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(請填入甄選證號)

臺北市立第一女子高級中學

111 學年度科學班甄選入學

語文能力檢定試題本

請不要翻到次頁！

讀完本頁的說明，聽從監試委員的指示才開始作答！

※請先確認你的答案卷、甄選證號與座位號碼是否一致無誤。

測驗說明：

這是北一女中科學班甄選入學語文能力檢定試題本，內容包含國文與英文，提供答案卷 2 份，請分科作答。測驗時間從 **10：10** 到 **11：50**，共 **100** 分鐘。作答開始與結束請聽從監試委員的指示。

注意事項：

1. 每節甄試說明時間內，提前翻閱題本、提前作答，經制止不從者，該節甄試科目不予計分。
2. 每節甄試正式開始後 15 分鐘起，遲到者不得入場。若強行入場，該節甄試科目不予計分。
3. 每節甄試正式開始 30 分鐘內，不得提早離場。若強行離場，不服糾正者，該節甄試科目不予計分。
4. 依試場規則規定，答案卷上不得書寫姓名座號，也不得作任何標記。故意汙損答案卷、損壞試題本，或在答案卷上、作答內容中顯示自己身分者，該節甄試科目不予計分。
5. 依試場規則規定，語文能力檢定作答時，務必使用藍、黑色墨水的筆，不得使用鉛筆。更正時，可以使用修正液（帶）。如有書寫不清或汙損等情事，致無法清晰呈現作答結果者，其責任由考生自負，不得提出異議。
6. 依試場規則規定，語文能力檢定作答時，不得要求增加答案卷作答。
7. 請於答案卷上作答，如需擬草稿，請使用試題本中之空白頁。

請聽到鐘（鈴）響起，於試題本右上角方格內填寫甄選證號，再翻頁作答

國文試題

閱讀以下文字，依序回答問題(一)、問題(二)。

每當有人想參加競技運動時，「勸退」之聲就會此起彼落，「練那麼辛苦幹麼！」「能不能出國比賽？有沒有獎金？」這些言論表現出大環境對競技運動的看法或誤解。

我認為，競技運動是每個人都能擁有的雙重人生，其目的在於認識自我，探索生命的意義。在這個人生的微觀世界裡，包含諸多面向的過程：有努力，有拼鬥，有狂悲狂喜，還要面對隨機的命運。人必須昂首闊步走進訓練場和競技場，接受強敵的壓迫、受傷的恐懼、耐力的考驗和心智的挑戰。過程中一定得穩住陣腳，拿出自信，因為終極目標是面對自己的真面目，在這樣的驚濤駭浪裡能堅持越久，見到的真面目越是堅毅、偉大。而越早分心、越早放棄、越多藉口、越多抱怨的人，看到的自我就越渺小、越脆弱。

競技就是人生，在競技中看到的自己，就是人生中的自己，而競技比人生更好的一件事，就是人生不能重來，但是競技可以，甚至可以說，競技的意義，就在於這是一個可以無限重複的自我探索過程。經歷一次放棄，就要經歷悔恨；經歷一次膽怯，就要經歷羞愧，誠實的競技者，會讓自己赤裸裸的面對悔恨、羞愧、失望、挫折，然後「重新再來一次」，一次又一次的競技，讓我們身經百戰，不斷體驗人生中必然遭逢的起起落落。

(改寫自何立安〈重新定義競技運動〉)

註：競技運動，指具競爭性、規則性的體育活動。

問題(一)：依據上文，作者認為「競技運動」的意義為何？文長限 100 字以內(至多 5 行)。(佔 8 分)

問題(二)：作者透過「競技運動」探索出深層的意義，請以「人生競技」為題，檢視你的生命歷程，選擇一段相似的經驗，書寫其過程及個人的感想與體悟。文長 400 字以上。(佔 42 分)

試題結束

英文試題

作答提示：

請根據題組內容，在答案卷上用英文寫出正確、完整的答案。
(英翻中除外)

題組一：15分

When it comes to the company Michelin, most people think of car tires and the famous Michelin Guides. However, the French tires maker is now also helping ships to be more environmentally friendly. **The company has tested giant sails that it hopes will make shipping greener.** Shipping nowadays produces a lot of carbon dioxide (CO₂) as oil tankers, container ships and giant cruise ships rely on fossil fuels to move around the world's oceans. Experts say the industry produces around 940 million tons of CO₂ every year, and that it is responsible for about 2.5 percent of the world's greenhouse gases. Michelin's engineers say their new sails use the power of the wind to increase fuel efficiency by 20 percent. As a result, the ships use less fuel and emit less CO₂.

Michelin is using the ancient technology of sails to tackle the most urgent problem facing the world today—climate change. Boats have used sails for 5,000 years to cross oceans or travel along rivers. Michelin's new sails are different. They are inflatable. Tall, white and puffy, the giant inflatable sails designed by Michelin look more like the Michelin man—the company's mascot—than a traditional cloth sail. Made from a flexible material, the sails can inflate or deflate at the push of a button. No crew is required to rig them, and they pivot automatically to catch the wind, equipped with sensors that measure the wind direction and speed. In 2021, Michelin tested a 1,000-square-foot version of the sail with the hope of starting to manufacture and sell its new sails in 2022. Benoit Dailliez, the project leader for this Michelin's wing sail project, said that their aim is to contribute to the de-carbonization of maritime transport. And the fact that these inflatable sails can be installed on existing ships makes the technology appeal to the mass shipping market, adding that it's also where the most carbon savings are as older ships tend to be the worst polluters.

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|---------------------|---------------|-------------|----------------|
| 📖 fossil fuels 石化燃料 | efficiency 效率 | tackle 處理 | inflate 充氣 |
| flexible 有彈性的 | rig 安裝 | pivot 轉動 | manufacture 製造 |
| maritime 航海的 | | appeal 有吸引力 | |

1. (T / F) After Michelin’s engineers tested their new sails, they found that ships with Michelin’s sails would not emit CO₂ anymore.

2. Which of the following is the best title for the passage?
 - (A) Harmful Effects of Climate Change
 - (B) The History and Development of Sails
 - (C) Michelin’s Production of Alternative Tires
 - (D) Release of Greenhouse Gases into the Atmosphere
 - (E) Introduction of New Environmentally Friendly Sails

3. Where can this passage most likely be found?
 - (A) An annual report of global climate.
 - (B) An online news website.
 - (C) A gourmet guidebook for foodies.
 - (D) Research on cheaper transportation.
 - (E) A college marketing textbook.

4. Please translate the sentence into Chinese: **“The company has tested giant sails that it hopes will make shipping greener.”**

5. Choose one **noun** from the passage to complete the following sentence:
Mickey Mouse is the _____ of the Walt Disney Company.

6. According to this passage, what do you need to do if you want to fill Michelin’s sails with air?

題組二：16 分

Making invisible ink is a lot of fun. You can pretend you are a secret agent as you keep all your secret messages hidden from others. All you need is some common 1 in your house and the hidden power of lemon juice.

Materials:

- Half a lemon
- Water
- Spoon
- Bowl
- Cotton swab
- White paper
- Lamp

Steps:

Step 1: Squeeze some lemon juice into the 2 and add a few drops of water.

Step 2: Mix the water and lemon juice with the spoon.

Step 3: Put the tip of the cotton swab into the mixture and use it to write a message onto the 3.

Step 4: Wait for the juice to dry, and your message will disappear.

Step 5: When you are ready to read your secret message or show it to someone else, heat the paper by holding it close to the 4 until the message magically reappears.

What's happening?

Lemon juice is a substance that oxidizes and turns brown when heated. **Diluting** the lemon juice in water makes it very hard to notice when you paint it onto the paper. No one will know about its presence until it is heated and the secret message reappears. Other substances which work in the same way include orange juice, honey, milk, onion juice, vinegar and wine. Invisible ink can also be made using chemical reactions or by looking at certain liquids under ultraviolet (UV) light.

Invisible ink might seem like magic, but really, it's all just chemistry.



invisible 隱形的 agent 特務 cotton swab 棉花棒 substance 物質
oxidize 氧化 reaction 反應

1. Choose the best answer to fill in the blank in the following sentence: “All you need is some common ____ in your house and the hidden power of lemon juice.”
(A) reports (B) chemicals (C) objects (D) powders (E) treasures

(For questions 2-4, please fill in the missing words from Steps 1-5 with the following words.)

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|-------|-------|-------|------|-------------|-------------|------|
| lemon | water | spoon | bowl | cotton swab | white paper | lamp |
|-------|-------|-------|------|-------------|-------------|------|

2. _____
3. _____
4. _____


5. What does the word “**diluting**” mean?
(A) To make a liquid weaker by mixing in something else.
(B) To make a liquid thicker by mixing in something else.
(C) To make a liquid less smelly by mixing in something else.
(D) To make a liquid more colorful by mixing in something else.
(E) To make a liquid more gas-like by mixing in something else.
6. Which of the following is **NOT** mentioned in the passage as something that helps to create invisible ink?
(A) Honey. (B) Cola. (C) Onion. (D) UV light. (E) Vinegar.
7. What is the purpose of this passage?

題組三：19 分

If you buy any amount of crypto and you want to store it yourself, you have to choose between holding your cryptocurrency in a hot wallet or a cold wallet. A hot wallet, also called a software wallet, is a form of digital storage that you can access on your computer or phone and is connected to the Internet. A benefit of hot wallets is ease-of-use. Because they are always online, there's no need for transition between offline and online to make a cryptocurrency transaction. However, because of the Internet connection, hot wallets are vulnerable to online attacks—which could lead to stolen funds. Users who hold large amounts of cryptocurrency typically won't keep significant amounts of crypto in hot wallets. **Although a hot wallet isn't the same as a traditional wallet, one similarity holds true: It's generally a bad idea to keep a lot of money on your person.** Just like you can withdraw cash from an ATM, you can send more crypto to your hot wallet when the balance gets low.

A cold wallet, otherwise known as a hardware wallet, is a physical device that keeps your cryptocurrency offline. Most cold wallets live on devices that look like a small to medium-sized USB stick. Generally, cold wallets are quite secure. Stealing from a cold wallet usually would require physical possession of the cold wallet, as well as any PINs or passwords that must be used to access the funds. While cold wallets are more secure, they are less convenient. To trade or make purchases, you need to find a device, typically a computer, to plug your cold wallet. The device then goes online and prepares the crypto transactions you initiate. In addition, while hot wallets are usually free, cold wallets can cost you between \$50 and \$200. If you have more than a few hundred dollars in crypto, you may want to invest in a hardware wallet before purchasing more. It's a small price to pay to protect yourself from the threat of losing your funds.

Given the trade-offs when using either type of crypto wallet, a combination of cold and hot wallets is usually ideal. Each crypto wallet can be used for a specific purpose, thus creating a balance between ease of use and security when using and trading cryptocurrency.

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|--|------|----------|-----|------------|----|-------------|----|
|  cryptocurrency | 加密貨幣 | access | 存取 | transition | 轉換 | transaction | 交易 |
| vulnerable | 脆弱的 | physical | 實體的 | possession | 擁有 | purchase | 購買 |
| invest | 投資 | threat | 威脅 | trade-off | 平衡 | | |

1. (T / F) Compared with a hardware wallet, a software wallet is better in terms of security and convenience.
2. What is the passage mainly about?
 - (A) The influence of cryptocurrencies.
 - (B) Comparison of two cryptocurrencies.
 - (C) Dos and don'ts of online transactions.
 - (D) Risks of using a digital wallet payment.
 - (E) Pros and cons of two forms of digital storage.
3. What may worry people when they use a hot wallet?
 - (A) High service charges.
 - (B) Online security problems.
 - (C) Slow Internet connection.
 - (D) Extra pay for a physical device.
 - (E) The amount of money it can hold.
4. Which word in the first paragraph means “to take money from an account”?
5. Which of the following are needed if one wants to use a cold wallet?

| | | |
|--------------------------|----------------------------|-------------------|
| (A) an ATM | (B) an Internet connection | (C) a credit card |
| (D) a mobile payment app | (E) a computer | (F) a password |
6. According to the last paragraph, how can we manage our cryptocurrencies safely and effectively?
7. Please translate the following sentence into Chinese: **“Although a hot wallet isn't the same as a traditional wallet, one similarity holds true: It's generally a bad idea to keep a lot of money on your person.”**

試題結束

