification like this on your standard laptop in an office anywhere in the world.

It's no wonder that new applications for the Internet of Things are moving ahead fast when almost every new device we buy has a plug on the end of it or a wireless connection to the internet. Soon, our current smartphone lifestyle will expand to create our own smart home lifestyle too.

All researches agree that close to 25 billion devices, things and sensors will be connected by 2020 which incidentally is also the moment that Millennials (千禧一代) are expected to make up 75 percent of our overall workforce, and the fully connected home will become a reality for large numbers of people worldwide.

However, this is just the tip of the proverbial iceberg as smart buildings and even cities increasingly become the norm as leaders and business owners begin to wake up to the massive savings that technology can deliver through connected sensors and new forms of automation coupled with intelligent energy and facilities management.

Online security cameras, intelligent lighting and a wealth of sensors that control both temperature and air quality are offering an unprecedented level of control, efficiency, and improvements to what were once classed necessary costs when running a business or managing a large building.

We can expect that the ever-growing list of devices, systems and environments remain connected, always online and talking to each other. The big benefit will not only be in the housing of this enormous and rapidly growing amount of data, but will also be in the ability to run real time data analytics to extract actionable and ongoing knowledge.

The biggest and most exciting challenge of this technology is how to creatively leverage this ever-growing amount of data to deliver cost savings, improvements and tangible benefits to both businesses and citizens of these smart cities.

The good news is that most of this technology is already invented. Let's face it, it wasn't too long ago that the idea of working from anywhere and at anytime was some form of a distant Utopian (乌托邦式的) dream, and yet now we can perform almost any office-based task from any location in the world as long as we have access to the internet.

It's time to wake up to the fact that making smart buildings, cities and homes will dramatically improve our quality of life in the years ahead.

51. What does the example of iPhone 6s serve to show?

A) The huge capacity of the smartphones people now use.

B) The widespread use of smartphones all over the world.

C) The huge impact of new technology on people's everyday life.

D) The rapid technological progress in a very short period of time.

52. What can we expect to see by the year 2020?

A) Apps for the Internet of Things.

B) The popularization of smart homes.

C) The emergence of Millennials.

D) Total globalization of the world.

53. What will business owners do when they become aware of the benefits of the Internet of Things?

A) Employ fewer workers in their operations.

B) Gain automatic control of their businesses.

C) Invest in more smart buildings and cities.

D) Embrace whatever new technology there is.

54. What is the most exciting challenge when we possess more and more data?

A) How to turn it to profitable use.

B) How to do real time data analysis.

C) How to link the actionable systems.

D) How to devise new ways to store it.

55. What does the author think about working from anywhere and at anytime?

A) It is feasible with a connection to the internet.

B) It will thrive in smart buildings, cities and homes.

C) It is still a distant Utopian dream for ordinary workers.

D) It will deliver tangible benefits to both boss and worker.

Many European countries have been making the shift to electric vehicles and Germany has just stated that they plan to ban the sale of vehicles using gasoline and diesel as fuel by 2030. The country is also planning to reduce its carbon footprint by 80-95% by 2050, \_\_26\_\_ a shift to green energy in the country. Effectively, the ban will include the registration of new cars in the country as they will not allow any gasoline \_\_27\_\_ vehicle to be registered after 2030.

Part of the reason this ban is being discussed and \_\_28\_\_ is because energy officials see that they will not reach their emissions goals by 2050 if they do not \_\_29\_\_ a large portion of vehicle emissions. The country is still \_\_30\_\_ that it will meet its emissions goals, like reducing emissions by 40% by 2020, but the \_\_31\_\_ of electric cars in the country has not occurred as fast as ejected.

Other efforts to increase the use of electric vehicles include plans to build over 1 million hybrid and electric car battery changing stations across the country. By 2030, Germany plans on having over 6 million charging stations \_\_32\_\_. According to the International Business Times, electric car sales are expected to increase as Volkswagen is still recovering from its emissions scandal.

There are \_\_33\_\_ around 155,000 registered hybrid and electric vehicles on German roads, dwarfed by the 45 million gasoline and diesel cars driving there now. As countries continue setting goals of reducing emissions, greater steps need to be taken to have a \_\_34\_\_ effect on the surrounding environment. While the efforts are certainly not \_\_35\_\_, the results of such bans will likely only start to be seen by generations down the line, bettering the world for the future.

A.acceptance

B.currently

C.disrupting

D.eliminate

E.exhaust

F.futile

G.hopeful

H.implemented

I.incidentally

J.installed

K.noticeable

L.powered

M.restoration

N.skeptical

O.sparking

Apple's Stance Highlights a More Confrontational Tech Industry

[A] The battle between Apple and law enforcement officials over unlocking a terrorist's smartphone is the culmination of a slow turning of the tables between the technology industry and the United States government.

[B] After revelations by the former National Security Agency contractor Edward J. Snowden in 2013 that the government both cozied up to (讨好) certain tech companies and hacked into others to gain access to private data on an enormous scale, tech giants began to recognize the United States government as a hostile actor. But if the confrontation has crystallized in this latest battle, it may already be heading toward a predictable conclusion: In the long run, the tech companies are destined to emerge victorious.

[C] It may not seem that way at the moment. On the one side, you have the United States government's mighty legal and security apparatus fighting for data of the most sympathetic sort: the secrets buried in a dead mass murderer's phone. The action steins from a federal court order issued on Tuesday requiring Apple to help the Federal Bureau of Investigation (FBI) to unlock an iPhone used by one of the two attackers who killed 14 people in San Bernardino, California, in December.

[D] In the other corner is the world's most valuable company, whose chief executive, Timothy Cook, has said he will appeal the court's order. Apple argues that it is fighting to preserve a principle that most of us who are addicted to our smartphones can defend: Weaken a single iPhone so that its contents can be viewed by the American government and you risk weakening all iPhones for any government intruder, anywhere.

[E] There will probably be months of legal confrontation, and it is not at all clear which side will prevail in court, nor in the battle for public opinion and legislative favor. Yet underlying all of this is a simple dynamic: Apple, Google, Facebook and other companies hold most of the cards in this confrontation. They have our data, and their businesses depend on the global public's collective belief that they will do everything they can to protect that data.

[F] Any crack in that front could be fatal for tech companies that must operate worldwide. If Apple is forced to open up an iPhone for an American law enforcement investigation, what is to prevent it from doing so for a request from the Russians or the Iranians? If Apple is forced to write code that lets the FBI get into the Phone 5c used by Syed Rizwan Farook, the male attacker in the San Bernardino attack, who would be responsible if some hacker got hold of that code and broke into its other devices?

[G] Apple's stance on these issues emerged post-Snowden, when the company started putting in place a series of technologies that, by default, make use of encryption (加密）to limit access to people's data. More than that, Apple—and, in different ways, other tech companies, including Google, Facebook, Twitter and Microsoft—have made their opposition to the government's claims a point of corporate pride.

[H] Apple's emerging global brand is privacy; it has staked its corporate reputation, not to mention the investment of considerable technical and financial resources, on limiting the sort of mass surveillance that was uncovered by Mr. Snowden. So now, for many cases involving governmental intrusions into data, once-lonely privacy advocates find themselves fighting alongside the most powerful company in the world.

[I] "A comparison point is in the 1990s battles over encryption," said Kurt Opsahl, general counsel of the Electronic Frontier Foundation, a privacy watchdog group. "Then you had a few companies involved, but not one of the largest companies in the world coming out with a lengthy and impassioned post, like we saw yesterday from Timothy Cook. Its profile has really been raised."

[J] Apple and oilier tech companies hold another ace: the technical means to keep making their devices more and more inaccessible. Note that Apple's public opposition to the government's request is itself a hindrance to mass government intrusion. And to get at the contents of a single iPhone, the government says it needs a court order and Apple's help to write new code; in earlier versions of the iPhone, ones that were created before Apple found religion on (热衷于) privacy, the FBI might have been able to break into the device by itself.

[K] You can expect that noose (束缚) to continue to tighten. Experts said that whether or not Apple loses this specific case, measures that it could put into place in the future will almost certainly be able to further limit the government's reach.

[L] That is not to say that the outcome of the San Bernardino case is insignificant. As apple and several security experts have argued, an order compelling Apple to write software that gives the FBI access to the iPhone in question would establish an unsettling precedent. The order essentially asks Apple to hack its own devices, and once it is in place, the precedent could be used to justify law enforcement efforts to get around encryption technologies in other investigations far removed from national security threats.

[M] Once aimed with a method for gaining access to iPhones, the government could ask to use it proactively (先发制人地), before a suspected terrorist attack—leaving Apple in a bind as to whether to comply or risk an attack and suffer a public-relations nightmare. "This is a brand new move in the war against encryption," Mr. Opsahl said. "We have had plenty of debates in Congress and the media over whether the government should have a backdoor, and this is an end run (迂回战术) around that—here they come with an order to create that backdoor."

[N] Yet it is worth noting that even if Apple ultimately loses this case, it has plenty of technical means to close a backdoor over time. "If they are anywhere near worth their salt as engineers, I bet they are rethinking their threat model as we speak," said Jonathan Zdziarski, a digital expert who studies the iPhone and its vulnerabilities.

[O] One relatively simple fix, Mr. Zdziarski said, would be for Apple to modify future versions of the iPhone to require a user to enter a passcode before the phone will accept the sort of modified operating system that the FBI wants Apple to create. That way, Apple could not unilaterally introduce a code that weakens the iPhone—a user would have to consent to it.

[P] "Nothing is 100 percent hacker-proof," Mr. Zdziarski said, but he pointed out that the judge's order in this case required Apple to provide "reasonable security assistance" to unlock Mr. Farook's phone. If Apple alters the security model of future iPhones so that even its own engineers' "reasonable assistance" will not be able to crack a given device when compelled by the government, a precedent set in this case might lose its lasting force. In other words, even if the FBI wins this case, in the long run, it loses.

36. It is a popular belief that tech companies are committed to protecting their customers' private data.

37. The US government believes that its access to people's iPhones could be used to prevent terrorist attacks.

38. A federal court asked Apple to help the FBI access data in a terrorist's iPhone.

39. Privacy advocates now have Apple fighting alongside them against government access to personal data.

40. Snowden revealed that the American government had tried hard to access private data on a massive scale.

41. The FBI might have been able to access private data in earlier iPhones without Apple's help.

42. After the Snowden incident, Apple made clear its position to counter government intrusion into personal data by means of encryption.

43. According to one digital expert, no iPhone can be entirely free from hacking.

44. Timothy Cook's long web post has helped enhance Apple's image.

45. Apple's CEO has decided to appeal the federal court's order to unlock a user's iPhone.

Passage One

Questions 46 to 50 are based on the following passage.

At the base of a mountain in Tanzania's Gregory Rift, Lake Natron burns bright red, surrounded by the remains of animals that were unfortunate enough to fall into the salty water. Bats, swallows and more are chemically preserved in the pose in which they perished, sealed in the deposits of sodium carbonate in the water. The lake's landscape is bizarre and deadly—and made even more so by the fact that it's the place where nearly 75 percent of the world's flamingos (火烈鸟）are born.

The water is so corrosive that it can burn the skin and eyes of unadapted animals. Flamingos, however, are the only species that actually makes life in the midst of all that death. Once every three or four years, when conditions are right, the lake is covered with the pink birds as they stop flight to breed. Three-quarters of the world's flamingos fly over from other salt lakes in the Rift Valley and nest on salt-crystal islands that appear when the water is at a specific level—too high and the birds can't build their nests, too low and predators can move briskly across the lake bed and attack. When the water hits the right level, the baby birds are kept safe from predators by a corrosive ditch.

"Flamingos have evolved very leathery skin on their legs so they can tolerate the salt water," says David Harper, a professor at the University of Leicester. "Humans cannot, and would die if their legs were exposed for any length of time." So far this year, water levels have been too high for the flamingos to nest.

Some fish, too, have had limited success vacationing at the lake as less salty lagoons (泻湖) form on the outer edges from hot springs flowing into Lake Natron. Three species of tilapia (罗非鱼) thrive there part-time. "Fish have a refuge in the streams and can expand into the lagoons when the lake is low and the lagoons are separate," Harper said. "All the lagoons join when the lake is high and fish must retreat to their stream refuges or die." Otherwise, no fish are able to survive in the naturally toxic lake.

This unique ecosystem may soon be under pressure. The Tanzanian government has once again started mining the lake for soda ash, used for making chemicals, glass and detergents. Although the planned operation will be located more than 40 miles away, drawing the soda ash in through pipelines, conservationists worry it could still upset the natural water cycle and breeding grounds. For now, though, life prevails—even in a lake that kills almost everything it touches.

46. What can we learn about Lake Natron?

A) It is simply uninhabitable for most animals.

B) It remains little known to the outside world.

C) It is a breeding ground for a variety of birds.

D) It makes an ideal habitat for lots of predators.

47. Flamingos nest only when the lake water is at a specific level so that their babies can .

A) find safe shelter more easily

B) grow thick feathers on their feet

C) stay away from predators

D) get accustomed to the salty water

48. Flamingos in the Rift Valley are unique in that .

A) they can move swiftly across lagoons

B) they can survive well in salty water

C) they breed naturally in corrosive ditches

D) they know where and when to nest

49. Why can certain species of tilapia sometimes survive around Lake Natron?

A) They can take refuge in the less salty waters.

B) They can flee quick enough from predators.

C) They can move freely from lagoon to lagoon.

D) They can stand the heat of the spring water.

50. What may be the consequence of Tanzanian government's planned operation?

A) The accelerated extinction of flamingos.

B) The change of flamingos' migration route.

C) The overmining of Lake Natron's soda ash.

D) The disruption of Lake Natron's ecosystem.

Passage Two

Questions 51 to 55 are based on the following passage.

It is the season for some frantic last-minute math—across the country, employees of all stripes are counting backward in an attempt to figure out just how much paid time-off they have left in their reserves. More of them, though, will skip those calculations altogether and just power through the holidays into 2017: More than half of American workers don't use up all of their allotted vacation days each year.

Not so long ago, people would have turned up their noses at that kind of dedication to the job. As marketing professors Silvia Bellezza, Neeru Paharia, and Anat Keinan recently explained in Harvard Business Review (HBR), leisure time was once seen as an indicator of high social status, something attainable only for those at the top. Since the middle of the 20th century, though, things have turned the opposite way—these days, punishing hours at your desk, rather than days off, are seen as the mark of someone important.

In a series of several experiments, the researchers illustrated just how much we've come to admire busyness, or at least the appearance of it. Volunteers read two passages, one about a man who led a life of leisure and another about a man who was over-worked and over-scheduled; when asked to determine which of the two had a higher social status, the majority of the participants said the latter. The same held true for people who used products that implied they were short on time: In one experiment, for example, customers of the grocery-delivery service Peapod were seen as of higher status than people who shopped at grocery stores that were equally expensive; in another, people wearing wireless headphones were considered further up on the social ladder than those wearing regular headphones, even when both were just used to listen to music.

In part, the authors wrote in HBR, this pattern may have to do with the way work itself has changed over the past several decades.

We think that the shift from leisure-as-status to busyness-as-status may be linked to the development of knowledge-intensive economics. In such economies, individuals who possess the human capital characteristics that employers or clients value (e. g. , competence and ambition) are expected to be in high demand and short supply on the job market. Thus, by telling others that we are busy and working all the time, we are implicitly suggesting that we are sought after, which enhances our perceived status.

Even if you feel tempted to sacrifice your own vacation days for fake busyness, though, at least consider leaving your weekends unscheduled. It's for your own good.

51. What do most employees plan to do towards the end of the year?

A) Go for a vacation.

B) Keep on working.

C) Set an objective for next year.

D) Review the year's achievements.

52. How would people view dedication to work in the past?

A) They would regard it as a matter of course.

B) They would consider it a must for success.

C) They would look upon it with contempt.

D) They would deem it a trick of businessmen.

53. What did the researchers find through a series of experiments?

A) The busier one appears, the more respect one earns.

B) The more one works, the more one feels exploited.

C) The more knowledge one has, the more competent one will be.

D) The higher one's status, the more vacation time one will enjoy.

54. What may account for the change of people's attitude towards being busy?

A) The fast pace of life in modern society.

B) The fierce competition in the job market.

C) The widespread use of computer technology.

D) The role of knowledge in modern economy.

55. What does the author advise us to do at the end of the passage?

A) Schedule our time properly for efficiency.

B) Plan our weekends in a meaningful way.

C) Find time to relax however busy we are.

D) Avoid appearing busy when we are not.