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次の英文 **A**、**B**、**C** の内容に関して、(27) から (38) までの質問に対して最も適切なもの、または文を完成させるのに最も適切なものを **1**、**2**、**3**、**4** の中から一つ選び、その番号を解答用紙の所定欄にマークしなさい。

From: Jenny Myers <j-myers@myrtlecountryclub.com>
 To: Kenneth Cho <kenny-cho23@yamadacars.com>
 Date: October 9
 Subject: Golf membership renewal

Dear Mr. Cho,

This is Jenny from Myrtle Country Club. I'd like to inform you that your golf membership is going to expire at the end of next month. Please remember that the fee for current members is \$4,000 per year. However, if you do not renew your membership by October 31, you will have to pay the fee for new members if you wish to get your membership back. The fee for new members is \$4,500.

We would also like to let you know about some new benefits for our members. Until now, members had to purchase a pass if they wanted to bring guests. From now on, however, we'll be giving each member 12 free guest passes per year. Also, the gift-shop discount will increase from 15 to 20 percent for people who have been members for over 5 years.

We hope you will choose to renew your membership. You can do so now online at www.myrtlecountryclub.com by clicking "Renew" on the "Membership" page. Then, follow the instructions and make the payment online. If you prefer to renew by mail, print out the renewal form attached to this e-mail, fill it out, and send it to us. You can then make your payment by bank transfer.

Sincerely,
 Jenny Myers
 Myrtle Country Club

- (27) Why is Jenny Myers sending an e-mail to Mr. Cho?
- 1 To remind him to renew his golf membership.
 - 2 To show him how to replace his golf member's card.
 - 3 To tell him the fees for his golf membership are decreasing.
 - 4 To answer his questions about how to become a golf member.

- (28) What is going to change at Myrtle Country Club?
- 1 The gift shop is having a sale because it is closing soon.
 - 2 Golfers will get a discount if they buy a 5-year membership.
 - 3 The cost for a daily pass is going to increase by 15 percent.
 - 4 Members will be able to bring some guests for free.

- (29) Members can pay for their membership by
- 1 sending Jenny Myers an e-mail with their bank information.
 - 2 mailing their payment and a renewal form to the country club.
 - 3 going to the country club and filling out a payment form.
 - 4 using the online payment system on the country club's website.

The Threat of Tourism

As air travel gets cheaper, more and more people are visiting famous sites around the world. Although this increase in tourism brings economic benefits to the areas around these sites, tourists also cause unexpected problems. In particular, some famous works of art are being affected. This is because people's breath increases carbon dioxide and humidity levels. Gradually, these levels damage old paintings and other works of art.

One famous site facing this problem is the Sistine Chapel in the Vatican in Rome. The 500-year-old paintings, especially the famous ceiling by Michelangelo, are so popular that as many as 2,000 people may be viewing them at a time. In 1994, after noticing that the visitors' breath was damaging the paintings, the Vatican purchased an expensive air-conditioning system to protect them. However, the crowds continued to increase, so in 2014, the Vatican decided to limit the number of visitors to about 6 million a year.

Another site that faces a similar problem is the Mogao Caves in Dunhuang, China. These caves are full of beautiful Buddhist paintings and sculptures that attract thousands of visitors every year. Many of the artworks are very old and, as with the Sistine Chapel, the carbon dioxide in the breath of visitors is gradually damaging them. Originally, 40 of the 400 caves were open to visitors, but this number was reduced by half in 2014. In addition, the number of visitors allowed into the caves has been greatly reduced.

A different solution is being tried in the Ajanta Caves in Maharashtra, India. The caves also have many ancient Buddhist paintings in them, and these too are being damaged. In order to protect the paintings, visitors are quickly rushed through the caves. However, many visitors complained about the short time, saying they could not look at the paintings properly, so the local government built a visitors' center with exact copies of the caves. Visitors are allowed to study these copies for as long as they like. The local government hopes this will provide a good balance between protecting the paintings and giving tourists a good experience.

(30)

As the number of tourists increases,

- 1 unexpected economic problems occur among people living around famous sites.
- 2 the carbon dioxide and humidity in their breath harm the things they go to see.
- 3 air pollution caused by the carbon dioxide from airplanes increases.
- 4 people have trouble breathing because of the high levels of humidity.

(31)

In 1994, the Vatican

- 1 allowed only 2,000 tourists to look at its paintings by Michelangelo.
- 2 invited 6 million visitors to see its 500-year-old wall paintings on one day.
- 3 installed an air-conditioning system in order to make visitors more comfortable.
- 4 tried to reduce damage to its paintings by buying an air-conditioning system.

(32)

What is one thing that has been done to protect the Buddhist artworks in Dunhuang?

- 1 More of the Mogao Caves have been closed to visitors.
- 2 Visitors are being asked to avoid breathing too close to the paintings.
- 3 Some of the visitors are being taught new ways to preserve paintings.
- 4 The number of visitors has been reduced from 400 to 40 a day.

(33)

Why were some visitors to the Ajanta Caves unhappy?

- 1 The majority of the paintings have turned out to be copies.
- 2 There were not as many Buddhist paintings as they had expected to see.
- 3 They did not have enough time to look at the paintings inside the caves.
- 4 The long lines at the visitors' center have prevented them from seeing the paintings.

Purifying Plants

During the 1970s, as oil prices rose rapidly, the United States, like many other countries, had trouble producing energy cheaply. As the price of fuel rose, people looked for ways to reduce the amount of energy they used on heating and cooling buildings. One way to do this was to make buildings that let very little air in or out. In winter, these buildings keep the warm air from heaters inside for longer, and in summer, they do the same with the cool air from air conditioners. This greatly reduces the amount of money people spend on fuel.

Unfortunately, though, these new buildings had an unexpected side effect. Many modern materials, such as plastic, release small amounts of poisonous chemicals into the air. When air remains inside the buildings, the amount of these poisons gradually increases, and people who work or live in them begin to feel ill. This problem is known as sick building syndrome. One solution to this problem, however, came from a surprising area—space research.

NASA, the U.S. space agency, employed a scientist named Bill Wolverton to study ways to keep the air clean inside spaceships. Spaceships, of course, cannot get air from outside because there is no air in space. In order to study ways to keep the air in spaceships free from poisons released by modern materials, Wolverton created the BioHome, a completely closed building made entirely of artificial materials. When people entered the building, they would suffer from sore eyes and find it difficult to breathe. To solve this problem, Wolverton tried introducing various kinds of plants into the BioHome. He found that most of them were effective at helping to clean the air.

According to Wolverton's research, a plant can absorb chemicals through its leaves and then use them to feed itself. He wrote a number of books explaining which plants are most effective against the various chemicals found in the air inside buildings. He also developed a new kind of container for plants that makes them even more effective in removing poisons. Thanks to Wolverton's research, many buildings can save energy and keep their air clean by using plants.

(34)

Why did people start making buildings differently in the 1970s?

- 1 They were trying to reduce the amount of energy that was being used.
- 2 They were trying to make buildings that could have air conditioners in them.
- 3 They wanted to increase the amount of air getting in and out of the buildings.
- 4 They wanted to make homes warmer and more comfortable in the winter.

(35)

Sick building syndrome is caused by

- 1 modern materials on which bacteria and other unhealthy things can grow.
- 2 materials releasing poisonous chemicals that get trapped in buildings.
- 3 a reduction in the amount of air available for people living in the building.
- 4 an increased number of people living and working together in the same space.

(36)

Why did Bill Wolverton create the BioHome?

- 1 To provide a place for NASA to keep the plants that it will send to space.
- 2 To discover what types of poisons are created by artificial materials.
- 3 To learn more about the types of plants that can be grown in space.
- 4 To find ways to make the air in spaceships safe and clean.

(37)

What was one result of Wolverton's research?

- 1 Wolverton reduced pollution by teaching people to use energy efficiently.
- 2 Wolverton developed plants that are more effective at removing poisons from the air.
- 3 Wolverton wrote a book that recommends the safest building materials to use.
- 4 Wolverton created a container that helps plants reduce dangerous chemicals in buildings.

(38)

Which of the following statements is true?

- 1 Many buildings made of artificial materials have been rebuilt to prevent illness.
- 2 Plants are able to clean the air with their leaves while getting food for themselves.
- 3 The United States made a lot of money as a result of rising oil prices in the 1970s.
- 4 People doing space research commonly suffer from sore eyes and breathing problems.