

一般入学試験

英語 (70分)

I 注意事項

- 1 試験開始の合図があるまで、この問題冊子の中を見てはいけません。
- 2 この問題冊子は17ページあります。ただし出題ページは下記のとおりです。
4~17ページ
- 3 試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁および解答用紙の汚れ等に気づいた場合は、手を挙げて監督員に知らせなさい。
- 4 解答用紙には解答欄以外に次の記入欄があるので、その説明と解答用紙の「記入上の注意」を読み、それぞれ正しく記入し、マークしなさい。
 - ① 受験番号欄
受験番号を記入し、さらにその下のマーク欄にマークしなさい。正しくマークされていない場合は、採点できないことがあります。
 - ② 氏名欄
氏名・フリガナを記入しなさい。
- 5 試験開始後30分間および試験終了前5分間は退出できません。
- 6 この表紙の受験番号欄に受験番号を記入しなさい。この問題冊子は試験終了後回収します。

II 解答上の注意

- 1 解答はすべて解答用紙の所定の欄へのマークによって行います。たとえば、

3

と表示のある問いに対して②と解答する場合は、次の〈例〉のように解答番号3の解答欄の②をマークします。

〈例〉

解答 番号	解 答 欄									
	1	2	3	4	5	6	7	8	9	0
3	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

受 験 番 号			

SKR07R001

1 つぎの英文を読み間に答えなさい。

As Fadida's hair began to disappear, she worried that her boyfriend would leave her. For the first month she cried constantly. Today, living with supportive parents, she no longer dates her boyfriend and (1)remains wary of others' reactions. "I put makeup on, but I still look like an ill person," she says. "When people see me, they think automatically that I have cancer."

Recently, geneticists (2)have started closing in on clues that might lead to treatments for Fadida's disease. Their efforts are part of a larger push to study more than 300 known genetic hair disorders, which range from rare diseases detected in a few dozen families to male-pattern baldness, which affects hundreds of millions. What all these diseases likely share is a disruption somewhere in the complicated growth cycle of the *hair follicle.

As Fadida spoke, one scientist in the group listened with particular interest. Angela Christiano, a *molecular geneticist, knew exactly what the young Israeli was feeling. Diagnosed in 1996 with *alopecia areata, the geneticist lost 10 large clumps from her own hair before symptoms finally abated. Since then, Christiano has solved the genetic code of three hair diseases. Now she wants to pin down the *mutations that caused Fadida's hair loss, and in doing so, figure out what caused her own.

Christiano was at her favorite salon when the beautician casually mentioned a small bald spot. Doctors diagnosed the problem as alopecia areata, a genetically determined disease in which the body's T cells identify hair-follicle cells as foreign invaders and try to destroy them. Doctors told Christiano the only treatment was to undergo a series of painful shots in her scalp to blunt the immune-cell attack. Over the next year and a half, she developed nine more bald spots. As soon as hair in one injected patch began growing back — as colorless as rice noodles at first — (3)another would appear.

Christiano lived with perpetual fear: "You wake up every morning and before you lift your head off the pillow, you think, 'Is it all there? Is it gone?' And

then you get angry at yourself for being so (4). You think, 'I just spent five years working on lethal skin diseases. I should count my blessings that this is all I have.' And that doesn't work." The answer, she decided, was to (5)throw herself into figuring out what was happening to her.

As she learned more, she was surprised that so little was known about (6)a condition that plagues 5 million Americans. What genes are responsible for normal hair, she wondered. And what at the molecular level causes those cycles to go wrong?

Because alopecia areata was believed to result (7) more than one altered gene, Christiano knew it would be difficult to understand. The completion of the Human Genome Project was almost a decade away. Instead, she decided to seek out a simpler form of the disease, one regulated by a single gene. She knew what to look for: a family in which a large number of people had extreme hair loss but whose other members had perfectly normal hair.

Less than two weeks after her alopecia was diagnosed, Christiano read a clinical report about a family. Many of its babies were born with hair, but they soon lost it, even their eyelashes. The problem did not appear to be related to more complex skin disorders: Their teeth were fine. Their nails were fine. They sweated normally. "It was exactly what we were looking for," she says.

Christiano sent a letter to researchers in Pakistan. Five months later, 30 blood samples arrived, followed by a Pakistani researcher who remained at the New York laboratory for two years. Christiano and her team chose several of the samples, analyzed the DNA, then (8) the bald patients with relatives with normal growth. She identified a region on *chromosome 8 where the affected family members had distinctly different genes.

Shortly afterward, Christiano attended a lecture where she heard about a mouse with a mutation on a *recessive gene nicknamed hairless. Because mice and humans share many of the same genes, Christiano's lab was able to isolate the human (9) of the hairless gene. To everyone's delight, it was located

on chromosome 8. Then the team compared the DNA sequence of an affected patient with that of a healthy control. Sure enough, the hairless gene from the bald Pakistani family contained a mutation.

Still, by identifying the human hairless gene as an important master switch in regulating cell death in a hair follicle—a discovery that could lead to gene therapies for unwanted hair growth—Christiano emerged as a new star in the field.

When Christiano switched to hair research from skin blisters, some of her colleagues wondered if her research had turned trivial. "Hair?" she remembers their asking. "How could you go from working on this life-threatening thing to hair?" But as the news of her research spread, Christiano was (10) deluged with correspondence from people suffering from all sorts of hair abnormalities. Some wrote that they never left their homes. Others had considered suicide. (11) A psychologist has found that women prize so much their hair that most students surveyed during a classroom exercise (ア their heads イ would not ウ even \$1 million エ shave オ for カ said キ they). "It wasn't until those letters started pouring in that I realized that, even though people didn't die from this disease, a part of their soul died," Christiano says.

Unlike a disease such as *hypertension, which follows a similar course in most sufferers, hair diseases come in many types. And while the most common disorders involve the absence of hair, some people grow too much. Christiano turned to a rare condition called *hypertrichosis, whose sufferers are sometimes called wolf people. Instead of growing normal facial hair, they develop thick, *pigmented scalp hair called terminal hair all over their faces. (12) unusual is their appearance that some people with hypertrichosis work as circus performers. The syndrome has different causes, but it can be inherited in families, and Christiano suspects it involves a single gene. Christiano took blood samples. She has not (13) turned up any genetic clues yet, but unlocking the secret to hypertrichosis could lead to gene therapies not just for people with too much hair but also for some of those with too little.

Christiano's desire to connect with her research (14) subjects brought her to Jerusalem last June. Hadassah University Medical Center claims the world's largest collection of patients with genetic hair diseases. It also has many patients with alopecia, the disease that triggered Christiano's own hair loss and which remains unsolved.

When Christiano arrived at the clinic that Friday morning, the waiting room was already filling with the patients whose DNA she knew intimately. For the next five hours, the conference room was a buzz of activity. Patients came and were examined. Most who were bald covered their heads with wigs or kerchiefs; their embarrassment was (15) palpable. Questions and answers were translated into Hebrew, Arabic, and English.

Researchers took blood samples and skin biopsies and sketched out *family pedigrees on scrap paper. Patients with *alopecia universalis were given steroid shots in their eyebrows in hopes of *revving up hair growth. As a doctor injected a 14-year-old Israeli girl, Christiano watched and *wincing with her. "It (16) so many memories," she said.

"In Arabic, there's a saying: If there's a crisis, sometimes it benefits other people," the Palestinian physician said. He reflected on the international effort fueled by Christiano's own disease — an effort that has brought scientists closer than ever before to finding the genetic basis of alopecia areata and its more extreme variants. "Maybe," he said, "it's a good thing you had this problem."

(注) hair follicle 「毛包(毛根を包んでいる組織)」 molecular geneticist 「分子遺伝学者」 alopecia areata 「円形脱毛症」 mutation 「突然変異」 chromosome 「染色体」 recessive gene 「劣性遺伝子」 hypertension 「高血圧症」 hypertrichosis 「多毛症」 pigmented 「着色した」 family pedigrees 「家系図」 alopecia universalis 「全身性脱毛症」 rev up 「活性化させる」 wince 「びくっとする」

問1 下線部(1)の具体的な意味として最も適切なものを①～④の中から1つ選びマークしなさい。

(1) remains wary of others' reactions

- ① continues to worry about how she looks
- ② stays home so that others won't hurt her feelings
- ③ doesn't believe other people like her appearance
- ④ still wonders how people feel about her appearance

問2 下線部(2)の具体的な意味として最も適切なものを①～④の中から1つ選びマークしなさい。

(2) have started closing in on

- ① are about to discover
- ② are still lacking
- ③ have given up hope of finding
- ④ have just begun looking for

問3 下線部(3)の後に省略されているものとして最も適切なものを①～④の中から1つ選びマークしなさい。

- ① bald spot
- ② painful shot
- ③ immune cell
- ④ hair

問4 空所(4)に補うものとして最も適切なものを①～④の中から1つ選びマークしなさい。

- ① sad
- ② impatient
- ③ vain
- ④ lazy

問5 下線部(5)の意味に最も近いものを①～④の中から1つ選びマークしなさい。

5

- ① give up
- ② have trouble
- ③ take turns
- ④ concentrate on

問6 下線部(6)と言い換えることのできるものを①～④の中から1つ選びマークしなさい。 6

- ① a social problem
- ② a disease
- ③ a gene
- ④ an agreement

問7 空所(7)に補うものとして最も適切なものを①～④の中から1つ選びマークしなさい。 7 :

- ① of ② in ③ to ④ from

問8 空所(8)に補うものとして最も適切なものを①～④の中から1つ選びマークしなさい。 8

- ① compared ② chose ③ detected ④ identified

問9 空所(9)に補うものとして最も適切なものを①～④の中から1つ選びマークしなさい。 9

- ① equivalent ② kind ③ symptom ④ characteristic

問10 下線部(10)と言い換えることのできるものを①～④の中から1つ選びマークしなさい。 10

- ① associated ② familiar ③ satisfied ④ flooded

問11 下線部(11)の()内の語句を意味が通るように並べかえるとき、最も適切な配列を①～④の中から1つ選びマークしなさい。 11

- ① イーエーキーアーカーオーウ
- ② カーキーイーエーアオーウ
- ③ オーアイーエーウキーカ
- ④ エーアキーカーオーイーウ

問12 空所(12)に補うものとして最も適切なものを①～④の中から1つ選びマークしなさい。 12

- ① Not
- ② So
- ③ As
- ④ Such

問13 下線部(13)と言い換えることのできるものを①～④の中から1つ選びマークしなさい。 13

- ① proved
- ② given
- ③ investigated
- ④ found

問14 下線部(14)の意味として最も適切なものを①～④の中から1つ選びマークしなさい。 14

- ① the thing you are talking about in a discussion
- ② an area of knowledge that you study at school
- ③ a person who is dependent upon another or others
- ④ a person who is the object of clinical study

問15 下線部(15)と言い換えることのできるものを①～④の中から1つ選びマークしなさい。 15

- ① obvious
- ② avoided
- ③ invisible
- ④ fading

問16 空所(16)に補うものとして最も適切なものを①～④の中から1つ選びマークしなさい。

16

① gives in

② carries out

③ takes place

④ brings back

問17 本文の内容に一致するものを①～⑨の中から4つ選びマークしなさい。

17

～

20

① Fadida lost her hair after undergoing therapies against cancer.

② Only one type of genetic hair disease involves a disruption in the growth cycle of the hair follicle.

③ After her own devastating experience, Christiano started on a mission to find a cure for hair loss.

④ Fadida has been suffering from a lethal skin disease for five years.

⑤ Christiano has not yet solved the cause of her own hair loss.

⑥ Finding the hairless gene from the bald Pakistani family provided the answer to 300 other known genetic hair disorders.

⑦ When Christiano changed her research field, she received full support from her colleagues.

⑧ Christiano found that genetic mutations on chromosome 8 in mice were related to human hair loss.

⑨ When Christiano started her research on alopecia, little was known about its underlying causes.

2 つぎの英文を読み、空所を補うのに最も適切な語(句)を①～④の中から1つずつ選びマークしなさい。

The relationship between teacher and student and [21] between slave owner and slave are both based on the superiority of the one over the other. The interests of teacher and pupil lie in the [22] direction. The teacher is satisfied if he succeeds in furthering the pupil; if he has failed to do so, the failure is his and the pupil's. The slave owner, [23], wants to exploit the slave as much as possible; the more he gets out of him, the more he is satisfied. At the same time, the slave seeks to [24] as best as he can his claims for a minimum of happiness. These interests are definitely antagonistic, as what is of [25] to the one is disadvantageous to the other. The superiority has a different function in both cases: in the first, it is the condition for the helping of the person subjected to the authority; in the second, it is the condition for his [26] .

The dynamics of authority in these two types are different too: the more the student learns, the less wide is the gap between him and the teacher. He becomes more and more like the [27] himself. In other words, the authority relationship tends to dissolve itself. But when the superiority serves as a basis for [26] , the distance becomes intensified through its long duration.

The [28] situation is different in each of these authority situations. In the first, elements of love, admiration, or gratitude are prevalent. The authority is at the same time an example with which one wants to identify one's self partially or totally. In the second situation, resentment or hostility will arise against the exploiter, subordination to whom is [29] one's own interests. But often, as in the case of a slave, his hatred would only lead to conflicts which would subject the slave to suffering without a chance of winning. Therefore, the tendency will usually be to repress the feeling of hatred and sometimes even to [30] it by a feeling of blind admiration.

This has two functions: (1) to remove the painful and dangerous feeling of hatred, and (2) to soften the feeling of humiliation.

- | | | | | |
|----|---------------|------------|---------------------|----------------|
| 21 | ① those who | ② that | ③ the one | ④ which |
| 22 | ① right | ② opposite | ③ every | ④ same |
| 23 | ① as well | | ② on the other hand | |
| | ③ as a result | | ④ for example | |
| 24 | ① defend | ② ignore | ③ minimize | ④ question |
| 25 | ① concern | ② use | ③ moment | ④ advantage |
| 26 | ① survival | ② reason | ③ helping | ④ exploitation |
| 27 | ① teacher | | ② pupil | |
| | ③ slave owner | | ④ slave | |
| 28 | ① conditional | | ② psychological | |
| | ③ physical | | ④ surrounding | |
| 29 | ① against | ② of | ③ to | ④ for |
| 30 | ① show | ② replace | ③ cause | ④ emphasize |

3 日本文の意味になるように () 内の語句を正しく並べかえ、4番目と7番目に来る番号をマークしなさい。ただし、文頭にくる単語も書き出しは小文字となっている。

(1) 愛する人を失った経験のある人はだれでも、その悲しみがいかに深いものであるかを知っている。

4番目 7番目

(① has experienced ② any one ③ knows ④ how deep
⑤ the loss of ⑥ can be ⑦ the grief ⑧ a loved one ⑨ who).

(2) 彼が私を助けに来なかったら、あのとき私の命は絶たれてしまっていただろう。

4番目 7番目

(① come ② had ③ my life ④ would ⑤ to ⑥ ended then
⑦ have ⑧ my rescue ⑨ he not).

(3) 情熱があれば知識や経験の不足を補うことができると言われている。

4番目 7番目

(① enthusiasm ② make ③ it is ④ for ⑤ can ⑥ said that
⑦ up ⑧ the lack of ⑨ knowledge and experience).

(4) いくつかの研究によって、低血圧は長寿につながることを示されている。

4番目 7番目

(① is ② suggest ③ blood pressure ④ longevity ⑤ that
⑥ linked ⑦ low ⑧ to ⑨ several investigations).

(5) 多くの女性が無理なダイエットから慢性的なカルシウム不足に陥る危険性がある。

4番目 7番目

(① a chronic deficiency ② are ③ many women ④ extreme diets
⑤ of ⑥ to ⑦ of calcium ⑧ in jeopardy ⑨ attributable).

(6) ジェーンは彼がそこで何をしているのか聞くことは思いつかなかった。

4 番目 7 番目

(① it ② ask ③ occur ④ doing there ⑤ to ⑥ to Jane
⑦ didn't ⑧ what ⑨ he was).

(7) その少年は彼女の首に腕を回したまま眠ってしまった。

4 番目 7 番目

(① the boy ② arms ③ her ④ asleep ⑤ with ⑥ neck
⑦ around ⑧ fell ⑨ his).

(8) 彼の発言は彼の親友に対する裏切り行為に他ならない。

4 番目 7 番目

(① but ② his remarks ③ betrayal ④ of ⑤ are ⑥ a
⑦ nothing ⑧ bosom friend ⑨ his).

(9) その子どもは医者に舌圧子を口に入れられるのを怖がった。

4 番目 7 番目

(① his mouth ② was ③ a tongue depressor ④ the doctor
⑤ in ⑥ afraid ⑦ putting ⑧ of ⑨ the child).

(10) 砂糖入りの炭酸飲料水を1日1缶減らすだけで、体重を1ヶ月に1ポンド減らすのに十分な効果がある。

4 番目 7 番目

(① a month ② a day ③ to ④ sugared soda ⑤ help you
⑥ is enough ⑦ lose one pound ⑧ cutting out ⑨ just one can of).

4 日本文の意味に合うように 51 ~ 60 に入れるのに最も適切な語(句)を、それぞれ下の①~④から選びマークしなさい。

(1) 役立つ情報に加えて、その本には市内のレストランガイドも掲載されている。

51 from helpful tips, the book also contains a guide to the city's restaurants.

- ① Far ② Aside ③ Instead ④ Only

(2) ペパーミントは腹痛を治療するのに用いられてきた古くからある薬草である。

Peppermint is an age-old herbal medicine that has been used to treat abdominal 52 .

- ① woes ② awes ③ hues ④ haps

(3) 生きているうちには、ストレスの多い出来事を何度か経験するものだ。

In the course of a lifetime, the 53 are good that you'll experience some very stressful events.

- ① troubles ② rates ③ results ④ odds

(4) 本校の創立10周年記念コンサートが来週火曜日に開かれる。

Next Tuesday, a concert will be held 54 the tenth anniversary of the founding of our school.

- ① owing to ② in honor of
③ on behalf of ④ for the purpose of

(5) その収容所での拷問の残酷さは筆舌に尽くしがたい。

The cruelty of the torture in the camp is 55 description.

- ① without ② off ③ in ④ beyond

(6) その女性はとても控えめで、話しかけられない限り話さない。

The lady is very quiet and doesn't speak unless .

- ① spoken to ② she is not spoken
③ she speaks ④ never speaking

(7) 彼は殺人犯の逮捕につながる情報に200万円までの報奨金をかけている。

He is offering a of up to 2 million yen for information leading to the arrest of the killer.

- ① gratitude ② money ③ price ④ reward

(8) 皆様のご多幸とご健康をお祈りします。

you all be happy and well.

- ① Fortunately ② If only ③ May ④ Suppose

(9) 彼らはお互いに道を譲るためにゆっくり運転した。

They drove slowly to for each other.

- ① make way ② put ahead ③ lead in ④ come in

(10) 運動が健康を増進させることを示す証拠がたくさんある。

There is abundant evidence that exercise can your health.

- ① aggravate ② support ③ add ④ enhance