

工業英語能力検定試験

文部科学省後援

# 工業英検

## 第111回 1級試験問題

実施日：2017年**5月28**日(日)

開始時刻：14時00分

終了時刻：16時00分

### <注意事項>

1. 受験番号、氏名をこのページ下欄に必ず記入してください。  
記入漏れの場合は無効となります。
2. 問題はIからVIIまであり（全7問）、合計で70%以上の得点で合格となります。  
ただし、得点が50%未満の解答が1問でもあると、合計得点に関わらず不合格となります。  
白紙解答の設問がないよう、気を付けてください。
3. 解答は、この問題用紙の各問題文につづく解答欄（線上）に書いてください。
4. この問題用紙はお持ち帰りにならず、提出してください。

受験番号	— 1 —
氏 名	

I Translate the following passage **into Japanese**. (30点)

All plants can tolerate some salt (sodium chloride) in the soil. Sodium and chloride ions move into plant cells and between various tissues. But high levels can damage vital biochemical processes. Most plants have physical or chemical barriers at their roots to keep these ions out. One plant type, halophytes\*, gets additional help. Halophytes have proteins to move large quantities of sodium and chloride ions into a plant cell’s internal or external storage spaces. These spaces are sealed off from delicate cellular mechanisms of growth and photosynthesis. Scientists are trying to add these transporter proteins to plants such as rice to improve salt tolerance.

[注] halophyte\*: 塩生植物

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II Summarize the following passage in up to 65 words in English. Enter how many words you have used in the parentheses below the answer column. (30点)

Autonomous Cars

Several manufacturers are working on driverless cars, but Google has the jump on this project. Their Chauffeur system uses lidar, which stands for light detection and ranging. Lidar works like radar and sonar, but it's far more accurate. It maps points in space using 64 rotating laser beams taking more than a million measurements per second to form a 3D model in its computer brain, which is accurate to the centimeter. Preloaded maps tell the system the positions of stationary objects—traffic lights, crosswalks, telephone poles—and the lidar fills in the landscape with moving objects like people. It also has traditional radar, a camera and GPS.

Google's system has been tested mainly on the Prius, but it can be adapted to any car. Chauffeur's price, however, must come down for it to be adopted by most drivers. Google expects to have it ready and cheap enough for people to afford by 2018.

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(      words)

III Rewrite the following passage into a clearer and more concise format **in English**. (30点)

It is well known by all of us that food is a major player when it comes to our health; too many of us are overweight and unhealthy. The more knowledge we have about how the food we eat has an effect on the body will give us a head start on getting the nutrition needed to look great and feel great. Here are two important nutrition tips that should be known by everyone: 1. "Diets" are bad, lifestyles are good. The word "diet" carries the implication of a restrictive, short-term method of the achievement of a goal. Instead of just focusing on diet, it is needed that we look for entire lifestyle changes that will help us reach and maintain goals. 2. We need to eat more green vegetables. Green and orange vegetables make up only 10% of vegetables that are consumed by Americans. The bulk is potatoes and tomatoes.

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IV Translate the following Japanese passage into English. (30点)

世界の海洋では、約1500年かけて深層水と表層水が入れ替わっている。北大西洋で冷たい海水が沈み、深層水となって南下する。南極圏をってインド洋や北太平洋で浮上し、暖かい表層水となって北大西洋に戻る。地球温暖化で海水の沈むのが遅くなると深層水の水温が上昇し、海水の循環速度が遅くなると予測される。海洋は赤道から極域に熱を運ぶので、循環が遅くなると赤道付近はより暑く、極域はより寒くなる恐れがある。

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V The following is a poorly written Japanese instruction for preparing to install a dish washer. Using the information in the passage, write an instruction in English in a correct, clear, and concise format. Make sure that you use the correct style for an instruction. (30点)

食器洗浄機の本体および付属品を取り出したら、損傷がないかを入念に調べる必要があります。設置が全て完了するまでは、同梱されていた袋や部品などを捨てないようにお願いいたします。設置する際は、付属の工具あるいは推奨工具の使用を必須とします。設置場所は、水道水が使いやすいように、できるだけシンクに近い場所を選ぶことが望ましいです。また、設置場所は清潔であり、設置の妨げになる可能性のあるものが何もないことの確認を事前に確実に行ってください。

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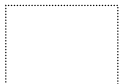
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VI The passage below describes a general idea of a technical writing project. Answer questions (1) and (2). (20点)

A good technical writing project goes through four phases before the document is produced: analysis, design, writing, and ①\_\_\_\_\_. In the analysis phase, you will analyze the subject matter. For instance, you will need to identify the target readers and what information they need. In the design phase, you will organize the information – categorizing the information and deciding the order of presentation. Then you write. In the fourth phase, you will need to ②\_\_\_\_\_. The phases often go back and forth, particularly between the writing and ① \_\_\_\_\_ phases. Feedbacks between the four phases are often critical in ensuring the quality of the final document.

(1) What is your idea of the fourth phase? Fill in the blanks (① and ②) **in English**.

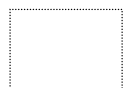
① \_\_\_\_\_

② \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



(2) What would happen in the absence of the fourth phase? Describe the risks and impacts. You can answer **either in English or Japanese**.

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VII The Japanese passage below is an excerpt from design specifications for a soundproof door, followed by its poor translation in English. Answer questions (1) and (2). (30点)

[Original Japanese]

- ドアの高さは、下部レールの上面から最低 200 cm とする。ドアを開いた状態で、最低 90 cm の開口部幅を確保するものとする。
- SPD-213 防音キットを使用して設計する際は、ドアとフレームの間隙は最大 3.2 mm とする（ネオプレンゴムのガスケットがドアに密着し、防音効果を発揮するために必要）。

[English translation]

- Make the least door height 200 cm from the top face of the bottom rail. Open the door, and secure a least opening width of 90 cm.
- When designing using SPD-213 soundproof kit, the gap between the door and frame should be the maximum of 3.2 mm. (Needs neoprene gum gasket to stick to the door and exercise soundproof effect.)

(1) Analyze the translation considering the 3Cs of technical writing (correct, clear, and concise), and point out at least three problems, including style. You can answer **either in English or Japanese**.

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(2) Rewrite the English translation.

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