

航空無線通信士「英語」試験問題

5問 1時間30分

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.までのの中から答えとして最も適切なものを一つずつ選び、その番号のマーク欄を黒く塗りつぶしなさい。

If the US government gets its way, all Americans boarding international flights will have to submit to a face scan, which privacy advocates call an ill-advised step toward a surveillance state. The Department of Homeland Security (DHS) says it is the only way to successfully expand a program that tracks nonimmigrant foreigners. They have been required by law since 2004 to submit to biometric identity scans, but to date have only had their fingerprints and photos collected prior to entry. Now DHS says it is finally ready to implement face scans on departure — aimed mainly at better tracking visa overstays but also at tightening security. But, the agency says, US citizens must also be scanned for the program to work. Privacy advocates say this oversteps Congress's mandate. "Congress authorized scans of foreign nationals. DHS heard that and decided to scan everyone," said Alvaro Bedoya, executive director of the Center on Privacy and Technology at Georgetown University.

Pilot projects are underway at six US airports: Boston, Chicago, Houston, Atlanta, New York City and Washington. DHS aims to have high-volume US international airports engaged beginning next year. John Wagner, the Customs and Border Protection (CBP) deputy executive assistant commissioner in charge of the program, confirmed in an interview that US citizens departing on international flights will submit to face scans. Wagner says the agency will delete within 14 days all scans of US citizens. However, he doesn't rule out CBP keeping them in the future, after going "through the appropriate privacy reviews and approvals."

Another DHS initiative worrying privacy advocates is the Transportation Security Administration's (TSA's) Precheck, the voluntary program designed to speed enrollees through airport security. Participants are not being told that the digital fingerprints and biographical data they submit for background checks when enrolling are retained in an FBI identity database for life, said Jeramie Scott, an attorney with the Electronic Privacy Information Center (EPIC).

EPIC worries not just about potential governmental abuse but also the vulnerability to hackers. In the 2015 breach of the federal Office of Personnel Management, 5.6 million sets of fingerprint images were stolen.

<注> ill-advised 悪い結果に繋がりそうな biometric identity 生体認証 biographical 人の生涯の
abuse 乱用 vulnerability 脆弱性 breach 侵入工作

(設問)

A-1 Which of the following has been enforced at US airports so far?

1. All passengers have had to submit photos when entering and leaving the US.
2. US citizens have been required to submit fingerprints only when leaving the country.
3. Nonimmigrant foreigners have had to submit to fingerprinting and photography upon entry to the US.

A-2 According to DHS, what will be the principal purpose of face scanning for passengers departing from airports?

1. Face scans are designed to scan only US citizens' faces.
2. Face scans will be used to speed up the processing of passengers at airports with tight schedules.
3. Face scans are mainly intended to find people who have stayed in the US longer than the period permitted by their visa and also to tighten security.

A-3 What is a major complaint of privacy advocates about the face scan?

1. They argue that scanning everyone, including US citizens, exceeds Congress's mandate.
2. They are worried that the authorities will not be able to scan everyone at major US airports.
3. They are concerned that the program will not work efficiently if it does not include US citizens.

A-4 What is now happening at six major US airports?

1. The new technology is being tested before being used at other high-volume airports.
2. All pilots flying to international destinations are undergoing face scans prior to departure.
3. The face scans of all foreign nationals staying in the US for less than 14 days are being deleted.

A-5 What is the concern of the Electronic Privacy Information Center?

1. It is concerned that biographical data on the FBI database may be incorrect.
2. It is worried that many US citizens do not store their passports safely and they may get stolen.
3. It is worried about potential abuse by the government as well as the security risks to electronically stored data.

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、その番号のマーク欄を黒く塗りつぶしなさい。

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. This should eliminate unnecessary transmissions while the aeronautical station is getting ready to reply to the initial call.

(設問) What is the purpose of the pause between a call to an aeronautical station and the second call to that station?

1. Leaving a period of not less than 10 seconds between calls always prevents smooth communication.
2. A gap of 10 seconds or more should allow the aeronautical station to prepare a reply without unwanted interruptions.
3. The aeronautical station should allow a minimum pause of 10 seconds in order for the sender to prepare a second call.

A-7 The transmission of long messages should be interrupted momentarily from time to time to permit the transmitting operator to confirm that the frequency in use is clear and, if necessary, to permit the receiving operator to request repetition of parts not received.

(設問) What is the appropriate procedure when transmitting long messages?

1. The person receiving a long message must not allow the sender to interrupt the transmission of that message at any time.
2. Long messages should be transmitted in full without interruption, and then the whole message should be repeated without interruption.
3. The transmitting operator is recommended to take pauses during the transmission of long messages in order to check that the message is being communicated successfully.

A-8 When transmitted by an aircraft station, the acknowledgement of receipt of a message shall comprise the call sign of that aircraft. An aircraft station should acknowledge receipt of important air traffic control messages or parts thereof by reading them back and terminating the readback by its radio call sign.

(設問) How should an aircraft station acknowledge receipt of important air traffic control messages?

1. An aircraft station should read back the messages and add its call sign at the very end of the acknowledgement.
2. The call sign of the station that has received the original message must not be included in the acknowledgement.
3. An aircraft station should always acknowledge important air traffic control messages by readback of the terminating parts of the messages.

A-9 In the case of complete unavailability of the operator in the course of a flight, and solely as a temporary measure, the person responsible for the station may authorize an operator holding a certificate issued by the government of another Member State to perform the radiocommunication service.

(設問) Under what circumstances may the person in charge of a station permit someone qualified in another country to perform the radiocommunication service during a flight?

1. Such temporary authorization may only be given in cases where there is no possibility of the regular operator performing his/her duties on a flight.
2. The person responsible for the station may permit individuals holding temporary certificates issued by foreign governments to perform the service whenever they are available.
3. The person in charge may permit the holder of a foreign certificate to perform the radiocommunication service whenever the qualifications can be confirmed.

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。解答は、選んだ選択肢の番号のマーク欄を黒く塗りつぶしなさい。

（設問）

B-1 SSR(二次監視レーダー)からの正しい応答の要求に応答するATCトランスポンダは最初、軍当局が味方の飛行機を識別する目的で導入した。今では、管制官が混雑するレーダー画面の中で、飛行機一つ一つをどのようなものでも容易に識別できるよう、管制空域内を飛んでいる飛行機の各トランスポンダに異なるATCコードを使用するのが標準的である。

The ATC transponder which responds to (ア) interrogation from SSR was (イ) introduced to enable military authorities to identify friendly aircraft. It is now standard (ウ) to use a different ATC code for each transponder of aircraft flying in (エ) airspace (オ) the controller can readily identify any specific aircraft on a crowded radar screen.

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| 1. approach | 2. controlled | 3. in order for |
| 4. initially | 5. practice | 6. proper |
| 7. so that | 8. training | 9. unjustified |

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。解答は、選んだ選択肢の番号のマーク欄を黒く塗りつぶしなさい。

（設問）

B-2 JAXAは、晴天乱気流を検知できる機上搭載用のドップラーライダーを開発し、実演試験を実施した。重さ約150kgのその装置はレーザー光を発射し、それが雨滴や塵により散乱された光を検知して飛行路上の乱気流を識別する。その装置により、到達する約70秒前に飛行機が乱気流を見つけることが可能となる。

JAXA has developed and performed flight demonstration tests of onboard Doppler LIDAR (ア) detecting (イ)-air turbulence. The device (ウ) about 150kg and emits laser beams to identify turbulence on its flight path by detecting the light (エ) by water droplets and dust. It will enable the aircraft to (オ) air turbulence about 70 seconds before reaching it.

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|----------|----------|---------------|
| 1. area | 2. can | 3. capable of |
| 4. clean | 5. clear | 6. scattered |
| 7. split | 8. spot | 9. weighs |

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

（設問）

B-3 航空機局は、混信を減少させるため、自局に委ねられた手段の範囲内で、信頼性のある通信をもたらす最も適切な伝搬特性を有する周波数帯を、呼出しのために選定するよう努力しなければならない。

In order to reduce (ア), aircraft stations shall, within the (イ) at their (ウ), endeavor to select for calling the band with the (エ) favorable propagational (オ) for effecting reliable communication.

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|-------------|--------------------|-----------------|
| 1. best | 2. characteristics | 3. consumption |
| 4. disposal | 5. interference | 6. intervention |
| 7. means | 8. most | 9. nature |