北京市东城区 2021 年高三年级一模考试

英语试卷

2021.4

本试卷共 10 页，共 100 分。考试时长 90 分钟。考生务必将答案答在答题卡上，在试卷上作答无效。考试结束后，将本试卷和答题卡一并交回。

第一部分：知识运用（共两节，30 分）

第一节 完形填空（共 10 小题；每小题 1.5 分，共 15 分）

阅读下面短文，掌握其大意，从每题所给的 A、B、C、D 四个选项中，选出最佳选项，并在答题卡上将该项涂黑。

A Labrador

A Labrador has been doing an important job to help people stay safe during the COVID-19 pandemic.

Eight-year-old Roby runs through the streets of the hilly city of Medellin several times a day with a __1__ in his jaws, taking vegetables, fruit and packaged foods to customers of the Fresh4U mini-market.

"He helps us to maintain social distancing," said Roby' owner, Sherry Botero. "And people __2__ it when we send the dog." Roby enjoys eating carrots __3__ to him by customers, a tip for bringing a basket of food.

Roby wasn't always a star. He was accepted into the family __4__ by Ms Botero after repeated requests by her son to __5__ a dog.

But Ms Botero quickly __6__ with the dog. And when she opened a mini-market four years ago, he started to accompany her to make deliveries.

Roby can't read __7__. But he remembers the names of customers who have previously rewarded him with treats. And with some practice, he has learned to go to their houses on his own.

"He knows the names of five or six of our customers," Ms Botero said, "So I send the goods with a receipt in the basket, and my customers __8__ me through a bank transfer(转账；转移)."

Roby might not know that he's become an __9__ worker. But he is happy to help his owner and __10__ his daily pay.

1. A. bag B. chain C. basket D. stick

2. A. respect B. love C. follow D. notice

3. A. gifted B. returned C. lent D. donated

4. A. intentionally B. regretfully C. immediately D. unwillingly

5. A. adopt B. train C. adore D. walk

6. A. got away B. kept in touch C. caught up D. fell in love

7. A. minds B. addresses C. numbers D. receipts

8. A. treat B. help C. pay D. impress

9. A. essential B. honest C. optimistic D. adventurous

10. A. spend B. calculate C. collect D. increase

第二节 语法填空（共 10 小题；每小题 1.5 分，共 15 分）

阅读下列短文，根据短文内容填空。在未给提示词的空白处仅填写 1 个适当的单词，在给出提示词的空白处用括号内所给词的正确形式填空。

A

Comets are among the most beautiful and interesting __11__(sight) in the universe. For centuries, people __12__(show) great interest in studying them. In 1682, Edmund Halley, an astronomer, noticed a comet that was especially bright and large. Based on his calculations, Halley predicted that this bright comet would return in 1758 or 1759—this was about 75 years __13__ he first saw the comet. The comet really returned on time and it was named “Halley’s Comet” in honor of Edmund Halley.

B

Emma was on her way home when she heard a sudden scream. Looking around, she saw a little boy on the sidewalk gasping(急喘) for air, his __14__(frighten) mother begging for help. Emma rushed to the boy, __15__ face had turned purple. “What’s wrong?” “A candy! In his throat!” It was lucky that Emma had learned how __16__(perform) the Heimlich maneuver(海姆利克急救法) at school. She acted quickly. Soon, the boy coughed up a piece of candy and began breathing again. He __17__(save) in time.

C

In Japan, the word *bonsai* means *tray plant*. It refers to the interesting __18__(combine) of art and the planting and growing of miniature trees and plants. Bonsai originated in China more than 2,000 years ago and __19__(spread) to Japan about 700 years ago. Some people believe that only small plants must be used in bonsai, but this is not true. Nearly any type of tree or plant can be used, as long as it is grown __20__ a seed or a small cutting.

第二部分：阅读理解（共两节，38 分）

第一节（共 14 小题；每小题 2 分，共 28 分）

阅读下列短文，从每题所给的 A、B、C、D 四个选项中，选出最佳选项，并在答题卡上将该项涂黑。

A

As part of our mission to inspire the next generation of scientists, inventors and engineers, the Science Museum Group (SMG) has launched an exciting new online game—Total Darkness.

Over the last year we have been developing Total Darkness with the aim of creating an experience that can have a positive impact on people's attitudes towards STEM (science, technology, engineering and maths), as well as having a focus on self-reflection, rather than asking players to recall specific facts or concepts.

Total Darkness is a digital storytelling experience which encourages young people to recognise how the skills they use every day relate to STEM and can help them develop their confidence in science thinking. The game invites the player to solve a mysterious power cut in their hometown. The game puts players in control, allowing their choices and decisions to guide them through the story.

a torch

As the player navigates through the darkened streets of the town, equipped only with a torch, they will face various challenges. Using their curiosity, communication skills and creative problem solving, they will discover new theories about what might have caused the blackout(停电；断电). But with every step their torch fades, and the player must solve the mystery before the battery runs out.

The player's choices and actions throughout the game will score them curiosity, creativity or communication points. At the end, the skills the player has used will be revealed along with their science style, showing how they could put their skills into action in the real world.

Total Darkness is aimed at 8-15 year-olds—an important stage in teens' science development. Research shows that as teens make the step between primary and secondary, many move away from an interest in science as other influences have a stronger pull in their lives.

Total Darkness is a free online game playable on smartphone, tablet and desktop. Play now at *totaldarkness.sciencemuseum.org.uk*.

21. Total Darkness aims to help players _____.

A. recall scientific concepts

B. better understand STEM

C. improve storytelling abilities

D. develop communication skills

22. What's the key to getting points in Total Darkness?

A. Judgement.　　B. Teamwork.

C. Equipment.　　D. Gaming skills.

23. What is the main purpose of the passage?

A. To promote a new product.

B. To introduce the SMG's mission.

C. To explain the rules of an online game.

D. To emphasize the importance of STEM.

B

Nick Torrance, a junior in high school, suffers from muscular dystrophy(肌肉萎缩症), and attends school in a specialized wheelchair. The muscle disease prevents him from accomplishing many everyday tasks, such as carrying his books and putting things away in his locker. So he had a fellow student assigned to help him. But Amy Smith, the school's occupational therapist(治疗师), thought that being able to do something simple like opening his locker on his own would be empowering.

Amy initially thought they would be able to buy a device to help. But searching online turned up nothing that could meet their needs—everything needed a keycode or some other physical action, things her disabled student couldn't do. After the outside search for a method came up short, she looked within the school itself for an answer. Amy turned to the school's robotics instructor.

The instructor, in turn, suggested that two of his most capable students take on the project: Micah Stuhldreher and Wyatt Smrcka. They took first place in a national robotics competition, so they were a natural choice to tackle the locker door problem with a robotics solution. Micah and Wyatt wasted no time getting down to work and for an hour each school day, the boys brainstormed, built, and rebuilt various versions of the device until they landed on the perfect solution one year later.

Like in any device development, it took a lot of trial and error for Micah and Wyatt to make something that would work for their target audience. For example, they initially built a locker-opening button, but Nick wasn't strong enough to push it, so they replaced it with a sensor.

Now, between classes Nick steers his electric wheelchair to his locker and waves his hand over a sensor on the arm of the wheelchair. A few seconds later, the locker door swings open. Another wave closes the door. Nick can make it with ease—it may be a small thing, but it gives him a sense of independence.

24. Why did Amy Smith want a device?

A. To increase her student's confidence.

B. To encourage cooperation at school.

C. To inspire a robotics invention.

D. To help treat a muscle disease.

25. With a sensor in his wheelchair, Nick can _____.

A. move around easily　　B. put his things away

C. continue his schooling　　D. open and close his locker

26. According to the passage, which words can best describe Micah and Wyatt?

A. Caring and passionate.　　B. Talented and ambitious.

C. Sensitive and insightful.　　D. Humble and warmhearted.

C

Vaccines(疫苗) may soon make their first film appearance. Led by expert Maria A. Croyle, researchers have developed a thin sheet that preserves vaccines for long periods without refrigeration. This means the carefully cooled small

bottles now used to ship vaccines could potentially be replaced by lightweight films that can be mailed in an envelope and stored on a shelf.

Croyle's laboratory began developing the technology in 2007. Inspired by amber's ability to preserve the DNA of insects, the researchers set out to create their own version of the substance by mixing "a lot of sugar and a little bit of salt, much like hard candy," Croyle explains. The vaccine-containing film is administered by mouth—sweet news for many who dislike needles.

The film is tailored to suit each specific vaccine candidate and provide a protective coating. "We've learned over time that the key to really stabilizing whatever the film holds is to have it intermixed with all the components," Croyle says, adding that the process is quick and uses affordable, standard equipment. "We really wanted to come up with something that would be transferable to developing countries."

Immunization(免疫) programs depend heavily on keeping vaccines cold(2℃-8℃) as they are transported, sometimes over thousands of kilometers to far-away locations. Delivery can be difficult and costly, and transport disruptions can cause the vaccines to be ineffective.

But this new product can store live viruses, bacteria and antibodies for several months at 20℃. In a paper published in *Science Advances*, the scientists show that the live viruses in one vaccine were preserved in the film even after 36 months. They also find that a flu vaccine suspended in their film compares favourably with a traditional flu shot(流感预防针). "The study demonstrates early proof of concept for an exciting platform for vaccine product development," says Lisa Rohan, a pharmacologist, who was not involved in the study. She also notes that each vaccine type would need a custom formulation(配方) for future stages of development.

Finding partners to mass-produce for clinical trials is the researchers' most pressing problem, Croyle says. They are also exploring packaging methods to keep their films stable up to 40℃.

Size is a major advantage—a letter-sized sheet of the film can carry more than 500 doses(剂) of vaccine, about 1/900 the weight of the same amount of traditional doses. By making it easier and cheaper to ship and preserve vaccines efficiently, Croyle says, the technology could vastly improve immunization rates the world over, particularly in middle- to low- income countries.

27. What can we learn about the film?

A. It contains animal's DNA.　　B. It will replace vaccines.

C. It comes in different flavours.　　D. It can hold bio-products.

28. According to Paragraph 3, we can learn about the film's _____.

A. key component　　B. development schedule

C. possible advantages　　D. transportation requirements

29. The author mentions Lisa Rohan's words to _____.

A. advise personalizing vaccines

B. suggest the product is promising

C. prove the study is supported widely

D. stress the functions of a new platform

30. What will be the next urgent task for Croyle's team?

A. Advertising the film worldwide.　　B. Improving the film's capacity.

C. Reducing the shipping cost.　　D. Seeking ideal manufacturers.

D

Albert Einstein's 1915 masterpiece "The Foundation of the General Theory of Relativity" is the first and still the best introduction to the subject, and I recommend it as such to students. But it probably wouldn't be publishable in a scientific journal today.

Why not? After all, it would pass with flying colours the tests of correctness and significance. And while popular belief holds that the paper was incomprehensible to its first readers, in fact many papers in theoretical physics are much more difficult.

As the physicist Richard Feynman wrote, "There was a time when the newspapers said that only 12 men understood the theory of relativity. I do believe there might have been a time when only one man did, because he was the only guy who caught on, before he wrote his paper. But after people read the paper a lot understood the theory of relativity in some way or other, certainly more than 12."

No, the problem is its style. It starts with a leisurely philosophical discussion of space and time and then continues with an exposition of known mathematics. Those two sections, which would be considered extraneous today, take up half the paper. Worse, there are zero citations of previous scientists' work, nor are there any graphics. Those features might make a paper not even get past the first editors.

A similar process of professionalization has transformed other parts of the scientific landscape. Requests for research time at major observatories or national laboratories are more rigidly structured. And anything involving work with human subjects, or putting instruments in space, involves piles of paperwork.

We see it also in the Regeneron Science Talent Search, the Nobel Prize of high school science competitions. In the early decades of its 78-year history, the winning projects were usually the sort of clever but naive, amateurish efforts one might expect of talented beginners working on their own. Today, polished work coming out of internships(实习) at established laboratories is the norm.

These professionalizing tendencies are a natural consequence of the explosive growth of modern science. Standardization and system make it easier to manage the rapid flow of papers, applications and people. But there are serious downsides. A lot of unproductive effort goes into jumping through bureaucratic hoops(繁文缛节), and outsiders face entry barriers at every turn.

Of course, Einstein would have found his way to meeting modern standards and publishing his results. Its scientific core wouldn't have changed, but the paper might not be the same taste to read.

31. According to Richard Feynman, Einstein's 1915 paper _____.

A. was a classic in theoretical physics

B. turned out to be comprehensible

C. needed further improvement

D. attracted few professionals

32. What does the underlined word "extraneous" in Paragraph 4 mean?

A. Unrealistic.　　B. Irrelevant.

C. Unattractive.　　D. Imprecise.

33. According to the author, what is affected as modern science develops?

A. The application of research findings.

B. The principle of scientific research.

C. The selection of young talents.

D. The evaluation of laboratories.

34. Which would be the best title for this passage?

A. What makes Einstein great?

B. Will science be professionalized?

C. Could Einstein get published today?

D. How will modern science make advances?

第二节（共 5 小题；每小题 2 分，共 10 分）

根据短文内容，从短文后的七个选项中选出能填入空白处的最佳选项。选项中有两项为多余选项。

Reversal—change your perspective and solve your problem

It's often your definition of a problem that limits you in finding a suitable solution. Creative solutions require a change of perspective. ___35___

The reversal technique is a creative thinking technique that is based on the thought that to change your perspective, you sometimes need to change the order of the words in your problem definition.

How you change the order of the words doesn't matter much, as long as the key words are reversed. ___36___ Your challenge is "How do we make sure that fewer people take cars to their work?". Swapping the key words, you could rephrase this challenge as "How do we make sure that fewer cars take people to their work?" In this case, the first statement will make you think of alternative means of transportation, like trains or bikes, while the second statement will probably make you think of solutions like carpooling—fewer cars for the same number of people.

Not every problem statement is suitable for a reversal. Sometimes using this technique requires you to first rephrase the question altogether. ___37___For instance, the question "how might we sell more washing machines?" is not easily reversed—there is no key word to swap with "washing machines". Yet, when you rephrase the question to "How might we sell more washing machines to young parents?" you can easily change it to "How might we sell more young parents to washing machines? ___38___ You could interpret this last sentence as "the washing machine pays the young parents to try it out". Then, you could start communicating to potential buyers how much they will save each year when they choose your energy efficient washing machine.

As this example shows, some reversals will require a very flexible way of thinking. ___39___ However, thinking about the tiny amount of time it will "cost" you to try out a reversal, you have very little to lose and, potentially, lots to gain.

A. The second problem statement is much more logical.

B. Often it helps to add one more key word to the sentence.

C. Rephrasing your challenge is to change the problem statement.

D. A great way to do this is by “reversing” your problem statement.

E. For instance, imagine you are responsible for limiting the traffic jam in your area.

F. Admittedly, it is a very unusual challenge, but it might just stimulate a creative thought.

G. Not everyone will be able to move from an unreasonable statement to a useful solution.

第三部分：书面表达（共两节，32 分）

第一节 阅读表达（共 4 小题；第 1、2 题各 2 分，第 3 题 3 分，第 4 题 5 分，共 12 分）

阅读下面短文，根据题目要求回答问题。

Quiet the Complainer

For years, Jane Booth’s mother made lengthy airing of complaints. It got so bad that Jane felt it was ruining the quality of their time together, so she finally spoke up and helped her mother realize how often she complained. It turned out that Jane ’s intervention not only helped her mother—it also helped their relationship.

You may not be as direct as Jane was to her mother, but there are other ways to get a constant complainer to end. To be effective, it helps to correct misbeliefs about complaining in the first place. In fact, even the kindest, most considerate people complain. And complaining doesn’t always have a negative impact. Sometimes, complaining can change an unfavorable situation into a more desirable one. Other times, it can foster new relationships with people we don’t know well.

The problems start when complaining becomes the default mode(默认模式). “When we have a need to be heard, we repeat ourselves,” says Dian Killian, a life coach, “the satisfaction for frequent complainers comes from attention, so they are never satisfied with any suggestion to address the problems that they highlight—resolution isn’t their aim.”

So, how do you quiet a constant complainer, for the sake of your health and his?

Change the subject. Some complainers will switch gears if you shift the conversation in a direction that interests them.

Summarize the complaint. If your complainer keeps repeating himself, he may stop if you demonstrate that you’re listening.

Challenge the person to act. When a constant complainer tells you about his latest problem, ask nicely what he’s done to improve it.

Be honest. When you have things to do, tell the complainer that you must cut the conversation short—especially if it’s someone who’s complained to you many times before.

When someone stresses you out with lots of negativity, it’s important to talk about the problem. Otherwise, if you bottle up your feelings and continue listening to repeated complaints, you may grow annoyed or start avoiding the person.

Remember: Quieting a constant complainer can be beneficial to both of you.

40. What did Jane Booth do to stop her mother complaining?

41. According to Paragraph 2, what are the misbeliefs about complaining?

42. Please decide which part is false in the following statement, then underline it and explain why.

- ***Complaining frequently is a way that people ask for suggestions for their problems.***

43. Your friend has been constantly complaining about almost everything in life. What would you do to help him? (***about 40 words***)

第二节（20 分）

假设你是红星中学高三学生李华。你校英语俱乐部的上一任外教 Jim 为你们推荐了一位新外教。作为俱乐部负责人，请你给 Jim 写一封电子邮件，内容包括：

1．表示感谢；

2．讲述新外教给予的帮助。

注意：1．词数 100 左右；

2．开头和结尾已给出，不计入总词数。

Dear Jim,

_____

_____

_____

_____

_____

_____

Yours,

Li Hua

（请务必将作文写在答题卡指定区域内）

参考答案

第一部分：知识运用（共两节，30 分）

第一节 完形填空（共 10 小题；每小题 1.5 分，共 15 分）

1．C　　2．B　　3．A　　4．D　　5．A

6．D　　7．B　　8．C　　9．A　　10．C

第二节 语法填空（共 10 小题；每小题 1.5 分，共 15 分）

11. sights　　12. have shown/have been showing

13. after　　14. frightened　　15. whose　　16. to perform

17. was saved　　18. combination　　19. spread/was spread　　20. from

第二部分：阅读理解（共两节，38 分）

第一节（共 14 小题；每小题 2 分，共 28 分）

21．B　　22．A　　23．A　　24．A　　25．D

26．A　　27．D　　28．C　　29．B　　30．D

31．B　　32．B　　33．C　　34．C

第二节（共 5 小题；每小题 2 分，共 10 分）

35．D　　36．E　　37．B　　38．F　　39．G

第三部分：书面表达（共两节，32 分）

第一节（12 分）

40. She spoke up about the problem.

41. Those who complain are usually unkind or inconsiderate. And complaining always has a negative impact.

42. Please decide which part is false in the following statement, then underline it and explain why.

- ***Complaining frequently is a way that people ask for <u>suggestions for their problems</u>.***

According to the passage, complaining frequently is a way that people ask for attention from others.

43. 略

第二节（20 分）

参考范文：

Dear Jim,

Hope this email finds you well. I’m writing to thank you for recommending Ms Smith.

She is such a wonderful teacher, a valuable addition to the club. She impresses us with her expertise and kindness. With her help, we have engaged in activities of all kinds and we are now our school's most popular club.

Also, Ms Smith came up with the idea to donate English books to students in a rural area. Can you imagine how happy they were when receiving those books? These reading materials will surely help enrich their experiences. Most importantly, we feel the joy of being able to make a difference.

We believe you are part of why all these have happened, so please allow me to say thank you again. Well, so much about us. What's new in your life? Do keep us updated.

Yours,

Li Hua

关于我们

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未来，北京高考在线平台将立足于北京新高考改革，基于对北京高考政策研究及北京高校资源优势，更好的服务全国高中家长和学生。