English Entrance Examination 2009

Directions:

- Do not open this test booklet until the test begins.
- This test booklet contains 11 pages.
- Both the test booklet and the answer sheet will be collected at the end of the test.

Keio Academy of New York
Part I: Reading Comprehension
Directions: For questions 1-15, read each selection that follows very carefully, then answer the questions. Do not mark in this booklet. Mark your answers on the separate answer sheet provided by filling in the bubble next to the correct answer.

Selection A

A jaguar is a large cat, about the same size as a leopard, but smaller than a lion or a tiger. The jaguar is the only large member of the cat family found on the American continents. It lives throughout South America, from the grasslands of Argentina to the tropical rain forests of the Amazon River. Jaguars once ranged as far north as the southwestern United States. They are now in danger of extinction, because the rainforests they prefer to inhabit are being destroyed.

Jaguars have spotted coats that help them blend in with their jungle surroundings. This allows them to be successful hunters of deer, sloths, tapirs, wild pigs, and other small mammals and reptiles. But its beautiful coat has also made it the target of human hunters.

Although most cats avoid the water, jaguars are good swimmers. They are often found near rivers. They eat fish, and their jaws are so strong they can bite through the shell of a turtle, one of their favorite foods. Some of the people who live near the Amazon report that jaguars can kill crocodiles. They usually hunt alone.

1. The best title for this selection is:
   a) Big Cats of the World
   b) What Jaguars Eat
   c) Cats that Swim
   d) The Big Cat of the Americas

2. Jaguars eat:
   a) grass.
   b) spotted coats.
   c) good swimmers.
   d) other animals.

3. Jaguars are different from many other members of the cat family because:
   a) they wear coats.
   b) they do not avoid the water.
   c) they hunt other animals.
   d) they are large.

4. The phrase blend in with their jungle surroundings in the passage above means:
   a) jaguars are hard to see among the trees, light, and shadows in the jungle.
   b) jaguars feel comfortable and relaxed in the jungle.
   c) the jungle is all around the jaguars.
   d) the words "jaguar" and "jungle" sound alike.

5. Which one of these statements is not true?
   a) Jaguars are the only large cat that lives in the American continent.
   b) Jaguars are the largest member of the cat family.
   c) Jaguars are in danger of extinction.
   d) Human hunters kill jaguars to get their beautiful coats.
Selection B

There was always a general buzz of friendly conversation in Sally Mullin’s café, but as soon as Snorri stepped over the threshold the buzz suddenly stopped, as though someone had thrown a switch. Almost in unison, every customer put down their drink and stared at the young stranger who wore the distinctive robes of the Hanseatic League, to which all Northern Traders belonged...

Sally Mullin...bustled out of the kitchen. Seeing the dark red robes of a Northern Trader and the typical leather headband, her face took on a scowl. “I don’t serve Northern Traders in here,” she snapped.

Snorri looked puzzled. She was not sure that she understood what Sally had said, although she could tell that Sally was not exactly welcoming...

“She’s only a lass, Sal,” someone called out. “Give the girl a chance.”

There was a general murmur of assent from the other customers. Sally Mullin gave Snorri a closer look and her expression softened. It was true; she was only a girl—maybe sixteen at the most, thought Sally. She had the typical white-blond hair and pale, almost translucent blue eyes that most of the Traders had...

“Well...” said Sally, backtracking. “I suppose it’s getting on to nightfall and I’m not one to be turning out a young girl into the dark all on her own. What will you have, miss?”

—from Physik by Angie Sage

10. The phrase a general murmur of assent means:
   a) sounds that show they agree with what was said.
   b) a soldier spoke for others.
   c) noisy talking that make it hard to hear.
   d) a song of welcome and homecoming.

6. Why doesn’t Sally Mullins want to serve Snorri at first?
   a) Snorri has blond hair and blue eyes.
   b) Snorri is a Northern Trader.
   c) Snorri is too young.
   d) Snorri is wearing dark red robes.

7. Sally Mullin is:
   a) the owner of a café.
   b) a Northern Trader.
   c) a customer.
   d) a young stranger.

8. When Snorri enters the café, all the customers:
   a) tell her to leave.
   b) stop talking and look at her.
   c) throw a switch.
   d) welcome her.

9. At the end of the passage, what will Sally probably do?
   a) Turn Snorri out into the dark.
   b) Ignore Snorri.
   c) Serve Snorri food and drink.
   d) Tell the customers to be quiet.
Selection C

Time + Distance

The tea you pour is black and strong.
It doesn't taste like tea to me;
I must have been away too long.

It isn't jasmine, spice, oolong;
It tastes like an apology—
This tea you pour, so black and strong.

Where's that old fork with the bent prong?
What happened to the hemlock tree?
Have I really been gone that long?

I think I hear the saddest song;
It has no words, no tune, no key.
The tea you pour is black and strong.

You're careful to say nothing wrong,
You seem too eager to agree...
Yes, I've been travelling far and long,

And now it's clear, I don't belong.
I watch you wash your robe, as we sit,
sipping tea that's black and strong.
I went away too far, too long.

--by Leslie Monsour

11. By repeating that the tea is "black and strong," the speaker emphasizes:
   a) the other person has no skill at preparing tea.
   b) the relationship between them has changed.
   c) the other person does not recognize the speaker.
   d) the speaker likes green tea.

12. The words jasmine, spice, oolong in line 4 are probably:
   a) the names of pets.
   b) places the speaker has travelled.
   c) types of tea.
   d) songs the speaker likes.

13. The other person ("you" in the poem) wants:
   a) not to offend the speaker.
   b) to introduce the speaker to better tea.
   c) the speaker to leave as soon as possible.
   d) to tell the speaker about all the changes that have taken place.

14. The "saddest song" that has "no words, no tune, no key" is most probably:
   a) silence.
   b) a bird singing outside.
   c) the favorite song of the two people long ago.
   d) the wind blowing in the hemlock tree.

15. The tone of the poem is:
   a) happy.
   b) angry.
   c) sad.
   d) amused.
Part II: Grammar

Directions: For questions 16-25, choose the word or group of words that will complete each of the following sentences correctly. Fill in the bubble next to the letter of the correct answer on your answer sheet.

16. The man said he had suffered ______ the doctor's mistake.
   a) that b) around c) because of d) when e) at

17. In the explosion, some people ________
   a) wounded b) were wounded c) was wounded d) have wounded e) has been wounded

18. Mr. Yamada finished ______ his model boat.
   a) to paint b) painting c) paint d) had painted e) was painted

19. I didn't know ________
   a) time game started. b) the time game starting. c) what time the game would start. d) what time will the game start. e) the game started when.

20. ________, my family moved to Los Angeles.
   a) Since three years b) Before three years c) It was three years d) Later three years e) Three years ago

21. When I ______ to the airport, I will call you.
   a) will get b) got c) am getting d) get e) will be getting

22. If I had known you needed help, I ________
   a) would have come b) will come c) come d) came e) am coming

23. Amanda's new skirt is ________
   a) as same as mine b) like as mine c) equal as mine d) the same as mine e) mine like

24. I hope you will ______ and win the prize.
   a) success b) successful c) succeed d) be success e) succeeding

25. The five best basketball players started the game. ________ eight players sat on the bench.
   a) Others b) The other c) An other d) Another s e) Other

Directions: In questions 26-30, identify the one underlined word or words that must be changed in order for the sentence to be correct. Fill in the bubble of the corresponding letter on your answer sheet.

26. I had to complete a lot of research before I started writing. I read two books and ________
   a) looked on many websites. I used the informations I found in my essay. b) looked on many websites. I used the information I found in my essay. c) looked on many websites; I used the informations I found in my essay. d) looked on many websites; I used the information I found in my essay. e) looked on many websites. i used the information I found in my essay.

27. All Spartan boys trained to be soldiers. They started their difficult training at age seven. They ________
   a) slept b) slept c) asleep d) asleep e) slept

28. Alexander, that was my friend in fourth grade, moved away to another town. I wrote him letters for about one year, then we both stopped writing. But just last week, he contacted me by email. I was glad to hear from him.
   a) A B C D E

29. Climbing mountains are difficult and dangerous. Climbers need to be in good health and ________
   a) carry the right equipment. They must be prepared for sudden changes in the weather. b) carry the right equipment. They must be prepared for sudden changes in the weather. c) carry the right equipment, they must be prepared for sudden changes in the weather. d) carry the right equipment. they must be prepared for sudden changes in the weather. e) carry the right equipment. they must be prepared for sudden changes in the weather.

30. The flood caused a great deal of damage to the college library. Each one of 5,000 ________ valuable books have to be dried and treated to preserve them. We hope you will give generously to help with this project.
   a) A B C D E
Part III: Paragraph Writing.
Write your answer to the question in the box below. Write a brief essay with an introduction, body paragraphs, and a conclusion on the lined paper provided below.

Small technological devices such as portable cell phones and iPods are very popular. Many people feel that these devices improve people’s lives. Others say that they create new problems. What do you believe are the good and bad effects of personal electronic devices?
略

略

略

略

略

略

略

略

略
三、次の(1)〜(3)の、傍線部分の漢字の読みをひらがなで答えなさい。

(1) 目に余る
(2) 目をを迎える
(3) 腹が減る

四、次の(1)〜(5)の、慣用の意味として最も適当なものを、それぞれ下から選び、記号で答えなさい。

(1) 目に余る
(2) 目をを迎える
(3) 腹が減る
(4) 腹を空かせる
(5) 腹をつぶす

五、次の文章を読んで、後の問題に答えなさい。

子どもであれば、身の回りのことが自分でできるように努力すること、学校へ行くと勉強するこ
と、あるいは友達と仲良く遊ぶことも、大人であれば家族を養うため、社会を成り立たせため、自
分の生活のため働くことが、主に与えられた役割だ。自ら望んで担うものであるれば、やむを得ず担うも
のもあるだろう。担いたらともそれぞれできない人もいるが、そういう人であっても、それぞれの置かれ
た状況に応じて果たすべき大切な責任がある。ともかく、多くの人は意識するしかないから、にかわり
、何かを担って日々を生きている。時折その荷物
を降ろしてしまいたいと思ったりするが、たいていの人は辛抱して、そのまま自分に与えられた荷物を
抱い続ける。

最近私も、社会の1つが減ってきているように感じる。人間は、自分の気に入らないことはな
くべくしたないし、やるならできるだけ楽に早くすませたい。何もしないですまない。

そういう考えが高まってきているが、今の世の中だ。その例として、公共料金の不払い、こみの不法投棄、
問題一、問題文中に次のように文を挿入すると、どこが適当か。本文中より三文字で抜き出して答えなさい。

問題文：社会は、多くの人の辛抱と我慢に支えられている。

（A）社会は、多くの人の辛抱と我慢に支えられている。
（B）社会は、多くの人の辛抱と我慢に支えられている。
（C）社会は、多くの人の辛抱と我慢に支えられている。

問題二、問題文中に次のように文を挿入すると、どこが適当か。本文中より三文字で抜き出して答えなさい。

問題文：自由というものが肥大化しているのだ。

（A）自由というものが肥大化しているのだ。
（B）自由というものが肥大化しているのだ。
（C）自由というものが肥大化しているのだ。

問題三、次のうち、問題文の内容と違っているものを一つ選び、記号で答えなさい。

5

（A）社会全体の幸福は、自分の幸福につながる。
（B）社会全体の幸福は、自分の幸福につながる。
（C）社会全体の幸福は、自分の幸福につながる。

（この試験のための書き下ろし）
2009
Mathematics Entrance Examination

 Applicant Number 受験番号

 Name (Print)  

 氏名(Name in Kanji, if applicable)

- Put only your applicant identification card, pencils, mechanical pencils and erasers on the desk. Rulers and calculators are not allowed.

- Do not open this booklet until the proctor says, “begin”.

- All answers must be written in the designated columns on the answer sheet. If you use blank spaces in this booklet for your work, this question may be penalized.

- This booklet consists of 8 pages plus the cover.

Keio Academy of New York
慶應ニューヨーク学院
1. Simplify.

(1) \[
\frac{2a-b}{2} - \frac{-a-3b}{3}
\]

(2) \[
\left(\frac{2}{3}\right) \times 4 - 5 \times \left(\frac{3}{2}\right)^3
\]

(3) \[
(-a^2 b^3)^3 + (-3a^3 b)^2 + (-2a^4 b^5)^3
\]

(4) \[
-3^2 - (-6)^2 \times \left\{ \frac{2}{3} - \frac{1}{3} \times \frac{7}{2} - \left(\frac{5}{2}\right)^3 + \frac{3}{5} - \frac{4}{3} \right\}
\]
2. Solve for x. 次の式を解いてxの値を求めよ。

(1) \( \frac{5}{2} - 2x = \frac{15}{4} \)

(2) \( 3.2x - 5.1 = 1.7x + 7.4 \)

(3) \( 4(2x - 5) = 30 \)

(4) \( 3(1 - 2x) - 4(x - 1) = 15 \)

3. Fill in the blanks with 1 or 0 so that the following equation holds. Write your answer on the answer sheet. 次の等式が成り立つように、空欄に1または0を記入せよ。答えは解答用紙に書くこと。

\( 2009 = [\text{□}] \times 2^0 + [\text{□}] \times 2^1 + [\text{□}] \times 2^2 + [\text{□}] \times 2^3 + [\text{□}] \times 2^4 + [\text{□}] \times 2^5 + [\text{□}] \times 2^6 + [\text{□}] \times 2^7 + [\text{□}] \times 2^8 + [\text{□}] \times 2^9 \)

(a) (b) (c) (d) (e) (f) (g) (h) (i) (j)
4. In a mathematics class, students are given three different tests every other week in a term. The first and second tests are worth 100 points each, and the third one is worth 150 points.

At the end of the term, students receive a grade. If the sum of scores of the three tests is at least 80% of the sum of the maximum possible scores, the grade will be "Very Good." If it is at least 90%, the grade will be "Excellent." Adam who got 78 and 93 on the first and the second tests respectively will be taking the third test next week. Find the minimum and the maximum score he will need to get a grade of "Very Good," but not "Excellent." (All scores are in whole numbers.)

ある数学のクラスでは、一学期中に一週間おきに3回テストが行われる。第一回目と第二回目のテストは、各々100点満点で、第三回目のテストは、150点満点である。

もし、3回のテストの得点の合計が、3回のテストの満点の合計の少なくとも80%であると、学期末に「大変良い」という成績が与えられる。また、3回のテストの得点の合計が、3回のテストの満点の合計の少なくとも90%であれば、「優秀である」という成績が与えられる。

第一回目と第二回目のテストで、各々78点、93点を取ったアダム君が、来週第三回目のテストを受ける。アダム君が、第三回目のテストで最低何点、最高何点を取ると、「優秀である」ではなく、「大変良い」という成績になるか。（テストの満点は全て0以上の整数とする。）

5. Examine whether each of the following equations and statements is always true. Write T for true and F for false. Assume that \(a \neq 0, b \neq 0\).

次の等式、記述が常に成り立つか調べよ。正しければT、間違えがあればFを解答用紙に記入せよ。ただし \(a \neq 0, b \neq 0\)とする。

(1) \[ \frac{c}{a+b} = \frac{c}{a} + \frac{c}{b} \]

(2) \[ \frac{ab+c}{a} = b+c \]

(3) \[ \frac{c}{ab} = \frac{c}{a} \times \frac{c}{b} \]

(4) If \(a < b\), then \(a^2 < b^2\).
\(a < b\) ならば \(a^2 < b^2\)

(5) If \(\frac{1}{a} < \frac{1}{b}\), then \(a > b\).
\(\frac{1}{a} < \frac{1}{b}\) ならば \(a > b\)
6. The figure below shows two intersections and all roads coming into and going out from them. Traffic comes into the intersection ① from the west and the south, and goes out to the east and the north. Traffic comes into the intersection ② from the east and the south, and goes out to the west and the north. A group of students examined how many cars came into and went out from each intersection, and got the following results:

At the intersection ①, 100 cars came in from the west and x cars from the south, and 50 cars went out to the east and y cars to the north.

At the intersection ②, $\frac{y}{2}$ cars came in from the east and 300 cars from the south, and 150 cars went out to the west and x cars to the north.

For each intersection, the number of cars coming into the intersection is equal to the number of cars going out from the intersection. Find the values of x and y.

下図は二つの交差点とそれらに出入りする全ての道路を表している。自動車は交差点①には、西と南から入り、東と北に出、交差点②には、東と南から入り、西と北に出る。ある生徒のグループが各々の交差点に入り出しする自動車の台数を調べたところ、次のような結果を得た。交差点①では、100台が西から、$x$台が南から入り、50台が東へ、$y$台が北へ出た。

交差点②では、$\frac{y}{2}$台が東から、300台が南から入り、150台が西へ、$x$台が北へ出た。

どちらの交差点についても、一つの交差点に入り自動車の台数とその交差点を出る自動車の台数は同じである。$x$と$y$の値を求めよ。
8. On the $xy$-plane, there are three lines $l$, $m$ and $n$, equations of which are $y = -x + 5$, $y = \frac{1}{2}x + 1$ and $x = a$, respectively where $0 < a < 1$. Let $A$, $B$ and $C$ be the points where the lines $l$ and $m$, the lines $m$ and $n$ and the lines $n$ and $l$ meet with each other, respectively. Answer the following questions.

(1) Find the coordinates of the points $A$, $B$ and $C$. Express the answer(s) in terms of $a$, if necessary.

(2) If we rotate the line segment $BC$ about the $y$-axis, we generate a cylinder. Express the surface area of the cylinder in terms of $a$. 

$xy$ 平面上に、それぞれ $y = -x + 5, \ y = \frac{1}{2}x + 1, \ x = a$ で表されるような三直線 $l$, $m$, $n$ がある。ただし、$0 < a < 1$ とする。直線 $l$ と $m$, 直線 $m$ と $n$, 直線 $n$ と $l$ の交点をそれぞれ $A$, $B$, $C$ とする。次の問いに答えよ。

(1) $A$, $B$, $C$ の座標を求めよ。必要ならば $a$ を用いて答えよ。

(2) 線分 $BC$ を $y$ 軸のまわりに一回転すると円柱ができる。この円柱の表面積を $a$ を用いて表せ。