

試験開始の指示があるまで、この問題冊子の中を見てはいけません。

V

外国語 [英語(筆記)]

(200点
80分)

ドイツ語、フランス語、中国語及び韓国語の問題冊子は、大学入試センター試験の出願時に、それぞれの科目の受験を希望した者に配付します。

注意事項

- 1 解答用紙に、正しく記入・マークされていない場合は、採点できないことがあります。特に、解答用紙の解答科目欄にマークされていない場合又は複数の科目にマークされている場合は、0点となります。

ただし、出願時にドイツ語、フランス語、中国語及び韓国語の問題冊子の配付を希望しなかった者は英語として採点します。

- 2 この問題冊子は、31 ページあります。

試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁及び解答用紙の汚れ等に気付いた場合は、手を高く挙げて監督者に知らせなさい。

- 3 解答は、解答用紙の解答欄にマークしなさい。例えば、

10

と表示のある問いに対して③と解答する場合は、次の(例)のように解答番号10の解答欄の③にマークしなさい。

(例)

解答番号	解	答	欄
10	①	②	● ④ ⑤ ⑥ ⑦ ⑧ ⑨

- 4 問題冊子の余白等は適宜利用してよいが、どのページも切り離してはいけません。
- 5 不正行為について
 - ① 不正行為に対しては厳正に対処します。
 - ② 不正行為に見えるような行為が見受けられた場合は、監督者がカードを用いて注意します。
 - ③ 不正行為を行った場合は、その時点で受験を取りやめさせ退室させます。
- 6 試験終了後、問題冊子は持ち帰りなさい。

英 語 (筆記)

(解答番号 ~)

第 1 問 次の問い(A・B)に答えよ。(配点 14)

A 次の問い(問 1 ~ 3)において、下線部の発音がほかの三つと異なるものを、それぞれ下の①~④のうちから一つずつ選べ。

問 1

- ① ancestor ② ancient ③ handle ④ handsome

問 2

- ① flood ② hook ③ shook ④ wooden

問 3

- ① confusion ② expansion ③ mission ④ profession

B 次の問い(問1～4)において、第一アクセント(第一強勢)の位置がほかの三つと異なるものを、それぞれ下の①～④のうちから一つずつ選べ。

問 1

4

- ① admire ② modest ③ preserve ④ success

問 2

5

- ① ambitious ② component ③ detective ④ dinosaur

問 3

6

- ① consequence ② discipline ③ residence ④ sufficient

問 4

7

- ① accompany ② appropriate ③ complicated ④ ingredient

第2問 次の問い(A～C)に答えよ。(配点 44)

A 次の問い(問1～10)の ～ に入れるのに最も適当なものを、それぞれ下の①～④のうちから一つずつ選べ。ただし、 ～ については、(A)と(B)に入れるのに最も適当な組合せを選べ。

問1 Did you make your grandfather angry again? You should that.

- | | |
|--------------------|------------------|
| ① know better than | ② know less than |
| ③ make do with | ④ make up with |

問2 Scott went to the police station because he .

- | | |
|------------------------------|---------------------------|
| ① caused his computer stolen | ② got stolen his computer |
| ③ had his computer stolen | ④ was stolen his computer |

問3 Last winter was rather unusual that very little snow fell in northern Japan.

- | | | | |
|---------|------|------|------|
| ① about | ② by | ③ in | ④ on |
|---------|------|------|------|

問4 My granddaughter has started a career as a singer, but I really an actress as well in the future.

- | | |
|-------------------|------------------------|
| ① hope she became | ② hope she will become |
| ③ wish she became | ④ wish she will become |

問5 I was fast asleep, so I didn't hear the car accident that at 2 a.m. this morning.

- | | |
|----------------|----------------|
| ① happened | ② happens |
| ③ was happened | ④ would happen |

問 6 I always walk my dog along the beach, 13 the sea view.

- | | |
|-----------------|-----------------|
| ① being enjoyed | ② enjoy |
| ③ enjoying | ④ with enjoying |

問 7 Mt. Fuji stands impressively 14 the blue sky.

- | | | | |
|-----------|---------|----------|------|
| ① against | ② among | ③ behind | ④ by |
|-----------|---------|----------|------|

問 8 Sorry. We talked about it just now, but (A) did you say (B)?

15

- | | |
|------------|---------------------------|
| ① A : how | B : the best solution |
| ② A : how | B : was the best solution |
| ③ A : what | B : the best solution |
| ④ A : what | B : the best solution was |

問 9 The Internet has become (A) powerful a tool (B) people living anywhere can access any educational resource. 16

- | | | | |
|------------|---------|------------|----------|
| ① A : so | B : but | ② A : so | B : that |
| ③ A : such | B : but | ④ A : such | B : that |

問10 The manager said his team (A) win the soccer league and they actually did (B) season. 17

- | | | | |
|-------------|----------|-------------|--------------|
| ① A : will | B : next | ② A : will | B : the next |
| ③ A : would | B : next | ④ A : would | B : the next |

B 次の問い(問1～3)において、それぞれ下の①～⑥の語句を並べかえて空所を補い、最も適当な文を完成させよ。解答は 18 ～ 23 に入れるものの番号のみを答えよ。

問1 Yuki: Have we met before? You look very familiar to me.

Anne: I don't think so. If we had met, 18
19 sure!

- | | | |
|--------------|---------|-------|
| ① for | ② have | ③ I |
| ④ recognized | ⑤ would | ⑥ you |

問2 Customer: Could I extend the rental period for the car?

Agent: Yes, but 20 21
23 \$50 for each additional day.

- | | | |
|----------------|--------|-----------|
| ① an extra fee | ② be | ③ charged |
| ④ of | ⑤ will | ⑥ you |

問3 Reiko: Shall we cook tonight, or order some Chinese food?

Kyoko: Let's order Chinese 22
23 .

- | | | |
|-----------|------------|-------------|
| ① because | ② cooking | ③ feeling |
| ④ I'm | ⑤ to start | ⑥ too tired |

C 次の問い(問1～3)の会話の 24 ～ 26 において、二人目の発言が最も適当な応答となるように文を作るには、それぞれ(A)と(B)をどのように選んで組み合わせればよいか、下の①～⑧のうちから一つずつ選べ。

問1 Customer: I bought this book here last week, but a few pages in the middle are missing.

Shop manager: Do you have the receipt? Unless you can show it,

24

(A) I hesitate	→	(A) to have refused	→	(A) for a new copy.
(B) I'm afraid		(B) we can't exchange it		(B) your problem.

- | | | |
|-------------------|-------------------|-------------------|
| ① (A) → (A) → (A) | ② (A) → (A) → (B) | ③ (A) → (B) → (A) |
| ④ (A) → (B) → (B) | ⑤ (B) → (A) → (A) | ⑥ (B) → (A) → (B) |
| ⑦ (B) → (B) → (A) | ⑧ (B) → (B) → (B) | |

問2 Elena: I'm so relieved you're here. The plane is leaving in 40 minutes.

Yuko: I know! 25

(A) Thanking	→	(A) John driving me here,	→	(A) I would be in time.
(B) Thanks to		(B) John drove me here,		(B) I'm in time.

- | | | |
|-------------------|-------------------|-------------------|
| ① (A) → (A) → (A) | ② (A) → (A) → (B) | ③ (A) → (B) → (A) |
| ④ (A) → (B) → (B) | ⑤ (B) → (A) → (A) | ⑥ (B) → (A) → (B) |
| ⑦ (B) → (B) → (A) | ⑧ (B) → (B) → (B) | |

問 3 Sophie: Look at those beautiful butterflies! Let's try to catch one to take home.

Hideki: No way! 26 Just enjoy watching them!

(A) I wouldn't	→	(A) dream of doing	→	(A) such a thing!
(B) It wouldn't		(B) dream to do		(B) your best!

① $(A) \rightarrow (A) \rightarrow (A)$

② $(A) \rightarrow (A) \rightarrow (B)$

③ $(A) \rightarrow (B) \rightarrow (A)$

④ $(A) \rightarrow (B) \rightarrow (B)$

⑤ $(B) \rightarrow (A) \rightarrow (A)$

⑥ $(B) \rightarrow (A) \rightarrow (B)$

⑦ $(B) \rightarrow (B) \rightarrow (A)$

⑧ $(B) \rightarrow (B) \rightarrow (B)$

(下 書 き 用 紙)

英語(筆記)の試験問題は次に続く。

第3問 次の問い(A～C)に答えよ。(配点 41)

A 次の問い(問1・問2)の会話の 27 ・ 28 に入れるのに最も適切なものを、それぞれ下の①～④のうちから一つずつ選べ。

問1 Hiro: What did you do this weekend?

David: I went to the shopping mall. They were having a big spring sale.

Hiro: Did you buy anything good?

David: Yeah, I bought a new jacket.

Hiro: 27 I have to go to the dry cleaner's. I need to pick up my own jacket.

- ① I can't remember.
- ② I remember that.
- ③ Remind yourself.
- ④ That reminds me.

問2 Amy: How was the tennis tournament? Did you win the championship?

Miki: No. I lost the final match because I was exhausted and too nervous.

Amy: I'm sorry to hear that.

Miki: It's OK. 28 Now I know it's important to rest and relax before a big match next time.

Amy: I'm sure you'll play better next year.

- ① I was very close to losing the final match.
- ② It turned out to be a good lesson for me.
- ③ It was the easiest game I've ever had.
- ④ I've totally given up playing tennis.

B 次の問い(問1～3)のパラグラフ(段落)には、まとまりをよくするために取り除いた方がよい文が一つある。取り除く文として最も適当なものを、それぞれ下線部①～④のうちから一つずつ選べ。

問 1 29

Stamp collecting is an educational hobby that can be inexpensive and enjoyed whenever you want. ①It provides a nice and practical way of learning about history, geography, famous people, and customs of various countries worldwide. ②This hobby began soon after the world saw the first postage stamp issued in Great Britain in 1840. ③You can also get started without spending money by saving the stamps on envelopes you receive. ④In addition, you are able to work on your collection any time, rain or shine. If you are looking for a new hobby, stamp collecting might be right for you!

問 2 30

Until relatively recently, people in some parts of the world continued to use salt as a form of cash. There are several reasons why salt was used as money. Salt was given an economic value because there were so few places that produced it in large quantities. ①Another reason is that salt is fairly light and easy to carry for trading purposes. ②Additionally, salt can be measured, so we can easily calculate its value based on its weight. ③Furthermore, salt stays in good condition for a very long period of time, so it holds its value. ④Last but not least, salt has many other uses such as melting ice on roads in snowy regions. In short, salt has certain characteristics that make it suitable as a form of money.

問 3

31

In the past, most Japanese TV shows started and ended exactly on the hour. ① While TV shows vary from station to station, on the whole, early morning hours are dominated by news programs and evening hours by variety shows. ② Because of competition, some networks tried to gain an advantage over their rivals by starting their programs a little earlier. ③ Many people start channel surfing near the end of a program, and the networks thought that if their show started a couple of minutes earlier, people would start watching it. ④ Another strategy was to end a popular show a little after the hour so that people would stick to one channel and miss the beginning of shows on other channels. Now that many stations have adopted these strategies, the advantage for any one station is lost. Even so, they continue this practice because they are afraid of losing viewers.

C 次の会話は、「迷信」をテーマとして、日本のある大学において行われた公開講座でのやりとりの一部である。 32 ~ 34 に入れるのに最も適当なものを、それぞれ下の①～④のうちから一つずつ選べ。

Moderator: The title of today's discussion is "Superstitions — what they are, and why people believe in them." Our guest speakers are Joseph Grant, a university professor who lives here in Japan, and Lily Nelson, a visiting professor from Canada. Joseph, can you explain what a superstition is?

Joseph: Superstitions are beliefs for which there is no obvious rational basis. For example, there are various dates and numbers that people are superstitious about. In many places, "Friday the 13th" is thought to be unlucky, and here in Japan, 4 and 9 are also considered unlucky. In contrast, 7 is known as "Lucky 7." A superstitious person believes that actions such as choosing or avoiding certain numbers can influence future events even though there is no direct connection between them. Believing in superstitions is one of the ways humans can make sense of a set of unusual events which cause someone to feel lucky or unlucky. This seems to have been true throughout history, regardless of race or cultural background.

Moderator: So, it is your view that 32 .

- ① superstitions are rationally based on certain dates and numbers
- ② superstitions can be used to explain strange happenings around us
- ③ superstitious people believe race and culture are related to luck
- ④ superstitious people tend to have identical beliefs regarding history

Joseph: That's right. Superstitions tend to come from a combination of primitive belief systems and coincidence — things that happen by chance.

Moderator: Could you tell us more about that?

Joseph: A primitive belief system develops from the natural human tendency to look for patterns in the world around us. Noticing patterns allows us to learn things quickly. However, sometimes chance or coincidental events are mistaken for a pattern, like passing a series of tests using the same pencil every time. The pencil is unrelated to passing the tests, but becomes a “lucky” pencil because of the coincidental connection. So, we may come to believe that one event causes another without any natural process linking the two events. I experienced this myself when I was called “Ame-otoko” or “Rain-man” by Japanese friends. By coincidence, I was present on occasions when it was raining and so gained a “rainy reputation.” Rationally speaking, we know that nobody can make rain fall from the sky, but our primitive belief system, combined with coincidence, creates a superstition around the “Rain-man.”

Moderator: How interesting! So, you are saying that

33

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- ① an “Ame-otoko” or “Rain-man” causes rain to fall from the sky
- ② coincidental events or chance patterns can create superstitions
- ③ looking for patterns is an unnatural action for humans
- ④ primitive belief systems create coincidental events

Moderator: How about you, Lily? Do you agree with Joseph?

Lily: Yes, I do, especially regarding the notion of coincidence or chance. In an attempt to better understand human behavior, an American psychologist conducted a famous experiment called

“Superstition in the Pigeon” on a group of hungry birds. The pigeons were in cages and a feeding machine automatically delivered small amounts of food at regular time intervals. The psychologist observed that the pigeons began to repeat the specific body movements that they had been making whenever the food was delivered. He believed that the pigeons were trying to influence the machine to deliver food by their repeated movements. He assumed that we humans also do the same and try to influence future events by performing non-logical actions. Superstitious humans, just like the “superstitious” pigeons, associate an action with an outcome even though there is no logical connection.

Moderator: So, that psychologist thought from the experiment that

34

.

- ① pigeons and humans both perform superstitious actions
- ② pigeons and humans both tend to influence machines
- ③ the pigeons knew when the food would be delivered
- ④ the pigeons' repeated actions influenced the food delivery

Lily: Yes, that's exactly right.

Moderator: Thank you, Joseph and Lily, for sharing your knowledge on superstitions and why people are superstitious. Let's take a quick break here before we move on with the discussion.

第4問 次の問い(A・B)に答えよ。(配点 35)

- A 次の文章はある説明文の一部である。この文章とグラフを読み、下の問い(問1～4)の 35 ～ 38 に入れるのに最も適当なものを、それぞれ下の①～④のうちから一つずつ選べ。

Social Networking Services (SNS), online services that allow users to communicate with others, are used by a growing number of young people to keep in touch with friends and family. However, this rise in the use of SNS by young people has been accompanied by increasing anxiety among parents and teachers. They are concerned about whether young users are prepared for the risks that come with using SNS, including privacy issues and unwelcome contact.

A 2011 survey asked Australian parents, students, and teachers about their perceptions of the degree of risk when using SNS — specifically, whether they felt it to be “safe,” “a little risky,” “very risky,” or “risky but what everyone does.” Figure 1 shows that over a quarter of students chose “safe,” in other words, that they felt SNS use was without risk. In addition, 19.6% of students reported that, though they knew the dangers, they still used SNS because that is “what everyone does.” In contrast with the students’ responses, their parents and teachers were more cautious about the risk associated with SNS use, with teachers slightly more likely to see high risk.

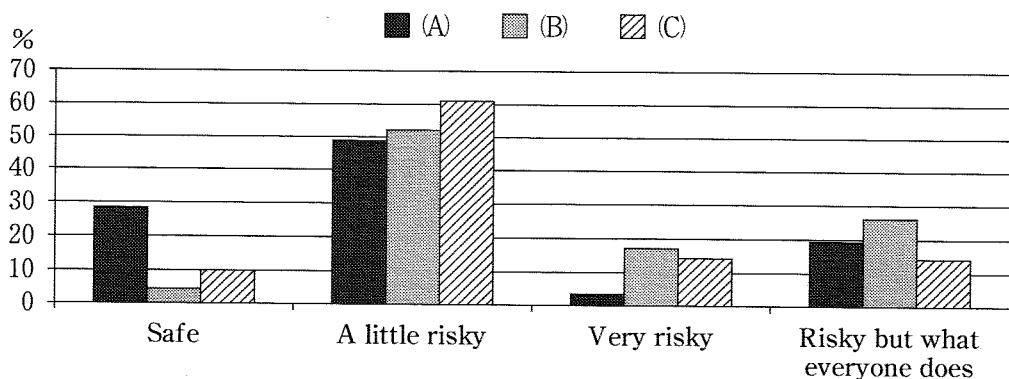


Figure 1. Perceptions of SNS risk by parents, students, and teachers.

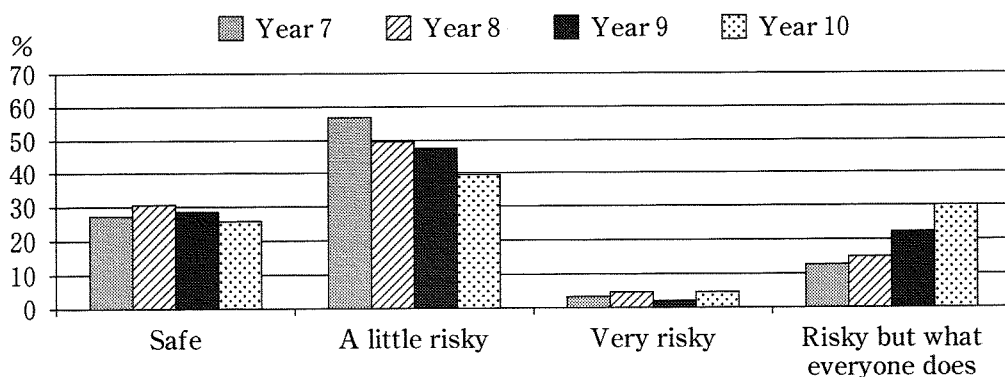


Figure 2. Perceptions of SNS risk by student year level.

Interestingly, not all students had the same perception of risk. Figure 2 shows a comparison between students by year — “Year 7” refers to first-year junior high school students and “Year 10” refers to first-year high school students. While the percentage of students who responded that SNS usage is “safe” was almost the same regardless of year, there was a drop by year in the percentage of students who chose “a little risky,” and a rise in those who chose “risky but what everyone does.”

Furthermore, the study asked students about information security. It found that students from years 7 to 10 were increasingly cautious about privacy, becoming more careful by year about who could see their personal information online. Because Year 7 students, in addition to being the least cautious about information security, also tended to see SNS use as either “safe” or only “a little risky,” they were believed to be at the greatest risk.

The study then examined whether adults were discussing SNS risks with young people. However, the results here were not clear. While the study found that over 91% of parents and 68% of teachers said they discuss SNS issues with students, almost half of the students (46.1%) responded they do not talk with their parents, and almost three-quarters of the students (74.6%) responded that they do not talk with teachers. There are several possible explanations for this gap.

(Melissa de Zwart 他(2011) *Teenagers, Legal Risks & Social Networking Sites*を参考に作成)

問 1 In Figure 1, which of the following do (A), (B), and (C) refer to? 35

- ① (A) Parents (B) Students (C) Teachers
- ② (A) Parents (B) Teachers (C) Students
- ③ (A) Students (B) Parents (C) Teachers
- ④ (A) Students (B) Teachers (C) Parents

問 2 Which of the following is mentioned as one of the reasons that Year 7 students are thought to have the highest risk? 36

- ① They are the least careful about security when using SNS.
- ② They are the least likely to think SNS is “safe.”
- ③ They are the most likely to think SNS is “very risky.”
- ④ They are the most likely to use SNS to contact friends.

問 3 The main purpose of this passage is to 37 .

- ① describe the various dangers of using SNS
- ② discuss differences in awareness of SNS risk
- ③ explain why students are using SNS more
- ④ suggest solutions for the problems with SNS

問 4 What topic might follow the last paragraph? 38

- ① Examples of the different risks students face in using SNS
- ② Reasons for the different responses from students and adults
- ③ Trends in how students and adults use the Internet
- ④ Ways to reduce the number of younger students using SNS

(下書き用紙)

英語(筆記)の試験問題は次に続く。

B 次のページのキャンプ場に関するウェブサイトを読み、次の問い(問1～3)の ～ に入れるのに最も適当なものを、それぞれ下の①～④のうちから一つずつ選べ。

問1 A man who likes water activities is looking at the website. Which are the campgrounds he is most likely to be interested in?

- ① Apricot and Maple Campgrounds
- ② Maple and Orange Campgrounds
- ③ Orange and Stonehill Campgrounds
- ④ Stonehill and Apricot Campgrounds

問2 Two people are making plans to stay in Green National Park for nine nights. They want to enjoy nature, but they need a power supply to use their computers. How much will they have to pay per night for the site they are likely to choose?

- ① \$20
- ② \$24
- ③ \$32
- ④ \$96

問3 A family of four is planning a four-day camping trip with their dog. Their budget for a camp site is under 100 dollars for three nights. Their main interests for the trip are barbecuing and bicycle riding in the national park. Which campground is this family most likely to choose?

- ① Apricot ② Maple ③ Orange ④ Stonehill



The campgrounds in Green National Park are open from April 1 to November 30.

Apricot Campground

Walking trails from this campground lead you to the top of Green Mountain. Enjoy the fantastic view from the top. You can also enjoy cycling on the bike trails in the woods.

Maple Campground

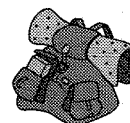
Maple Campground has direct access to Green River. Have fun doing such activities as fishing, boating, and swimming. You can also enjoy a campfire by the river.

Orange Campground

This campground is on Orange Lake, and offers a comfortable outdoor experience. Water skiing is popular on the lake. Other activities include fishing, swimming, and bird-watching.

Stonehill Campground

A pine tree forest surrounds Stonehill Campground. The giant pine trees are impressive. You can see a lot of wild animals while riding a bicycle or hiking through the forest.



Campground Information

Camp-ground	Site Type (available spaces)	Site Rate/ night	Max. People	Max. Stay	Facilities	Restrictions
Apricot	Tents (15)	\$20	4	15 nights	BG	—
Maple	Tents (20)	\$24	5	12 nights	BG PG	—
Orange	Deluxe Cabins (5)	\$96	7	7 nights	K E HS	No pets
Stonehill	Standard Cabins (10)	\$32	6	14 nights	E HS	No fireworks

Site Rate=Rate per site (up to the maximum number of people); Max.=Maximum

K Kitchen, **E** Electricity, **BG** Barbecue Grill, **HS** Hot Shower,
PG Playground

第5問 次の文章は、Anna の父親が担任の岡本先生に宛てて送ったメールと、岡本先生からの返信である。これらを読み、下の問い(問1～5)の 42 ～ 46 に入れるのに最も適当なものを、それぞれ下の①～④のうちから一つずつ選べ。(配点 30)

From: Jeff Whitmore <JeffW@xxxxxx.com>

To: Kenji Okamoto <okamoto@xxxxxx.com>

Date: January 10, 2015

Subject: Request for advice

Dear Mr. Okamoto,

My name is Jeff Whitmore, and my daughter, Anna, is one of your students. As you know, we just moved back to Japan six months ago after living in Chicago for three years. Although she had attended schools in Japan before we went to Chicago, it's Anna's first year at a Japanese junior high school. My wife and I are a little worried about her, and we're hoping that it would be okay to ask you for advice.

She's getting good grades and likes her classes and teachers. In particular, she has a penchant for numbers and loves her math class. She often talks about your fun English class, too. However, after almost half a year, it doesn't seem like she's made any friends. Last week, she said that she usually reads by herself during breaks between classes while other girls are hanging out and chatting. Anna also mentioned that she walks to school alone every day. This is very different from how she was in the US.

I understand that it can take time to make friends at a new school, but I still have concerns that she may be a bit isolated. I think it would be better for her to develop a group of good friends as soon as possible. Even just one close friend would be a good first step. I've never contacted one of my daughter's homeroom teachers before and hope that I'm not bothering you. I just thought that you might know more about her life at school. If you have any ideas about how she can make more personal connections, I would be happy to hear them.

Sincerely,

Jeff Whitmore

From: Kenji Okamoto <okamoto@xxxxxx.com >

To: Jeff Whitmore <JeffW@xxxxxx.com >

Date: January 11, 2015

Subject: Re: Request for advice

Dear Mr. Whitmore,

It's always nice to hear from a parent of one of my students, and I'll be happy to help you if I can. I've talked with Anna one-on-one on several occasions and find her to be a delightful person who is confident and friendly. Actually, I'm surprised to hear about your concerns as she seems to get along well with other students in the class. Probably, she'll soon form close friendships, but I do have a few ideas for you to consider that may help her do this.

First, our school has many different clubs that offer good environments for developing friendships. I know that she enjoys music, so perhaps she would like to join the chorus. If she prefers sports, we have a volleyball club, a soccer club, and even a karate club. Also, I'm currently organizing a new English club. We will meet once a week to talk and to enjoy music and movies in English. If Anna joins or even takes a leadership role, she can connect with other students who have a shared interest — English. I know of one Japanese student from another class who has spent time in New Zealand and is planning to participate. They may find a lot in common.

Another approach is to create social situations where she can be the center of attention. Anna told me you often had barbecue parties in your garden in the US. If it's possible, you could have an American-style barbecue party and invite some of the students in her class. I'm sure it would be an exciting experience for them. Possibly, Anna would be more herself at home and they would get to know her better.

From my experience, I honestly think you have nothing to worry about and feel confident she will establish friendships sooner or later on her own. But, if you feel that any of my ideas will help, please let me know, and we can consider the next step.

Best regards,
Kenji Okamoto

問 1 What was Anna probably like at her school in Chicago? 42

- ① She liked to be alone in the classroom.
- ② She showed off her Japanese ability.
- ③ She spent a lot of time with friends.
- ④ She was jealous of the other students.

問 2 The phrase has a penchant for in the second paragraph of Mr. Whitmore's email is closest in meaning to 43.

- ① is collecting
- ② is exchanging
- ③ is fond of
- ④ is unsure about

問 3 Which of the following statements is true according to the information in the email messages? 44

- ① Anna does not talk about her school life with her parents at home.
- ② Anna prefers her Japanese language class to her English class.
- ③ Mr. Whitmore is concerned about Anna's academic performance.
- ④ This is the first email message Mr. Whitmore has sent Mr. Okamoto.

問 4 Unlike Mr. Whitmore, Mr. Okamoto thinks that Anna 45.

- ① is isolated from other students in her class
- ② spends a lot of time reading in school
- ③ will have trouble getting good grades
- ④ will make friends without any special help

問 5 Which of the following is NOT one of Mr. Okamoto's suggestions for Mr. Whitmore?

- ① Have Anna join a sports or music club.
- ② Invite Anna's classmates to an event.
- ③ Let Anna participate in the English club.
- ④ Take Anna on a trip to New Zealand.

第6問 次の文章を読み、下の問い(A・B)に答えよ。なお、文章の左にある(1)～(6)は段落の番号を表している。(配点 36)

Catching Bees and Counting Fish: How “Citizen Science” Works

- (1) It's a sunny afternoon here in Texas, and my wife Barbara is at the park again, counting and recording the number of eggs laid by monarch butterflies. After collecting her data, she'll share it with the professional scientist who recruited her. In another state, our friend Antonio listens for frogs by visiting 12 different sites, four times a year. He has been submitting his findings to scientists for almost 20 years now. And on the other side of the country, our niece Emily is catching native bees, putting tiny tags on them, and handing in weekly reports to the biology department at a local university. Nobody is paying Barbara, Antonio, or Emily for their efforts, but all three consider themselves lucky to be “citizen scientists.”
- (2) When volunteers participate as assistants in activities like these, they are engaging in citizen science, a valuable research technique that invites the public to assist in gathering information. Some of them are science teachers or students, but most are simply amateurs who enjoy spending time in nature. They also take pride in aiding scientists and indirectly helping to protect the environment. The movement they are involved in is not a new one. In fact, its roots go back over a hundred years. One of the earliest projects of this type is the Christmas Bird Count, started by the National Audubon Society in 1900. However, citizen science projects are burgeoning more than ever: over 60 of them were mentioned at a meeting of the Ecological Society of America not long ago.
- (3) In formal studies, professional scientists and other experts need to maintain the highest possible standards. For research to be accepted as valid, it must not only be thorough, but also objective and accurate. Some might argue that citizen scientists cannot maintain the necessary attention

to detail, or that amateurs will misunderstand the context of the investigation and make mistakes when collecting and organizing information. In other words, can citizen science be considered truly reliable?

- (4) Two recent studies show that it can. The first focused on volunteer knowledge and skills. In this study, a scientist asked volunteers to identify types of crabs along the Atlantic coast of the US. He found that almost all adult volunteers could perform the task and even third graders in elementary school had an 80% success rate. The second study compared professional and nonprofessional methods. Following a strict traditional procedure, a group of 12 scuba divers identified 106 species of fish in the Caribbean. Using a procedure designed by professionals to be more relaxed and enjoyable for volunteers, a second group of 12 divers spent the same amount of time in the same waters. Surprisingly, the second method was even more successful: this group identified a total of 137 species. Results like these suggest that research assisted by amateurs can be trusted when scientists organize it.
- (5) The best citizen science projects are win-win situations. On the one hand, the scientific community gains access to far more data than they would otherwise have, while spending less money. On the other hand, citizen science is good for the general public: it gets people out into the natural world and involved in scientific processes. Additionally, when people take part in a well-designed study that includes training to use equipment, collect data, and share their findings, they have the satisfaction of learning about new ideas and technologies.
- (6) I find it encouraging that the list of scientific studies using citizen scientists is quickly getting longer. Still, we're just beginning to realize the potential of citizen science. More scientists need to recognize how much volunteers can contribute to professional research. As I see it, it's time for us to expand the old, conservative view of "science *for* people" to include a more democratic one of "science *by* people."

A 次の問い(問1～5)の 47 ～ 51 に入れるのに最も適当なものを、それぞれ下の①～④のうちから一つずつ選べ。

問 1 The citizen scientists in Paragraph (1) 47 .

- ① compare their data with that of other volunteers
- ② earn some money for the information they gather
- ③ monitor the life cycles of insects in laboratories
- ④ report on their results or activities to professionals

問 2 The word burgeoning in Paragraph (2) is closest in meaning to 48 .

- ① causing arguments
- ② increasing rapidly
- ③ losing popularity
- ④ receiving awards

問 3 Why does the author emphasize an 80% success rate in Paragraph (4)?
49

- ① To contrast negatively with the adults' success rate
- ② To demonstrate the high quality of the overall results
- ③ To emphasize how many types of crabs there are
- ④ To reveal the elementary students' lack of skills

問 4 What personal view is expressed in Paragraph (6)? 50

- ① Eventually, scientific knowledge will come mainly from amateurs.
- ② Not enough scientists appreciate the advantages of citizen science.
- ③ The recent shift toward relying on volunteer data is disappointing.
- ④ Too many studies using citizen science are now being conducted.

問 5 What is the author's main message in this article?

51

- ① Citizen science benefits volunteers, professionals, and society.
- ② Scientific research should be left in the hands of specialists.
- ③ There is a long history of volunteers identifying fish species.
- ④ Traditional science has been replaced by citizen science.

B 次の表は、本文の段落構成と内容をまとめたものである。

52

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に入れるのに最も適当なものを、下の①~④のうちから一つずつ選び、表を完成させよ。ただし、同じものを繰り返し選んではいけない。

Paragraph	Content
(1)	Introduction: Author's personal examples
(2)	52
(3)	53
(4)	54
(5)	55
(6)	Conclusion: Author's hope for the future

- ① Concerns: Volunteer skills and knowledge
- ② Evidence: Successful volunteer efforts
- ③ Explanation: Definition and history
- ④ Opinion: Merits for everyone involved