

デザイン工学部A方式 I 日程・理工学部A方式 I 日程
生命科学部A方式 I 日程

1 限 英 語 (90 分)

〈注意事項〉

1. 試験開始の合図があるまで、問題冊子を開かないこと。
2. 解答はすべて解答用紙に記入しなさい。
3. マークシート解答方法については以下の注意事項を読みなさい。

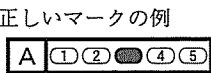
マークシート解答方法についての注意

マークシート解答では、鉛筆でマークしたものを機械が直接読みとって採点する。したがって解答はHBの黒鉛筆でマークすること(万年筆、ボールペン、シャープペンシルなどを使用しないこと)。

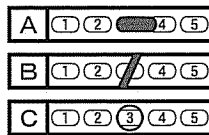
記入上の注意

1. 記入例 解答を3にマークする場合。

(1) 正しいマークの例



(2) 悪いマークの例



枠外にはみださないこと。

○でかこまないこと。

2. 解答を訂正する場合は、消しゴムでよく消してから、あらためてマークすること。
3. 解答用紙をよごしたり、折りまげたりしないこと。
4. 問題に指定された数よりも多くマークしないこと。

4. 問題冊子のページを切り離さないこと。

(9) your draft from this desk by yourself and revise it by the next lesson.

↑ Bring □ Keep へ Have = Collect

(10) Interviewers are to clarify what types of applicants they want and organize the interview process beforehand.

↑ advised □ kept へ contributed = suggested

〔Ⅱ〕 つぎの(1)～(5)の対話の に入る最も適切なものをそれぞれイ～ニの中から一つ選び、その記号を解答用紙にマークせよ。

(1) Riku: Hi Bob. Have you decided what you're going to order for lunch?

Bob: No, I can't make up my mind between a double cheeseburger and a salad.

Riku: I see. You're trying to decide whether or not to take a break from your diet, aren't you?

Bob: ?

Riku: Just a guess.

イ Anything else

□ Can I help you

ハ Pardon me

ニ How did you know

(2) Shota: I hear you're going on the study abroad program to Malaysia this spring.

Mai: Yes, I'm so excited. I've never been abroad before.

Shota: I wish I could study abroad, too.. .

Mai: Well, maybe you should apply for the summer program this August.

Shota: Thanks for telling me about it. I think I'll check it out.

イ It's up to you

□ Sure thing

ハ No wonder

ニ You're so lucky

(3) Keita: Congratulations, Akari! I heard you passed the entrance exams for the departments of economics and computer science.

Akari: Thanks, Keita.

Keita: Which one are you going to choose?

Akari: Computer science. I'm interested in cyber security, and I've also heard that it's a growing field.

Keita: .

イ You can't help it

ロ That makes sense

ハ My pleasure

ニ Not really

(4)について、問題文の条件設定が不足しており、最も適切な回答を導き出すことができない内容のため 全員正解とする。

- (5) Hiroki: Hi Kaori, I just finished my math test. I'm so glad it's over.
Kaori: It must be a relief. , do you remember that your English essay is due this afternoon too?
Hiroki: Oh, no! I totally forgot about it.
Kaori: It's only a paragraph about your favorite place. I bet you could write it over lunch.
Hiroki: Gee, thanks for reminding me, Kaori.

イ By the way

□ In the end

ハ On second thought

ニ Above all

〔Ⅲ〕 パラグラフ(段落)に関する問1と問2の設問に答えよ。

問1 つぎの(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ずつある。取り除く文として最も適切なものをそれぞれ下線部イ~ニの中から一つ選び、その記号を解答用紙にマークせよ。

(1) The idea that mathematics strengthens your ability to think much as physical exercise strengthens your body goes all the way back to the Greek philosopher Plato. Plato established the foundations of Western philosophy and science. ^(イ) A recent study supporting this idea suggests why everyone should study some types of mathematics. ^(ロ) The results of experiments from this research show that studying higher mathematics at advanced secondary and college levels leads to an increase in logical thinking. In particular, mathematics students become more skeptical in their reasoning — they begin to think more critically. ^(ハ)

(2) Digital assistants such as Siri and Cortana are increasingly common on phones and computers. This is because many experiments over the years have shown that people easily become attached to computerized helpers with human-like features. ^(イ) However, developing an emotional relationship with a piece of software can have a downside. ^(ロ) One of the emotions sometimes involved in machine-human interaction is embarrassment. Another is excitement. ^(ハ) Users are sometimes reluctant to ask for help from their digital assistants. Indeed, they seem to wish to avoid losing face when they seek help from an icon with a face. ^(ニ) And that in turn suggests there are circumstances when human-like features of machines are not very helpful.

(3) High above downtown Hong Kong's crowded streets, a group of office workers was working not on a new business plan but on harvesting lettuce on the 146-meter-high roof of the 38-story Bank of America tower. Hong Kong, with its tall office buildings and apartment towers, might seem an unlikely place for rooftop farming to become popular. Yet, interest in locally grown food is growing among Hong Kong residents who are seeking a more sustainable lifestyle.

Hong Kong now imports over 90% of its fresh vegetables from China.

^(□) The number of rooftop farmers has grown to 1,500. This growing ^(∨) number of rooftop farms contributes almost nothing compared to Hong Kong's overall consumption. Their most important benefit is helping stressed-out residents improve their well-being by letting them hang out with their friends and enjoy nature. ⁽⁼⁾ It's more about finding happiness than producing food.

問2 つぎの(1)と(2)のパラグラフ(段落)を完成させるために、に入る最もふさわしい文を下のイ～ニの中から一つ選び、解答用紙にマークせよ。

(1) . In America, facial recognition is already used by churches to track individual members' attendance. In Britain, it is used by stores to spot thieves. In China, it checks the identities of taxi drivers, permits tourists to enter attractions, and allows people to pay for things with a smile. The increasing ability to record, store, and analyze images of faces cheaply, quickly, and extensively promises to bring about fundamental changes to our ideas of privacy, fairness, and trust in the future.

- イ Future technological change will be gradual
- ロ Advances in technology have increased crime in many countries of the world
- ハ Technology is rapidly developing the ability to read human faces
- ニ Future facial recognition systems may threaten democracy

(2) : Until recently, most electric motors relied on mechanical systems such as gears. However, gears are wasteful. So, for instance, in electric cars, the job done by gears is already performed by a box of electronics. Such efficient designs of electric motors can now turn 97-98% of electricity into mechanical energy. Earlier motors only managed about 45%. Another source of greater efficiency comes from the use of new materials. For example, some of these new materials are strongly magnetic, rare-earth materials. They are used for certain parts of electric motors. Consequently, newer motors are becoming more efficient, which can also add up to a big savings in cost.

- ✓ Motors turn mechanical energy into electricity
- Electric motors are improving
- ∧ Lighter electric motors will help save energy
- ≡ New electric motors will increase pollution

[IV] つぎのイ～ニは *Travel Advisor* というホテル検索サイトに掲載された、山田さんのレビュー(実際に宿泊した感想)の一部である。これらを読んで設問に答えよ。

[イ] **Grange Guest House**

The Wi-Fi was so fast that it was not stressful. Linda, the front desk clerk, was quite attentive to us. She followed me to the room to see if we had questions or problems with the room. You can come here by taking a local bus from the airport. It's a two-minute walk from the bus stop to the hotel. The thing I was most concerned with was the price. It was \$110 for a one-night stay without breakfast, which should have been lower even though the hotel is in a good location.

[ロ] **Anynuan**

Although the price is extremely high for one night including breakfast (\$200), it was worth paying because this is one of the few accommodations which provides a quiet atmosphere. You can hear nothing but the sound of the waves and see a wonderful view of the sea from your room. Lastly, safety is well maintained. All through the night, the staff keep an eye on things inside and outside the hotel, which was a relief.

[ハ] **Kibo-House**

I stayed here for two nights in two different rooms. The room for the first night was an en-suite*, self-contained room downstairs. The other room for the second night was a second-floor room with a single bed without a bathroom. The en-suite room was spacious, well-equipped, and clean with a good view of Mt. Hutt in the distance when it was fine. The room upstairs without a bathroom was sufficiently cozy. It also had a window through which I was able to see the outside.

語注*

*en-suite : バスルームつきの

[ニ] **Best Eastern**

I stayed in a room on the 7th floor for three nights. The view was fantastic, and the room was spacious and quiet. However, I found pieces of hair on the floor next to the bathtub, which I assumed to be from the previous guests. The room also provides a washing machine, which I used once, and a kitchen, which could be very useful for other guests. I am especially thankful for the front desk clerk, Alastair, who looked busy but was helpful to me. Another concern was the breakfast. The menu was almost the same every day during my stay. This definitely needs improvement.

問1 (1)~(4)にあてはまるホテルをそれぞれイ~ニの中から一つ選び、その記号を解答用紙にマークせよ。ただし、同じ選択肢は一度のみしか使用できない。

(1) 朝食がついていなかったと思われるホテルはどれか。

(2) 部屋で料理や洗濯をするのに適したホテルはどれか。

(3) 部屋から海が見たい場合、適したホテルはどれか。

(4) 部屋から山が見たい場合、適したホテルはどれか。

問2 山田さんがホテルを選ぶ際に重要視しないと思われる内容は以下のどれか。

イ~ニから一つ選び、その記号を解答用紙にマークせよ。

イ 部屋の清潔さ

ロ 騒音・静けさ

ハ 空調設備(エアコン)

ニ 安全・安心

- [V] つぎの折りたたみ椅子に関する取扱説明書を読み、(1)~(5)の設問の答えとして最も適切なものをそれぞれイ~ニの中から一つ選び、その記号を解答用紙にマークせよ。

INSTRUCTIONS

To unfold:

Hold one corner of the seat back and the armrest on the opposite side of the chair. Pull the seat up and the armrest down. Then push down the front part of the armrests to make sure the chair is fully unfolded.

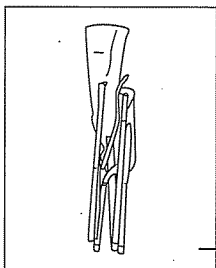


Fig. 1

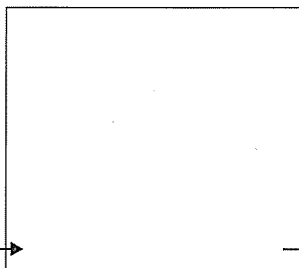


Fig. 2

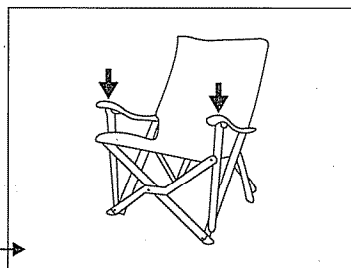


Fig. 3

To fold:

(a) Fold the chair compactly and store in the carrying case included.

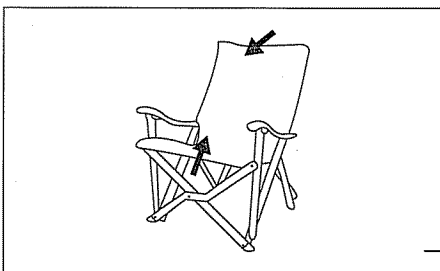


Fig. 4

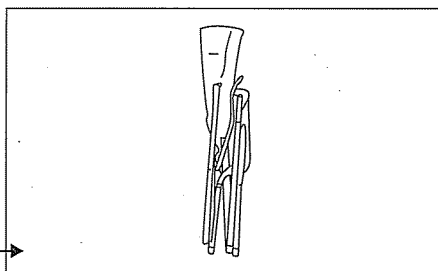


Fig. 5

To stand up from the seat:

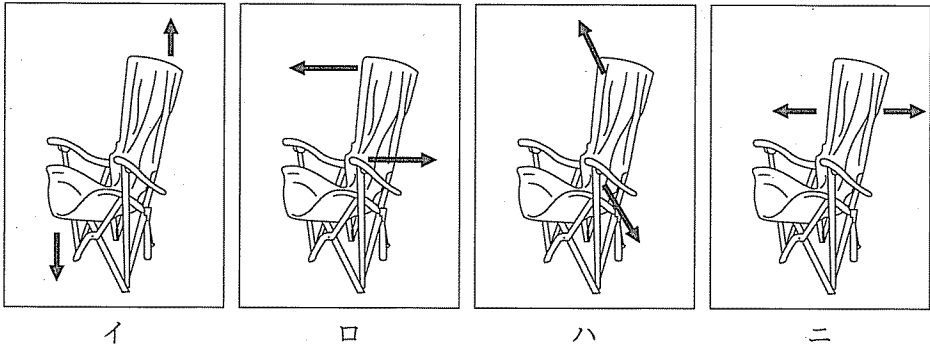
Apply force on the front part of the armrest but NOT on the rear part.

(b)

WARNINGS

- Beware of the moving parts and be careful of your hands when unfolding or folding the chair.
- Place the chair in a stable position on a flat surface.
(c)
- Do not stand on the seat surface.
- Do not sit down roughly or shake the chair strongly.
- Take care near fire or lit cigarettes as some of the chair material is flammable.
- Remove dirt or moisture well after use and store in a dry, protected area.

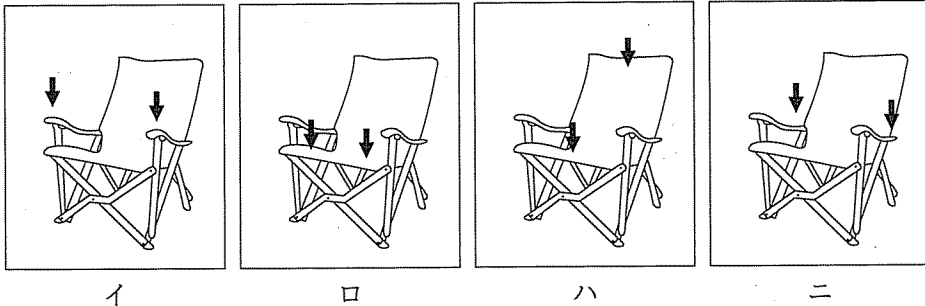
(1) Choose the illustration that fits in the box for Fig. 2.



(2) Choose the sentence that fits in the blank (a) to explain Fig. 4.

- イ Hold the side edges of the seat back and push together.
- ロ Put both your hands on the seat fabric and push down.
- ハ Hold the top of the seat back and the front of the seat and pull inwards.
- ニ Place your hands on the seat edges and push them away from the armrests.

(3) Choose the illustration that fits the description (b).



(4) Choose the word that is the closest in meaning to the word (c) stable.

イ hard ロ durable ハ tough ニ steady

(5) Choose the sentence that matches the instructions.

- イ When the chair is set correctly, it can be used as a step.
- ロ You may hurt yourself if you do not pay enough attention when opening the chair.
- ハ The chair may be damaged if an overweight person sits in it.
- ニ The seller of the chair is not responsible for defects or injuries caused by misuse.

[VI] ソーシャルメディアに関する次の英文を読み、設問に答えよ。

Since the beginning of the Internet, experts have worried that communication via computers would have a harmful effect on our social networks. Instead of going out and interacting with others in traditional settings, people will stare at their computers all day typing messages to people they have never even met. And if you look up from your smartphone for a moment, you will see that everyone around you is involved in theirs.⁽¹⁾ There is even scientific evidence that suggests social media use is bad for your psychological health. Some results show that people feel lonelier and experience drops in self-esteem after using Facebook.

A careful review of the literature, however, paints a more complicated picture. It's certainly true that some studies have found a connection between social media use and declines in well-being. But other studies have found opposite results, with people feeling more socially connected as they spend more time on social media. For example, one study considered the relationship between the number of Facebook friends and the level of social adjustment in college freshmen and seniors. The more Facebook friends the freshmen had, the less socially adjusted they were to the college environment. But the result was the opposite for the seniors. The more Facebook friends they had, the more socially adjusted they were.

Conflicting findings such as these suggest the need to step back and look at the larger context. The fundamental question that researchers have been asking is this: "Does using social media make you lonely?" But it now seems we have been asking the wrong question. At least that is the conclusion Duke University psychologist Jenna Clark and her colleagues came to.⁽²⁾ According to these researchers, whether using social media makes you lonely or not depends on what you do with the social media. This point is illustrated in the study of college freshmen and seniors just mentioned.

As it turned out, the college freshmen were using Facebook to keep in touch with their friends from high school. So the more time they spent online, the less time they had for building new friendships on campus, leading to increased feelings of loneliness. In contrast, the college seniors were using Facebook mainly to communicate with friends on campus. So the more time they spent online, the more connected they felt.

Clark and her colleagues warn of two risks in social media use. The first risk is what they call “social snacking.” This involves activities such as browsing through other people’s profiles or reading other people’s comments without making any of your own. Social snacking may feel like social engagement, and while you are doing it you might temporarily forget your own feelings of loneliness. But just as junk food makes you feel both satisfied and empty afterward, social snacking only leaves you with much time wasted and more loneliness than before.

The second risk is self-comparison. On Facebook, other people’s lives seem so much more exciting and attractive than your own. Of course, the socially sophisticated know when someone is just boasting, and they discount what that person says. But when you are all alone in the early hours of the morning, the fake stories that people tell on social media can make your own life seem less important by comparison.

As Clark and her colleagues point out, these risks are not unique to social media. Rather, they are the same traps that catch socially-isolated people in their attempts at interpersonal exchanges as well. People with poor social skills will often try to compensate for their lack of social skills by just participating in social situations, perhaps with the hope that if they just go where there are other people, someone will make friends with them. They join a church, hang out at the gym, or attend office parties. But they are too nervous to begin an exchange with anyone they do not already know, and when others do approach them, their awkwardness soon sends others

away. Some people engage in social snacking in real life, too. Instead of interacting with those around them, they stand back and watch as others chat, laugh, and seem to have a good time. In the end, the experience only makes the socially awkward feel even lonelier. And they engage in social comparisons as well. Because other people seem to have much happier and more fulfilling lives than they do, their self-esteem takes a heavy hit as well.

In the end, whether using social media makes you feel lonelier or not depends on what you do when you are online. If you already have good social skills, you will find Facebook a useful tool for keeping in touch with friends and family. In this way, social networking sites enrich our lives. But if you find yourself passively browsing through social media to take your mind off your loneliness, there are plenty of sites on the Internet that give sound advice on how to improve your social skills. Take the advice to heart and practice it in public. As your social skills improve, so will the quality of the time you spend on Facebook.

問1 本文中の下線部(1)~(4)の語句について、意味が最も近いものをそれぞれイ~ニの中から一つ選び、その記号を解答用紙にマークせよ。

(1) is involved in

イ is dependent on

ロ is fond of

ハ is included in

ニ is occupied with

(2) came to

イ became

ロ reached

ハ visited

ニ went to

(3) compensate for

イ apologize for

ロ get accustomed to

ハ make sure of

ニ make up for

(4) takes a heavy hit

イ decreases sharply

ロ develops greatly

ハ increases dramatically

ニ vanishes suddenly

問2 本文の内容に関する(1)~(8)の問いの答えとして最も適切なものをそれぞれイ~ニの中から一つ選び、その記号を解答用紙にマークせよ。

(1) Which of the following is an example of interaction in traditional settings?

イ exchanging messages with others by e-mail

ロ having a business meeting online

ハ meeting with friends at a restaurant with Wi-Fi

ニ publicizing information through a web page

(2) How did the author discover the actual relationship between social media and our lives?

イ by analyzing the data given by Facebook

ロ by examining existing research

ハ by interviewing people using smartphones

ニ by observing college students on campus

(3) According to a study, how do college students use social media?

イ Freshmen use it mainly to interact with friends on campus.

ロ Freshmen use it mainly to maintain old friendships.

ハ Seniors use it mainly to build friendships outside the campus.

ニ Seniors use it mainly to maintain old friendships.

(4) How does social snacking make some social media users feel?

- イ lonely and threatened
- ロ socially engaged and satisfied
- ハ socially engaged but lonely
- ニ threatened but satisfied

(5) How does self-comparison affect some social media users?

- イ They are proud of their friends on social media.
- ロ They have no interest in other people's lives.
- ハ They feel that their own lives are worthless.
- ニ They prefer fake stories to real stories.

(6) What difficulty do socially-isolated people face?

- イ They hang out at the gym.
- ロ They are not approached by anyone.
- ハ They cannot be active participants in conversation.
- ニ They are unable to attend parties.

(7) How are social skills related to social media use?

- イ Better social skills lead to better social media use.
- ロ Better social skills lead to worse social media use.
- ハ Social skills have a negative effect on social media use.
- ニ Social skills have little effect on social media use.

(8) What is the main issue this passage raises?

- イ having significant time without social media
- ロ living a better life by using social media wisely
- ハ managing your loneliness through social media
- ニ spending a better college life with social media

〔VII〕 南太平洋の島々に関するつぎの英文を読み、設問に答えよ。

Probably at first by accident, the islands of the south Pacific were reached by people sailing or drifting from Southeast Asia. Around 1300BC, sailors made a long step to reach Fiji. Then, the Pacific islanders developed a twin-body sailing canoe*¹ which was an extremely effective sea-going vessel, and continued the process of spreading east towards Tonga and Samoa.

From the early 16th century, European merchants were sailing the seas of Southeast Asia. Often they made unexpected discoveries, raising hopes of unknown territories rich in gold, silver, or spices. During the 18th century, the European countries made constant efforts to discover remote islands hidden in the vast Pacific, but the islanders were basically untouched by any outside influence.

Everything changed after World War II. The military, with bases in and around the Pacific islands, pushed the region into the 20th century in the span of a few years. Western peoples gradually got accustomed to the ⁽¹⁾ technology and scientific accomplishments of the 20th century. For Pacific island populations, on the other hand, the process was squeezed into less than 30 years.

As traditional life styles of the native island populations have changed to a more modern way of life, dramatic changes have occurred. Specifically, traditional foods of past generations have been replaced by food purchased from developed nations, such as the United States, Australia, New Zealand, and Japan. The traditional foods of the islands such as fresh fish, meat, and local fruits and vegetables have been replaced by rice, sugar, flour, canned meats, canned fruits and vegetables, soft drinks, and beer. As a result, food imports, as a proportion of total imports, have risen to around 25% for many island nations.

Further, the increasing use of modern technology and the shift from agricultural and fishery-based occupations to office work have resulted in a sharp decrease in the day-to-day physical activity of many Pacific islanders. They have traded in their canoes for motorized boats and have become accustomed to using cars instead of walking.

All these changes have contributed to the spread of excessive bodyweight or obesity in the Pacific islands. The people of the Pacific have some of the highest obesity rates in the world, ranging from 43% among Fijian males to nearly 88% among Samoan females, compared to below 5% in China, Japan, and certain African nations.

Culturally, large physical size is considered a mark of beauty and social status in many Pacific island countries. Ancient Pacific islanders were highly skilled in ocean travel and often undertook inter-island canoe voyages lasting several weeks. Many died on the way, but the most obese survived, creating a preference for large size. This is one of the reasons why Pacific islanders are so large today.

Moreover, there are certain genes that utilize food more efficiently. These genes cause rapid weight gain in times of plenty, allowing the person to survive periods of hunger more easily. Such a gene would be advantageous to populations that experience alternating periods of good harvests and hunger that often occurred in the ocean due to natural disasters, changing weather patterns, and relative isolation from other islands in the vast Pacific.

However, life style also plays an important role in obesity. A study in 1979 found that the people in Nauru ate three, high-calorie meals per day, supplemented with frequent in-between-meal snacks and few vegetables. The average intake for males 20-39 exceeded 8,700 kcal. Generally, the Pacific islanders have larger frames and more muscle than Asians and Europeans. Thus, to reduce obesity, they need to differentiate the effects of

genes from overeating on body size.

The Pacific islands face another threat. Five tiny Pacific islands have disappeared due to rising seas and erosion. The missing islands were a part of the Solomon Islands, a nation with a population of 640,000 made up of hundreds of islands, which lies about 1,000 miles north-east of Australia. These islands which disappeared were reef^{*2} islands of up to five hectares. They were occasionally used by fishermen but not populated. But on six other islands, land turned into sea, destroying entire villages.⁽⁵⁾

On one of these islands, the town of Taro, with a population of 800, is set to become the first provincial capital in the world to relocate residents and services in response to the impact of sea-level rises. Sea levels on the island have risen as much as 10 mm every year for the past two decades. Researchers say this is the first scientific confirmation of the impact of climate change on Pacific coastlines.

The Pacific islanders are forced to confront two problems: obesity and sea-level rises. Sea-level rises are a consequence of climate change, for which the Pacific islanders are least responsible. The prevention of sea rises calls for concerted efforts by the international community. Even self-help efforts by the people of the Pacific islands, like relocation of the provincial capital, also require planning advice and financial support from international development partners.

The obesity problem, on the other hand, is less apparent to outsiders. Thus, it seems unlikely that the world community will respond to this problem soon. Hopefully, local populations in the Pacific will take action to change current unhealthy and potentially deadly eating habits.

語注*

*1 canoe : カヌー

*2 reef : 岩礁, 砂州

問1 下線部(1)~(5)の語(句)について、意味が最も近いものをそれぞれイ~ニから一つ選び、その記号を解答用紙にマークせよ。

(1) span

イ spear □ limitations ハ area ニ period

(2) occupations

イ jobs □ possessions ハ concerns ニ patients

(3) traded in

イ purchased □ asked for ハ exchanged ニ bought

(4) supplemented with

イ reversed by □ demanded by
ハ caught up ニ added to

(5) populated

イ inhabited □ drowned ハ preserved ニ reserved

問2 下の(1)~(7)の問いの答えとして最も適切なものをそれぞれイ~ニの中から一つ選び、その記号を解答用紙にマークせよ。

(1) How did people probably first find the Pacific islands?

イ by sending the military
□ by chance while sailing
ハ by looking for new plant species
ニ by choice while searching for traditional foods

- (2) Which of the following is NOT a cause of the islanders' obesity?
- イ introduction of Western foods
 - ロ frequent use of cars
 - ハ more engagement in office work
 - ニ advances in agriculture technology
- (3) How is the Pacific islanders' current diet different from their traditional diet?
- イ They eat more fresh fish.
 - ロ They eat less rice.
 - ハ They eat less vegetables.
 - ニ They eat more local fruits.
- (4) Why does the author refer to genes in the passage?
- イ to account for why Pacific islanders are large
 - ロ to describe how challenging agriculture in the Pacific islands was
 - ハ to show why rising sea levels affect Pacific islanders
 - ニ to explain why genetically modified foods are safe for Pacific islanders
- (5) What is a result of rising sea levels in the Pacific islands?
- イ A coral reef has been destroyed.
 - ロ A capital has to be moved.
 - ハ Financial support has been provided to the islands.
 - ニ Fishing has been shrinking.

(6) What does the author think of the problems that the islanders are facing?

- イ They are not responsible at all.
- ロ They are responsible for all their problems.
- ハ They are not necessarily responsible for all their problems.
- ニ The problems are out of their control.

(7) What is the best title for this passage?

- イ Why People Become too Heavy
- ロ Climate Change and the Pacific Islands
- ハ The Long History of the Pacific Islands
- ニ The Double Crisis of the Pacific Islands

