

デザイン工学部A方式Ⅱ日程・理工学部A方式Ⅱ日程  
生命科学部A方式Ⅱ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。

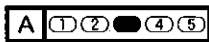
マークシート解答方法についての注意

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)。

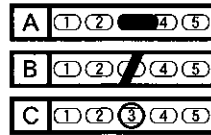
記入上の注意

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。

[ I ] 次の英文を読み設問に答えよ。

Apes, monkeys, and humans are all primates. Apes are similar to monkeys, but have no tail or only a very short tail. Gorillas and chimpanzees are apes. Walking through the forest, we might sometimes hear various calls of apes and monkeys.

Do apes and monkeys have a secret language that has not yet been decoded? And if so, will it resolve the mystery of how the human faculty for language evolved? Biologists have approached the issue in two ways, by trying to teach human language to chimpanzees and other species, and by listening to animals in the wild.

The first approach has been propelled by people's intense desire to communicate with other species. Scientists have invested enormous effort in teaching animals language. But with a few exceptions, it has proved to be a dead end. They should speak, perhaps, but they do not. They can communicate very expressively — think how definitely dogs can make their desires known — but they do not link symbolic sounds together in sentences or have anything close to language.

Better insights have come from listening to the sounds made by animals in the wild. Vervet monkeys were found in 1980 to have specific alarm calls for their most serious predators. When the calls were recorded and played back to them, the monkeys  respond appropriately. They jumped into bushes  hearing the leopard call, scanned the ground  the snake call, and looked up  played the eagle call. It is tempting to think of the vervet calls as words for “leopard,” “snake” or “eagle,” but that is not really so. The vervets do not combine the calls with other sounds to make new meanings. Their alarm calls seem less like words and more like a person saying “Ouch!” — a vocal representation of an inner mental state rather than

an attempt to convey exact information.

Some species may be able to produce sounds in ways that are a step or two closer to human language. Campbell's monkeys can vary individual calls by adding suffixes, just as a speaker of English changes a verb form to the 

|   |
|---|
| E |
|---|

 one by adding an "-ed." The Campbell's monkeys give a "krak" alarm call when they see a leopard. But adding an "-oo" changes it to a general warning of predators. The krak-oo sound is used when they hear the leopard alarm calls of another species, the Diana monkey.

Monkeys and apes possess many of the faculties that underlie language. They hear and interpret sequences of sounds much like people do. They have good control over their vocal organs and could produce much the same range of sounds as humans. Yet monkeys have been around for 30 million years without saying a single sentence. Apes, too, have nothing resembling language, though they shared a common ancestor with humans just several million years ago.

One reason may be that they lack the recognition that others have thoughts. Children from the youngest ages have a great desire to share information with others, even though they gain no immediate benefit in doing so. Not so with other primates.

At some point in human evolution, people developed the desire to share thoughts. Luckily for them, all the underlying neural<sup>註</sup> systems of perceiving and producing sounds were already in place as part of the primate heritage, and natural selection had only to find a way of connecting these systems with thought.

Yet it is this step that seems the most mysterious of all. Some experts on animal communication see the free interaction between different neural systems as critical to the development of language. For whatever reason, maybe by accident, our brains are interactive in a way, and once this emerges

it's explosive. In animal brains, by contrast, each neural system seems to be locked in place and cannot interact freely with others. So, their neural systems have not been married to language.

(c) "I'm becoming pessimistic," one researcher said of the efforts to explore whether animals have a form of language. "The methods we have may be just impoverished and won't get us to where we want to be as far as demonstrating anything like language." (d) Yet, as is evident from research, there are many seemingly meaningless sounds in the forest that convey information in ways perhaps akin to language.

注 neural : 神経の

1. 空欄  ~  に入る最も適切な単語をそれぞれイ~ニから一つ選び、その記号を解答用紙にマークせよ。

- |              |           |         |               |
|--------------|-----------|---------|---------------|
| A : イ will   | □ can     | △ would | ニ should      |
| B : イ on     | □ by      | △ to    | ニ over        |
| C : イ in     | □ at      | △ for   | ニ from        |
| D : イ having | □ before  | △ where | ニ when        |
| E : イ future | □ present | △ past  | ニ progressive |

2. 文中の下線部(a)~(d)の表現の内容に最も近いものをイ~ニから一つずつ選び、その記号を解答用紙にマークせよ。

(a) They should speak, perhaps, but they do not.

イ They can speak, only they do not.

ロ If they wanted to speak, they should do.

ハ They might be expected to speak, but actually they do not.

ニ They ought to speak after training, but they hesitate to do so.

(b) Better insights

イ Better scenes than those observed in the first approach

ロ Better research than was done in the wild before

ハ Better vision than animals had

ニ Better understandings than those obtained by animal training

(c) have not been married to language

イ have not been connected to language

ロ have not been included in language

ハ have denied language

ニ have not been affected by language

(d) won't get us to where we want to be

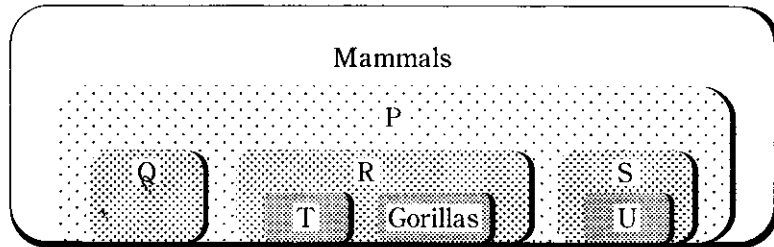
イ will deprive us of our intention to do research

ロ will not make us lose our way

ハ will not lead us to the target of our research

ニ will not take us to the forest of language

3. 次の図は文中に出てくる動物の分類を示したものである。図中のP～Uに当てはまる最も適切な語をイ～チから一つずつ選び、その記号を解答用紙にマークせよ。



図：動物の分類

- |             |               |           |           |
|-------------|---------------|-----------|-----------|
| イ Apes      | □ Chimpanzees | ハ Humans  | ニ Monkeys |
| ホ Predators | へ Primates    | ト Species | チ Vervets |

4. 下線部(X)の語 Yet を本文と同じ意味で用いた英文をイ～ニから一つ選び、その記号を解答用紙にマークせよ。

- イ Prices climb higher and yet higher while the government continues to do nothing.
- I am tired, and yet I can't sleep.
- ハ Yet again we have had the tragedy of an airline accident.
- ニ They received no U.S. aid, nor yet requested any.

5. 本文の内容と一致する英文をイ～トから二つ選び、その記号を解答用紙にマークせよ。

- イ It is believed that the interaction between different neural systems in our brain is very important to the development of language.
- ロ Though monkeys and apes have the same language capabilities as humans, they cannot say even a single sentence despite their desire to do so.
- ハ Hearing a recording of predator's calls, only vervet monkeys took appropriate action quickly.
- ニ Apes have larger brains than monkeys and are expected to have something akin to language.
- ホ Some monkeys can recognize the combination of two sounds, and attach a new meaning to its sequence.
- ヘ Apes and monkeys could produce all the sounds humans produce, but they don't attach any meanings to the sounds because there has been no evolutionary pressure from predators.
- ト Animals produce many unknown calls which may convey some information like language. However, humans could not interpret these codes even if a new research method was developed.

6. 本文の表題として最も適切なものをイ～ホから一つ選び、その記号を解答用紙にマークせよ。

- イ Calls in the forest form a language
- ロ What is language?
- ハ Development of animal calls
- ニ Difference between apes and monkeys
- ホ Do apes and monkeys have a language?

〔Ⅱ〕 次の各設問に答えよ。

1. 次の会話文の空欄に入る最も適切なものをそれぞれイ～ニから一つ選び、その記号を解答欄にマークせよ。

(1)

A : You look depressed. What's on your mind?

B : I broke up with my boyfriend.

A : Oh, did you?  Tomorrow's another day!

B : Thank you.

イ Say cheese.

□ Be careful.

ハ Cheer up.

ニ Be childlike.

(2)

A : Taro, have you finished your math paper?

B : No, not yet. I don't feel like starting it at all.

A : Oh, come on! I haven't, either. I really think "The first step is always the hardest." Why don't we do it together?

B : That's a good idea.

イ I bet you've done it.

□ I am afraid you haven't started yet.

ハ I am afraid you don't like it.

ニ I bet you've never finished it.

(3)

A : Cash or credit?

B : Do you accept traveler's checks?

A : I'm afraid not. We don't accept any kind of traveler's checks.

B : OK. Then I'll pay by credit card.

イ Will this card run?

□ Will this card pass?

ハ Will this card go?

ニ Will this card do?



(4)

A : Do you have a table for four?

B :  I'm afraid you'll have to wait for  
20 minutes or so.

A : All right. We'll get some drinks at the bar.

B : May I have your name, sir?

イ We have two parties above you.

ロ We have two parties for you.

ハ We have two parties forward you.

ニ We have two parties ahead of you.

(5)

A : Taro, would you do me a favor? Could you please work overtime  
tomorrow?

B :  I told you I would be going out  
with my girlfriend.

A : I know. But we do have to finish our project by the day after  
tomorrow. Otherwise, I'm afraid we might lose the trust of our client.  
I do need your help!

B : (With a sigh) All right, if you insist.

イ Don't cheat!

ロ You must be kidding!

ハ No more excuse!

ニ None of your business!

2. 次の各文の空欄に入る最も適切な語を下の欄イ～へから一つ選び、その記号を解答欄にマークせよ。

- (1) They've finally given us the  light, so we can start the project straight away.
- (2) The police caught him -handed trying to steal someone's wallet.
- (3) It was such a surprise. Johnny just appeared out of the .
- (4) The company is back in the  after a year of heavy losses.
- (5) She went as  as a sheet when she heard the sad news.

イ black

ロ gray

ハ red

ニ white

ホ green

ヘ blue

〔Ⅲ〕 次の英文を読み設問に答えよ。

Scientists have long speculated that dinosaurs were a dull brown or spotted gray. But researchers studying the fossils of an ancient dinosaur say they've found new evidence that the creature wore vibrantly colored feathers. The discovery expands scientists' understanding not only of how some dinosaurs looked but also how they behaved.

US and Chinese scientists reconstructed the feathers of a 150-million-year-old flightless dinosaur called *anchiornis huxleyi*, using an electron microscope and thirty fossilized feathers that once covered the cat-sized creature.

Researchers focused their attention on chemical compounds in the feathers called melanosomes, tiny color-producing structures that formed in the feather during the creature's development. They compared these structures to the melanosomes that determine the color of feathers on living birds, and were then able to figure out the colors of the ancient dinosaur's feathers.

Richard Prum, an evolutionary biologist at Yale University in Connecticut, says the melanosomes of the ancient dinosaur, whose fossil remains were found in Lianong Province in China, were very well preserved. Prum says reconstructing the feathers of *anchiornis* was  painting a picture by numbers.

"There was this moment when I had the pleasure to go back over the data and find out, patch twenty-two, where is that on the body? And patch seven, where is that color? And  the blanks," said Richard Prum.

The result was a mostly gray dinosaur covered from head to toe with vivid feathers.

"The crest was a light brown color," he said. "And then what's quite striking is that it has brilliantly white wings with each of the white feathers having a black tip.<sup>(2)</sup> And also it had these long feathers on its legs, what in some dinosaurs have been called leg wings, and the feathers of the legs have<sup>(3)</sup>

the same pattern of a bright white feather with a black tip.”

If it  X still alive, researchers say *anchiornis huxleyi* would be a very striking creature. Today, they say the dinosaur most resembles a bird <sup>(4)</sup> called a Spangled Hamburg chicken. The colorful feathers, says Prum, were probably useful in attracting mates.

Researchers believe they captured the appearance of the flightless dinosaur with ninety percent  Y. Prum says researchers plan to use the method to piece together the colors of other feathered dinosaurs.

“This is the first page in a field guide to the extinct dead feathered dinosaurs,” said Prum. “And I  Z expect within the next few years this book will get to be quite thick. This kind of research is doable, and with <sup>(5)</sup> access to material we should know a lot about the color patterns on the body of a lot of these organisms.”

1. 次の単語の中で下線部の発音が異なるものを一つ選び、記号で答えなさい。

- |                       |                    |                    |
|-----------------------|--------------------|--------------------|
| (1) イ <u>n</u> inety  | □ <u>d</u> inosaur | ハ <u>s</u> triking |
| ニ <u>b</u> rilliant   | ホ <u>a</u> live    |                    |
| (2) イ <u>r</u> eason  | □ <u>c</u> reature | ハ <u>l</u> eague   |
| ニ <u>p</u> leased     | ホ <u>f</u> eather  |                    |
| (3) イ <u>a</u> ncient | □ <u>p</u> attern  | ハ <u>a</u> lphabet |
| ニ <u>b</u> alcony     | ホ <u>b</u> lack    |                    |
| (4) イ <u>f</u> ossil  | □ <u>m</u> oment   | ハ <u>c</u> ollege  |
| ニ <u>i</u> mpossible  | ホ <u>h</u> oliday  |                    |

2. 空欄  ~  に入る最も適切な語(句)をイ~ニから一つ選び、その記号を解答用紙にマークせよ。

- |   |           |           |             |              |
|---|-----------|-----------|-------------|--------------|
| V | イ close   | □ like    | △ near      | ニ most       |
| W | イ fill on | □ fill to | △ fill with | ニ fill in    |
| X | イ is      | □ were    | △ should be | ニ has been   |
| Y | イ scale   | □ ratio   | △ accuracy  | ニ proportion |
| Z | イ fully   | □ once    | △ long      | ニ very well  |

3. 下線部(1)~(5)の言い換えとして最も適切な語(句)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) speculated

- |             |              |
|-------------|--------------|
| イ asserted  | □ guessed    |
| △ protested | ニ complained |

(2) brilliantly

- |             |              |
|-------------|--------------|
| イ vibrantly | □ vigorously |
| △ violently | ニ vitally    |

(3) tip

- |       |          |
|-------|----------|
| イ cap | □ crown  |
| △ end | ニ summit |

(4) striking

- |              |           |
|--------------|-----------|
| イ impressive | □ obvious |
| △ rare       | ニ visible |

(5) doable

- |              |               |
|--------------|---------------|
| イ believable | □ fashionable |
| △ valuable   | ニ feasible    |

4. 本文の内容と一致する英文をイ～チから二つ選び、その記号を解答用紙にマークせよ。

イ As a result of the keen debate, scientists have reached the conclusion that dinosaurs had black feathers with a white tip.

ロ Many researchers doubted that dinosaurs were dark brown or gray.

ハ *Anchiornis huxleyi* was reconstructed with an electron microscope and thirty feathers taken from living birds.

ニ It was discovered that *anchiornis huxleyi* was an ancestor to a Spangled Hamburg chicken.

ホ *Anchiornis huxleyi*, which had been thought extinct, was captured alive in China.

ヘ The dinosaurs reconstructed by US and Chinese researchers were as big as cats.

ト Researchers compared melanosomes in the feathered dinosaurs and those in the living birds to identify the colors of dinosaurs' feathers.

チ The dinosaurs were very likely to use their feathers to threaten their predators.

〔IV〕 次の各設問に答えよ。

1. 次の各文の空欄に入る最も適切な前置詞を下の欄イ～リから一つ選び、その記号を解答欄にマークせよ。

- (1) Michael dropped out  college after failing his first year examinations.
- (2) The doctor has advised him to cut down  sugar and fat.
- (3) She showed him  the ground floor of the school building.
- (4) The new manager will take over  Mr. Johnson, who is retiring at the end of August.
- (5) He ran  an old neighbor of his at the shop this afternoon.

|          |        |        |
|----------|--------|--------|
| イ around | ロ for  | ハ at   |
| ニ by     | ホ into | ヘ on   |
| ト from   | チ of   | リ with |

2. 次の文を完成させるのに最も適切な動詞形をイ～ニから一つ選び、その記号を解答欄にマークせよ。

- (1) A neighbor asked for the music to be  down and the party broke up.

イ closed      ロ let      ハ broken      ニ turned

- (2) Eventually I  in to temptation and had an ice cream.

イ gave      ロ got      ハ came      ニ let

- (3) Nick and Ellen seem to be  along much better these days.

イ pulling      ロ making      ハ looking      ニ getting

- (4) He  up with a great idea for increasing sales.

イ met      ロ came      ハ kept      ニ ran

- (5) This building  out from the rest because of its design.

イ looks      ロ makes      ハ stands      ニ stays

[V] 次の英文を読み設問に答えよ。

When I get into cocktail-party conversation about language and politics, someone inevitably says "... and of course there's the rise of China." It seems <sup>(1)</sup> like any conversation these days has to work in the rise-of-China angle.

I was reminded of this walking down New York's Park Avenue last night, when I saw a pre-school offering immersion <sup>(2)</sup> courses in French, Italian, Spanish and Chinese. For years now, we've been seeing stories like this: Manhattan parents, always eager to steal some advantage for their children, are hiring Chinese-speaking nannies<sup>注1</sup>, so their children can learn what some see as the language of the future.

But while China's rise is real, Chinese is in no way rising at the same rate. Yes, Mandarin Chinese<sup>注2</sup> is the world's most commonly spoken language, if you simply count the number of speakers. But the drawback <sup>(3)</sup> is that they're almost all in China. Indeed, we've also read that Mandarin is advancing in Hong Kong, Taiwan, and overseas Chinese communities (which have traditionally spoken one of China's other languages, such as Cantonese). And China is trying to expand the use of the language through the expansion of its overseas Confucius Institutes<sup>注3</sup>. But English remains the world's most important language. America's superpower status has made it everyone's favorite second language. This is where its power <sup>(X)</sup> lies. A Japanese businessman does deals in Sweden in English. A German airline pilot landing in Milan speaks English to the tower. English is also the language of writing intended for an international audience, whether scientific, commercial, or literary.

Could Chinese gradually assume <sup>(4)</sup> this role as the world's language of communication? I'll venture a prediction: No. Not as long as Chinese is written in traditional Chinese characters.

It's not terrifyingly hard to learn to speak Chinese. Mandarin has few of



the vast combination of noun- and verb-endings that make languages like Russian or Arabic so difficult. Sentences are built on a simple system which has the same word order as in English. For example, *wo shi zhong guo ren* (我是中国人) can be translated literally as “I am a Chinese.”

The hardest part for non-Asians is probably mastering the “tones.” Mandarin Chinese distinguishes four pitch patterns which make a difference in meaning. The word “*ma*” pronounced with a falling pitch functions as a verb meaning “curse,” while the same sound pronounced with a rising pitch means “hemp.” It also means something completely different: “mother” when pronounced with a flat pitch, and “horse” with a dipping pitch.

But writing is a different story. Normal adult literacy requires a knowledge of at least 3,000 characters, which must be memorized to read and write. Recurring symbols within characters can offer clues to sound and meaning, but they don’t quite clarify the whole. Chinese people take years to learn the basics and many more to comprehend a full range of characters (the biggest dictionaries have more than 60,000 of them). For a foreigner, the task is immense — a mammoth memorization challenge on top of the effort of learning to speak a foreign tongue, usually undertaken in adulthood, without the benefit of immersion.

There is, of course, an alternative. Chinese can be written with the Roman alphabet (there’s an official system called *pinyin*), for the benefit of foreigners. Chinese people also use *pinyin* to enter Chinese characters on a standard computer keyboard. But China has resisted all attempts to simply switch to the alphabet mainly because each Chinese character is an ideograph which symbolizes a thing or particular idea.

So should you teach your kids Chinese? Well, foreign languages are always a good thing to know, and if you really want them to live and work intensively in China, sure. But despite China’s rise, Chinese isn’t the world language of the future; the writing system simply makes it far too hard for the

vast majority of the world's people to use if they care to reach for the widest possible audience. I simply can't imagine a Dutch physicist in 2110 learning Chinese in order to write up his research, or Finnish musicians recording in Chinese, the language "everybody" knows.

If China switches to an alphabet? That's a different story.

注1 nannies: women employed by parents to look after their children

注2 Mandarin Chinese: the standard form of Chinese

注3 Confucius Institutes: public institutions to promote Chinese language and culture internationally

1. 下線部(1)~(7)の言い換えとして最も適切な語(句)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) inevitably

イ as a result

□ as a matter of course

ハ as usual

ニ as it were

(2) immersion

イ extensive

□ comprehensive

ハ totally soaked

ニ complete involvement

(3) drawback

イ difficulty

□ delay

ハ easiness

ニ advantage

(4) assume

イ suppose

□ carry over

ハ undertake

ニ undergo

(5) comprehend

イ look into

□ listen to

ハ understand

ニ hand off

(6) immense

イ immediate

□ advanced

ハ distant

ニ enormous

(7) an alternative

イ another adjustment

□ another opportunity

ハ another addition

ニ another option

2. 本文の内容と一致する英文をイ～チから二つ選び、その記号を解答用紙にマークせよ。

- イ Chinese is a very difficult language to acquire because it has so many dialects not only in the country but also in the oversea Chinese settlements.
- ロ Chinese is relatively easy for English speakers to speak because it has a word order similar to that of English and also because its verb forms are simple.
- ハ You need to be familiar with at least 60,000 Chinese characters for daily use.
- ニ New York parents found it easy to find Chinese teachers because many Chinese immigrant communities have long been established in many cities of the U.S.
- ホ Writing Chinese in the Roman alphabet hasn't been successful but they simplified many characters in an effort to increase the number of foreign learners.
- ヘ Sooner or later Chinese will become an international language replacing English as long as China's economic rise continues.
- ト Chinese is regarded as the language of the future by some American parents, so they are keen to have their children learn Chinese.
- チ No matter how hard Americans learn Chinese, they will fail to become fluent in it because English is already established as the language of the world.

3. 下線部(X) its power の指す内容をイ～ニから一つ選び、その記号を解答用紙にマークせよ。
- イ the power of the Chinese language
  - ロ the power of the English language
  - ハ China's political power
  - ニ America's political power
4. 下線部(Y) sure の持つ意味をイ～ニから一つ選び、その記号を解答用紙にマークせよ。
- イ surely you should learn foreign languages
  - ロ you should go to China to live and work
  - ハ you surely need to learn Chinese characters
  - ニ you should teach your children Chinese
5. 下線部(Z) if they care to reach for の言い換えとして適切な表現をイ～ニから一つ選び、その記号を解答用紙にマークせよ。
- イ when they want to speak Chinese to
  - ロ though they want to be mixed with
  - ハ even if they take care of the Chinese language for
  - ニ when they wish to make themselves understood by
6. 本文の表題として最も適切な英文をイ～ホから一つ選び、その記号を解答用紙にマークせよ。
- イ China's rise in the world community
  - ロ Some difficulties in the Chinese writing system
  - ハ Prospect of Chinese as an international language
  - ニ Advantages and disadvantages of learning Chinese
  - ホ Americans' eagerness for learning Chinese

7. 中国語で語 *ma* を発音するときその声調(tones)と意味の組み合わせとして正しいものをイ～ニから一つ選び、その記号を解答用紙にマークせよ。

|    |   |    |   |    |   |    |   |
|----|---|----|---|----|---|----|---|
| イ  |   | ロ  |   | ハ  |   | ニ  |   |
| →  | 罵 | →  | 母 | →  | 馬 | →  | 麻 |
| ↗  | 馬 | ↗  | 麻 | ↗  | 母 | ↗  | 罵 |
| ↘↗ | 麻 | ↘↗ | 馬 | ↘↗ | 麻 | ↘↗ | 馬 |
| ↘  | 母 | ↘  | 罵 | ↘  | 罵 | ↘  | 母 |