

I 次の英文を読み、下記の設問に答えよ。(配点 25)

The number of school-aged children who spend three hours or more on smartphones, computers or TV a day has drastically increased since the last academic year, and their physical strength has (① to ② been ③ be ④ lower ⑤ found ⑥ find) <sup>1)</sup> than the national average, according to a survey conducted by the Sports Agency in 2018.

The agency announced the result of a national physical test for the 2018 academic year conducted between April and July on about 2.06 million students in the fifth grade at elementary school and second-year students at junior high school. It handed out questionnaires about their lifestyle and other matters and then tested their physical fitness on eight categories for elementary school students — including grasping power, side-to-side jumping and a 50-meter dash — and eight categories for junior high school students, including the choice of either 1,500-meter running (boys only), 1,000-meter running (girls only) or 20-meter wind sprints. Each result was scored, and the sum was calculated on a scale of 1 to 80.

On the question of the number of hours that children used smartphones, computers, TV or other devices on weekdays, the percentage of those who used the devices for three hours or more a day increased drastically from the fiscal 2017 test among both (① students ② at ③ and ④ female ⑤ nor ⑥ male) <sup>2)</sup> both elementary and junior high schools. Among male students in particular, the 1 increased from 32.8 percent to 38.1 percent for fifth-grade students and from 31.5 percent to 35.7 percent for second-year students.

The survey also showed the total points of physical strength of children (① used ② devices ③ who ④ but ⑤ three hours ⑥ for) <sup>3)</sup> or more was lower than the national average.

A university professor, who specializes in sports statistics said, “At this point, we can’t specify viewing hours to decide how much time is good or bad. We are currently studying the viewing time in detail. It would be good if we could specify the point of when physical strength starts to get lower than the national average.” Sports Agency Commissioner Daichi Suzuki said that those (① the world ② fields ③ they ④ in ⑤ around ⑥ sports-related) <sup>4)</sup> were concerned about the matter.

(Source: Adapted from “Study: Using smartphone more lowers physical strength of children”, *The Japan News*, December 21, 2018.)

(1) 空所  に入る最も適切なものを次の中から1つ選び、その番号をマークせよ。

- ① width                      ② length                      ③ figures                      ④ weight

(2) 下線部1)～4)を文脈に合うように並べかえる際、不必要なものが1つ含まれている。

その語句をそれぞれ1つ選び、その番号をマークせよ。

下線部1)

下線部2)

下線部3)

下線部4)

(3) 本文の内容に合うものを次の中から2つ選び、その番号をマークせよ。

- ① 1日にスマートフォン、コンピュータ、テレビに3時間以上費やす子どもの数は、2018年度と2017年度では、ほぼ同じであった。
- ② 2018年度の4月から7月にかけて実施された全国体力テストの対象となった子どもは約206万人だった。
- ③ 全国体力テストの際、握力や反復横跳びなどの体力テストだけでなく、生活習慣などを問うアンケートも実施された。
- ④ 1日にスマートフォン、コンピュータ、テレビに3時間以上費やす子どもの体力は、そうではない子どもと比べてそれほど差がなかった。
- ⑤ 1日にスマートフォン、コンピュータ、テレビに3時間以上費やす子どもの数の増加は、男子よりも女子に見られた。
- ⑥ スポーツ庁長官は、スマートフォンを用いた運動促進企画を考案中である。

II

次の会話を読み、下記の質問に答えよ。(配点 18)

Alan, Brian and Carmen are sharing a house. They are having a house meeting.

Alan: I called this meeting today because I think it's time for us to decide on some basic house rules. I think if we make a few rules that everyone obeys, we'll all get along better.

Brian: Do we really need to do that? I thought things were going pretty well.

Alan: Yes, I think so. We need to make some rules about cleaning.

Brian: But the place is already quite clean.

Carmen: That's because I cleaned up yesterday.

Alan: I think we need to make a cleaning schedule to make sure everyone helps out with the cleaning.

Carmen: How about keeping your own room clean by yourself but sharing the cleaning of communal areas on a weekly basis?

Alan: How about the kitchen, the toilet and the living space? We can rotate each week.

Brian: I can go for that.

Carmen: OK. I'll make up a schedule and put it on the noticeboard.

Alan: Next on the list is shopping for shared items like tea, coffee, milk, cleaning materials and anything else.

Brian: Let's put ten dollars a month in a fund and say the person who needs something goes and buys it.

Carmen: Or we could have one person responsible for buying stuff and rotate each month.

Brian: The problem with that is if I want some coffee when I get up and you're out at work, I have to wait for you to come home. It's a good idea but I don't think it'll work in practice.

Alan: I think Brian has a point there.

Carmen: <sup>1)</sup>OK. I guess you're right.

Alan: Let's follow Brian's idea of ten dollars a month each. We can adjust the amount later if necessary. Next, any pet peeves? This is your chance to let everyone know if something has been <sup>2)</sup>annoying you. I'll go first. Can everyone empty the washing machine as soon as possible after use? I always seem to have to take someone's clothes out.

Brian: I'm sorry. I did leave some clothes in there the other day. I completely forgot.

Alan: That's all right. I don't think it was just the other day or only you but try not to forget from now on.

Carmen: My turn. Can we please remember to turn the fan on after taking a shower? Otherwise the bathroom never dries out.

Alan: Yes, that's important. Either that or open the window. Anything else?

Carmen: Cleaning up after yourself. I often have to move cups and plates off the table in the morning. Please everyone clear up their own plates and cups.

Brian: Sorry. That's probably me again. I'll make more of an effort from now on.

Alan: Brian, we understand that sometimes you have to leave suddenly for work. But at least try and put things in the sink ready for washing.

Brian: I'll make an effort from now on and always wash up my things immediately unless it's a real emergency.

Alan: Brian, do you have anything else you want to add?

Brian: No, thanks. Everything's fine with me.

Alan: OK. Let's wrap it up there.

(1) Which of the following is closest in meaning to "I think Brian has a point there"? Choose the best answer and mark the number on the answer sheet.

- ① I think Brian has a reason to buy coffee.
- ② I think Brian has pointed at the coffee.
- ③ I think Brian is blaming Carmen for not buying things.
- ④ I think what Brian said made sense.

(2) According to the conversation, which of the following is closest in meaning to "pet peeves"? Choose the best answer and mark the number on the answer sheet.

- ① chances to let someone know how much money you need
- ② new rules for housemates to follow
- ③ people who are responsible for looking after the house pets
- ④ things that someone is not happy about

- (3) Which of the following is closest in meaning to “Otherwise the bathroom never dries out”? Choose the best answer and mark the number on the answer sheet.

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- ① As a result, the bathroom doesn’t dry.
  - ② If you don’t, the bathroom doesn’t dry.
  - ③ No matter what is done, the bathroom will not get wet.
  - ④ The bathroom doesn’t dry when you turn the fan on.
- (4) Which of the following is NOT true? Choose the best answer and mark the number on the answer sheet.

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- ① Brian has been unhappy with the cleanliness of the house.
  - ② Alan arranged the house meeting.
  - ③ Carmen will make a cleaning plan.
  - ④ The three house sharers will take it in turns to clean the kitchen.
- (5) Which of the following best summarizes the conversation? Choose the best answer and mark the number on the answer sheet.

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- ① After pooling ten dollars each, three housemates have a meeting to decide what to buy when they go shopping. They also congratulate Carmen on her cleaning and ask her to continue being the house cleaner and cook.
- ② A meeting is held to discuss an emergency caused by Brian’s job. He often doesn’t have time to wash dishes and this is causing Carmen and Alan to feel stressed. As a solution, they plan to pool money to buy food for a party.
- ③ Alan chairs a meeting with his housemates, Brian and Carmen, to make some house rules. They agree to help share the housework and to buy goods that they will all use. They also discuss some behavior that has been bothering them.
- ④ Carmen is unhappy about the living arrangements with her two housemates, Alan and Brian. Therefore, she chairs a meeting and tells them both what is bothering her. As a result, they agree to share the household chores and contribute ten dollars each to the shopping budget.

Ⅲ 次の英文を読み、下記の設問に答えよ。(配点 20)

Zora is a robot at the center of an experiment in France to change care for elderly patients. When Zora arrived at this nursing facility an hour outside Paris, a strange thing began happening: Many patients developed an emotional attachment, treating it like a baby, holding and cooing, giving it kisses on the head. Zora, which can cost up to \$18,000, offered companionship in a place where life can be lonely. Families can visit only so much, and staff members are stretched.

Patients at the hospital, called Jouarre, have \*dementia and other conditions that require round-the-clock care. The robot is controlled by a nurse at the hospital, who operates Zora from a laptop. The nurse often stands out of view so patients don't know it's him at the controls. Zora often leads exercises and plays games. It can have a conversation because the nurse types words into a laptop for the robot to speak. Some patients refer to Zora as "she," others "he." Robotics still has a long way to go before there's a realistic chance of having a humanoid nurse. Zora doesn't dispense medicine, take blood pressure or change bedsheets. At Jouarre, Zora was viewed by some as a superfluous tool that just "keeps the patients busy," according to one nurse. Another nurse said she wouldn't let a robot feed patients, even if it could. Humans shouldn't leave such intimate moments to machines. "Nothing will ever replace the human touch, the human warmth our patients need," she said. The experience at Jouarre provides a window into a future when we will rely more on robots to help care for loved ones as they age.

In nearly every country, the population of older adults is rising. The number of people over 60 will more than double to 2.1 billion by 2050, according to the United Nations. The figures point to an emerging gap. There simply won't be enough people for the required health care jobs. Proponents argue new technology must be created to help fill the void. The challenge will be creating machines capable of doing more complex jobs. Lifting a patient's mood with a song is different from providing health care. The French hospital, which bought the robot with the help of a charitable grant, brings out Zora just a few times a month.

In Australia, a hospital using a Zora robot studied the effects on patients and staff. The researchers found that it improved the mood of some patients, and got them more involved in activities, but required significant technical support. The experience of the French hospital staff has been similar. Staff members have been continually surprised by how attached patients have become. One nurse said some patients get jealous of others spending time with Zora. Patients have told the robot things about their health they wouldn't share with doctors. A woman who had bruises on her arms

wouldn't tell hospital staff what had happened, but shared with Zora that she'd fallen out of bed while sleeping. "It puts some cheerfulness in our lives here," says a patient who underwent a \*tracheotomy and has been in the hospital for more than a year. "We love her, and I miss her." When we visited Jouarre in late August, it had been a long day for Zora. The machine visited individual patients in the morning and then was needed to help with group exercises and other areas later in the day. Eventually it was put away in the small suitcase where it lives at night, stored away inside a closet in the secretary's office. The battery had run out.

注 \*dementia 認知症      \*tracheotomy 気管切開術

(Source: *Meet Zora, the Robot Caregiver* by Adam Satariano, Elian Peltier, Dmitry Kostyukov © *The New York Times*.)

- (1) According to the passage, which of the following best describes "a humanoid nurse"? Choose the best answer and mark the number on the answer sheet.

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- ① a robot nurse gaining knowledge beyond human understanding
- ② a robot nurse resembling a human in appearance or character
- ③ a robot nurse totally and precisely controlled by a human
- ④ a robot nurse that requires human round-the-clock care

- (2) According to the passage, which of the following is closest in meaning to "void"? Choose the best answer and mark the number on the answer sheet.

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- ① vacancy
- ② sickness
- ③ globalization
- ④ ambiguity

- (3) According to the fourth paragraph, why have staff members been surprised? Choose the best answer and mark the number on the answer sheet.

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- ① Because patients got along with each other after playing with Zora.
- ② Because patients became to have great trust in the nurses after Zora came.
- ③ Because patients developed a great love for Zora.
- ④ Because patients restored bonds with their family while talking to Zora.

- (4) According to the passage, what does Zora do at the hospital? Choose the best answer and mark the number on the answer sheet.

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- ① Zora takes blood pressure and lifts patients to help them move.
- ② Zora sleeps on the bed and takes a rest to recharge itself.
- ③ Zora helps patients to take part in exercises and activities.
- ④ Zora responds to patients according to its feelings.

(5) Which of the following is true about the passage? Choose the best answer and mark the number on the answer sheet. 

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- ① Zora tends to convey emotional feelings by being treated like a baby.
- ② The higher the number of elderly people becomes, the less likely robots will provide health care.
- ③ Some patients feel encouraged when Zora talks with other patients.
- ④ Some patients share details of their health condition with Zora that they do not talk about with doctors.

IV ラジオ放送には AM や FM などがあるが、日本の民間放送による AM ラジオ放送に関する次の新聞記事を読み、下記の設問に答えよ。(配点 17)

**Japanese broadcasters call for end to mandatory AM radio due to cost and lack of listeners**

Japanese commercial broadcasters on Wednesday proposed a revision to the broadcast law that would allow them to ditch AM radio broadcasting due to issues over cost amid a decline in listenership. The Japan Commercial Broadcasters Association asked the communications ministry to implement a system revision by 2028 in order to allow radio broadcasters to focus on FM broadcasting. Under the law, broadcasters are obliged to broadcast on both AM and FM.

The request, made at a meeting of a panel of experts at the ministry, reflects the heavy burden placed on broadcasters stemming from updates to facilities and other forms of investment at a time when radio stations' advertising revenues are 17 as the number of listeners falls. "It's extremely difficult for us to renew our facilities while continuing AM broadcasting," said the chairman of TBS Radio Inc., who participated in the panel meeting as a representative of commercial broadcasters. He asked for a measure to allow radio broadcasters to convert their AM broadcasting to FM or to maintain both types of broadcasting, according to their own business judgments.

Specifically, the broadcasters' association proposed a test that would 18 AM broadcasting in limited areas, possibly in 2023. If no problems arise during the trial, the association would seek the end of mandatory AM broadcasting.

Some members of the panel, which is tasked with discussing ways to strengthen commercial broadcasters' operating foundations, agreed with the idea of ending AM broadcasting, while others were cautious, citing 19 that FM radio waves have difficulty reaching mountainous areas. While AM radio waves reach farther than FM waves, they are more prone to being blocked by tall buildings and tend to have poor reception in urban areas.

In addition, AM radio base stations are often built in coastal areas and require investments to protect facilities in the event of tsunami. As a result, forty-three of the forty-seven radio stations making AM broadcasts also have simultaneous FM broadcasts for their AM radio programs.

(Source: *Japanese broadcasters call for end to mandatory AM radio due to cost and lack of listeners* (from *The Japan Times/JIJI*, Mar 28, 2019))

(1) 空所  ～  に入る最も適切なものを次の中からそれぞれ1つ選び、その番号をマークせよ。

- |                                 |               |          |            |              |
|---------------------------------|---------------|----------|------------|--------------|
| <input type="text" value="17"/> | ① diminishing | ② rising | ③ glowing  | ④ increasing |
| <input type="text" value="18"/> | ① start       | ② halt   | ③ impress  | ④ examine    |
| <input type="text" value="19"/> | ① believes    | ② worry  | ③ concerns | ④ opinion    |

(2) 本文の内容に合うものを次の中から2つ選び、その番号をマークせよ。

- ① FMでAMと同じ内容の放送を始めたのは、ラジオ聴取者を増やすためであった。
- ② ある民間放送局の会長は、AM放送を継続することに積極的な姿勢を見せた。
- ③ 現行法の下では、放送局はAMとFMの両方で放送する義務がある。
- ④ FM放送の受信状態は、山間部ではよい傾向がある。
- ⑤ AM放送の送信所は沿岸部に設置されることが多いため、塩害対策が必須である。
- ⑥ 9割を超えるラジオ局がAMと同じ内容をFMでも放送している。

V 次の英文を読み、下記の設問に答えよ。(配点 20)

It's something like a convenience store, and almost as convenient if it 21 closed at night. In exchange it's clearly lower priced than your local 7-Eleven or Family Mart, and offers a larger assortment of foods. Not quite as much as an ordinary supermarket though, so it's really neither one nor the other. It's somewhere in between and it is called <sup>1)</sup>まいばすけっと (*mai basuketto*).

The name is based on the English words “my basket,” obviously, and comes as close as it gets to the original. What's remarkable about it is that it is not written in katakana, the default script for Western \*loanwords, but in hiragana, which, in combination with ( ア ), is normally reserved for Japanese vocabulary. In fact, loanwords in hiragana have been around for quite some time.

To start with a few well-documented cases, たばこ (*tabako*, tobacco), derived from the Portuguese “tabaco,” is often seen in hiragana, along with a few other Portuguese-based comforts such as ぱん (*pan*, bread), てんぷら (*tempura*, tempura) and かすてら (*kasutera*, castella). As these words became part of the Japanese language during the Edo Period (1603-1868), when the rules for script use were not so defined, it is perhaps not surprising to see them in ( イ ) today. They were once unknown in Japan but are now firmly rooted in Japanese culture.

A similar phenomenon can be observed with the names for once “exotic” fruits and vegetables that have now become part and parcel of the domestic diet. Examples are とまと (*tomato*, tomato), きゃべつ (*kyabetsu*, cabbage), れもん (*remon*, lemon) and ばなな (*banana*, banana). This is not to deny that the default script for these words is still ( ウ ). However, a hiragana spelling gives them that certain touch that makes them appeal to Japanese consumers.

The same holds for a number of other things, edible or not. Take the <sup>2)</sup>tremendously popular Hello Kitty product line that includes anything from cookies to underwear. Even though both “Hello” and “Kitty” are unmistakably derived from English, you will often find them written in hiragana, はろうきてい (*harou kiti*), rather than in the more angular katakana spelling ハローキティ, specifically when the character is wearing a kimono or bears some other reference to Japanese culture.

Note that the bar used to indicate long vowels (ハロー) can be replaced in hiragana by an <sup>3)</sup>extra vowel character (はろう). Both strategies may even be combined, as in the name of the comedy duo さまあ〜ず (*samaāzu*), derived from the English word “summers.”

As these examples suggest, hiragana loanwords are particularly common in contexts that prioritize creativity and word play, such as product and business names,



(4) 下線部 “The same holds for a number of other things, edible or not” の意味として最も適切なものを次の中から1つ選び、その番号をマークせよ。 24

- ① Depending on whether they are eaten or not, the situation can be changed.
- ② Regardless of whether they are eaten or not, the same can be said of a number of other things.
- ③ The same phenomenon can be observed with a number of other things except for things eaten or not eaten.
- ④ The same rule can be applied to many other things if they are eaten, but not if they are not eaten.

(5) 下線部 “the bar used to indicate long vowels” の例として最も適切なものを次の中から1つ選び、その番号をマークせよ。 25

- ① アンパンマン      ② キティ      ③ ムーミン      ④ ピカチュウ

(6) 本文の内容に合うものを次の中から1つ選び、その番号をマークせよ。 26

- ① Hello Kitty tends to be written in hiragana when the character has little to do with Japanese culture.
- ② Hiragana loanwords are effective for product and business names in Japan, but similar examples of unusual spellings are not found in ads in other languages.
- ③ Hiragana is sometimes used to create a word boundary in a term but it can also be used to delete one.
- ④ These days loanwords are likely to be written in hiragana rather than katakana in all cases.