

問 8 次の英文を読んで、あとの(ア)～(ウ)の問いに答えなさい。

One morning in July, when Yumiko and Bill are talking in their classroom, Ms. Kato, their English teacher, comes into the classroom.

Yumiko: Good morning, Ms. Kato.

Ms. Kato: Good morning, Yumiko and Bill. Oh, you look *sleepy, Bill.

Bill: I couldn't sleep well last night. The *air conditioner in my room *broke down yesterday.

Ms. Kato: That's too bad. It was really hot last night. I *seldom use the air conditioner at home, but I used it last night.

Bill: I think we need air conditioners to sleep well in summer. I don't know the *mechanism of an air conditioner well, but I can feel really cool by using it.

Ms. Kato: Oh, I know the mechanism. It's very interesting.

Yumiko: Really? Please tell us about it.

Ms. Kato: Sure.

*Ms. Kato *draws *Figure on the *blackboard.*

Ms. Kato: You know, an air conditioner has two *units, the *indoor unit and the *outdoor unit. They *are connected with the long *pipes. In the pipes and the two units, *refrigerants *circulate. The refrigerants are very important. Did you learn about *heat in the science class?

Bill: Yes, I did. But I don't remember it.

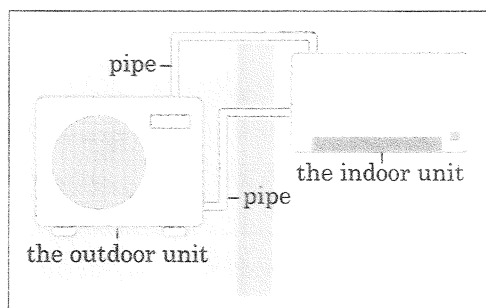
Ms. Kato: Heat *moves from a warmer place to a cooler place. Now I'll talk about the *cooling function. If the *temperature of the *air in the room is higher than the temperature of the refrigerants in the indoor unit, the heat moves from the air in the room to the refrigerants. Then, the refrigerants *absorb the heat, and the air in the room becomes cooler.

Yumiko: Is that so? I thought it became cool by the *wind from an air conditioner.

Bill: Me, too.

Ms. Kato: Oh, I see. But, not by the wind. After absorbing the heat, the refrigerants go to the outdoor unit. At the outdoor unit, the temperature of the refrigerants is higher than the temperature of the air of the outside, so the heat moves from the refrigerants to the air of the outside. Then, the refrigerants become cooler and go to the indoor unit again. This is the mechanism of an air conditioner when we use the cooling function.

Figure



Yumiko: That's interesting! I often use an air conditioner, but I didn't know the mechanism.

*By the way, we have air conditioners now, but *in old days, people didn't have them.

Ms. Kato: That's a good question. I hear there were a lot of ways. One of them was listening to *ghost stories. When we listen to them, we feel cool, right?

Yumiko: That's right. I like ghost stories and often listen to them in summer. Bill, how about listening to them tonight? You can feel cool.

Bill: Oh, no. I don't like such stories.

* sleepy : 眠い air conditioner : エアコン broke down : 故障した

seldom ~ : めったに~しない mechanism : 仕組み draws ~ : ~を描く

Figure : 図 blackboard : 黒板 units : 装置 indoor unit : 室内機



outdoor unit : 室外機 are connected with ~ : ~で接続されている pipes : パイプ

refrigerants : 冷却剤 circulate : 循環する heat : 熱 moves : 移動する

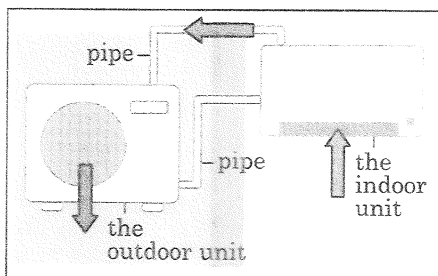
cooling function : 冷房機能 temperature : 温度 air : 空気

absorb ~ : ~を吸収する wind : 風 By the way : とところで in old days : 昔は

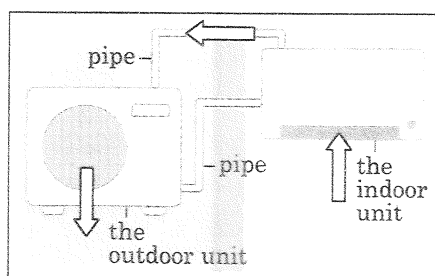
ghost stories : 怪談

(ア) 本文中の——線部に関して、本文の内容から、エアコンが部屋の温度を下げる仕組みを模式的に表したものとして最も適するものを、次の1～4の中から一つ選び、その番号を答えなさい。なお、図中の矢印について、は暖気を、は冷気を表すものとする。

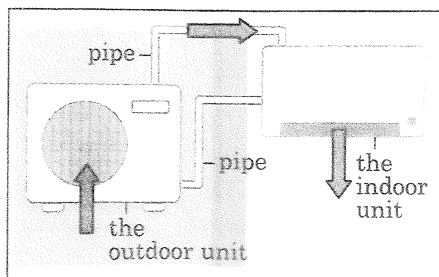
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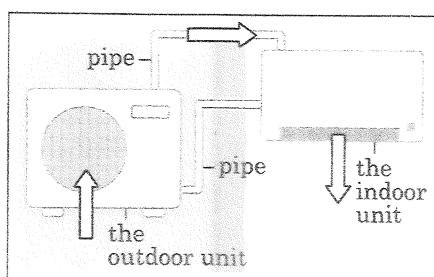
2.



3.



4.



(イ) 本文中の の中に入れるのに最も適するものを、次の 1～4 の中から一つ選び、その番号を答えなさい。

1. When did they start to use air conditioners?
2. What did they do to feel cool at night?
3. What do you use to feel cool at night?
4. Who made an air conditioner?

(ウ) 次の a～f の中から、本文の内容に合うものを二つ選んだときの組み合わせとして最も適するものを、あとの 1～8 の中から一つ選び、その番号を答えなさい。

- a. It was hot last night, so Bill used the air conditioner, but Ms. Kato didn't use one.
- b. Bill asked Ms. Kato about the mechanism of an air conditioner.
- c. Bill learned about heat in the science class, but he forgot it.
- d. Yumiko and Bill thought a room became cool by the wind from an air conditioner.
- e. Ms. Kato told Bill and Yumiko about a lot of ways to feel cool in old days.
- f. Bill likes listening to ghost stories, but Yumiko doesn't.

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|----------|----------|----------|----------|
| 1. a と c | 2. a と d | 3. a と e | 4. b と d |
| 5. b と f | 6. c と d | 7. c と f | 8. e と f |