

2021年

## 入学試験問題

## 英語

1. この問題の試験時間は、約90分間です。解答はすべてマークシートにマークしてください。前半60分は読解力テスト、後半約30分はリスニング・テストです。リスニング・テストが始まると読解力テストには戻れません。注意してください。
2. 問題と解答は、声を出して読むはいけません。
3. 印刷がはっきりしない場合のほかは、問題についての質問は受けません。
4. 終了の合図で、すぐ筆記用具を置いて答えの記入をやめてください。
5. この問題冊子は回収するので、持ち帰らないでください。
6. 試験中は、監督者の指示に従ってください。
7. 不正行為があった場合は、解答はすべて無効とします。

英語の問題は二つに分かれています。

前半は読解と文法・語彙に関する問題で、後半はリスニングに関する問題です。

解答は、マークシートの問題番号に対応した解答欄に鉛筆でマークしてください。

前半の読解と文法・語彙は **READING COMPREHENSION (READING No. 1 ~ 3 )** と **GRAMMAR AND USAGE (SECTION 1 ~ 2 )** に分かれています。

後半のリスニング・テストは二つの **PART** に分かれています。**PART 1** はカンバセーションに関する問題、**PART 2** はモノローグに関する問題です。

問題は全部で 64 問で、通し番号が 1 ~ 64 までついています。

マークシートにも同様に 1 ~ 64 まで通し番号がついています。

## READING COMPREHENSION

### READING No. 1

A declining birth rate and an aging population is a serious problem, **predominantly** in developed countries, and Japan is no exception. In order to respond positively to this aging problem, we need to create a framework for society as a whole. In Japan, many companies and organizations are using new technology to address this problem. Services that allow children and grandchildren to remotely monitor the well-being of grandparents and parents living apart from them are increasing in popularity.

“Monitoring Support Robots” have been developed using communication robot technology and the IoT (Internet of Things). Robots are set up in several locations in the senior citizen’s house such as the living room, bedroom, bathroom and entrance hall. The robots have **complex** built-in sensors to measure motion, temperature, humidity, light levels, and so on. Family members living away can check on the senior citizen’s living conditions 24 hours a day using their smartphones or tablets. The robots provide information of any abnormalities in the senior citizen’s place of residence, or in room temperature, such as “he/she is in the living room now,” “the entrance hall door has opened,” or “the room temperature is more than 38 degrees.” There are even features such as one that lets you know when it is time for any medicine to be taken, making you feel as though you are living together.

There is also an increase in services that use trends in everyday lifestyle, such as the use of cell phones and the television, to confirm the well-being of family members. In services that monitor the use of cell phones, family members are automatically notified by email when the

senior citizen uses his/her cell phone. In addition to this, regular emails are sent to the family free of charge informing of the amount of battery remaining on days when the cell phone has not been used. This imposes no extra burden on the senior citizen who uses the cell phone regularly and it can easily be used.

Other services include the report of daily gas usage using cell phones and PCs of remotely-located family members. In addition to understanding everyday lifestyles such as when meals are prepared and baths are taken, these services email family members if there has been no gas used the previous day, so that changes in the senior citizen's daily habits can be promptly recognized. The services can also check if someone has forgotten to turn off the gas and it can be shut off by the family member via the Web or by telephone; and therefore, they are capable of handling emergency situations.

Although cell phones and smartphones have become more popular and it is easier and cheaper to communicate than it used to be, there are still many people who do not have frequent contact. Also, even if you keep in touch every day, you cannot have access 24 hours a day. So, it seems that in the current age, these services that can promptly detect any abnormalities that happen to senior citizens will continue to grow in popularity.

1

What is this reading mainly about?

- a) Several services developed for the aging society
- b) Different opinions about aging problems
- c) Technologies invented by senior citizens
- d) Changing family lifestyles in Japan

**2** According to the reading, which one of the statements is correct about Monitoring Support Robots?

- a) They have to be used by families living together.
- b) They can change the room temperatures.
- c) They allow us to monitor senior family members.
- d) They deliver medicine to senior citizens.

**3** According to the reading, which one of the statements is correct about the report of daily gas usage?

- a) It helps us decide when to take baths.
- b) It tells us when our senior family members prepared meals.
- c) It sends a signal to the computer to turn off the gas automatically.
- d) It contributes to saving the amount of gas for an emergency.

**4** According to the reading, which one of the statements is the author likely to agree with?

- a) Watching TV is one of the least expensive entertainments for senior citizens.
- b) More families should live together to have access to each other 24 hours a day.
- c) Even with cell phones, some families are not communicating frequently enough.
- d) Senior family members should become more familiar with cell phones and smartphones.

5 Which word is closest in meaning to **predominantly** in the first paragraph?

- a) hardly
- b) directly
- c) mostly
- d) effectively

6 Which word is closest in meaning to **complex** in paragraph 2?

- a) complicated
- b) simple
- c) confused
- d) poor

## READING No. 2

Born in Germany in 1879, Albert Einstein is one of the most celebrated scientists of the Twentieth Century. In 1921, he was awarded the Nobel Prize in Physics for his contributions to theoretical physics and the evolution of Quantum Theory. Einstein is also well known as an original free-thinker, speaking on a range of humanitarian and global issues.

Einstein was born 14 March 1879, in the town of Ulm. Aged 15, the family moved to Milan, Italy, where his father hoped Albert would become a mechanical engineer. However, despite Einstein's intellect and thirst for knowledge, his early academic reports suggested anything but a glittering career in academia. His teachers found him dim and slow to learn.

“School failed me, and I failed the school. It bored me. I wanted to learn what I wanted to know, but they wanted me to learn for the exam.”

Earlier, at the age of 12, Einstein had picked up a book on geometry and read it cover to cover. He would later refer to it as his “holy booklet.” He became fascinated by math and taught himself about science, becoming acquainted with the great scientific discoveries of the age. Despite Albert's independent learning, he was left behind at school. Eventually, he was asked to leave by the authorities because his indifference was setting a bad example for other students.

At college, he met a fellow student Mileva Maric, and after a long friendship, they married in 1903. They had two sons before divorcing several years later.

In 1896 Einstein gave up his German citizenship to avoid the military draft. For five years he was stateless, before successfully

applying for Swiss citizenship in 1901. After graduating from college in Zurich, he gained a job in the Swiss Patent Office. While working there, Einstein continued his own scientific discoveries and began radical experiments to consider the nature of light and space. He published his first scientific paper in 1900, and by 1905 he had completed his Ph.D. In 1905, he published four crucial scientific works, which would revolutionize modern physics.

Einstein's work started to gain **recognition**, and he was given a post at the University of Zurich. In 1911, he was offered a post at the Charles-Ferdinand University in Prague, which was then part of the Austro-Hungarian Empire. He took Austro-Hungarian citizenship to accept the job. In 1914, he returned to Germany and was appointed a director of the Kaiser Wilhelm Institute for Physics.

In the 1920s, Einstein travelled around the world — including the U.K., the U.S., Japan, Palestine and other countries. Einstein gave lectures to packed audiences and became an internationally famous **figure** not only for his work on physics, but also his wider observations on world affairs.

As a German Jew, Einstein was threatened by the rise of the Nazi party. In 1933, when the Nazis seized power, they took Einstein's property, and later they started burning his books. Einstein, then in England, took an offer to go to Princeton University in the U.S. He later wrote that he never had strong opinions about race and nationality but saw himself as a citizen of the world.



- 7 What is this reading mainly about?
- a) How Einstein showed his remarkable talent from an early age
  - b) Why Einstein's theory is worthy of admiration in physics
  - c) The life Einstein led as a scientist in different countries
  - d) The hardship Einstein went through as a German Jew
- 8 According to the reading, which one of the statements is correct about Mileva Maric?
- a) She was teaching at a college when she met Einstein.
  - b) She and Einstein got married right after they met.
  - c) She was a mother of two boys when she met Einstein.
  - d) Her marriage to Einstein lasted for several years.
- 9 According to the reading, which one of the statements is correct about Einstein's performance at school?
- a) He was an outstanding student from the beginning.
  - b) He always received good grades because he loved reading.
  - c) He was left behind because he was not motivated to learn for the exam.
  - d) He was considered a bad student because he was reading a book on geometry.

10 According to the reading, which one of the statements best describes Einstein's attitudes toward race and nationality?

- a) He wished he could have maintained his German nationality throughout his life.
- b) He didn't want to be restricted by such concepts as nationality and race.
- c) He tried to get new observations on world affairs by changing his nationality.
- d) He travelled to different countries to give lectures on race and nationality.

11 Which word is closest in meaning to **recognition** in paragraph 7?

- a) viewers
- b) money
- c) respect
- d) decision

12 Which word is closest in meaning to **figure** in paragraph 8?

- a) person
- b) image
- c) number
- d) shape

### READING No. 3

Air pollution is one of the biggest threats to children globally. Over half a million children under five died because of diseases caused by air pollution in 2016. Air pollution does not just threaten children's survival. It can make them very sick, causing them to miss school and suffer from long-term illnesses that affect them well into adulthood. A growing body of research also points to the impact it can have on a child's brain development.

Air pollution is a growing challenge for Africa. Deaths in Africa from outdoor air pollution have increased from 164,000 in 1990 to 258,000 in 2017. This is a growth of nearly 60%. Population growth, industrial growth and consumption growth have the potential to increase levels of pollution. Africa's 1.1 billion citizens will likely double in number by 2050, and more than 80% of that increase will occur in cities. As cities grow, the volume of traffic will increase. The use of imported second-hand vehicles also enhances risks. Rates of economic growth in some African countries are similar to rates of growth in China and India before air pollution worsened significantly in these two countries. With growing fossil fuel use, air pollution is likely to continue to get worse unless there is a transition to a more sustainable **path** of growth. The good news is that governments are already investing in solar and renewable energy, improving prospects for a cleaner future.

However, while our knowledge on air pollution is growing, we do not know the full extent of the impact on health, especially in Africa. In part, this is due to considerable data gaps in reliable monitoring of air pollution where there are large and growing populations of children. Although there are monitoring stations in most countries and continents, there are very few in Africa. In fact, our calculations indicate that while

up to 72% of children in Europe and North America live within 50 kilometers of air monitoring stations, about 6% of children in Africa do (See Figure 1). Moreover, compared to other regions, the number of African countries that have reliable, real-time air pollution monitors is significantly low: only seven out of 54 countries. This difference is **alarming**. Because air pollution is not monitored in Africa to the same extent as in other parts of the world, we are not only potentially underestimating the impact but also may not know how bad it is until it is too late.

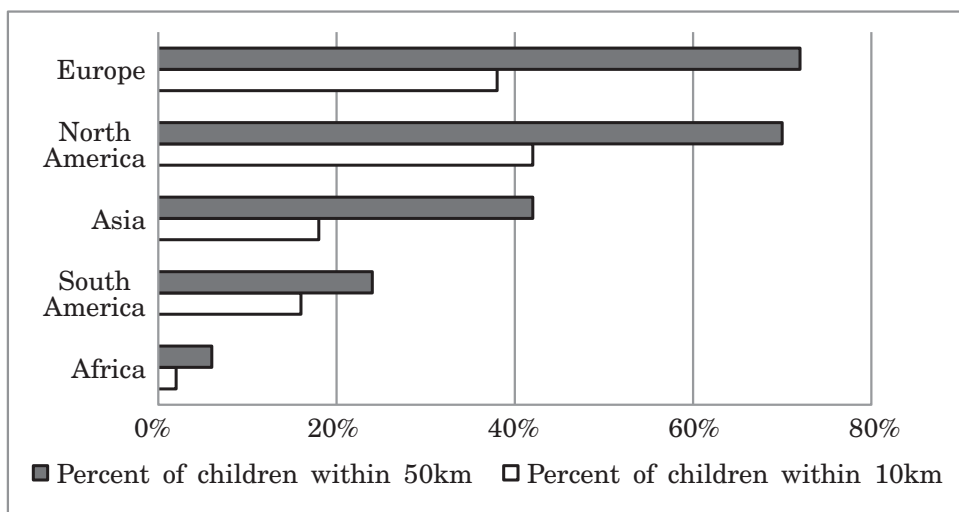


Figure 1  
*Percent of children within 10 and 50km of air monitoring stations (by region), 2019*

Source: CIESIN / UNICEF

UNICEF urges local authorities and governments around the world to put in place systems that reliably monitor air pollution. UNICEF also urges actions to reduce air pollution as well as children’s exposure to it in the first place, including investing in renewable sources of energy to

replace fossil fuel, increasing green spaces in urban areas, and creating smart urban planning so that major sources of pollution are not located near schools, clinics or hospitals, and minimizing exposure in the home. Action to deal with any problem usually begins with properly measuring it. It is time for us all to become more air-aware.

- 13 What is this reading mainly about?
- a) An environmental issue that is threatening children's health globally
  - b) The history of UNICEF's fight against air pollution in Africa
  - c) A comparison of recent economic growth rates in Africa and Europe
  - d) UNICEF's smart urban planning project in African countries
- 14 According to the reading, which one of the statements is correct about Africa?
- a) Almost 60% of its entire population is sick because of outdoor air pollution.
  - b) It is considered that a large part of its population growth will occur in cities.
  - c) It is economically growing much faster than China and India did in the past.
  - d) The use of solar and renewable energy dramatically increased in its large cities.

15 According to the reading, which one of the statements is correct about monitoring of air pollution?

- a) Air pollution is being equally monitored around the world these days.
- b) The number of monitoring stations increased by 72% in Europe and North America.
- c) Most children in Africa live further than 50 kilometers away from monitoring stations.
- d) There are only seven reliable, real-time air pollution monitors in 54 African countries.

16 According to the reading, which one of the statements is correct?

- a) Air pollution may make children unable to attend school.
- b) Children who suffer from air pollution get well when they become adults.
- c) Many countries are requesting UNICEF to devise a system to monitor air pollution.
- d) Green spaces are rapidly increasing in urban areas around the world.

17 What word is closest in meaning to **path** in paragraph 2?

- a) rate
- b) way
- c) goal
- d) life

18 Which word is closest in meaning to **alarming** in paragraph 3?

- a) growing
- b) resolving
- c) shocking
- d) disappointing

## GRAMMAR AND USAGE

### SECTION 1

A restoration center to preserve the work of Ernest Hemingway opened in Cuba on March 30<sup>th</sup> in 2019. Hemingway, who won the Nobel Prize in Literature in 1954, wrote (19) of his greatest books during the 21 years he lived at Finca Vigia in Cuba. The restoration center (20) by the Cuban National Cultural Heritage Council and the Finca Vigia Foundation of the United States. It is located on the 6-hectare property (21) Hemingway lived in a tree-shaded Spanish-style home.

“When we come together, when we work together, we can do positive and (22) things,” Jim McGovern, a U.S. congressman who wants better U.S.-Cuban relations, said at a ribbon-cutting ceremony. McGovern said the project (23) much easier if it were not for the U.S. blockade policy against Cuba.

Hemingway moved to Finca Vigia in 1939 and wrote *The Old Man and the Sea* (24) he was there, according to local scholars. He left Cuba in 1960, more than a year after the Cuban revolution ended. The writer left thousands of documents in Cuba, ranging from manuscripts of some of his works to letters, (25) photographs and annotated books. The restoration center, which received financing from the Ford Foundation, American Express Philanthropy and the AT&T Foundation, (26) laboratories and an air-conditioned vault.



- 19 a) any  
b) lot  
c) much  
d) some

- 20 a) built  
b) which built  
c) was built  
d) which was built

- 21 a) which  
b) that  
c) where  
d) when

- 22 a) amazing  
b) amazingly  
c) amazed  
d) amazedly

- 23 a) were  
b) will be  
c) will have been  
d) would have been

- 24 a) while  
b) during  
c) for  
d) since

- 25 a) as good as  
b) as well as  
c) as many as  
d) as much as

- 26 a) include  
b) includes  
c) included  
d) is included

## SECTION 2

- 27 The second biggest factory in town \_\_\_\_\_ since last month.
- a) closes
  - b) closed
  - c) has closed
  - d) has been closed
- 28 It was \_\_\_\_\_ a nice day that we went for a long walk along the beach.
- a) so
  - b) such
  - c) very
  - d) too
- 29 The company is \_\_\_\_\_ successful in the field of renewable energy.
- a) high
  - b) highly
  - c) height
  - d) heighten
- 30 The cruise ship will arrive in port on the 28th of this month, \_\_\_\_\_ the 26th as previously announced.
- a) instead of
  - b) despite
  - c) even though
  - d) although

31 Every time I see this picture, I'm \_\_\_\_\_ our summer vacation in Canada.

- a) reminded
- b) reminded of
- c) remembered
- d) remembered of

32 Don't put off till tomorrow \_\_\_\_\_ you can do today.

- a) when
- b) what
- c) that
- d) which

33 \_\_\_\_\_ fifty thousand people visited the museum to see the special exhibit in November.

- a) So many
- b) So much
- c) As many as
- d) As much as

34 The old man sat on a cozy chair with his legs \_\_\_\_\_ while listening to his favorite music.

- a) cross
- b) crossing
- c) crossed
- d) to cross

[出典]

Reading 1

Japan's Monitoring Services – Peace of Mind for Senior Citizens Living Alone,  
[https://web-japan.org/trends/11\\_techlife/tec180215.html](https://web-japan.org/trends/11_techlife/tec180215.html)

※URL は問題作成時のものです。

Reading 2

Albert Einstein Biography,  
<https://www.biographyonline.net/scientists/albert-einstein.html>

※URL は問題作成時のものです。

Reading 3

\*この問題は著作権の関係で掲載できません。

adapted from "Silent Suffocation in Africa. Air Pollution is a Growing Menace, Affecting the Poorest Children the Most" by Nicholas Rees, Amy Wickham, Yoonie Choi, UNICEF. June 2019

<https://www.unicef.org/media/55081/file/Silent%20suffocation%20in%20africa%20air%20pollution%202019%20.pdf>

※URL は問題作成時のものです。

Grammar and Usage 1

Hemingway center opens in Cuba to preserve writer's work, Asahi Weekly, April 21, 2019 (Reuters)

※URL は問題作成時のものです。