

解答上の注意：解答は、すべて別紙答案用紙（マークシート）に記入すること。

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一つずつ選び、その番号のマーク欄を塗りつぶしなさい。

Engineers from the National Aeronautics and Space Administration*¹ recently tested a prototype of an unmanned plane designed to fly over the surface of Mars*². NASA is planning to send an airplane or airplanes to the red planet sometime in the year 2007 in order to make a map of the surface from its dusty atmosphere.

In order to simulate flying conditions on Mars, which has a much thinner atmosphere than Earth, engineers tested the plane's aerodynamic*³ performance at a very high altitude. It was brought to an altitude of 30,900 meters by helium balloon, and then released. After dropping for 3,900 meters, the plane stabilized*⁴ and began to glide, reaching the speed of Mach 0.82, or slightly less than the speed of sound. It took about two hours and twenty minutes for the plane to reach the ground.

Engineers were extremely pleased with the results of the test flight. "It turned out to be a better airplane than we dared hope for," said Andy Gonzales, the project's flight test director.

The aircraft is only the first of many prototypes engineers plan to test before sending a plane to Mars. In the future, engineers plan to test versions with folding wings and eventually, a propeller-driven propulsion system.

<注> *¹ the National Aeronautics and Space Administration 米航空宇宙局 (NASA) *²Mars 火星
 *³aerodynamic 空気力学の *⁴stabilize 安定する

(設問)

A-1 Why does NASA want to fly a plane or planes over the surface of Mars?

1. In order to make a map of the dusty atmosphere.
2. In order to test the plane's aerodynamic performance.
3. In order to get information about the planet's surface.

A-2 What was the plane's maximum speed during the test?

1. Somewhat under the speed of sound.
2. Around 3,900 meters per second.
3. Exactly twice the speed of sound.

A-3 Why did engineers test the plane at such a high altitude?

1. They could not control the altitude of the helium balloon.
2. The atmosphere of Mars is much thinner than the Earth's.
3. The engineers wanted to simulate conditions in outer space.

A-4 According to the test director, how did the plane perform during the test?

1. The plane did not meet their expectations.
2. It performed better than they had hoped.
3. The results were exactly as they had hoped.

A-5 How may future versions of the airplane be different from the one flown in this test?

1. They may be exactly the same.
2. They may be able to reach higher speeds.
3. They may have a propeller-driven propulsion system.

2. 次の英文 A-6 から A-9 までは、航空移動業務の無線電話通信に関する国際文書の規定文に沿って述べたものである。この英文の内容に最もよく合致しているものを、それぞれの英文に対応する選択肢 1 から 3 までの中から一つずつ選び、解答は、選んだ選択肢の番号のマーク欄を塗りつぶしなさい。

A-6 After a call has been made to the aeronautical station, a period of at least 10 seconds should elapse* before a second call is made.

<注> *elapse (時が) 経過する

1. After a call has been made to the aeronautical station, the next call must last for at least 10 seconds.
2. After a call has been made to the aeronautical station, the next call should not be made for at least 10 seconds.
3. After a call has been made to the aeronautical station, the next call must be made within 10 seconds.

A-7 The receiving operator shall make certain that the message has been received correctly before acknowledging receipt.

1. A receiving operator should acknowledge receipt only after confirming that the message has been received correctly.
2. A receiving operator should acknowledge receipt before confirming that the message has been received correctly.
3. A receiving operator can decide whether to acknowledge receipt after confirming that the message has been received correctly.

A-8 Messages having the same priority should, in general, be transmitted in the order in which they are received for transmission.

1. If two messages have the same priority, they should always be transmitted in the order in which they are received for transmission.
2. If two messages have the same priority, in most cases, they should be transmitted in the order in which they are received for transmission.
3. If two messages have the same priority, in a few cases, they should be transmitted in the order in which they are received for transmission.

A-9 Abbreviated* procedures should only be used after initial contact has been established and where no confusion is likely to arise.

<注> *abbreviated 短縮した、省略した

1. In situations where confusion is unlikely to arise, abbreviated procedures can only be used before initial contact has been established.
2. In situations where confusion is unlikely to arise, abbreviated procedures should never be used after initial contact has been established.
3. In situations where confusion is unlikely to arise and initial contact has already been established, abbreviated procedures can be used.

3. 次の設問 B-1 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。解答は、選んだ選択肢の番号のマーク欄を塗りつぶしなさい。

（設問）

B-1 リチャードがフランスに移ってきたのはわずか数ヶ月前のことで、まだフランス語で話すのに慣れていない。

Richard (ア) to France just a (イ) months (ウ), so he isn't (エ) speaking French (オ).

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|----------|------------|------------|
| 1. until | 2. ready | 3. yet |
| 4. ago | 5. changed | 6. already |
| 7. few | 8. moved | 9. used to |

4. 次の設問 B-2 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。解答は、選んだ選択肢の番号のマーク欄を塗りつぶしなさい。

（設問）

B-2 その空港は、事故のあと滑走路の点検のために、およそ 30 分間閉鎖された。飛行機 4 便がその閉鎖のために遅延した。

The airport was closed (ア) thirty minutes for (イ) the runway after the accident. Four flights (ウ) delayed (エ) (オ) the closure.

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|------------------|----------|--------------|
| 1. meanwhile | 2. due | 3. for about |
| 4. inspection of | 5. check | 6. of |
| 7. to | 8. was | 9. were |

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。解答は、選んだ選択肢の番号のマーク欄を塗りつぶしなさい。

（設問）

B-3 パイロット間空対空通信は、安全及び正常な飛行に影響を及ぼす事項に関する通報を含まなければならない。

Interpilot air-to-air communication shall (ア) messages (イ) (ウ) any matter (エ) safety and regularity of (オ).

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|--------------|--------------|-----------|
| 1. comprise | 2. for | 3. flight |
| 4. affecting | 5. related | 6. effect |
| 7. concern | 8. fly about | 9. to |