

1. 次の英文を読み，それに続く設問 A-1 から A-5 までに答えなさい。解答は，それぞれの設問に続く選択肢 1.から 3.までの中から答えとして最も適切なものを一つずつ選びなさい。

Have you ever thought about going to Mars as a pleasure-seeker? It is still science fiction, but it might be possible when your grandchildren grow up. Who knows Mars would be our second home in sixty years later? There are some scientists who are seriously planning to develop so-called terraforming, an advanced technology to make Mars habitable. So why don't you enjoy an imaginary travel to Red Planet now?

The scientific data shows Mars has harsh conditions for human beings. The basic elements, however, such as breathable air, adequate temperature and gravity, and sufficient food could be adjusted and obtained indoors. Water has already been there for a long time and can be available most easily. The shelter should be well protected from the severe solar radiation. Therefore, staying seems no problem.

Once you get out of the shelter, it is an unknown world. You might as well enjoy jumping higher. If you take an aircraft, you can fly over the most outstanding gorge, Valles Marineris. It dwarfs the Grand Canyon. In addition, there is a large volcano, Olympus Mons, as high as 26km from the surface, the highest mountain in the entire solar system. These natural wonders are just beyond your imagination. Considering the size of Mars, half of Earth, the humongous landscapes are out of proportion and will surely mesmerize your eyes.

Another remarkable object worth visiting is Face discovered by 1976 NASA aerial photography. It looks like a message addressed to Earth. It is in Cydonia area and pyramid-like structures can also be witnessed. If they were artificial constructions, our understanding of the solar system and the life itself would have to be completely changed. Some people believe Mars once flourished civilization.

If you were a game creator, you might be interested in them as stimulating sources, but this kind of illusion, pareidolia, is common even in our daily life. It is the imagined perception of a shape or pattern where it does not actually exist. Some people are apt to enjoy wild imagination.

Even if every condition is cleared and sightseeing spots are picked up, it is a challenging trip. It will take you 240 days just to reach Mars in a spacecraft with limited space. Endurance with strong psychology will be the most crucial factor to make the Mars travel feasible.

(設問)

A-1 What is terraforming?

1. It is a new technology to make a travel to Mars possible.
2. It is a new technology to make another planet suitable for people to live on.
3. It is a new technology to build our second houses on Mars.

A-2 Which is not included in the basic elements for human survival on Mars?

1. oxygen
2. vegetables
3. communication

A-3 Why is the Grand Canyon is quoted?

1. To feel like a western movie hero.
2. To emphasize the size of Martian valley.
3. To remember a famous sightseeing place.

A-4 Why do some people there was civilization on Mars?

1. Because Face is sending a message to Earth.
2. Because we misunderstand the origin of life.
3. Because there are objects which seem to have been constructed by somebody or something.

A-5 What will travelers have to bear on their 8-month way to Mars?

1. They will have to bear claustrophobic feeling
2. They will have to bear agoraphobic feeling.
3. They will have to bear acrophobic feeling.

2. 次の英文 A-6 から A-9 までは、航空通信に関する国際文書の規定文の趣旨に沿って述べたものである。この英文を読み、それに続く設問に答えなさい。解答は、それぞれの設問に続く選択肢 1. から 3. までの中から、答えとして最も適切なものを一つずつ選びなさい。

A-6 Radiotelephony is crucial to the safety of the flight during taxiing. Any mistake that causes the aircraft to enter a runway in error could be catastrophic.

(設問) What could cause a disaster on a runway?

1. A crucial communication among airplanes could.
2. An erroneous enter of an airplane into the runway could.
3. A catastrophe could.

A-7 The need for clear and unambiguous communication between pilots and Air Traffic Control (ATC) is vital in assisting the safe and expeditious operation of aircraft.

(設問) What is required between pilots and ATC?

1. The safe and expeditious operations of aircraft is.
2. The need for unambitious communication is.
3. Easily understandable message exchanges are.

A-8 The information in the initial call is essential for the safety of the aircraft by ensuring mutual understanding between the crew and the controller of the intention

for the aircraft. Omissions will require an additional call for clarification which may lead to frequency congestion.

(設問) Why is there a possibility that omissions may cause frequency congestions?

1. Because they will require an extra call.
2. Because they are unexpectedly conducted.
3. Because they cancel the initial call.

A-9 The distress/urgency message shall contain (at least) the name of the station addressed, the call-sign, nature of the emergency, fuel endurance and persons on board; and any supporting information such as position, level, (descending), speed and heading, and pilot's intentions.

(設問) Which of the following does not have to be included in the distress/urgency messages?

1. The will of the pilot
2. The location of the aircraft
3. Fuel surcharge

3. 次の設問 B-1 の日本語に対応する英訳文の空欄 (ア) から (オ) までに入る最も適切な語句を, その設問に続く選択肢 1. から 9. までの中からそれぞれ一つずつ選びなさい.

(設問)

B-1 日本からアメリカへ向かって飛ぶと, 太平洋上の日付変更線を越える. たとえば, 11月11日に成田空港午前発のニューヨーク直行便に搭乗すると, 約13時間後に, ニューヨークの同じ日付の午前中に JFK 国際空港へ到着する. 同じ日を繰り返すことになるので, 多くの乗客にとっては, 時差ボケの原因となる.

When you fly to the US from Japan, you will fly over the International Date Line on the Pacific (ア). For example, A direct flight (イ) for New York (ウ) at Narita on November 11 will take you to JFK on the morning of the same date in New York in about 13 hours. Since the (エ) repeat the same day, it would be a cause of (オ) for many of them.

1. jet lag
2. Ocean
3. bound
4. patients
5. water
6. departing
7. airport
8. time difference
9. passengers

4. 次の設問 B-2 の日本語に対応する英訳文の空欄 (ア) から (オ) までに入る最も適切な語句を, その設問に続く選択肢 1. から 9. までの中からそれぞれ一つずつ選びなさい.

(設問)

B-2 1940年代にアメリカで出版された宇宙SFでは、宇宙船が光よりも速く航行し、広大な宇宙を舞台に、悪い宇宙人や気味の悪い怪物をやっつけるヒーローたちが当時のアメリカの子供たちを熱狂させた。多くの作品は質の悪い小説だったが、想像力は世代を超え、スターウォーズのようなすばらしい映画を産み出してきた。

In American space SF stories (ア) in the 1930s spaceships traveled faster than the (イ) of light in the (ウ) universe. The heroes in stories, knocking down bad aliens and weird creatures, excited the American children in those days. Many of the works were not well-written in terms of (エ), but their imagination has been handed down generation to generation and has (オ) excellent movies such as Star Wars.

1. vast 2. quality 3. expensive 4. published 5. quantity 6. speed
7. gravity 8. produced 9. distance

5. 次の設問 B-3 の日本文に対応する英訳文の空欄(ア)から(オ)までに入る最も適切な語句を、その設問に続く選択肢 1.から 9.までの中からそれぞれ一つずつ選びなさい。

(設問)

B-3 どの遭難航空機も、その航空機を救助することができる陸上局又は移動局が聴守している周波数で遭難呼出しを送信する。

Any aircraft (ア) shall (イ) the distress call on the frequency on which watch is (ウ) by the land or mobile stations (エ) (オ) helping it.

1. be sent 2. can 3. capable 4. for distressed 5. in distress 6. kept
7. of 8. to 9. transmit