第 07 讲　　阅读理解说明文

目录

01 模拟基础练

题型一　科普类说明文的考查

1.（23-24 高三·江西赣州·期中）In 2022, a New Zealand woman became the first to receive a gene-editing treatment to permanently lower her cholesterol (胆固醇). The woman had heart disease, along with an inherited risk for high cholesterol. But scientists behind the experimental treatment are considering how it could help pretty much anyone.

The trial is a potential turning point for CRISPR, the editing tool they used. Since the technology was first programmed to edit genomes (基因组) about a decade ago, we've seen CRISPR from scientific labs made much progress. But the first experimental treatments have focused on rare genetic disorders. They are working on more possibilities treating common disease like high cholesterol.

The cholesterol-lowering treatment, developed by Verve Therapeutics, relies on a form of gene editing called base editing, or "CRISPR 2.0". It's a more targeted approach. Instead of simply making cuts to shut off specific genes, scientists can now exchange a single DNA base for another. In theory, this should be safer because you're less likely to cut an important gene by mistake, and you can be less likely to make mistakes that may occur when DNA repairs itself after being cut.

An even newer form of CRISPR could take things further still. Prime Editing — or "CRISPR 3.0" — allows

scientists to put chunks (块) of DNA into a genome. If it works in people, it could let scientists replace disease-causing genes.

Together, these newer forms of CRISPR could broaden the possibilities of gene editing to take on many conditions — not all of them genetic. Someday, people may have the option to add genes thought to protect against high blood pressure, or certain diseases, to their genetic code.

All CRISPR treatments are experimental at this point, and we don't know if they're safe. Some argue we should focus on treating those with severe diseases in the meantime. But if these new forms of CRISPR do work, they could help many others.

1．What are scientists focusing on in the gene-editing treatment?

A．Its great success.　　B．Its wider application.

C．Its immediate effects.　　D．Its target patients.

2．Why does the author think that CRISPR 2.0 is theoretically safer?

A．It can shut off specific genes.　　B．It can avoid potential errors.

C．It's likely to reduce DNA base damage.　　D．It provides protection for the genome.

3．What could be the innovative practice of Prime Editing?

A．Making cuts to shut off specific genes.　　B．Providing treatment for genetic diseases.

C．Exchanging a single DNA base for another.　　D．Taking the place of disease-causing genes.

4．What can be inferred from the text?

A．CRISPR treatments haven't entered human trials.

B．Prime editing is being tested in the scientific lab.

C．Prime editing targets diseases caused by genetic disorders.

D．Verve's cholesterol-lowering treatments are approved for use.

【答案】1．B　　2．B　　3．D　　4．B

【导语】本文是一篇说明文。文章介绍了科学家通过研发基因编辑工具 CRISPR 不断更新的三种形式，用于治疗疾病，并探索更加广泛运用的可能性。

1．细节理解题。 根据第二段中的"But the first experimental treatments have focused on rare genetic disorders. They are working on more possibilities treating common disease like high cholesterol.(但首批实验性治疗主要针对罕见的遗传疾病。他们正在研究更多治疗常见疾病的可能性，比如高胆固醇。)"可知，科学家正在研究更多更广治疗像高胆固醇疾病的方法。故选 B。

2．细节理解题。 根据第三段中的"In theory, this should be safer because you're less likely to cut an important gene by mistake, and you can be less likely to make mistakes that may occur when DNA repairs itself after being cut.(理论上，这应该更安全，因为你不太可能错误地切割一个重要的基因，你也不太可能在 DNA 被切割后自我修复时出现错误。)"可知，CRISPR 2.0 理论上更安全是因为它能避免可能的错误。故选 B。

3．推理判断题。 根据第四段中的"If it works in people, it could let scientists replace disease-causing genes.(如果它在人类身上起作用，它可以让科学家取代致病基因。)"可知，能取代致病基因是科学家们关于"Prime

Editing”的创新实践。故选 D。

4．推理判断题。 根据第四段中的“Prime Editing — or “CRISPR 3.0” — allows scientists to put chunks (块) of DNA into a genome. If it works in people, it could let scientists replace disease-causing genes.(Prime Editing——或“CRISPR 3.0”——允许科学家将 DNA 块放入基因组中。如果它在人类身上起作用，它可以让科学家取代致病基因。)”可知，“Prime Editing”允许科学家将 DNA 块放入基因组中。如果它在人身上有效，它就可以让科学家取代致病基因。以及最后一段中的“All CRISPR treatments are experimental at this point, and we don’t know if they’re safe.(目前，所有的 CRISPR 治疗都是实验性的，我们不知道它们是否安全)”可知，科学家研发的 CRISPR 不断更新的几种形式目前都是实验性的。故选 B。

2.（2024·四川达州·二模）With the ocean covering more than 70% of the Earth’s surface, the National Oceanic and Atmospheric Administration (NOAA) said scientists and researchers had depended on sonar (声呐) technologies to understand and map the sea floor which had charted only about 10% of the world’s ocean. For the ocean and coastal waters in the US, the number is just around 35%.

We know less about our planet’s ocean than what we know about the far side of the moon or the surface of Mars. Part of the reason for the lack of observation is the challenge of powering an underwater camera. Researchers have used ships to recharge cameras or observed with a camera tied to a ship to solve the issue, which is expensive and unsuitable for long-term observations.

Recently, researchers at the Massachusetts Institute of Technology (MIT) have taken a major step to iron out this problem by developing a battery-free, wireless underwater camera that could harvest energy underwater on its own for long periods.

To keep power consumption as low as possible, the researchers used off-the-shelf, ultra-low-power imaging sensors. The device takes color photos, even in dark underwater environments, and sends image data wirelessly through the water.

The camera is powered by sound. It changes mechanical energy from sound waves traveling through water into electrical energy that powers its imaging and communications equipment. After getting and encoding image data, the camera also uses sound waves to send the data to a receiver that reconstructs the image. Those sound waves could come from any source, like a passing ship or marine life. As it doesn’t need a power source, the camera could run for weeks on end before getting it back, enabling scientists to search remote parts of the ocean for new species.

Now that researchers have demonstrated a working prototype (原型), they plan to enhance the device so it is practical in real-world settings. For future application, these cameras may be used to take images of ocean pollution and create more accurate models to monitor climate change to better understand how climate change impacts the underwater world, and advance various undersea scientific fields.

5．What do the data in paragraph 1 mainly show?

A．Undersea exploration is poor in the US.

B．Much of the planet’s ocean remains unexplored.

C．The mapping of the sea floor is time-consuming.

D．Technology development matters a lot to sea observation.

6．What limits the researchers' undersea exploration according to the text?

A．The complexity of the sea environment.

B．The concern about potential sea pollution.

C．The shortage of investment in ocean exploration.

D．The inability to effectively power underwater cameras.

7．What does the underlined phrase "iron out" in paragraph 3 probably mean?

A．Overcome.　　B．Face.

C．Analyze.　　D．Illustrate.

8．Which of the following can best describe the MIT underwater camera?

A．Secure and stable.　　B．Expensive but effective.

C．Impractical but advanced.　　D．Self-sufficient and energy-saving.

【答案】5．B　　6．D　　7．A　　8．D

【导语】本文是一篇说明文。主要介绍的是麻省理工学院的研究人员开发了一种将声波在水中传播的机械能转化为电能，为成像和通信设备提供动力的无线水下相机。

5．推理判断题。根据首段"With the ocean covering more than 70% of the Earth's surface, the National Oceanic and Atmospheric Administration (NOAA) said scientists and researchers had depended on sonar (声呐) technologies to understand and map the sea floor which had charted only about 10% of the world's ocean. For the ocean and coastal waters in the US, the number is just around 35%.(由于海洋覆盖了地球表面的 70%以上，美国国家海洋和大气管理局表示，科学家和研究人员依靠声纳技术来了解和绘制海底地图，而海底地图只占世界海洋面积的 10%左右。对于美国的海洋和沿海水域，这一数字仅为 35%左右。)"可知，海洋占地球表面面积的 70%，而科学家和研究人员依靠声纳技术来了解和绘制的海底地图只占 10%左右，美国海域，这一数字也只占 35%左右，这些数据表明了地球上的大部分海洋仍未被探索。故选 B 项。

6．细节理解题。根据第二段中的"Part of the reason for the lack of observation is the challenge of powering an underwater camera.(缺乏观察的部分原因是水下摄像机的供电困难。)"可知，缺乏对海洋观察的部分原因是水下摄像机的供电困难，由此可知，无法有效地为水下摄像机提供动力限制了研究者的海底探索。故选 D 项。

7．词义猜测题。根据第二段中的"Part of the reason for the lack of observation is the challenge of powering an underwater camera.(缺乏观察的部分原因是水下摄像机的供电困难。)"可知，无法有效地为水下摄像机提供动力限制了研究者的海底探索，结合画线短语前的"Recently, researchers at the Massachusetts Institute of Technology (MIT) have taken a major step(最近，麻省理工学院的研究人员迈出了重要的一步)"可知，就这个问题麻省理工学院的研究人员迈出了重要的一步。结合画线短语后的"by developing a battery-free, wireless underwater camera that could harvest energy underwater on its own for long periods.(他们开发了一种无需电池的无线水下相机，这种相机可以在水下长时间收集能量。)"可知，他们开发了一种无需电池的无线水下相机，

这种相机能在水下长时间收集能量，由此推知，麻省理工学院的研究人员应该是在解决这个问题方面迈出了重要的一步，所以画线短语的意思应与“解决”意义相近。故选 A 项。

8. 推理判断题。根据倒数第二段中的“The camera is powered by sound. It changes mechanical energy from sound waves traveling through water into electrical energy that powers its imaging and communications equipment.(这台摄像机是由声音驱动的。它将声波在水中传播的机械能转化为电能，为成像和通信设备提供动力。)”可知，该摄像机将声波转化成电能为成像和通信提供动力，由此可知，该相机可以自给自足，结合下文中的“As it doesn’t need a power source, the camera could run for weeks on end before getting it back, enabling scientists to search remote parts of the ocean for new species.(由于它不需要电源，相机可以连续运行数周才返回，使科学家能够在海洋的偏远地区寻找新物种。)”可知，这种摄像机不需要电源，所以可以节约能源。综合以上信息，该摄像机既可以自给自足又能节约能源。故选 D 项。

3.（2024·湖北武汉·三模）Scientists have found a way to decode (解码) a stream of words in the brain using MRI scans and artificial intelligence. The system reconstructs the main point of what a person hears or imagines, rather than trying to copy each word, a team reports.“It’s getting at the ideas behind the words, the meaning, says Alexander Huth, an author of the study.”

Previous efforts to decode language have relied on sensors placed directly on the surface of the brain. The sensors detect signals in areas involved in expressing words. But the Texas team’s approach is an attempt to “decode more freeform thought,” says Marcel Just, a professor of psychology at Carnegie Mellon University.

The new study came about as part of an effort to understand how the brain processes language. Researchers had three people spend up to 16 hours each in a functional MRI scanner which detects signs of activity across the brain. Participants wore headphones that streamed audio from the Internet. Those streams of words produced activity all over the brain, not just in areas associated with speech and language. After participants listened to hours of stories in the scanner, the MRI data was sent to a computer. It learned to match specific patterns of brain activity with certain streams of words. Then came a paraphrased version of what a participant heard.

The MRI approach is currently slower and less accurate than an experimental communication system being developed for paralyzed people, where people get a sheet of electrical sensors implanted directly on the surface of the brain. With an MRI-based system, no one has to get surgery.

But future versions of MRI scans could raise moral questions. “What if you can read out the word that somebody is just thinking in their head? That’s potentially a harmful thing.” Huth says. This technology can’t really read minds uncontrollably, though. It only works when a participant is actively cooperating with scientists. Still, systems that decode language could someday support people who are unable to speak because of a brain injury or disease. They are also assisting scientists in understanding how the brain processes words and thoughts.

9. What is special about the Texas team’s study?

A. Brain can be reconstructed.　　B. Expression can be perfected.

C. Meanings can be comprehended.　　D. Sensor signals can be improved.

10. What is paragraph 3 mainly about?

A. The process of an experiment.　　B. Patterns of brain activity.

C．Steps of word matching.　　D．The way of speech decoding.

11．What can be implied about MRI scans from the last paragraph?

A．They are a double-edged sword.　　B．They are potentially harmful to life.

C．They are helpful to treat brain disease.　　D．They are well worth researching.

12．Which can be a suitable title for the text?

A．A Decoder That Can Read Your Mind　　B．MRI Scanner: Raise a moral question

C．MRI Scanner: Still a Long Way to Go　　D．A Decoder That Can Convey Meaning

【答案】9．C　　10．A　　11．D　　12．A

【导语】这是一篇说明文。文章主要说明了科学家通过核磁共振扫描和人工智能来解码大脑中的单词流，这项新研究是为了了解大脑如何处理语言。

9．细节理解题。根据第一段中“‘It’s getting at the ideas behind the words, the meaning, says Alexander Huth, an author of the study.” (该研究的作者之一亚历山大·胡特说：“这是在理解单词背后的意思。”)”和第二段“Previous efforts to decode language have relied on sensors placed directly on the surface of the brain. The sensors detect signals in areas involved in expressing words. But the Texas team’s approach is an attempt to “decode more freeform thought,” says Marcel Just, a professor of psychology at Carnegie Mellon University. (以前解码语言的努力依赖于直接放置在大脑表面的传感器。传感器检测与表达单词有关的区域的信号。但卡耐基梅隆大学的心理学教授马塞尔·贾斯特说，德克萨斯团队的方法是试图“解码更多自由形式的思想”)”可知，德克萨斯研究小组的研究的特别之处是：单词背后的意思可以被理解。故选 C。

10．主旨大意题。根据第三段“The new study came about as part of an effort to understand how the brain processes language. Researchers had three people spend up to 16 hours each in a functional MRI scanner which detects signs of activity across the brain. Participants wore headphones that streamed audio from the Internet. Those streams of words produced activity all over the brain, not just in areas associated with speech and language. After participants listened to hours of stories in the scanner, the MRI data was sent to a computer. It learned to match specific patterns of brain activity with certain streams of words. Then came a paraphrased version of what a participant heard. (这项新研究是为了了解大脑如何处理语言。研究人员让三个人每人花 16 个小时在功能性核磁共振扫描仪上，以检测大脑活动的迹象。参与者戴着耳机，播放来自互联网的音频。这些单词流在整个大脑中产生活动，而不仅仅是与语音和语言相关的区域。参与者在扫描仪中听了几个小时的故事后，核磁共振成像数据被发送到电脑上。它学会了将特定的大脑活动模式与特定的词汇流相匹配。然后是参与者听到的内容的释义版本)”可知，第三段的描写实验的过程。故选 A。

11．推理判断题。根据最后一段中“Still, systems that decode language could someday support people who are unable to speak because of a brain injury or disease. They are also assisting scientists in understanding how the brain processes words and thoughts. (尽管如此，解码语言的系统有一天可能会帮助那些因脑损伤或疾病而无法说话的人。它们还帮助科学家了解大脑是如何处理文字和思想的)”可知，核磁共振扫描非常值得研究。故选 D。

12．主旨大意题。通读全文，尤其是根据第一段中“Scientists have found a way to decode (解码) a stream of

words in the brain using MRI scans and artificial intelligence. (科学家们已经找到了一种方法，通过核磁共振扫描和人工智能来解码大脑中的单词流)”可知，文章主要说明了科学家通过核磁共振扫描和人工智能来解码大脑中的单词流，这项新研究是为了了解大脑如何处理语言。可知，A 选项“A Decoder That Can Read Your Mind (一个能读懂你的心的解码器)”最符合题意。故选 A。

4.（2024 高三·全国·专题练习）

Natural disasters like earthquakes and storms can pull down buildings easily. It's difficult for the search and rescue teams (搜救队) to find those who are trapped (陷于困境) in the fallen buildings.

But an unlikely assistant, mice, is being trained up to help out. The project started by Belgian APOPO, is planning to tie tiny, high-tech backpacks to mice to help search for survivors (幸存者).

“Mice like to explore — and that is key for search and rescue.” said Donna Kean, a scientist and leader of the project.“ Besides, their small size and excellent sense of smell make them perfect for locating (定位) things in small spaces.”

The mice are being trained in a basic environment at present. They must first locate the target (目标) person in an empty room, pull a switch that starts an alarm on their clothes, and then return home, where they are given a treat.

For the next part of training, Kean said the team would create “disaster-similar areas”. Once the mice are confident in these areas, the project will move to Turkey for further preparation in more real environments. If that goes well, the mice would probably enter real- life situations.

The mice are still in the early progress of training. And APOPO is working with the Eindhoven University of Technology to develop a backpack with a video camera, a two-way microphone, and a locating tool to help communicate with survivors.

“Together with the backpack and the training, the mice are very useful for search and rescue,” said Kean. “Even if our mice find just one survivor, we would be happy to know they have made a difference somewhere.”

13．According to the passage, What’s the reason for mice to be chosen for search and rescue?

① Because their nature of exploring.

② Because their small sizes.

③ Because their ability to smell something.

④ Because their perfect eyesight in the dark.

A．①②③　　B．①③④　　C．②③④　　D．①②④

14．Which paragraph tells how the mice are trained?

A．Paragraph 1.　　B．Paragraph 2.

C．Paragraph 3.　　D．Paragraph 4.

15．What can we learn from the passage?

A．Donna Kean is a survivor in an earthquake.

B．The mice are being trained in real-life situations.

C．APOPO scientists haven't invented the high-tech backpack.

D．The mice are often given a treat before they complete the task.

16．What does Donna Kean think of the project?

A．Nervous.　　B．Interesting.

C．Hopeful.　　D．Impossible.

【答案】13．A　　14．D　　15．C　　16．C

【导语】这是一篇说明文。主要介绍了比利时 APOPO 开始了一个项目，计划给老鼠绑上微型高科技背包，以帮助搜寻幸存者。科学家唐娜·基恩表示，老鼠喜欢探索，体型小且嗅觉灵敏，非常适合在狭小空间内寻找东西。目前老鼠正在基本环境中接受训练，而未来计划在类似灾难的环境中进行更多训练。此外，APOPO 还与埃因霍温科技大学合作开发了装有摄像头、双向麦克风和定位工具的背包，以帮助与幸存者沟通。科学家认为，结合背包和训练，老鼠对于搜救工作非常有用。

13．细节理解题。根据第三段""Mice like to explore — and that is key for search and rescue." said Donna Kean. a scientist and leader of the project." Besides, their small size and excellent sense of smell make them perfect for locating (定位) things in small spaces.""（"老鼠喜欢探索，这是搜救的关键。唐娜·基恩说。这个项目的科学家和领导者。"此外，它们的体积小，嗅觉灵敏，非常适合在小空间里定位东西。"）可知，根据文章，选择老鼠进行搜救的原因是它们喜欢探索，体型较小且嗅觉灵敏。故选 A 项。

14．主旨大意题。根据第四段"The mice are being trained in a basic environment at present. They must first locate the target (目标) person in an empty room, pull a switch that starts an alarm on their clothes, and then return home, where they are given a treat."（这些老鼠正在一个基本的环境中接受训练。它们必须首先在一个空房间里找到目标人物，拉动衣服上的开关，启动警报，然后回家，在那里它们会得到奖励。）可知，第四段讲述了老鼠是如何被训练的。故选 D 项。

15．细节理解题。根据倒数第二段中"And APOPO is working with the Eindhoven University of Technology to develop a backpack with a video camera, a two-way microphone, and a locating tool to help communicate with survivors."（APOPO 正在与埃因霍温理工大学合作开发一种带有摄像机、双向麦克风和定位工具的背包，以帮助与幸存者沟通。）由此可知，该高科技背包还在开发阶段，APOPO 的科学家还未真正地发明出这种背包。故选 C 项。

16．推理判断题。根据最后一段""Together with the backpack and the training, the mice are very useful for search and rescue," said Kean. "Even if our mice find just one survivor, we would be happy to know they have made a difference somewhere.""（"加上背包和训练，老鼠在搜救中非常有用，"基恩说。"即使我们的老鼠只找到了一个幸存者，我们也会很高兴知道他们在某个地方起了作用。"）可推知，唐娜·基恩认为这个项目很有希望。故选 C 项。

5.（2024·河南郑州·三模）Robots doing housework is nothing new with the latest achievements in robotics. Recently, a robot called Mobile Aloha caught the attention of many at the beginning of 2024, with short videos of it cooking at someone's home becoming popular in January.

Developed by a team of researchers at Stanford University in the US, the robot can handle everything for a dish, whether it is cutting vegetables or cracking eggs. It also does well in various household tasks like watering plants, petting cats, cleaning the floor and doing washing. It even knows to shake the pillow (枕头) after putting on a pillowcase. An Internet user joked under one video that as long as this thing doesn't try to kill him while he is asleep, he is in real need of it.

However, a following video posted by one of the researchers, Tony Zhao, and showing Mobile Aloha's failures proved that the idea of having a robot servant may just be wishful thinking. In the video, Mobile Aloha randomly broke glasses and plates, crashed into cupboards and even burned a pot.

It turns out that Mobile Aloha is not a complete self-learning system that can independently deal with new environments. It relies on demonstrations by human operators in its surroundings, meaning that the robot needs to learn from human behavior before completing each task. Also, according to the team, the robot achieves a 95% success rate in removing red wine stains (污渍), 80% in pushing chairs, and a mere 40% in frying shrimp. In short, it's far from perfect.

The behavioral problems of AI robots have been bothering scientists for decades. Although AI robots do pretty well in things requiring high-level reasoning like math, they perform worse than a one-year-old child when it comes to simple tasks demanding abilities of sense, reflexes (本能反应) and mobility, among others.

As the team observed, the interaction between the arm and the base of Mobile Aloha would get quite complex if more flexibility is required in a task. Even a slight deviation (偏差) in the base settings might lead to significant drift in the arms' motions, resulting in failure to complete the task.

17．What can be known about Mobile Aloha according to paragraph 2?

A．It sells well among housewives.　　B．It can help one to do housework.

C．It was developed by IT scientists.　　D．It is badly needed by Internet users.

18．Why is Tony Zhao's video about Mobile Aloha mentioned?

A．To prove its online popularity.　　B．To display its powerful functions.

C．To show it needs further improvement.　　D．To suggest it should work under one's help.

19．How can Mobile Aloha best complete a new task?

A．By operating independently.　　B．By copying humans' behavior.

C．By learning from previous tasks.　　D．By turning to programmers for help.

20．Which type of task may AI robots be poor at?

A．Deep learning.　　B．Precise calculation.

C．Logical thinking.　　D．Behavioral flexibility.

【答案】17．B　　18．C　　19．B　　20．D

【导语】这是一篇说明文。最近，一个名为 Mobile Aloha 的机器人在 2024 年初引起了许多人的注意，它在

某人家里做饭的短视频在 1 月份变得流行起来。文章对这款智能机器人进行了详细介绍。

17．细节理解题。根据第二段前三句“Developed by a team of researchers at Stanford University in the US, the robot can handle everything for a dish, whether it is cutting vegetables or cracking eggs. It also does well in various household tasks like watering plants, petting cats, cleaning the floor and doing washing. It even knows to shake the pillow (枕头) after putting on a pillowcase.(这款机器人由美国斯坦福大学的一组研究人员开发，它可以处理一道菜的所有事情，无论是切蔬菜还是打鸡蛋。它也可以胜任各种家务，比如给植物浇水、抚摸猫、打扫地板和洗衣服。它甚至会在套上枕套后摇晃枕头。)”可知，Mobile Aloha 可以帮忙做家务。故选 B。

18．推理判断题。根据第三段第一句“However, a following video posted by one of the researchers, Tony Zhao, and showing Mobile Aloha’s failures proved that the idea of having a robot servant may just be wishful thinking.(然而，研究人员 Tony Zhao 发布的一段视频显示，Mobile Aloha 的失败证明，拥有机器人仆人的想法可能只是一厢情愿。)”可知，提到 Tony Zhao 关于 Mobile Aloha 的视频是为了表明它仍然需要改进。故选 C。

19．细节理解题。根据第四段前两句“It turns out that Mobile Aloha is not a complete self-learning system that can independently deal with new environments. It relies on demonstrations by human operators in its surroundings, meaning that the robot needs to learn from human behavior before completing each task.(事实证明，Mobile Aloha 并不是一个能够独立应对新环境的完整的自学习系统。它依赖于人类操作员在其周围的演示，这意味着机器人在完成每项任务之前需要从人类的行为中学习。)”可知，Mobile Aloha 需要模仿人类的行为才能最好地完成新任务。故选 B。

20．细节理解题。根据最后一段第一句“As the team observed, the interaction between the arm and the base of Mobile Aloha would get quite complex if more flexibility is required in a task.(正如研究小组所观察到的那样，如果在一项任务中需要更大的灵活性，那么手臂和 Mobile Aloha 基座之间的相互作用将变得相当复杂。)”可知，人工智能机器人可能不擅长行为灵活性任务。故选 D。

6.（2024·湖北·一模）Tom is an expert from a robotics company who can communicate smoothly with people through computers, phones, and other means. However, when facing the crowd on site, he will feel uneasy. His boss arranged for Tom to showcase to the audience the innovative work their company is doing. In response to the boss’ trust in him, Tom bravely began preparing for this matter.

One day, while watching TV, he happened to see a program where the ventriloquist (腹语术者) Arthur interacted with the audience through a dummy (假人) to convey information. This gave him inspiration. The next day, he discussed his idea with his colleagues in the company and everyone supported his plan. On the day of the exhibition, they arrived at the scene early and prepared everything, although Tom was still a bit nervous.

The much-anticipated presentation started. The presenter began with a light-hearted joke and then proceeded to share some interesting facts about Reality Robotics Company before revealing the innovative work the company was undertaking. Throughout the presentation, there were no pauses or instances of Tom’s dreaded phrase: “but what I really meant to say was.” The audience was impressed by the innovative product the presenter described and hoped for a demonstration to see how effective the new invention was. As the presentation drew to a close, the

presenter said calmly and confidently, “And now I would like to share this stage with the man who invented me.”

Tom walked onto the stage, looking exactly like the presenter. The “identical twins” took the audience by surprise. Tom then spoke slowly, “What you have just witnessed is a demonstration of the latest invention from the company — a presentation robot.” Suddenly it all clicked and the audience erupted in cheers. Tom then explained how the company created such a robot and programmed it to speak. “As you could see and hear, it had the confidence I could never exhibit in such a presentation. We can model it into an exact copy of you.” The audience got excited at the prospect. The boss smiled approvingly. Maybe Tom deserved a promotion, he thought.

21．What’s Tom’s problem?

A．He tended to get nervous easily.

B．He failed to win his boss’ recognition.

C．Ho was not confident to speak in front of the public.

D．He can’t communicate with people in his daily life.

22．What do we know about the presenter?

A．He was quite serious.

B．He didn’t live up to Tom’s expectations.

C．He was inspired by the dummy that Arthur worked with.

D．Though confident, he was a bit nervous giving the presentation.

23．What does Tom’s company do?

A．It creates innovative robots.　　B．It helps present new ideas.

C．It advertises new products.　　D．It produces ventriloquist’s dummies.

24．What mainly contributes to the presentation’s success?

A．Luck and humor.　　B．Teamwork and creativity.

C．Caution and responsibility.　　D．Courage and friendliness.

【答案】21．C　　22．C　　23．A　　24．B

【导语】这是一篇说明文。文章讲述了 Tom，一位来自机器人公司的专家，如何克服在公众面前演讲的紧张感，并通过一个创新的演示机器人成功地展示了他们公司的最新发明。

21．细节理解题。根据文章第一段“Tom is an expert from a robotics company who can communicate smoothly with people through computers, phones, and other means. However, when facing the crowd on site, he will feel uneasy.(汤姆是一家机器人公司的专家，他可以通过电脑、电话和其他方式与人顺利沟通。然而，当面对现场的人群时，他会感到不安。)”可知，Tom 的问题是没有信心在公众面前讲话。故选 C。

22．细节理解题。根据文章第二段“One day, while watching TV, he happened to see a program where the ventriloquist (腹语术者) Arthur interacted with the audience through a dummy (假人) to convey information. This gave him inspiration. (有一天，他在看电视时，碰巧看到一个节目，腹语术者亚瑟通过一个假人与观众互动，传递信息。这给了他启发。)”可知，在观看电视节目时，看到腹语术者 Arthur 通过假人与观众互动传达信息，这给了他启发。因此，我们可以知道这位演讲者是受到 Arthur 与假人互动方式的启发。故选 C。

23．推理判断题。根据文章最后一段“Tom then spoke slowly, “What you have just witnessed is a demonstration of the latest invention from the company — a presentation robot.” Suddenly it all clicked and the audience erupted in cheers. Tom then explained how the company created such a robot and programmed it to speak.(汤姆随后慢慢地说道：“你们刚才所看到的，是公司最新发明的展示——一个演示机器人。”突然，一切都清晰了，观众们爆发出热烈的掌声。汤姆接着解释了公司是如何创造出这样的机器人并为其编程使其能够说话的。)”可知，Tom的公司主要工作是创造创新的机器人。故选 A。

24．推理判断题。根据文章第二段“One day, while watching TV, he happened to see a program where the ventriloquist (腹语术者) Arthur interacted with the audience through a dummy (假人) to convey information. This gave him inspiration. (有一天，他在看电视时，碰巧看到一个节目，腹语术者亚瑟通过一个假人与观众互动，传递信息。这给了他启发。)”可知，Tom 受腹语术假人 dummy 的启发，做出一个跟他自己长的一模一样的机器人来代替他做展示，这体现了他的创新能力；根据第二段 The next day, he discussed his idea with his colleagues in the company and everyone supported his plan. On the day of the exhibition, they arrived at the scene early and prepared everything(第二天，他和公司的同事讨论了他的想法，每个人都支持他的计划。展览当天，他们早早到达现场，准备好了一切)”可知，这次展示的成功是整个公司的团队合作的结果。由此可知，团队合作和创造力是这次展示成功的主要因素。故选 B。

题型二　动植物介绍类说明文的考查

7.（2024·江西·二模）Coastal communities around the world are using coir, material from coconuts (a kind of large fruit), to reduce shoreline erosion (侵蚀). People use coir to build barriers, protecting beaches from getting washed away by the force of waves. The material is common and costs a lot less than barriers made of other materials, like wood, steel or concrete.

One project is being built along part of an eroded riverbank in Neptune, New Jersey. The effort has already greatly improved areas that were badly damaged by erosion during Superstorm Sandy in 2012. “We’re always trying to reduce wave energy while protecting the shoreline,” said Tim Dillingham, the director of the group who runs the project. “And whenever we can, we like to use nature-based solutions.”

The coconut-based material is designed to break down over time. But before it does, it is sometimes pre-seeded with shoreline plants and grasses. The coir material holds the plants in place as they grow, finally breaking down and leaving the established plants in place to keep the shoreline from eroding.

In Boston, Julia Hopkins from Northeastern University is also using coir, wood chips and other material to create barriers to slow the force of waves. A test project has four coconut-based barriers in waterways around Boston. Hopkins is pleased with the results she has seen so far. She said the coconut material is not costly and is actually being recycled rather than thrown away.

The method does not always work, however. In 2016, the Felix Neck Wildlife Sanctuary (a wildlife protection area) in Edgartown, Massachusetts, built barriers around a salt marsh, an area of coastal grassland, that had eroded in the past. While the effort did help reduce erosion for a while, the material did not last long because of strong waves.

“It got blown out many times,” said Suzan Bellincampi, the sanctuary’s director.“ We had it in place for a few years and we decided not to fix it again. The project was really interesting in terms of what we wanted to do and how we changed it. It works in some places; it doesn’t work in all places.”

25．What are communities near the coast doing?

A．They are making use of wave energy.

B．They are building barriers to prepare for storms.

C．They are fighting to stop shoreline erosion.

D．They are developing new materials from coconuts.

26．What might the underlined word “established” in paragraph 3 mean?

A．Well developed. B．Ready to plant.　　C．Newly planted.　　D．Hard to find.

27．What is Hopkins’ attitude towards coconut-based barriers?

A．Carefree.　　B．Favorable.　　C．Unclear.　　D．Doubtful.

28．Why is the project in a sanctuary mentioned in the last but one paragraph?

A．To encourage more places to follow the method.

B．To stress the importance of using the method to protect nature.

C．To show that the method is not a one-size-fits-all solution.

D．To explain how to change the method according to local conditions.

【答案】25．C　　26．A　　27．B　　28．C

【导语】本文是一篇说明文。文章介绍了使用椰壳纤维来减少海岸线侵蚀的做法，这种材料成本低廉，已在多个地区用于建造屏障保护海滩。尽管在某些项目中取得了成功，如新泽西州和波士顿，但在其他地方，如马萨诸塞州的一野生动物保护区，椰壳纤维屏障面对强烈海浪时并不持久。

25．细节理解题。根据第一段中“Coastal communities around the world are using coir, material from coconuts (a kind of large fruit), to reduce shoreline erosion (侵蚀). (世界各地的沿海社区都在使用椰壳纤维，这种材料来自椰子（一种大水果），以减少海岸线侵蚀。)”可知，海岸附近的社区正在努力阻止海岸线的侵蚀。故选 C 项。

26．词句猜测题。根据画线词的上文“But before it does, it is sometimes pre-seeded with shoreline plants and grasses. The coir material holds the plants in place as they grow, finally breaking down (但在此之前，它有时会被预先播种上海岸线的植物和草。椰壳纤维在植物生长过程中固定住它们，最终分解)”和下文“to keep the shoreline from eroding (防止海岸线被侵蚀)”可知，椰壳纤维里事先种上了可以在海岸线生长的植物和草，因此这些植物会生长，而纤维分解后，植物应该已经长得很不错，可以继续抵御海岸线侵蚀。因此，画线词意思应该是形容植物“长势良好”，与 Well developed 意思一致。故选 A 项。

27．推理判断题。根据第四段中“Hopkins is pleased with the results she has seen so far. She said the coconut material is not costly and is actually being recycled rather than thrown away. (Hopkins 对她目前看到的结果感到满意。她说，椰子材料并不昂贵，实际上可以回收利用，而不是扔掉。)”可知，Hopkins 对测试的效果很满

意，认为椰子材料低廉，便于回收利用。由此可知，她对以椰子为基础的屏障持赞成的态度。故选 B 项。

28．推理判断题。根据倒数第二段“The method does not always work, however. In 2016, the Felix Neck Wildlife Sanctuary (a wildlife protection area) in Edgartown, Massachusetts, built barriers around a salt marsh, an area of coastal grassland, that had eroded in the past. While the effort did help reduce erosion for a while, the material did not last long because of strong waves. (然而，这种方法并不总是有效。2016 年，马萨诸塞州埃德加敦的费利克斯奈克野生动物庇护所（一个野生动物保护区）在过去受到侵蚀的沿海草原盐沼周围建造了屏障。虽然这种努力确实在一段时间内帮助减少了侵蚀，但由于强烈的海浪，这种材料并没有持续很长时间。)”可知，该野生动物庇护所的项目发挥了一定的抵御侵蚀的作用，但是无法抵抗强烈的海浪，维持时间不长。由此可知，此处提到该项目是为了表明该方法不是一个万能的解决方案。故选 C 项。

8.（2024·辽宁沈阳·三模）Cut into the trunk of a pine tree, and you will see a familiar series of concentric (同中心的) rings. But not all trunks tell the same story. A study published in November reveals that the world's oldest trees had a very different structure.

Some 370 million years ago, cladoxylopsid trees stood at least eight meters tall, covered by branches instead of leaves. Today their rare remains reveal little about their insides; in most cases their inner structures had rotted before the trees fossilize, and storms had filled them with sand. But the recent find of two well-preserved fossils in China has exposed the trees' inner workings — which are like no other species studied before.

The cladoxylopsid tree was empty inside. Around the edges were thick, vertical strands (缕) containing xylem (木质部), a plant tissue that conducts water and mineral salts from the roots to all other parts. Modern trees add new layers of multiple xylem as they grow, creating a woody trunk with a single set of concentric rings. But in cladoxylopsids, “each strand of xylem had its own growth rings,” says scientist Christopher M. Berry of Cardiff University in Wales.

Over a tree's lifetime the strands would weave and cross. “It's just incredibly complex,” Berry says. He likens these networks of flexible tissues and structures to the Eiffel Tower—if tower could grow, extend and split itself apart over time.

Although the cladoxylopsid tree has no living descendants today, it is very important. Brigitte Meyer-Berthaud, a scientist, explains that these trees were among “the major carbon reservoirs of the Paleozoic”, a time period from 542 million to 251 million years ago. Cladoxylopsids made up our planet's first forests, capturing carbon from the atmosphere and playing a part in adjusting Earth's climate. Given this fact, maybe we should study these trees for the forests.

29．What makes it hard to study cladoxylopsid trees?

A．Their thick leaves.　　B．Their amazing height.

C．Their poorly preserved remains.　　D．Their fossilized inner structures.

30．What do we know about cladoxylopsid trees?

A．They had many separate growth rings.

B．Their solid cores contributed to their growth.

C．They had a single set of regular concentric rings.

D．Their roots needed more mineral salts than water.

31．Why does the author mention “the Eiffel Tower” in paragraph 4?

A．To stress the beauty of the Eiffel Tower.

B．To prove the economic status of the tree.

C．To disclose how limited the tree’s lifetime is.

D．To show how complex the tree’s networks are.

32．Why should we study cladoxylopsid trees?

A．They were the only trees present during the Paleozoic era.

B．They helped scientists better protect rich historical culture.

C．They played a significant role in shaping the Earth as it is.

D．They determined the carbon content in the Earth’s atmosphere.

【答案】29．C　　30．A　　31．D　　32．C

【导语】这是一篇说明文。文章主要介绍了克拉多桉木树的独特内部结构和重要生态角色，强调其在古代是重要的碳储存者和地球气候调节者，呼吁对其进行更深入的研究。

29．推理判断题。根据第二段的“Today their rare remains reveal little about their insides; in most cases their inner structures had rotted before the trees fossilize, and storms had filled them with sand. (如今，它们罕见的残骸几乎无法揭示它们的内部构造；在大多数情况下，它们的内部结构在树木变成化石之前就已经腐烂了，风暴用沙子填满了它们。)”可知，大多数情况下，这些树的内部结构在成为化石之前就已经腐烂，风暴也会将它们填满沙子，即它们的残骸保存地很差，这使得了解它们的内部结构变得困难。故选 C。

30．细节理解题。根据第三段的“Modern trees add new layers of multiple xylem as they grow, creating a woody trunk with a single set of concentric rings. But in cladoxylopsids, “each strand of xylem had its own growth rings,” says scientist Christopher M. Berry of Cardiff University in Wales.(现代的树木在生长的过程中会增加新的多层木质部，形成一个具有单一同心环的木质树干。但威尔士卡迪夫大学的科学家 Christopher M. Berry 说，在克拉多桉木树中，“每条木质部都有自己的生长环”。)”可知，克拉多桉木树与现代树木形成单一的同心环结构不同，它们有许多独立的生长环。故选 A。

31．推理判断题。根据第四段的“Over a tree’s lifetime the strands would weave and cross. “It’s just incredibly complex,” Berry says. He likens these networks of flexible tissues and structures to the Eiffel Tower—if tower could grow, extend and split itself apart over time.(在树的一生中，这些线会交织在一起。贝瑞说：“这太复杂了”。他把这些灵活的组织和结构网络比作埃菲尔铁塔——如果埃菲尔铁塔可以随着时间的推移而生长、延伸和分裂。)”可知，克拉多桉木树的木质部形成了一种复杂的网络结构，作者用“埃菲尔铁塔”作比喻是为了展示这种树木的网络结构是非常复杂的。故选 D。

32．推理判断题。根据最后一段的“Although the cladoxylopsid tree has no living descendants today, it is very important. Brigitte Meyer-Berthaud, a scientist, explains that these trees were among “the major carbon reservoirs of the Paleozoic”, a time period from 542 million to 251 million years ago. Cladoxylopsids made up our planet’s

first forests, capturing carbon from the atmosphere and playing a part in adjusting Earth's climate. Given this fact, maybe we should study these trees for the forests.(虽然今天的克拉多桉木树没有存活的后代，但它非常重要。科学家 Brigitte Meyer-Berthaud 解释说，这些树木是"古生代(5.42 亿到 2.51 亿年前)主要的碳储存库"之一。克拉多桉木树成为了地球上的第一批森林，它们从大气中吸收碳，并在调节地球气候方面发挥了作用。考虑到这个事实，也许我们应该为森林研究这些树木。)"可知，克拉多桉木树是地球上古生代时期的森林之一，它们通过吸收大气中的碳并调节地球的气候，对塑造地球的气候产生了显著影响。故选 C。

9.（2024·江西·二模）Inside a large room at the International Center for Agricultural Research in the Dry Areas (ICARDA), tens of thousands of seeds are stored at a constant temperature of -20℃. Some of them may hold keys to helping us face the future.

"Our center holds as many as 120,000 varieties of seeds. Many of them come from crops as old as agriculture itself. Other seeds were selected by researchers who've hiked in the past four decades through forests and mountains in the Middle East, Asia and North Africa, searching for wild relatives of wheat, rice, legumes and other crops that are important to the human diet," says Mariana Yazbek, who manages the research center.

The research center, formed in the 1970s, once mostly helped farmers in poorer countries in hot and dry climates. But now it also sends seeds to scientists in Europe, Canada and the United States, to improve certain crops' resistance to the effects of climate change.

"What we are collecting is a sample of the diversity that we have in nature," adds Yazbek. "We save seeds in case extreme droughts, floods or other catastrophic events should wipe out plant species. These wild relatives of crops have witnessed so many different climates. The qualities that help them adapt and survive in these conditions are stored in their DNA．We have this diversity and it can be a tool to help us face the future."

Yazbek says scientists are particularly interested in crops like the legume because it absorbs a lot of greenhouse gas CO_2 from the atmosphere. It also releases N into the soil, meaning the farmers have to use less chemical fertilizer. And the legume takes very little water to grow because it produces sugar alcohols that act as humectants, a substance that attracts and absorbs water and saves the plant from freezing or drying out.

In another case, a wild wheat seed collected in Iran has allowed scientists in the US to develop new wheat varieties resistant to the Hessian fly, a harmful insect that causes tens of millions of dollars in damage to American crops every year.

33．What can be learned about ICARDA?

A．It has a complete collection of seeds.

B．It just helps the undeveloped countries.

C．It used to develop seeds for rich countries.

D．It focuses on saving ancient and wild seeds.

34．Which is closest in meaning to the underlined word "catastrophic" in paragraph 4?

A．Important.　　B．Wasteful.　　C．Terrible.　　D．Unforgettable.

35．What can be inferred about the legume?

A．It will grow much better in wet areas.

B．It is friendly to the environment and soil.

C．It will become the main crop for humans.

D．It has difficulty in adapting to cold climate.

36．Which of the following is a suitable title for the text?

A．Seeds Stored at ICARDA May Help Us Improve Our Crops

B．A New Invaluable Seed Bank Is Constructed at ICARDA

C．Scientists Have Made Breakthroughs in Ancient Seed Study

D．New Seeds Are Successfully Developed for North America

【答案】33．D　　34．C　　35．B　　36．A

【导语】这是一篇说明文。文章主要介绍了国际干旱地区农业研究中心(ICARDA)的成立时间、主要业务、工作区域等，并介绍了它对世界农业发展所起的重要作用。

33．细节理解题。根据第二段“‘Our center holds as many as 120,000 varieties of seeds. Many of them come from crops as old as agriculture itself. Other seeds were selected by researchers who've hiked in the past four decades through forests and mountains in the Middle East, Asia and North Africa, searching for wild relatives of wheat, rice, legumes and other crops that are important to the human diet,' says Mariana Yazbek, who manages the research center. (研究中心的负责人 Mariana Yazbek 说，‘我们的中心拥有多达 12 万种种子。其中许多来自与农业本身一样古老的作物。其他种子是由研究人员挑选的，他们在过去的四十年里穿过中东、亚洲和北非的森林和山脉，寻找小麦、水稻、豆类和其他对人类饮食很重要的作物的野生近亲。’)”可知，ICARDA 集中于收集古老和野生的种子。故选 D 项。

34．词句猜测题。划线词句前文“We save seeds in case extreme droughts, floods or(我们保存种子，以防极端干旱、洪水或者)”说明后文名词与极端干旱和洪水并列，从而推知划线词句“We save seeds in case extreme droughts, floods or other catastrophic events should wipe out plant species.(我们保存种子，以防极端干旱、洪水或其他 catastrophic 事件导致植物物种灭绝。)”其中划线词应为“灾难性的，极糟的”的意思，与 C 项同义。故选 C 项。

35．推理判断题。根据倒数第二段中“Yazbek says scientists are particularly interested in crops like the legume because it absorbs a lot of greenhouse gas CO_2 from the atmosphere. It also releases N into the soil, meaning the farmers have to use less chemical fertilizer.(Yazbek 说，科学家们对豆类等作物特别感兴趣，因为它从大气中吸收了大量的温室气体二氧化碳。它还将氮释放到土壤中，这意味着农民必须使用更少的化肥。)”可知，豆科植物对环境和土壤都很友好。故选 B 项。

36．主旨大意题。通读全文，根据第一段“Inside a large room at the International Center for Agricultural Research in the Dry Areas (ICARDA), tens of thousands of seeds are stored at a constant temperature of -20℃. Some of them may hold keys to helping us face the future.(在国际干旱地区农业研究中心(ICARDA)的一个大房间里，数万颗种子被储存在-20℃的恒温环境中。其中一些可能是帮助我们面对未来的关键。)”和第三段“The research center, formed in the 1970s, once mostly helped farmers in poorer countries in hot and dry climates. But now it also

sends seeds to scientists in Europe, Canada and the United States, to improve certain crops' resistance to the effects of climate change.(该研究中心成立于 20 世纪 70 年代，曾经主要帮助气候炎热干燥的贫穷国家的农民。但现在它也向欧洲、加拿大和美国的科学家提供种子，以提高某些作物对气候变化影响的抵抗力。)"可知，储存在 ICARDA 的种子可以改善农作物的基因，提高作物对气候变化影响的抵抗力，A 项"储存在 ICARDA 的种子可以帮助我们改善我们的作物"为最佳标题。故选 A 项。

10.（2024·江苏盐城·模拟预测）The male western tanager (唐纳雀) looks like a little flame, while females are less showy, a dusty yellow. In the spring, they prepare to move thousands of miles to the Mountain West of Central America, flying through grasslands, deserts, and occasionally, suburban yards.

To fuel them on their lengthy journey, western tanagers fill up on insects and berries. But as global climate change causes spring to start earlier, birds such as western tanagers are arriving at their destination after what's known as "green-up", when flowers begin blooming and insects emerge. According to a study published in early March in the journal PNAS, this kind of timing mismatch between migrants (迁移动物) and their food sources, which is happening across North America, could have serious consequences for migratory birds' survival. "In discussing climate change, we often focus on warming," says Scott Loss, a co-author of the study. "But the length and timing of seasons — like when winter ends and spring begins — are some of the most dramatic effects of climate change."

Loss and his colleagues used satellite imagery from 2002 to 2021 to calculate the average start of spring green-up along the typical migration routes of 150 North American bird species, then compared that timing with the current green-up. They found that spring is indeed beginning earlier along birds' migration routes. "By contrary, previous studies have mainly focused on songbirds in Eastern North America," says Morgan Tingley, an ornithologist at UCLA, "but this new investigation shows that bird species in the West and at different levels of the food web might be just as vulnerable (脆弱的)."

"Part of it is knowing which species are vulnerable to various threats," Loss says. "This adds to the knowledge about vulnerability of a wide range of bird species." And he hopes that the information will serve to highlight the urgent need to lower greenhouse-gas emissions as fast as possible. "It's really important, if we can't address climate change immediately, to try to stop habitat loss as much as we can."

37．What may pose a direct threat to western tanagers' survival?

A．Global warming.　　B．The duration of changing seasons.

C．Loss of habitats due to human activities.　D．Decreased access to foods during migration.

38．What is unique about the new study on birds like western tanagers?

A．It covers a wider geographic range.　　B．It reveals the decline in bird populations.

C．It centers on the adaptation of bird species.　　D．It ensures the existence of a timing mismatch.

39．What does Loss suggest we do to safeguard migratory birds?

A．Lessen the effects of climate change.　　B．Preserve ecosystems for bird species.

C．Address emissions and habitat loss.　　D．Expand researches on threats to birds.

40．Where is the text most likely from?

A．A scientific journal.　　B．A bird-watching guidebook.

C．A website about climate change.　　D．A magazine about wildlife conservation.

【答案】37．D　　38．A　　39．C　　40．A

【导语】这是一篇说明文。文章从唐纳雀入手，分析北美迁移鸟类面临的挑战及其原因，最后提出建议：希望尽快减少温室气体的排放，尽可能地阻止栖息地的丧失。

37．推理判断题。由第二段中的“To fuel them on their lengthy journey, western tanagers fill up on insects and berries. But as global climate change causes spring to start earlier, birds such as western tanagers are arriving at their destination after what's known as “green-up”, when flowers begin blooming and insects emerge. According to a study published in early March in the journal PNAS, this kind of timing mismatch between migrants (迁移动物) and their food sources, which is happening across North America, could have serious consequences for migratory birds' survival. (为了在漫长的旅途中补充能量，西方唐纳雀以昆虫和浆果为食。但随着全球气候变化导致春天提前到来，像唐纳雀这样的鸟类在所谓的“返青”之后才到达目的地，这时花朵开始绽放，昆虫开始出现。根据 3 月初发表在《美国科学院院刊》上的一项研究，这种迁移动物和它们的食物来源之间的时间不匹配，正在北美各地发生，可能会对候鸟的生存产生严重后果。)”可知，随着全球气候变化导致春季提前开始，唐纳德雀迁徙期间获得食物的机会减少。故选 D 项。

38．推理判断题。由第三段中的““By contrary, previous studies have mainly focused on songbirds in Eastern North America,” says Morgan Tingley, an ornithologist at UCLA, “but this new investigation shows that bird species in the West and at different levels of the food web might be just as vulnerable (脆弱的).” (“相反，以前的研究主要集中在北美东部的鸣禽上，”加州大学洛杉矶分校的鸟类学 Morgan Tingley 说，“但这项新的调查表明，西部和食物网不同层次的鸟类物种可能同样脆弱。”)”可知，先前的研究的是北美东部的鸣禽，这项关于像西部唐纳雀这样的鸟类的新研究的独特之处在于它覆盖了更广泛的地理范围，不仅关注东北美地区的鸣禽，也包括西部及食物链不同层级上的鸟类。故选 A 项。

39．细节理解题。由最后一段“And he hopes that the information will serve to highlight the urgent need to lower greenhouse-gas emissions as fast as possible. “It's really important, if we can't address climate change immediately, to try to stop habitat loss as much as we can.” (他希望这些信息将有助于强调尽快降低温室气体排放的迫切需要。“如果我们不能立即解决气候变化问题，那么尽我们所能阻止栖息地的丧失是非常重要的。”)”可知，作者期望能够尽快减少温室气体的排放，尽可能地阻止栖息地的丧失。故选 C 项。

40．推理判断题。通读全文，尤其是由第二段中的“To fuel them on their lengthy journey, western tanagers fill up on insects and berries. But as global climate change causes spring to start earlier, birds such as western tanagers are arriving at their destination after what's known as “green-up”, when flowers begin blooming and insects emerge. According to a study published in early March in the journal PNAS, this kind of timing mismatch between migrants (迁移动物) and their food sources, which is happening across North America, could have serious consequences for migratory birds' survival. (为了在漫长的旅途中补充能量，西方唐纳雀以昆虫和浆果为食。但随着全球气候变化导致春天提前到来，像唐纳雀这样的鸟类在所谓的“返青”之后才到达目的地，这时花朵开始绽放，昆虫开

始出现。根据 3 月初发表在《美国科学院院刊》上的一项研究，这种迁移动物和它们的食物来源之间的时间不匹配，正在北美各地发生，可能会对候鸟的生存产生严重后果。)”可知，本文介绍的是 Scott Loss 关于鸟类迁移的一项科学研究，且引用了《美国科学院院刊》的话，所以最可能来源于科研杂志。故选 A 项。

11.（24-25 高三·广西柳州·开学考试）The humble beaver (海狸) could hold the key to saving our water, according to a new research at has found how their da m building skills protect the rivers threatened by climate change.

The research, done on the rivers in Colorado, found the wooden banners built by beavers raise water level upstream. As it builds up, the water flows into surrounding soils and secondary waterways. These acts separate out extra nutrients and pollutants before water reenters the main channel downstream.

Extreme weather events, such as severe storms, impact water quality in major river systems. Droughts and floods are becoming more frequent, and the scientists have also found they are contributing to an increase in the American beaver in the US, and consequently an explosion of dam building.

The team chose to monitor a 40-kilometer stretch of the East River. They reviewed data on water levels gathered hourly by sensors fixed in the river and the areas along the river.

They also collected water samples, including from below the ground’s surface to monitor nutrient and pollutant levels. The researchers compared water quality along the stretch during a historically dry year, to water quality the following year when water levels were unusually high. They also compared these year-long datasets to water quality during the nearly three-month period, starting in late July2018, when the beaver dam blocked the river.

The study revealed the dams increased nitrate (硝酸盐) by nearly 50% by increasing the pressure of the water flow upstream 10 times over, which pushed more water out into the surrounding areas. The nitrates are absorbed and digested by tiny organisms in the soil. This helped increase the oxygen content and quality in the rivers.

Beavers’ hard work is responsible for the land they love.

41．What do the wooden barriers created by beavers act as?

A．Waterways.　　B．Samples.

C．Dams.　　D．Sensors.

42．What is the direct result of frequent droughts and floods in Colorado?

A．More dams emerge on the rivers.

B．More American beavers appear in the US.

C．More pollutants are removed from the rivers.

D．More oxygen is created in the rivers.

43．Why did the researchers collect water samples from below the ground’s surface?

A．To keep an eye on the water quality.

B．To improve the nutrient of the stretch.

C．To remove pollutants from the river.

D．To decrease the effect caused by the flood.

44．What is the main idea of the text?

A．Dams do good to water quality.

B．Beavers contribute to climate change.

C．Extreme weather catches researchers' eyes.

D．Beavers help protect rivers against climate change.

【答案】41．C　　42．B　　43．A　　44．D

【导语】本文是一篇说明文，文章主要讲述了海狸通过筑坝的方式，帮助保护了受气候变化威胁的河流。

41．细节理解题。根据文章第二段"The research, done on the rivers in Colorado, found the wooden banners built by beavers raise water level upstream. (在科罗拉多州的河流上进行的研究发现，海狸建造的木质屏障可以提高上游的水位。)"可知，海狸建造的木质屏障起到了大坝的作用。故选 C 项。

42．推理判断题。根据文章第三段"Droughts and floods are becoming more frequent, and the scientists have also found they are contributing to an increase in the American beaver in the US, and consequently an explosion of dam building.(干旱和洪水正变得越来越频繁，科学家们还发现，它们正在导致美国海狸数量的增加，从而导致大坝建设的爆炸式增长。)"可推知，频繁的干旱和洪水直接导致了美国海狸数量的增加。故选 B 项。

43．细节理解题。根据文章第五段"They also collected water samples, including from below the ground's surface to monitor nutrient and pollutant levels.(它们还收集了水样，包括地下的水样，以监测营养物质和污染物的水平。)"可知，研究人员从地下收集水样是为了监测水质。故选 A 项。

44．主旨大意题。根据文章第一段"The humble beaver could hold the key to saving our water, according to a new research that has found how their dam building skills protect the rivers threatened by climate change.(一项新的研究发现，不起眼的海狸可能是节约水资源的关键，它们的筑坝技能是如何保护受气候变化威胁的河流的。)"以及最后一段"Beavers' hard work is responsible for the land they love.(海狸的辛勤劳作是对这片他们热爱的土地的负责。)"以及文章其他段落的内容可知，文章主要讲的是海狸通过筑坝的方式帮助保护河流免受气候变化的影响。故选 D 项。

12.（2024·湖北襄阳·三模）Medicine is not exclusively a human invention. Many other animals, from insects to birds to nonhuman primates, have been known to self-medicate with plants and minerals for infections and other conditions.

Behavioral ecologist Helen Morrogh-Bernard of the Borneo Nature Foundation has spent decades studying the island's orangutans (猩猩) and says she has now found evidence they use plants in a previously unseen medicinal way.

During more than 20, 000 hours of formal observation, Morrogh-Bernard and her colleagues watched 10 orangutans occasionally chew a particular plant (which is not part of their normal diet) into a foamy lather (泡沫) and then rub it into their fur. The apes spent up to 45 minutes at a time massaging the mixture onto their upper arms

or legs. The researchers believe this behavior is the first known example of a nonhuman animal using a topical painkiller.

Local people use the same plant Dracaena cantleyi, an unremarkable-looking plant with stalked leaves-to treat aches and pains. Morrogh-Bernard's co-authors studied its chemistry. They added extracts (提出物) from the plant to human cells that had been grown in a dish and had been artificially stimulated to produce cytokines, an immune system response that causes inflammation (炎症) and discomfort. The plant extract reduced the production of several types of cytokines, the scientists reported the finding in a study published last November in Scientific Reports.

The results suggest that orangutans use the plant to reduce inflammation and treat pam. Such findings could help identify plants and chemicals that might be useful for human medications.

In creatures such as insects, the ability to self-medicate is almost certainly innate: woolly bear caterpillars infected with flies seek out and eat plant substances that are poisonous to the flies. But more complex animals may learn such tricks after an initial discovery by one member of their group.

For example, an orangutan may have rubbed the plant on its skin to try to treat parasites and realized that it also had a pleasant pain-killing effect. That behavior may then have been passed on to other orangutans. Because this type of-self-medication is seen only in south-central Borneo, Morrogh-Bernard says, it was probably learned locally.

45．What do we know about Dracaena cantleyi?

A．It can serve as a pain killer.　　B．It is orangutans normal diet.

C．It is a plant with a foamy lather.　　D．L can function as building materials.

46．How did Morrogh-Bernard's team prove the plant's healing properties?

A．By studying the plant's chemistry.　　B．By observing apes eating the plant.

C．By extracting cytokines from the plant.　D．By watching local people using the plant.

47．What is the significance of the findings?

A．Botanists can better understand plants.

B．Scientists can find a new way to study apes.

C．Doctors may have the power to cure more diseases.

D．Drug companies may find new materials for medicine.

48．What can we learn according to the passage?

A．Medicine is a human unique invention.　B．Plant extracts are the best to treat-pain.

C．Humans and animals have a lot in common.　D．Insects have the natural ability to self medication.

【答案】45．A　　46．A　　47．D　　48．D

【导语】这是一篇说明文，药物并不是人类的独家发明，研究人员通过观察猩猩用一种植物进行自我治疗，发现有很多其他动物都会用植物和矿物质来自我治疗感染和其他疾病。

45．细节理解题。根据第四段中"Local people use the same plant Dracaena cantleyi, an unremarkable-looking plant with stalked leaves-to treat aches and pains.(当地人用同样的植物 Dracaena cantleyi（一种长着茎状叶子的

普通植物）来治疗疼痛)”可知，Dracaena cantleyi 可以用来止疼，故选 A。

46．细节理解题。根据第四段中“Morrogh-Bernard’s co-authors studied its chemistry.(Morrogh-Bernard 的合著者研究了它的化学成分)”可知，Morrogh-Bernard 团队是通过研究这种植物的化学性质证明了它的药物疗效，故选 A。

47．推理判断题。根据第五段中“Such findings could help identify plants and chemicals that might be useful for human medications.(这些发现可以帮助识别可能对人类药物有用的植物和化学物质)”可知，这些发现的意义是制药公司可能会发现新的药物材料。故选 D。

48．细节理解题。根据倒数第二段中“In creatures such as insects, the ability to self-medicate is almost certainly innate(在昆虫等生物中，自我治疗的能力几乎肯定是天生的)”以及“But more complex animals may learn such tricks after an initial discovery by one member of their group.(但更复杂的动物可能会在群体中的一个成员最初发现后学会这些技巧)”可知，一些昆虫的自我治疗能力是天生的，而更多的动物是后天学习而得，故选 D。

题型三　社会文化类说明文的考查

13.（24-25 高三·湖北武汉·阶段练习）It’s one of the most common questions adults ask children: what do you want to be when you grow up? Although childhood is supposed to be fun, kids also discuss important topics regarding their futures. Now, a new study finds that children who set big goals regarding their future status and education often set themselves up for success as they age.

The findings, published in the Journal of Personality and Social Psychology, are the first to reveal a connection between life goal development and future success in school or the workplace. Rodica Damian, an associate professor of psychology at the University of Houston, and other researchers discovered that as children grow up, their goals naturally begin to change. However, as some childhood goals fall away, other goals related to a family stay strong. These include being close to relatives, building more friendships or finding a romantic partner, and even becoming more involved in your community or helping others.

During the study, researchers compared how their goals evolved as children moved from adolescence to adulthood and how a person’s goals impacted their success in school and as an employee later on. Overall, a child’s goals focusing on their education and future status were the most consistent predictors (预测因素) of income in adulthood. Simply put, when a child dreams big about doing well in school or achieving great success as an adult, these goals accurately paint a picture of how successful these children will be. So, the message is simple: dream big and dream of success, kids! Those goals can drive you to success when you grow up!

“Our work proves a strong connection between a child’s life goals, educational achievement, and future occupational outcomes. This information is valuable for parents and educators who can use it to encourage children to set ambitious goals. Additionally, it helps develop strategies to support individuals in achieving their goals and reaching their full potential,” Damian concludes.

49．What does the study mainly focus on?

A．Why children change their dreams over time.

B．Whether childhood goals relate to future success.

C．Whether early education determines future career.

D．How childhood experiences impact a person’s choice.

50．Which of the following goals remains strong as children grow up?

A．Connecting with others.

B．Achieving academic success.

C．Hunting for a high-salary job

D．Improving personal social status.

51．What message does the author convey in paragraph 3?

A．Dreaming big is potentially associated with success.

B．Childhood achievement s greatly affect future careers.

C．Educational goals may be more achievable than others.

D．Adjusting goals can create new opportunities for success.

52．What is the purpose of the last paragraph?

A．To explain the purpose of the study.　　B．To offer suggestions for future studies.

C．To stress the significance of the study.　　D．To point out the limitations of the study.

【答案】49．B　　50．A　　51．B　　52．C

【导语】本文为一篇说明文。文章主要介绍了一项关于童年的目标是否与未来的成功有关的研究以及研究的发现。

49．细节理解题。根据文章第二段“The findings, published in the Journal of Personality and Social Psychology, are the first to reveal a connection between life goal development and future success in school or the workplace. (发表在《个性与社会心理学杂志》上的研究结果首次揭示了人生目标的发展与未来在学校或工作场所的成功之间的联系。)”可知，这项研究的中的是童年的目标是否与未来的成功有关。故选 B。

50．细节理解题。根据文章第二段“However, as some childhood goals fall away, other goals related to a family stay strong. These include being close to relatives, building more friendships or finding a romantic partner, and even becoming more involved in your community or helping others. (然而，当一些童年目标消失时，与家庭有关的其他目标却依然强大。这些包括与亲戚亲近，建立更多的友谊或找到一个浪漫的伴侣，甚至更多地参与你的社区或帮助他人。)”可知，与他人联系目标在孩子长大后仍然是强有力的。故选 A。

51．推理判断题。根据文章第三段“So, the message is simple: dream big and dream of success, kids! Those goals can drive you to success when you grow up! (所以，我要传达的信息很简单:孩子们，要有远大的梦想，要梦想成功!当你长大后，这些目标会驱使你走向成功!)”可知，作者在第三段传达了童年的野心与成功有潜在的联系。故选 B。

52．推理判断题。根据文章最后一段“ ‘Our work proves a strong connection between a child’s life goals, educational achievement, and future occupational outcomes. This information is valuable for parents and educators who can use it to encourage children to set ambitious goals. Additionally, it helps develop strategies to support

individuals in achieving their goals and reaching their full potential,' Damian concludes ("我们的研究证明，孩子的人生目标、教育成就和未来的职业成就之间存在着密切的联系。这些信息对父母和教育工作者来说很有价值，他们可以用它来鼓励孩子们设定雄心勃勃的目标。此外，它还有助于制定支持个人实现目标和充分发挥潜力的策略，"达米安总结道。)"可知，最后一段的目的是强调这项研究的意义。故选 C。

14.（24-25 高三·浙江宁波·开学考试）The Nobel Prize is one of the most prestigious awards in the world. It was established by Alfred Nobel, a Swedish chemist, engineer, and inventor. Nobel was known for inventing dynamite. However, he was concerned about how his inventions could be used for destructive purposes in war. Thus, in his will, he stipulated that his fortune be used to establish prizes in physics, chemistry, physiology or medicine, literature, and peace.

The first Nobel Prizes were awarded in 1901. Since then, the Nobel Prize has been awarded to countless outstanding individuals who have made significant contributions to their respective fields. The Nobel Prize in Physics and Chemistry often recognizes revolutionary discoveries and advancements in science. The Nobel Prize in Physiology or Medicine honors breakthroughs in the understanding and treatment of diseases. The Nobel Prize in Literature rewards outstanding literary works that have a profound impact on humanity. The Nobel Peace Prize is given to those who have worked tirelessly to promote peace and resolve conflicts.

Winning a Nobel Prize is not only a great honor but also brings attention to the important work being done in various fields. It inspires future generations of scientists, writers, and peacemakers to strive for excellence and make the world a better place.

53．Who established the Nobel Prize?

A．A Swedish physicist.　　B．A Swedish chemist.

C．A Swedish engineer.　　D．A Swedish inventor.

54．What was Alfred Nobel known for inventing?

A．Gunpowder.　B．Dynamite.　C．Electricity.　D．The telephone.

55．How many fields does the Nobel Prize cover?

A．Three.　B．Four.　C．Five.　D．Six.

56．Which field does the Nobel Prize in Physiology or Medicine honor?

A．Discoveries in physics.　　B．Breakthroughs in treating diseases.

C．Outstanding literary works.　　D．Efforts to promote peace.

【答案】53．B　54．B　55．C　56．B

【导语】这是一篇说明文。文章主要介绍了诺贝尔奖的设立以及发展。

53．细节理解题。根据第一段"It was established by Alfred Nobel, a Swedish chemist, engineer, and inventor. (它是由瑞典化学家、工程师和发明家阿尔弗雷德·诺贝尔创立的。)"可知，一位瑞典化学家设立了诺贝尔奖。故选 B。

54．细节理解题。根据第一段"Nobel was known for inventing dynamite. (诺贝尔因发明炸药而闻名。)"可知，阿尔弗雷德·诺贝尔因发明了炸药而闻名。故选 B。

55．细节理解题。根据第一段“Thus, in his will, he stipulated that his fortune be used to establish prizes in physics, chemistry, physiology or medicine, literature, and peace. (因此，在他的遗嘱中，他规定他的财产将用于设立物理学、化学、生理学或医学、文学和和平奖。)”可知，诺贝尔奖涵盖 5 个领域。故选 C。

56．细节理解题。根据第二段“The Nobel Prize in Physiology or Medicine honors breakthroughs in the understanding and treatment of diseases. (诺贝尔生理学或医学奖表彰在理解和治疗疾病方面的突破。)”可知，诺贝尔生理学或医学奖授予在疾病治疗方面取得突破。故选 B。

15.（2024·四川成都·模拟预测）Minimizing the environmental damage that new roads cause is generally regarded as a good thing. But to do that, it helps to understand just how new roads cause the damage of which they are accused.

Recently, a group of researchers led by Dr. Gonzalez conducted an experiment and proved that immigration is good for the health of animal populations. A road destroys only a small part of the habitat, thus destroying just a few local populations of creatures. So the argument that road-building itself is bad for biodiversity is not self-evidently correct. Those who nevertheless hold this view say that apparently separate local populations of animals are, in fact, parts of much larger populations connected via migration.

According to this theory, when a local population struggles to move about — because of an epidemic, for example — individuals from neighboring communities can fill the gaps.

The implications of the theory are straightforward. Cut local populations off from each other and each is more likely to disappear. And roads are good at doing just that. Testing the theory with experimental roads, however, would be expensive. Dr. Gonzalez’s brainwave was to do the whole thing on a much smaller scale.

The team studied moss-covered rocks. On some rocks the researchers left the moss untouched; on others they made “roadways” across to leave the moss isolated. After waiting six months, they found that in the disturbed habitats nearly all the bug population had declined compared with undisturbed moss, and 40% of the species had become extinct.

The real test came in the second part of the experiment. In this, the researchers removed moss much as before, but they left narrow moss paths to bridge the no-bug’s-land between islands. The islands with bridges did far better than isolated islands — a result that supports the notion that population exchange is necessary to keep an ecosystem healthy.

Whether these results can be translated to large-scale ecosystems remains uncertain. But if they can, they would cause more, not less, concern about the ecological effects of road-building. On the other hand, they also suggest a way out. In Britain, tunnels are often built under roads for animals of regular habits, such as badgers (獾), to be able to travel their traditional routes without having to fight with traffic. Extending that principle, perhaps special bridges might be a cheap way of letting man and nature rub along a bit better.

57．What’s the main idea of the passage?

A．Calling on us to stop building roads for a healthy ecosystem.

B．Warning us of potential dangers of animal immigration.

C．Informing us of the environmental damage caused by new roads.

D．Suggesting a new way to avoid the damage caused by new roads.

58．Dr. Gonzalez's experiment found that _____.

A．building roads is expensive

B．immigration is good for animals

C．roads cut off animal immigration

D．tunnels should be built under roads

59．How does the author present his point?

A．By analyzing facts.　　B．By giving examples.

C．By providing scientific findings.　　D．By comparing possible effects.

60．According to the passage, which of the following statements will the writer agree with?

A．The impact of road-building is not as serious as we thought.

B．Road-building is beneficial to animal immigration.

C．Environmental damage caused by road-building is still uncertain.

D．Environmental damage caused by road-building might be lessened.

【答案】57．C　　58．B　　59．C　　60．D

【导语】这是一篇说明文，主要讲述了新建道路对环境的破坏以及如何通过实验找到避免这种破坏的新方法。

57. 主旨大意题。根据第一段“Minimizing the environmental damage that new roads cause is generally regarded as a good thing. But to do that, it helps to understand just how new roads cause the damage of which they are accused.”（把新建道路对环境造成的破坏降到最低通常被认为是一件好事。但要做到这一点，它有助于理解新道路是如何造成被指责的破坏的。）可知，短文主要告诉我们新路对环境造成的破坏。故选 C 项。

58．细节理解题。根据第二段“Recently, a group of researchers led by Dr. Gonzalez conducted an experiment and proved that immigration is good for the health of animal populations.”（最近，冈萨雷斯博士领导的一组研究人员进行了一项实验，证明了移民对动物种群的健康有益。）可知，移民对动物有益。故选 B 项。

59．推理判断题。根据第二段“Recently, a group of researchers led by Dr. Gonzalez conducted an experiment and proved that immigration is good for the health of animal populations.”（最近，冈萨雷斯博士领导的一组研究人员进行了一项实验，证明了移民对动物种群的健康有益），第三段“According to this theory, when a local population struggles to move about　　— because of an epidemic, for example — individuals from neighboring communities can fill the gaps.”（根据这一理论，当当地人口难以移动时，例如由于流行病，来自邻近社区的个人可以填补空白。）和第五段“After waiting six months, they found that in the disturbed habitats nearly all the bug population had declined compared with undisturbed moss, and 40% of the species had become extinct.”（ 等了六个月后，他们发现，与未受干扰的苔藓相比，在受干扰的栖息地，几乎所有的虫子数量都减少了，40%的物种已经灭绝。）可知，短文是通过提供科学发现来呈现观点的。故选 C。

60．推理判断题。根据文章最后一段“In Britain, tunnels are often built under roads for animals of regular habits,