

1 次の英文を読み、設問に答えよ。

Airline pilots are often exhausted. It's not uncommon for a pilot for a major commercial airline to handle multiple flights without sufficient breaks. For instance, she may start work in Florida at 5 p.m., with her first flight departing an hour later for a five-hour trip across the country, arriving in California just after 8 p.m. local time. Then she might get a short break and fly a 90-minute short-hop flight to another California city. When she lands from this second flight, she has spent six and a half hours of the last nine hours in the cockpit. She is also three time zones from where she started work, and her body thinks it's 2 a.m. There's no doubt she's tired—and she's lucky not to have encountered any schedule adjustments for aircraft maintenance or weather delays.

Pilot fatigue is no laughing matter. In 2008, a pilot and a co-pilot both fell asleep at the controls and missed their landing in Hawaii. The two pilots were fired and their licenses were suspended. More recently, in 2017, overtired pilots came very close to landing on top of another airplane at San Francisco International Airport. Unfortunately, pilot fatigue can be difficult to predict or diagnose—especially since tired pilots usually manage to take off, fly, and land safely. Even when something goes wrong, accident investigators may have little evidence of fatigue, except perhaps the sound of someone yawning on cockpit audio recordings.

The American airline industry and the government agency that regulates it, the Federal Aviation Administration (FAA), have taken steps to reduce pilot fatigue. In 2014, the FAA imposed the first new pilot rest rules in 60 years, limiting overall on-duty time and flight hours per day depending on when a pilot's shift starts. The rules also established a process by which pilots can report fatigue without being disciplined by their airlines or the government. Pilots who are forced to hide their fatigue may end up like one pilot in China, who was caught napping in the cockpit and then faced disciplinary action.

Even so, many pilots and others remain worried that two pilots are required to remain awake and alert for the entire flight, though one or both may be dealing with symptoms of fatigue. One possible suggestion is letting pilots take brief naps in the cockpit. As researchers of consumer opinions about the airline industry, we've found that the American public is wary of this idea, but may feel better about it once they've heard an explanation of how it actually makes their flights safer.

It's widely known that a short nap can improve a pilot's alertness. Some planes, such as those commonly used on long international flights, have beds their pilots and other crew can use,

but smaller planes don't have the space. Under American law, only flights that are longer than eight hours require an additional pilot to be on board so one pilot at a time can rotate out for rest. On shorter flights, U.S. regulations expect both pilots to remain alert for the entire length of the flight, without any chance for rest during the flight.

Some countries, including Canada and Australia, allow pilots to nap in the cockpit. The official procedure to allow pilots to nap in the cockpit is called "controlled rest in position (CRIP)." CRIP uses established policies and procedures to allow pilots to rest. The rules are strict. The Air Canada Flight Operations Manual, for instance, says a pilot who wants to rest must notify the co-pilot and a flight attendant. The pilot can sleep for no more than 40 minutes and must wake up at least half an hour before the descent for landing. Pilots get the first 15 minutes after the nap to fully awaken, during which they can't resume actually flying the plane, unless they need to help deal with an emergency.

As consumer opinion experts, we have conducted a series of studies to see what members of the public think about letting pilots use this CRIP procedure to nap in the cockpit. In general, people are less willing to fly when they know a pilot might be allowed to sleep at the controls, and women are less willing than men. This is mostly attributed to fear, because they don't understand the benefits of pilot naps. Some of our earlier work has shown that when consumers understand the value of a new procedure, they'll feel better about it. It seems likely that explaining to people how better-rested pilots make a flight safer could help more people feel comfortable flying in a plane where the CRIP procedure is allowed.

In a follow-up study, we asked pilots what they thought about being allowed to rest in the cockpit during flight—and they were much more enthusiastic than nonpilots. Seventy percent of pilots favored allowing CRIP. On average, all participants who completed the survey felt that naps of 45 minutes should be approved, which was closely related to the 40 minutes suggested by scientific evidence. They also recognized the need for the pilot to be awake at least 30 minutes before beginning the descent to landing. Overall, the participants thought there were very few potential problems with CRIP and said it would be useful.

However, some pilots did express worry about unintended consequences of CRIP implementation. The airlines, knowing that pilots could take naps during the flight, might be tempted to impose more rigorous flight schedules that would eliminate any benefits derived from CRIP. Lastly, participants commented on how this procedure is already being used by international carriers such as Air Canada and Qantas with success. So far, those companies' crews have not registered widespread complaints about abuse of scheduling practices, and none

of the survey respondents who fly for those airlines complained about this potential problem.

It is hard to say whether the FAA would ever move to let U.S. pilots nap in the cockpit. The scientific research provides empirical evidence as to its advantages, and while consumers are somewhat hesitant, pilots seem very supportive of it. What is clear is that fatigue in the cockpit remains a threat to the aviation industry worldwide. Given the scientific evidence supporting CRIP to counter fatigue, clearly there is value in considering how it could improve aviation safety. Perhaps it's time to listen to the pilots we trust to fly these airplanes and let them rest when they need to—within reason, and so they can fly more safely.

問1 Choose the best answer based on the reading.

1. Why isn't there enough time for commercial airline pilots to rest?
  - A. Their working days begin early in the evening.
  - B. They often fly two or more flights a day.
  - C. They experience jet lag because of changes in time zones.
  - D. There are many delays due to bad weather or airplane repairs.
  
2. What is implied about the mistakes made by the pilots in 2008 and 2017?
  - A. Someone noticed that the pilots were tired.
  - B. The pilots should not have been punished for these mistakes.
  - C. Investigators used the sound of yawning as evidence of fatigue.
  - D. It was difficult to determine that the mistakes were caused by fatigue.
  
3. What FAA rule tries to reduce pilot fatigue?
  - A. Pilots cannot be punished for reporting that they are tired.
  - B. Pilots over the age of 60 can only fly limited hours each day.
  - C. Airlines must report excessive pilot fatigue to the government.
  - D. Pilots should be disciplined by their airlines or the government.
  
4. What do people in the U.S. commonly think about pilots napping in the cockpit?
  - A. They believe that short naps by pilots will make flying safer.
  - B. They feel that pilots had better deal with symptoms of fatigue.
  - C. They worry about pilots who remain awake for the entire flight.
  - D. They do not believe that pilots should take short naps in the cockpit.

5. What is the U.S. airlines' policy on pilot fatigue on short domestic flights?
  - A. Airlines assign an additional pilot to rotate duties.
  - B. Airplanes have a bed for pilots and crew members.
  - C. Pilots are expected to stay alert, even if they are tired.
  - D. Pilots are required to take a short nap to improve alertness.
  
6. Which of the following is a rule for Air Canada pilots taking a nap in the cockpit?
  - A. The pilot cannot sleep longer than forty minutes.
  - B. The pilot must wake up at least one hour before landing.
  - C. Before taking a nap, the pilot must tell at least one crew member.
  - D. After waking up, the pilot must wait for half an hour before piloting.
  
7. What did the researchers find about the general public's attitude toward CRIP?
  - A. Most people understand that short naps could benefit pilots.
  - B. The public would need more information to approve of CRIP.
  - C. Consumers generally feel comfortable with the CRIP procedure.
  - D. Men are more afraid of pilots napping in the cockpit than women are.
  
8. What did the researchers find about the pilots' attitude toward CRIP?
  - A. It closely matches that of the general public.
  - B. Overall, pilots believe that the CRIP procedure has many problems.
  - C. Their preference essentially matches the scientific evidence on sleep time.
  - D. Most pilots feel that they are able to fly the plane immediately after waking up.
  
9. How has the CRIP procedure affected pilots' schedules?
  - A. Because pilots can nap, airlines have assigned them more hours.
  - B. Pilots from Air Canada claim that their working hours have increased.
  - C. Despite initial fears, pilots have experienced no increase in flying time.
  - D. Crews from Qantas have formally complained about their schedules.
  
10. What do the researchers conclude?
  - A. The U.S. public feels the FAA must improve aviation safety.
  - B. There is no scientific proof that CRIP decreases pilot fatigue.
  - C. It is likely that the FAA will soon start using the CRIP procedure.
  - D. If we trust the pilots to fly, we should trust them to rest when needed.

問2 Complete the following charts.

Organization / Regulation	Content
The Federal Aviation Administration (FAA)	Regulation on ( 11 )
The controlled rest in position (CRIP)	Regulation on when and how ( 12 )

11. A. the disciplinary action for sleeping pilots  
 B. the length of sleep a pilot can have  
 C. the number of crew members for international flights  
 D. the total working and flying hours for a pilot
12. A. a pilot takes a rest  
 B. an airline company establishes policies and procedures  
 C. all the crew members take a nap  
 D. a pilot notifies the co-pilots of a danger

Study	Results
The follow-up survey of pilots	<ul style="list-style-type: none"> <li>• ( 13 ) pilots sleeping during a flight.</li> <li>• Pilots recognize that they should be awake ( 14 ) before the descent for landing.</li> </ul>

13. A. Airline companies are against  
 B. Flight attendants are worried about  
 C. Ordinary people are generally supportive of  
 D. Pilots are rather in favor of
14. A. 15 minutes  
 B. 30 minutes  
 C. 40 minutes  
 D. 45 minutes

問3 Mark A for TRUE and B for FALSE for each of the following statements.

15. Two pilots fell asleep during a flight to Hawaii and missed the landing.  
 16. For a nine-hour flight, American law requires there to be three pilots.  
 17. A larger proportion of women than men understood the benefits of pilots sleeping.  
 18. Air Canada crew members have not made many complaints about their schedules.

2

次の 19～26 の空所に入れる語句として最も適切なものを A～D の中から選べ。

19. X: Can you give me some advice before I move to Hokkaido?  
Y: Umm, a car is an absolute (      ), especially if you live in the country.  
A. curiosity      B. intensity      C. necessity      D. mobility
20. X: Make sure to wear a life jacket before you get on the boat.  
Y: Of course. We don't want to (      ) in the sea.  
A. surf      B. drown      C. soak      D. float
21. X: What advice would you give me on finding a career that suits me?  
Y: First, learn how to (      ) your strengths while learning about your shortcomings.  
A. organize      B. maximize      C. criticize      D. customize
22. X: Why was the highway closed yesterday?  
Y: There was a (      ) accident involving six cars.  
A. mental      B. total      C. vital      D. fatal
23. X: I've always admired your older sister.  
Y: She's my role model because she always thinks of others. I have always tried to act (      ).  
A. likewise      B. otherwise      C. roughly      D. consistently
24. X: Why did Megan go to London? Is she there on business?  
Y: No, her (      ) purpose is to see her boyfriend.  
A. bare      B. rare      C. soar      D. sole
25. X: Hey, what happened here? All the documents are on the floor!  
Y: When I opened the window, a (      ) of wind lifted all these papers from the desks.  
A. slice      B. surge      C. piece      D. load
26. X: Have you heard anything from the company about your broken air conditioner?  
Y: Yeah, but it took three weeks before I finally received (      ).  
A. thanks      B. an apology      C. benefits      D. funds

次の 27 ～ 36 の空所に入れる語句として最も適切なものを A ～ D の中から選べ。

27. X: I'm going on a first date with Becky, but I have no idea where to go.  
Y: If you're going for dinner, I can recommend ( ). It's the best one in town.  
A. Italian restaurants                      B. Italian restaurant  
C. an Italian restaurant                      D. the Italian restaurant
28. X: Do you know Peter's email address? I need to contact him as soon as I can.  
Y: Sorry. I wish I ( ) it.  
A. know                      B. knew                      C. has known                      D. had known
29. X: How did you do in the marathon yesterday?  
Y: The weather was perfect, but I failed ( ). I sprained my ankle just past 30 kilometers.  
A. to finish                      B. finish                      C. finishing                      D. to have finished
30. X: Hey, let's go! The taxi's waiting.  
Y: I'm not ready yet. Can you wait ( )?  
A. a moment                      B. some moment                      C. moments                      D. moment
31. X: The weekend is almost over. Have you done your homework?  
Y: Don't worry. I'll finish everything ( ) dinner time.  
A. from                      B. by                      C. on                      D. till
32. X: What does the word "widow" mean?  
Y: A widow is a woman ( ) has died.  
A. the husband                      B. her husband  
C. whose husband                      D. husband
33. X: Oh, do we need a pencil today? I only have pens!  
Y: You didn't read the email from Professor Brown, ( )? It clearly said so!  
A. did you                      B. didn't you                      C. do you                      D. don't you
34. X: I saw Dianne last Saturday.  
Y: Did you? What ( ) these days?  
A. is she going to do                      B. has she done  
C. did she do                      D. is she doing
35. Please bring an umbrella because the outdoor concert will take place rain or ( ).  
A. cloud                      B. sun                      C. blue                      D. shine
36. Please ( ) from using the restrooms while the seatbelt signs are on.  
A. stop                      B. refrain                      C. avoid                      D. consider

4 それぞれの会話の空所に入れる最も適切な選択肢を A ～ D の中から選べ。ただし、同じ選択肢が 2 箇所に入ることはない。

*Woman:* I always advise first-year English majors to take pronunciation, grammar, and introductory English writing courses in the first semester.

*Man:* OK. Which pronunciation course do you think I should take?

*Woman:* ( 37 )

*Man:* Yes, but not much, I guess.

*Woman:* ( 38 )

*Man:* OK. Do I have to take the Basic Grammar Course, too?

*Woman:* We don't know. ( 39 ) It's offered this Friday at 10 a.m. in Room 30.

- A. Is the writing course important?
- B. You have to take the grammar placement test first.
- C. Did you study pronunciation in high school?
- D. Then, I suggest that you take the Basic English Pronunciation Course.

*Man:* I didn't think I'd run into you today. What happened to your camping trip?

*Woman:* We decided to hold off on it until next Saturday because a typhoon is coming.

*Man:* ( 40 ) I know you've planned on it for weeks. Then why don't you drop by my apartment for some coffee and homemade cookies this afternoon?

*Woman:* That would be nice, thanks. What time would be best?

*Man:* ( 41 )

*Woman:* Well, let's see. I'll be back from my mom's place at around 2:45. Better make it quarter past.

*Man:* Great! ( 42 )

- A. What a shame.
- B. Shall we say 3:00?
- C. Quarter past three then.
- D. How about 3:15?



5

次の文章の空所に入れる文として最も適切なものを A ～ D の中から選べ。ただし、同じ文が2箇所に入ることはない。

One day Dutch fashion designer Bas Timmer heard some bad news. A homeless man had died of cold just meters away from his studio. Timmer had been designing warm weather clothing for his new brand. The young artist set aside his personal ambitions and instead created the Sheltersuit. ( 43 ) Made from discarded sleeping bags, tents, and scrap fabric, the clothing is both functional and environmentally-friendly. To transform the coat into a sleeping bag, you simply zip on a second piece to the bottom. The suit's large hood helps shield against bright street lights at night. When not in use, the Sheltersuit can be stored in the accompanying backpack. ( 44 ) Over the past four years, Timmer and his team have distributed 6,000 Sheltersuits to the homeless and to refugees across Europe. ( 45 ) Homelessness is largely the result of income loss and high rent. Hopefully, governments, corporations, and individuals will come together to find a way to help the people that are down on their luck.

- A. Demand for this ingenious product has been nonstop.
- B. Nevertheless, to help pay for the manufacturing cost, Timmer accepts donations from both corporations and individuals.
- C. However, although Timmer's efforts are admirable, the Sheltersuit is not the solution to this serious social issue.
- D. This is a waterproof jacket that doubles as a sleeping bag to protect the world's homeless and refugees against extreme weather.

**6** Read the following email and answer the questions.  
(1部受験者のみ)

From:	Harry MacDonald
To:	Ryoma
Date:	February 3, 2020
Subject:	Fwd: Multicultural Learning Opportunities

Hi Ryoma,

I received the following information about recruiting host families for international students. I know you have been wanting to host a foreign student. This is a great chance for you to be a host family. Please see below. You can apply via their website!

Cheers,  
Harry

-----forwarded message-----

**MULTICULTURAL LEARNING OPPORTUNITIES FOR YOUTH IN SAPPORO!**

The Sapporo Youth Exchange Society (SYES) is now looking for host families for a variety of multicultural programs in Sapporo during the Summer of 2020. If you are interested in hosting people from the U.S., please look at the information below. If you know someone who may be interested in host family opportunities, please forward this information to them.

<**HOST FAMILIES NEEDED**> Deadline: May 20, 2020

Need 18 host families for American high school students and their two adult group leaders.

Program and Homestay Dates:

Program Contents	Duration	Families needed
Taiko Drums and Traditional Culture	July 15 (early evening) to July 21 (morning) 6 nights	10 (9 students and 1 leader)
High-tech Japan and Japanese Culture	July 16 (early evening) to July 22 (morning) 6 nights	8 (7 students and 1 leader)

**Families must meet all of the following requirements:**

- A) Families' homes must be located within 10 min. (on foot) from a bus stop, train/subway station in Sapporo.
- B) One family member must attend the host family orientation (June 24, from 18:00, near JR Sapporo Station).
- C) Student families should include children (kindergarten to university). Families without children will host the adult group leaders.
- D) Student families should speak Japanese as their main language.

Please use this online form to apply: <http://www.SYES.org/2020Hostfamily/>

Mark Watanabe  
Sapporo Youth Exchange Society  
<http://www.SYES.org>



46. What does Harry recommend Ryoma to do?
- A. Go to a foreign country and stay with a family.
  - B. Forward the message to his friends.
  - C. Teach traditional Japanese music to foreign visitors.
  - D. Have a foreign visitor stay at his house.
47. When should the application be submitted by?
- A. February 3.
  - B. May 20.
  - C. June 24.
  - D. July 15.
48. How many students are coming to Sapporo on the SYES program?
- A. 8.
  - B. 10.
  - C. 16.
  - D. 18.
49. If you are hosting a student who is in the *taiko* program, when will the student come?
- A. On July 15.
  - B. On July 16.
  - C. On July 21.
  - D. On July 22.
50. Where must host families' homes be located?
- A. Near public transportation.
  - B. In a suburb of Sapporo.
  - C. Near the university.
  - D. A 10-minute drive from public transportation.
51. At least one member of each family has to . . .
- A. play the *taiko* drum.
  - B. attend the orientation.
  - C. be a group leader.
  - D. teach Japanese.

52. Where will the group leaders stay?
- A. At a hotel near Sapporo Station.
  - B. At the Sapporo Youth Exchange Society.
  - C. At a family home with children.
  - D. At a family home without children.