

## 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塗りつぶしなさい。

Researchers say that it is possible to adjust to new time zones and recover from jet lag a bit faster than previously thought. And they have created their own free app to help. Doctors have long said that exposure to light is key. But how much, and when? "If you get light in the wrong time or wrong way, it'll send you in the wrong direction," said Daniel Forger, who led the research.

A biological clock called the circadian rhythm regulates when we become sleepy and when we are more alert. If you travel across time zones, the body clock has to reset itself. Light is the clock's strongest regulator. In a recent study, a research team used two equations that can predict someone's circadian rhythm, and with computer modeling calculated different schedules of light exposure for more than 1,000 possible trips. It is possible to customize a block of time each day when you should be in light the brighter the better and another when you should avoid it. Generally, it is thought to take a day per time zone to fully adjust. But if you, say, cross five zones from Detroit to London, arriving at 11 a.m., London time, the study suggests only a three-day adjustment schedule: On the day after arrival, get light from 7:40 a.m. to 9 p.m.; and on the second day, get light from 6:20 a.m. to 7:40 p.m.; and on the third day get it from 5 a.m. until 7:20 p.m. A free smart phone app does the calculations. If you stay indoors or stay up later, it adjusts the advice. The app hasn't been tested with travelers to see whether it really helps more than general advice, such as to seek morning light when traveling eastward. But those who do use it will be given the option of submitting their data to a University of Michigan study.

"Before we really believe it, it has to go through testing," cautioned sleep-medicine specialist Dr. Steven Althuler. But "there's very little risk of harm if someone wants to try these things." Most people adjust fine with general advice, but adjusting faster may be more important if travelers need to be at their best for, say, sports competitions or a business negotiation, Althuler added. "I think it makes sense," said Dr. Charles Bae, a sleep disorder specialist. "Anything you could do to optimize your adjustment without medications is welcome."

◇ app アプリ the circadian rhythm 概日リズム、いわゆる「体内時計」のリズム alert 気を張る  
regulator 調節器 equation 方程式 customize 必要に応じて変更する sleep disorder 睡眠障害 submit 提出する  
optimize ~を最も効果的にする

(設問)

A-1 What did the researchers find out about how light can help people recover from jet lag?

1. People need to get as much bright light as possible in order to recover from jet lag.
2. Morning light is the worst for helping people get over jet lag.
3. Getting light at the right time and in the right way can promote recovery from jet lag.

A-2 What is the main function of the body's circadian rhythm?

1. It controls sleep and alertness..
2. It helps people cope with traveling long distances and across time zones.
3. It regulates the amount of light the human body needs.

**A-3** According to the study, how long would it take a person who had flown across five time zones to recover using the new app?

1. It would take such a person just three days.
2. In some cases, this would take around five days.
3. It is thought that in this case the person would recover after one day in the new time zone.

**A-4** What does the sleep-medicine specialist, Dr. Steven Altchuler, say about the app?

1. He says that he really believes the app can help travelers.
2. He says that it can do no harm for people to try it.
3. He says that tests have shown that the app has some harmful effects.

**A-5** According to the article, what kind of people need to adjust to time differences very quickly?

1. Those, such as athletes or business people, who need to perform soon after arriving somewhere.
2. According to the sleep disorder specialist, it is very important for people using medications to adjust quickly.
3. General travelers need to adjust quickly because they usually have only a short time in which to go sightseeing.

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塗りつぶしなさい。

**A-6** Approved ICAO abbreviations contained in the text of the message to be transmitted to aircraft should normally be converted into the unabbreviated words or phrases which these abbreviations represent in the language used, except for those which, owing to frequent and common practice, are generally understood by aeronautical personnel.

(設問) How should approved ICAO abbreviations be used in messages transmitted to aircraft?

1. ICAO abbreviations should be transmitted slowly but frequently in all transmissions to aircraft.
2. All ICAO abbreviations should be followed by the unabbreviated words or phrases they represent.
3. ICAO abbreviations should only be used in cases where the transmitter believes the abbreviation is widely understood.

**A-7** Distress messages shall comprise those messages sent by mobile stations reporting that they are threatened by grave and imminent danger and all other messages relative to the immediate assistance required by the mobile station in distress.

(設問) When do mobile stations send distress messages?

1. Distress messages comprise only messages about dangerous and threatening conditions.
2. Distress messages shall acknowledge the assistance required by the mobile station in distress.

3. Distress messages are used by mobile stations to report a serious and immediate threatening situation and make requests for assistance.

**A-8** When operating within a network, an aircraft station should, in principle, whenever communications conditions so permit, transmit its messages to the stations of the network from which they can be most readily delivered to their ultimate destinations.

(設問) When operating within a network, and when communications permit, to which station should an aircraft transmit its messages?

1. An aircraft should transmit to the network stations best able to assist with delivery of its messages to their final destinations.
2. An aircraft should always transmit its messages to the nearest stations in the network.
3. An aircraft should, in principle, attempt to transmit its messages to all stations in the network.

**A-9** In the absence of acknowledgement of intercept within one minute, the station accepting the message from the aircraft should forward it, normally over the aeronautical fixed service, to the stations which have failed to acknowledge intercept.

(設問) In cases where there is no acknowledgement of intercept within one minute, what should the station accepting the message do?

1. The station accepting the message should return it to the transmitting aircraft.
2. The station accepting the message should pass it on to those stations which have not acknowledged interception of the message.
3. The station accepting the message should wait one minute before transmitting an acknowledgement of intercept.

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塗りつぶしなさい。

(設問)

**B-1** 昨年、日本で上映されたアメリカのアニメーション映画は、子どもたちだけでなく、おとなにも大人気であった。 アニメは子どもたちだけのものであるという私の古い考えを変える必要があるようだ。 興業収益もかなりのものであったと言われている。

The American animated movie ( ア ) in Japan last year was very ( イ ) with adults as ( ウ ) as children. I need to change my old ( エ ) of thinking that cartoons are only for children. I ( オ ) it did very well at the box office.

1 belief	2 demonstrated	3 hear
4 much	5 popular	6 said
7 shown	8 way	9 well

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 昨年 の 3 月、クアラルンプールから北京に向け飛び立ったマレーシア航空の旅客機が突然消息を絶った。オーストラリアやアメリカなどの捜索隊は、航空機が墜落したと思われるインド洋の海域をくまなく捜したが残骸の形跡を見つけることはできなかった。また、アンダーウォーター・ロケーター・ビーコンから発せられる超音波も探知することができなかった。

A Malaysian passenger plane ( ア ) from Kuala Lumpur to Beijing disappeared ( イ ) in March of last year. Australian, American and other countries' search parties scoured the area of the Indian Ocean where the plane was thought to ( ウ ) but found no ( エ ) of any debris. No ultrasonic waves could be detected from the underwater locator beacon, ( オ ).

1 either	2 flying	3 have crashed
4 have smashed	5 running	6 signals
7 signs	8 suddenly	9 too

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 国際航空に従事するすべての航空機の操縦者その他の運航乗組員は、その航空機が登録を受けた国が発給し、又は有効と認めた技能証明書及び免状を所持しなければならない。

The pilot of every aircraft and the other members of the operating crew of every aircraft ( ア ) in international ( イ ) shall be provided ( ウ ) certificates of competency and licenses issued or rendered valid by the State in ( エ ) the aircraft ( オ ).

1 airports	2 by	3 engaged
4 is registered	5 is reserved	6 navigation
7 that	8 which	9 with