

英 語

(理工学部)

注意事項

- 1. 試験開始の合図があるまで、問題冊子を開いてはいけません。
- 問題冊子は1冊(16頁)です。解答用紙は,解答用紙(英語 マークシート)(第1
 問,第2問を解答)と解答用紙(英語 記述)(第3問を解答)の2枚です。落丁, 乱丁,印刷不鮮明の箇所があった場合には申し出てください。
- それぞれの解答用紙の所定の欄に氏名と受験番号を記入してください。また、解 答用紙(英語 マークシート)には受験番号を正しくマークしてください。
- 4. 解答は必ず解答用紙の所定の各欄に記入してください。

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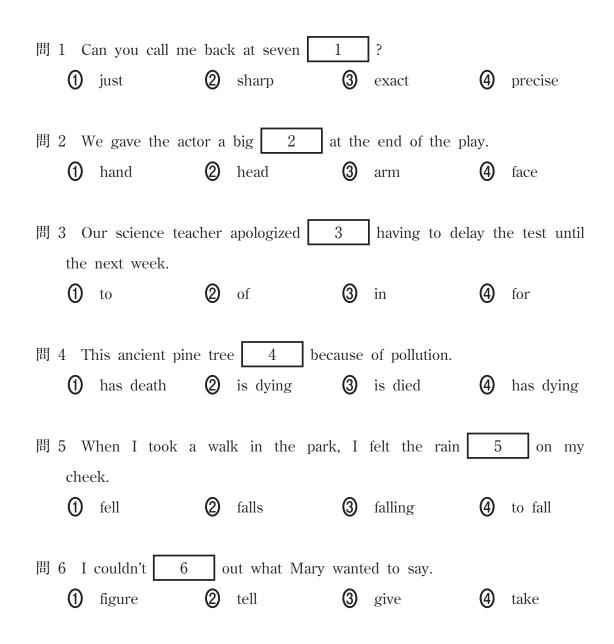
5. 第1問,第2問の解答は,解答用紙(英語 マークシート)の解答欄にマークしてください。例えば、10 と表示がある問いに対して③と解答する場合は,次の(例)のように解答番号10の解答欄の③にマークしてください。

例)	解答 番号	解答欄
	10	0 2 3 4

- 6. 解答用紙は持ち帰ってはいけません。
- 7. 問題冊子は持ち帰ってください。

第1問 次の問い(A, B)に答えなさい。

A. 次の問い(問1~15)の 1 ~ 15 に入る最も適切なものを、それ ぞれ下の()~()のうちから一つずつ選び、解答用紙(英語 マークシート)の解 答欄にマークしなさい。



-1 -

問7 A:Oh, no! It's sta B:Well, maybe 7.	C ,	on. Let's have a	. 0			
 on the side in the meantime 		(2) on the whole(4) in the long r	un			
問8 A: Do you think Alex is a better rugby player than George? B: That's a difficult question. I believe George is 8 Alex, because they're both powerful and fast. ① superior to ② familiar to ③ equal to ④ inferior to						
問9 Many people put a home!" ① in ②	sign 9 th) on	ne wall of their hou 3 off	uses saying "Stay ④ at			
問10 After a long period finally meet in <u>10</u> ① place ②	at home.	he mother and her	r daughter could (4) each			
問11 Judging from your smooth speech in English, I 11 you've studied English for many years. ① pretend ② assume ③ consume ④ resume						
問12 The refugees walke ① out ②	d a long distance) in	e and wore 12 3 on	their shoes. (4) at			
問13 He completed his ta ① edge ②	ask at the 13) cost	of time with hi (3) margin	s friends. ④ chance			

-2 -

問14 I can't go home because I have a good 14 of work to do.						
1 deal	2 much	3 many	(a) status			
問15 As simple examination.	15 it is, I	couldn't solve tha	t question in the			
() so	(2) that	3 as	(4) while			

- B. 次の問い(問16~30)の各文は誤った英語表現を含んでいます。訂正の必要な箇所を下線部①~④のうちから一つずつ選び,解答用紙(英語 マークシート)の解答欄にマークしなさい。
 - 問16 If it will stop raining soon, shall we go to the park on foot? ① ① ③
 - 問17 Takashi <u>told</u> me <u>that</u> this point was <u>the most deepest</u> <u>in this lake</u>. ③ ④
 - 問18 It was so careless for Sally to forget her laptop computer on the train. $\overline{(1)}$
 - 問19 <u>Last month</u>, Jun and <u>his twin brother</u> took the entrance exam $\underbrace{\begin{array}{c} 1\\ \hline 1\\ \hline 2\\ \hline 3\\ \hline \end{array}}$ <u>at the same school</u>. Jun passed the exam, and so <u>his brother did</u>. ④
 - $\mathbb{H}20$ I'm terribly sorry for having not called you for a couple of months.①②
 - 問21 <u>Recently</u>, the number of international students <u>who</u> <u>study in</u> Japan <u>have been increasing</u>. ④
 - 問22 The Secretary-General of the United Nations <u>says</u>, "We must get these <u>talks</u> <u>start</u> <u>again</u>." (1)
 - 問23 That student <u>didn't</u> have a computer, <u>so</u> the teachers <u>let</u> him borrow <u>their</u>. <u>④</u>

 - 問25 Please show me the inside of the bag such that I can see your 0 <u>belongings</u>.

- 問26 <u>Luckily</u> his wish to be one of the famous <u>actor</u> has turned <u>out</u> to be true.
- \exists It neverhappenedto methatmy wordswouldhurtyour feelings. \exists \exists
- 問28 <u>Since</u> then I <u>have</u> <u>become</u> to know him very <u>well</u>. ④ ③
- 問29 I'm sorry, but I <u>feel</u> a little <u>confusing</u> by <u>what</u> you've <u>told</u> me. ① ③ ③ ④ ④

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第2問 次の問い(A, B)に答えなさい。

A. 次の英文を読み、下の問い(問 $1 \sim 5$)の 31 ~ 35 に入る最も適切なものを、それぞれ下の($\hat{1} \sim \hat{4}$ のうちから一つずつ選び、解答用紙(英語 マ $-2 \sim -5$)の解答欄にマークしなさい。

著作権により不開示

著作権により不開示

*astronomer:天文学者

*seismograph:地震計

*pendulum(s):振り子

(Singiresu S. Rao (1995)から一部内容を変更して引用)

- 問 1 According to the passage, why was it necessary for Zhang Heng to invent a seismograph around the middle of the second century? 31
 - (1) To understand how much rain was falling.
 - (2) To calculate wind speed and direction.
 - **③** To understand more clearly about earthquakes.
 - **④** To calculate the exact movement of pendulums.
- 問 2 According to the passage, why was it useful for the metal ball to fall loudly into the frog's mouth? 32
 - (1) To shift the pendulum's swing from left to right.
 - 2 To give people information about earthquakes.
 - (3) To increase the size of the large metal vase.
 - (4) To make the dragon heads turn toward the frogs.

- 問 3 According to the passage, why was Galileo's time considered the "Century of Genius?" 33
 - (1) Many scientists studied the movement of ceiling lamps and pendulums.
 - 2 New countries and different cultures were discovered during that period.
 - (3) It was a time when today's science and philosophy were introduced.
 - (4) Italian universities were considered the best places in the world to study.
- 問 4 According to the passage, what is NOT described about Galileo Galilei? 34
 - (1) He was born in the middle of the sixteenth century.
 - (2) He was considered the father of today's science.
 - (3) He invented a scientific instrument to study the stars, moon, and planets.
 - (4) He became very interested in studying the movement of the pendulum.

問 5 What is the best title for this passage? 35

- (1) The Important Role of the Pendulum in Mechanics and Science
- (2) The Contribution of Zhang Heng and Galileo Galilei to Science
- (3) The Measurement of the Movement of Earthquakes and Pendulums
- (4) The Influence of Dragons and Frogs through the Ages

B. 次の英文を読み,下の問い(問1~5)の 36 ~ 40 に入る最も適切なものを,それぞれ下の()~()のうちから一つずつ選び,解答用紙(英語 マ -2 - 1)の解答欄にマークしなさい。

Many microbes^{*} in the world are very useful. They help people and our Earth to stay well. Some even do helpful work inside our bodies.

People use some microbes to make various kinds of foods almost every day. For example, microbes help people make bread. When flour, salt, sugar, and water are mixed with microbes for making bread, they feed on the sugar and make carbon dioxide^{*} and other substances. The carbon dioxide gas makes the bread become bigger and lighter. When the bread is baked, the other substances help to flavor it. Microbes are useful for storing food, too. Some microbes give foods their special flavors and help people keep food longer. Some popular examples are soy sauce and *kimchi*.

After we eat, some of the natural microbes in our stomachs help our bodies to break down the food into sugars that our cells can use for energy. They also help us to get important things like vitamins from the food. Moreover, some microbes protect our health. To help the useful microbes in our stomachs, we should eat more foods like fruits and vegetables, brown bread, and brown pasta. We should not eat too many sweet and fatty foods like ice cream, chocolate, or French fries.

There are microbes in soil that help to break down plant and animal waste into tiny pieces. Putting food and plant waste together, mixed with these microbes, makes useful new plant food. Plants can take useful things from the waste to grow. Farmers and gardeners mix this with soil to help their plants to grow well.

A fuel is a substance that people use to produce heat or to make machines work. People can use microbes to change waste into fuel. They put plant and animal waste inside a special machine, where microbes feed on it. The microbes' activity makes fuel. The machine holds the fuel so that people can use it for cooking food and heating water.

*microbes:微生物

*carbon dioxide:二酸化炭素

(Louise Spilsbury and Richard Spilsbury (2010) から一部内容を変更して引用. Reproduced by permission of Oxford University Press from Cells And Microbes by Louise Spilsbury and Richard Spilsbury © Oxford University Press 2010.)

問 1 According to the passage, what is true? 36

- (1) Microbes do not affect the taste of foods.
- ② Some microbes are useful for making common foods.
- 3 Flour makes carbon dioxide and gives bread its flavor.
- (4) Microbes do not help to preserve foods.

問 2 According to the passage, what are some ways microbes help us use food inside our bodies? 37

- ① To get energy and vitamins from the food.
- 2 To eat more brown breads and vegetables.
- **③** To make carbon dioxide so we can notice flavors.
- (4) To protect the sugars for our health.

問 3 According to the passage, what do microbes do for farming?

- (1) They keep waste in good condition for growing plants better.
- 2 They protect vitamins longer to mix with waste for gardeners.
- (3) They break plant and animal waste into particles that plants can use to grow.

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(4) They protect plant waste from animals and insects.

問 4 What does the passage say about fuel? 39

(1) Waste cannot be used as fuel to make machines work.

- 2 Some microbes can feed on waste and make fuel.
- 3 Some microbes make fuel from the soil people use.
- (4) Special machines like cars use microbes and soil to work.

問 5 What is the best title for this passage? 40

- () How Microbes Help Our Life
- (2) How Microbes Work in Our Bodies
- **③** How Microbes Use Soils
- (4) How Microbes Make Fuel

第3問 次の二つの英文(A, B)中の下線部 41 ~ 60 に入る適切な英単語 を, 解答用紙(英語 記述)の解答欄に書きなさい。

注意 1. 一つの下線部につき単語一つを書くこと。 2. 例にならって書き出しの文字を含めた英単語を書くこと。

例

I went to the <u>lib</u>例 to return a book but it was closed. 解答:library

А.

Football: The Beautiful Game

Football is very old. More than 2,000 years ago the Chinese were playing a ball game \underline{c} 41 *Tsu Chu or Cuju*. The Greeks, the Romans, and the Japanese also played ball games using their feet. In Britain by the year A.D. 217, village teams were playing football \underline{ag} 42 other village teams. By the year 900, the Chinese were playing a kind of football game with rules, and with goalposts^{*} and nets.

By the 1300s, there was a lot of football in England and other European co 43, but it was not the game that we know today. Sometimes there were hundreds of men in each team and there was a lot of fighting.

For this <u>r</u> 44, the English kings did not like football, and many of them tried to stop the game. In 1314, the English king Edward the Third said that football was bad and <u>dan</u> 45. Too many people were getting hurt. Some years later, another English king, Richard the Second, said that all football must stop. But people did not <u>li</u> 46. They went on playing football.

By the 1800s, there was a lot of football being played in schools in

England, but the rules were very different from one place to an 47. In some schools players could kick the ball and throw it with their hands, but in others they could only kick it. So, in October 1863, a gr 48 of men met in London to start the Football Association – the FA– and to write some rules for the game. They talked a lot about what players could and could not do, but after a nu 49 of meetings they said that association football players could not run with the ball in their hands. This was the beginning of mo 50 football.

*goalposts:ゴールポスト

(Football the Beautiful Game から一部内容を変更して引用. Reproduced by permission of Oxford University Press from The Beautiful Game: Factfiles by Steve Flinders © Oxford University Press 2009.)

Saving Farmland

Deserts all <u>o</u> <u>51</u> the world are getting bigger because of our activities. But in recent years some organizations have helped to change the management of water and the farming methods in dry land areas. These changes are very important for the future of <u>gr</u> <u>52</u> food.

In the past, some governments and international organizations started big projects to help the farmers in dry places, but these were not al 53 the best solutions. Now we understand that small projects which involve local people are better.

Sustainable^{*} resource management is <u>nec</u> 54 for protecting environments. For instance, in some areas people now use special ovens to cook food. They work with energy from the sun and not wood. In this way, \underline{f} 55 trees need to be cut down.

In the African Sahel, trees are planted to protect the soil and to store water in the environment. Trees can also be used to create natural protection and stop the soil from blowing away. In China, they have <u>b</u> 56 a 70-year tree planting project. Trees will be planted to make the "Green Wall of China." It will protect cities and people in them from <u>sa</u> 57 from the Gobi Desert. It will be very long, about 5000 km, but not as long as the Great Wall of China.

Other projects are designed to manage water sustainably. For e 58, water from nearby mountains can be caught and stored to use in the future. Rainwater can also be collected and then used for farming, cooking, and washing. Another simple water sa 59 method is to put large stones around the bottom of a tree. The stones stop the dirt there from drying out.

Many of these solutions are very simple. In f _____ 60 , one

important method to remember is to learn about the local conditions and understand what the people living there need and want to do.

*sustainable:持続可能な

(Natural Environments から一部内容を変更して引用)