

受験番号

氏名

英語問題・解答用紙 第1頁（全4頁）

問題1 次の文章に関する下記の問1-1から問1-4に答えなさい。

Small blue lights in Toyama Bay are much loved by the local people. They are a sign of spring. Where do the lights come from? They come from firefly squid, HOTARUIKA in Japanese. (a)How do the squid give off light? They have special organs in their bodies. The organs flash light in various patterns.

Do other creatures glow like these squid? Yes. (b)Fireflies, anglerfish, and crystal jellyfish also produce light. Firefly squid flash light when they distract predators. Fireflies fly near rivers on early summer nights in the Japanese countryside. They have appeared in Japanese poems and songs for centuries. They turn their lights on and off when they look for mates. Anglerfish live in the deep dark sea. They flash light when they look for food. The light attracts small fish. In these ways, light is used for different purposes.

Light from creatures is useful in the study of medicine. (c)Doctors spot cancer cells at an early stage with great difficulty. However, early detection is very important for successful cancer treatment. Scientists found a luminous protein in crystal jellyfish. (d)They have been using it in the development of methods for cancer detection since then. When the protein is put into human cells, cancer cells glow. They are spotted with a special camera. The study of light from creatures will certainly improve and brighten our lives.

問1-1 下線部(a)を和訳しなさい。

ホタルイカは如何にして発光するか？ 彼らは体内に特別な（発光）器官を持っているのである。

問1-2 下線部(b)の三種類の生物はそれぞれどのような時に（あるいはどのような目的で）発光するか、日本語で説明しなさい。

1. ホタルイカは、捕食者を混乱させようとして発光する。
2. ホタルは、つがい（交尾の相手）を求める時に発光する。
3. チョウチンアンコウは、食物（小魚）を引き寄せるために発光する。

英語問題・解答用紙

第2頁 (全4頁)

問 1-3 下線部(c)の文が意味することを、日本語で説明しなさい。

医師たちが初期段階のがん細胞を見出すためには大きな困難を伴っている。

問 1-4 下線部(d)を、”They”および”it”の意味を明確に記述しながら、全文和訳しなさい。

科学者たちは発光タンパク質を、がん細胞を検知する方法の開発のために用いている。

問題 2 次の文章に関する下記の間 2-1 から問 2-8 に答えなさい。

Part 1

Just before the Shinkansen train arrives at Tokyo Station, a group of staff stand beautifully in line on a platform. They wear uniforms and have cleaning tools in their bags. They bow deeply to the passengers. (c)() the last passenger gets off the train, they go into each car and begin cleaning. Their speedy and skillful work surprises people. It looks like a show.

(d)The train stays at the platform for 12 minutes. Excluding the time it takes passengers to get on/off the train, only seven minutes remain. During this short time, the staff do the cleaning. (e)() their mission, they stand in line on the platform and bow deeply again.

Part 2

(h)“Never have I seen such an amazing performance!” Everyone who sees their performance speaks highly of it. Who on earth are they? They are called Tessei, the cleaning staff of Shinkansen trains at Tokyo Station. They clean about 20 trains a day in a team of 22. Their speedy and skillful work catches the eyes of foreigners as well as Japanese. A world-famous television channel called their performance “Tokyo’s seven-minute miracle.” (第3頁に続く)

英語問題・解答用紙

第3頁 (全4頁)

One striking feature of the Tessei's performance is its speed due to their unique cleaning procedures. Japanese railways have a good reputation around the world for being punctual. Even a 15-second delay of one Shinkansen train can influence other trains' arrival and departure times. The Tessei's speedy work contributes greatly to the reputation of Japanese railways. Another feature of the Tessei is their skillful performance. Cleaning usually seems boring, but the Tessei's amazing performance is exciting. People call it the “Shinkansen Theater,” as it is performed in the cars and on the platforms.

Part 3

What are the factors behind the Tessei's success in Japan? One of the factors may be related to the unique culture of cleaning in Japan. Many Japanese people think it natural that they keep the places around them clean. They believe such a habit of cleaning is a virtue. In the trains as well, Japanese passengers tend to keep the areas around their seats clean. It is likely that this Japanese culture of cleaning helps the Tessei do their job quickly. Another factor in the Tessei's success lies in the staff's pride in their career. At first, Tessei members saw their cleaning simply as a job. However, believing that it can offer passengers a comfortable trip, they now do their work with a sense of pride and responsibility. This new attitude has changed the way they see their work and has improved their performance.

The staff's pride in their work as well as the Japanese culture helps produce the Tessei's miracle performance. When you start working in the future, what kind of miracles will you perform?

問 2-1 下線部(e)の括弧に入る言葉として最も適切なものはどれか、次の4つの中から選び丸で囲みなさい。

1. As early as ②. As soon as 3. As late as 4. As well as

問 2-2 下線部(f)を和訳しなさい。

列車は12分間プラットフォームに停車する。乗客の下車乗車に要する時間を除き、たった7分間だけが残されている。

英語問題・解答用紙

第4頁 (全4頁)

問 2-3 下線部(g)の括弧に入る言葉として最も適切なものはどれか、次の4つの中から選び、丸で囲みなさい。

1. Continuing 2. Starting ③. Completing 4. Watching

問 2-4 下線部(h)を和訳しなさい。

「私はこれまでにそのような素晴らしいパフォーマンス（仕事）を見たことはない！」
彼らの仕事を見る誰もが、それを称賛する。

問 2-5 下線部(i) striking feature of the Tessei's performance として本文で述べられている二つの点を日本語で記しなさい。

1. 速さ
2. 巧みさ

問 2-6 下線部(j) What are the factors behind the Tessei's success in Japan? の答えとして本文で述べられている二つの要素を日本語で記しなさい。

1. 日本人の清掃における独自の文化（道徳）
2. 清掃スタッフの仕事に対するプライド

問 2-7 下線部(k)を、This new attitude の意味を明確に記述しながら、全文和訳しなさい。

プライドと責任感を持って仕事をするという新しい姿勢は、彼らの仕事に対する見方を変え、そしてパフォーマンスを改善した。

問 2-8 下線部(l) When you start working in the future, what kind of miracles will you perform? という問いに対する、あなた自身についての答えを英語で記述しなさい。

内容は自由記載
