2020年度　入学試験問題

英　語

（60分）

〔注 意〕

① 問題は 1 ~ 5 まであります。
② 解答用紙はこの問題用紙の間にはさんであります。
③ 解答用紙には受験番号、氏名を必ず記入のこと。
④ 各問題とも解答は解答用紙の所定のところへ記入のこと。
⑤ リスニング問題は試験開始10分後に始めます。

西大和学園高等学校

問題は次のページから始まります。

1 次の**設問 A** と**設問 B** にそれぞれ答えよ。

設問 A 次の（1）～（5）の英文の空所を補うのに最も適当なものをそれぞれ選び、記号で答えよ。

（1）I (　　) to India once when I was a high school student.

（ア）went　（イ）have been　（ウ）was going　（エ）have gone

（2）I have two candies. You can eat one of them. I will eat (　　).

（ア）other　（イ）the other　（ウ）another　（エ）one

（3）I think mathematics is more interesting than (　　).

（ア）any other subject　（イ）all subjects

（ウ）any other subjects　（エ）all subject

（4）A: Would you like (　　)?

B: No, thank you. I'm full.

（ア）any cakes　（イ）some cakes　（ウ）some cake　（エ）any cake

（5）A: I have a headache today because I couldn't sleep well last night.

B: (　　) Take care of yourself.

A: Thank you.

（ア）Of course.　（イ）Oh, are you?

（ウ）How long do you sleep every day?　（エ）That's too bad.

設問 B　次の日本語に合うように［　　］内の語（句）を並べかえて、英文を完成させよ。ただし、文頭に来る語も小文字で示してある。また、解答欄には（　①　）（　②　）に入るものを記号で答えよ。

(1) あなたが買ったバイクは、アメリカ製ですか。

(　　)(　　)(　①　)(　　)(　　)(　②　)(　　)?

［(ア) America　(イ) you　(ウ) the bike　(エ) bought　(オ) is　(カ) in　(キ) made］

(2) 宿題を手伝ってくださいませんか。

Could you (　　)(　　)(　①　)(　　)(　　)(　②　)(　　) my homework?

［(ア) enough　(イ) help　(ウ) kind　(エ) to　(オ) with　(カ) be　(キ) me］

2　（リスニング問題）　この問題は試験開始10分後に始まる。

これから放送する対話文では、レベッカ（Rebecca）とヘクター（Hector）が地図を見ながら、ヌー（wildebeest）のセレンゲティ国立公園における大移動（the Serengeti Migration）についての話をしている。次の**設問 A** と**設問 B** にそれぞれ答えよ。なお、対話文と設問の質問は 2 度放送される。また、放送中に問題用紙にメモをとってもかまわない。

設問 A　対話文の内容について英語で4つの質問を行う。それぞれの質問に対する最も適当な答えを選び、記号で答えよ。

（1）

（ア）Because the wildebeest may get sick during the travel.

（イ）Because the wildebeest may get thirsty during the travel.

（ウ）Because the wildebeest may be eaten by other animals during the travel.

（エ）Because the wildebeest may get lost during the travel.

（2）

（ア）About 1,500,000.

（イ）About 2,500,000.

（ウ）About 150,000.

（エ）About 250,000.

（3）

（ア）For one or two months.

（イ）For three months.

（ウ）For four months.

（エ）For five months.

（4）

（ア）By looking at the sky.

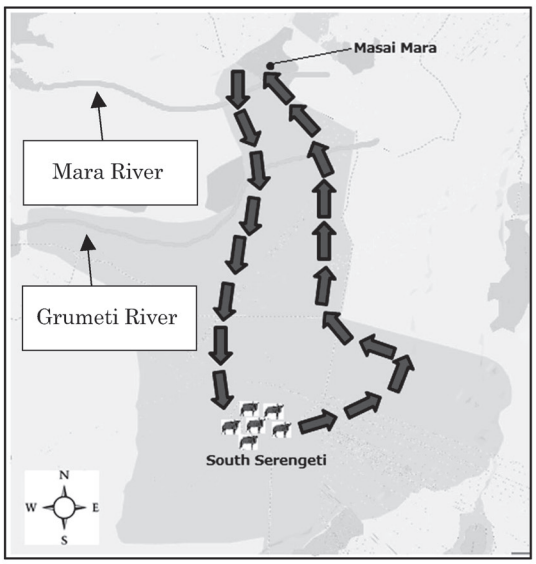
（イ）By hearing the storms.

（ウ）By smelling the plants.

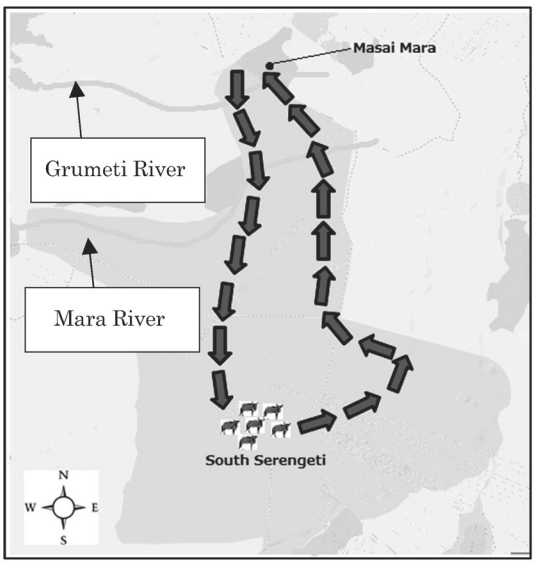
（エ）By watching other animals.

設問 B　2人の会話をもとに、ヌーの移動経路と、経路上にある2つの河川の名前の組み合わせが記されたものとして、最も適当な地図を選び、記号で答えよ。

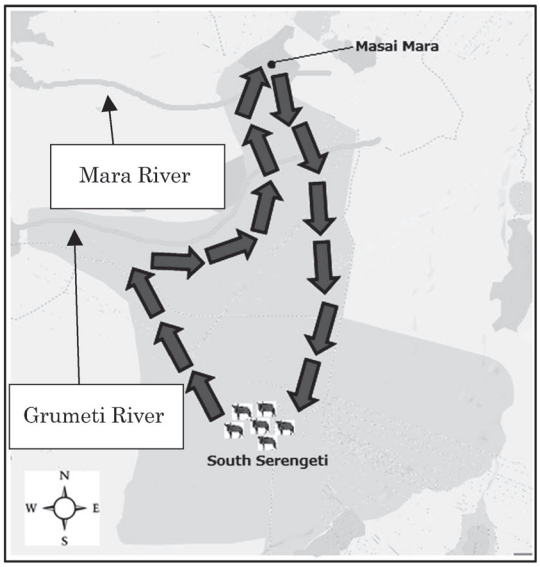
（ア）



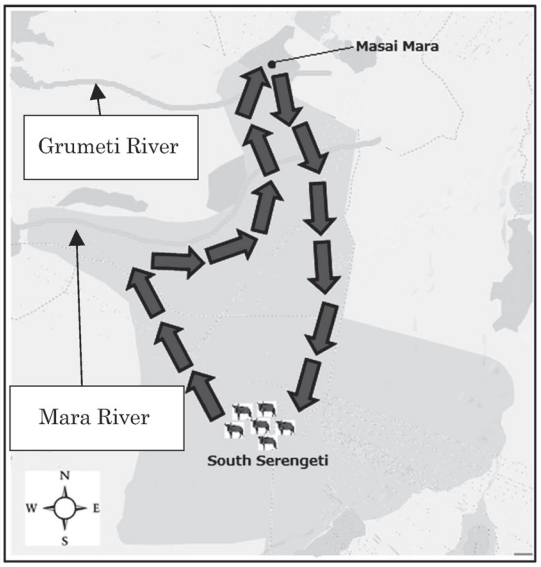
（イ）



（ウ）



（エ）



3 下線部①～③の日本語を文脈に合うように英語に直せ。

「①この問題は僕には難しすぎてできませんでした。」とばかり言っている生徒たちにはつくづく先が思いやられる。せめて、②数学が得意な人に、どうやってそれを解くのかを聞くべきである。③簡単なことばかりやりたいのなら、勉強する必要はないのである。

問題は次のページに続きます。

4 次の英文は、医療分野の新聞記事の見出し（headline）について書かれた文章である。英文をよく読み、後の設問に答えよ。（＊は、あとに注釈のあることを示す。）

"New drug may be good for cancer." "*Aspirin may cut down the number of heart disease." "Eating breakfast can help you lose weight."

Health headlines like these fill the news. Their opinions are often different from each other. So how can you understand what's a real health interest or a truly hopeful *therapy, and what's less important?

In medical science, news headlines and the scientific researches they *cover are often different from each other. That's because a headline is planned to catch attention from people — it has a good effect on making an important opinion among people. (①), many scientific researches make important results in an area of study or question researchers are interested in. They are not careful about what people think about their research.

② The best way to bridge this difference is to look at the original research behind a headline. We will give you a simple way of thinking about these three headlines. Remember the story of the first study, and then stop at the headline to find the wrong point.

Let's start with this story: a study using mice to test a new cancer drug. The study uses two groups of mice — one group given the drug, the other group with a *placebo. At the end, the mice *receiving the drug get well, while the others receiving the placebo do not.

Can you find the problem with this headline "Study shows new drug could be good for cancer?"

Because the *subject of the study [A]. Early research on new drugs and therapies is not done on humans. If the early results are hopeful, then *trials on humans are done to check that they have the same results in humans.

Then, let's try a difficult example: a study about the *influence of aspirin on heart diseases. The study makes two groups of men. The members of one group take an aspirin every day, while the others take a placebo to make sure that aspirin is an important way to *cure heart diseases. The members of the group who take placebos do not know that they are part of the control group, and they do the same thing as the members of the group who take aspirins. By the end of the trial, ③ the control group has more heart diseases than the group that takes aspirins.

In this situation, what's wrong with the headline "Aspirin may cut down the number of heart disease?" [B]

Studies often *limit the members' living place, age, *gender, or many other things. So similar studies need to be done on other groups. If a headline makes a piece of information

that can be used for every type of groups, it should draw its *evidence not only from one study but also from different types of research.

Finally, let's try this example: the influence of eating breakfast on weight loss. Researchers choose a group of people who don't have breakfast, and ask them to start eating breakfast every day. The members are men and women of different ages and backgrounds. Over a year-long time, members lose an average of two (④).

So what's wrong with the headline "Eating breakfast can help you lose weight?" In the study, the people start eating breakfast and lose weight, but we don't know that they lose weight because they start eating breakfast. Perhaps checking their weight makes them change their eating rules in other ways.

⑤ We need to compare these members with a group who doesn't eat breakfast in order to rule out the *possibility that some other reasons cause weight loss. The results of this research cannot be understood well because the researchers don't make any control groups. Big results for human health need lots of reasons. We should keep learning about medical science by reading behind the (⑥).

＊）aspirin：アスピリン（鎮痛薬の一種）
cover：を扱う
subject：対象
cure：を治療する
evidence：証拠
placebo：偽薬（ぎやく）
trial：試験
limit：を制限する
possibility：可能性
therapy：治療法
receive：を受け取る
influence：影響
gender：性別

問1　（　①　）に入る語句として最も適当なものを選び、記号で答えよ。

（ア）At first　　（イ）For example　　（ウ）In fact　　（エ）On the other hand

問2　下線部②を日本語にせよ。

問3　［　A　］に入る最も適当なものを選び、記号で答えよ。

（ア）is mice, we can check that this research will be good for humans

（イ）is mice, we can't check that this research will be good for humans

（ウ）is humans, we can check that this research will be good for humans

（エ）is humans, we can't check that this research will be good for humans

問4　下線部③の内容として最も適当なものを選び、記号で答えよ。

（ア）　アスピリンを投薬されるが、そのことは知らされずに、偽薬を投薬されたグループと同じことをするグループ。

（イ）　アスピリンを投薬されるが、そのことを知らされた上で、偽薬を投薬されたグループと同じことをするグループ。

（ウ）　偽薬を投薬されるが、そのことは知らされずに、アスピリンを投薬されたグループと同じことをするグループ。

（エ）　偽薬を投薬されるが、そのことを知らされた上で、アスピリンを投薬されたグループと同じことをするグループ。

問5　［　B　］に入るように次の英文を並べかえるとき、最も適当な配列を選び、記号で答えよ。

あ　So the opinion "aspirin may cut down the number of heart disease" is too wide.

い　This is because all the members taking part in it are men.

う　In this case, the study only shows that aspirin is good for heart diseases in men.

え　We must not think that the result found in men will also be found in women.

（ア）あ―い―う―え　　（イ）あ―う―い―え　（ウ）う―あ―え―い

（エ）う―い―あ―え　　（オ）え―あ―い―う　（カ）え―い―う―あ

問6　（　④　）に入る語として最も適当なものを選び、記号で答えよ。

（ア）centimeters　　（イ）kilograms　　（ウ）liters　　（エ）years

問7　下線部⑤について、なぜ2つのグループを比較する必要があるのか、最も適当なものを選び、記号で答えよ。

（ア）　朝食を食べないグループと、朝食を食べるグループを比較することで、朝食を食べること以外の体重を減らす方法を法則化するため。

（イ）　朝食を食べないグループと、体重を測るグループを比較することで、朝食を食べること以外の体重を減らす方法を法則化するため。

（ウ）　朝食を食べないグループと、朝食を食べるグループを比較することで、朝食を食べること以外の体重が減る理由を排除するため。

（エ）　朝食を食べないグループと、体重を測るグループを比較することで、朝食を食べること以外の体重が減る理由を排除するため。

問8　（　⑥　）に入る語として最も適当なものを選び、記号で答えよ。

（ア）headlines　（イ）opinions　（ウ）researchers　（エ）results

5 夕美（Yumi）とカナダからの留学生ジャスティン（Justin）の会話文を読んで、後の設問に答えよ。（＊は、あとに注釈のあることを示す。）

Justin: ①あなたはラクダがどこから来たと思いますか。

Yumi: I guess they came from Africa. I've heard they can live for many days in the hot desert without drinking any water because of their hump filled with water on their back.

Justin: You're off the mark. They were originally from *the Arctic, northern part of Canada.

Yumi: No way! They cannot live in such a cold area.

Justin: Dr. Natalia Rybczynski, a ②paleobiologist, found out that they were from the Arctic.

Yumi: What does "paleobiologist" mean?

Justin: A paleobiologist is an expert in digging up really old dead things, like *fossils. Now, one summer day in 2006, Natalia was walking in the Arctic and just picked up something that might be a fossil. At first, she thought it was just a piece of wood, because it was the kind of thing people had found there before — a very old plant part. That night, back at camp, she got out the hand lens. She looked a little more closely and found out that it didn't have tree rings. It looked like a *bone.

Yumi: Was it a bone of a camel?

Justin: That's right. At that time, however, she wasn't sure what it was because it was too small to tell whose bone it was. So over the next four years, she went to that place over and over, and finally collected 30 pieces of the same bone, but most of them were really small.

Yumi: She could find only a small part of the body. ③How did she know they belonged to a camel?

Justin: She showed one of the pieces to some friends of hers in Colorado. One of them noticed a smell that came from it. It was a smell of *collagen. It is the thing that gives *structure to our bones. Different species have different structures of collagen.

Yumi: So if you *identify the structure of collagen of an unknown bone, you can compare it with those of known species and tell whose bone it is.

Justin: Yes! And then they compared it with known and modern-day species. It was found out that the bone Natalia had found in the Arctic belonged to a camel.

However, based on the size of the bone that she found, it meant that the camel was 30 percent larger than modern-day camels. So the camel was about nine feet tall, and around a ton.

Yumi: That's amazing. Natalia had found a Giant Arctic camel. I'm wondering why the camel died in such a cold place as the Arctic.

Justin: Well, scientists have known, for a long time, even before Natalia's discovery, that camels are originally American. About 45 million years ago, there were more than 20 kinds of camels in North America. The early ones were really small, almost like rabbits.

Yumi: What? Rabbit-sized camels? I want a pet rabbit-camel.

Justin: I know. Isn't it great? Anyway, about three to seven million years ago, some of the camels went down to South America, and there they became llamas and alpacas, and others crossed over the Bering Land Bridge into Asia and Africa. And then around the end of the last *ice age, North American camels died out.

Yumi: That still doesn't fully explain why Natalia found one so far north. This is very different from the Sahara in *temperature. How could one of the camels live in those severe *conditions?

Justin: *What if those wide feet were *suitable to walk not over sand, but over snow, like a pair of snowshoes? What if that hump did not have water but *fat so that it could live during that six-month-long winter with little food? What if, after it crossed over the land bridge, it changed those winter *features for a hot desert environment? In fact, the hump may be helpful to camels in the desert because having all their fat in one place, like a fat backpack, means that it can protect their body from the heat of the sun.

Yumi: So do you want to say the hump was also helpful in the Arctic?

Justin: Exactly. I like this story. At first, Natalia thought a tiny piece of thing she found was not so important. However, she showed her interest in it and made a great discovery.

Yumi: Because of that, science today has a completely new idea about why this Saharan superstar looks like the camel today. ④ <u>We should be interested in anything so that we will have new ways of looking at the world.</u> This may change everything we know.

＊）the Arctic：北極圏　　fossil：化石　　bone：骨
collagen：コラーゲン　　structure：構造　　identify：を特定する
ice age：氷河期　　temperature：気温　　condition：状況
What if ~?：～だとしたらどうだろうか。　　suitable：適している
fat：脂肪　　feature：特徴

問１　下線部①を英語にせよ。

問２　下線部② paleobiologist の仕事として最も適当なものを選び、記号で答えよ。

（ア）　生の死体を解剖して、その死亡原因を医学的・科学的な観点から調査する。

（イ）　化石を中心に過去に生きていた生物を研究し、その生物の分類・生態・歴史・進化を明らかにする。

（ウ）　遺跡を発掘したり残された史料を元に歴史を研究したりして、歴史を後世に残す。

（エ）　生物から得られた検体に含まれる成分を分析することで、生物を分類する。

問３　下線部③について、本文の内容に即して具体的に説明するとき、空所に入る最も適当な日本語をそれぞれ答えよ。

骨の中に含まれる（　　ア　　）を調べて、（　　イ　　）種のものと比較することで、（　　ウ　　）とわかった。

問４　次の中で、Natalia の発見以前に分かっていたこととして本文で述べられていないものを1つ選び、記号で答えよ。

（ア）　北アメリカ大陸に住んでいたラクダの中には、現在のものより30% 大きいものもいた。

（イ）　ラクダはもともと北アメリカ大陸に住んでいた。

（ウ）　北アメリカ大陸に住んでいたラクダの中には、ウサギと同じくらいの大きさのものもいた。

（エ）　約500万年前、ラクダは北アメリカ大陸からアジア大陸やアフリカ大陸に向けて移動した。

問５　下線部④を日本語にせよ。

問６　本文の内容に合う最も適当な英文を選び、記号で答えよ。

（ア）　Yumi is surprised to find that she can see camels in Canada even now, because she has seen them only in Africa.

（イ）　Natalia picked up something like wood while walking in the Arctic, but soon she found out that it was a bone.

（ウ）　Llamas and alpacas are the same kinds of species as camels, but horses and sheep are different.

（エ）　The wide feet of camels were suitable to walk over snow, but are not suitable to walk over sand.

（オ）　Justine guesses that the hump was helpful to camels in the Arctic because it protected their body from the cold.