第4間 次の問い(A) に答えよ。(配点 20)

A 次の文章と表を読み、下の問い(**問 1 ~ 4**)に対する答えとして最も適当なものを、それぞれ下の \bigcirc ~ \bigcirc のうちから一つずつ選べ。

Year after year, the processing power of computers has increased dramatically. This is not only true for the personal computers that many people use in their homes and offices. Supercomputers, most of which are owned by laboratories or government departments, have always had amazing computing power, and they keep getting faster. In the world of supercomputers, Japan and the U.S. have been competing to reach first place in processing speed.

Name	Year	Peak Speed	Maker	Owner	Location
Cray-1	1976	250 MFLOPS	Cray	Los Alamos National Lab.	New Mexico, USA
NWT	1994	170 GFLOPS	Fujitsu	National Aerospace Lab.	Tokyo, Japan
ASCI Red	1997	1.33 TFLOPS	Intel	Sandia National Lab.	New Mexico, USA
ASCI White	2000	7.22 TFLOPS	IBM	Lawrence Livermore National Lab.	California, USA
Earth Simulator	2002	35.86 TFLOPS	NEC	Earth Simulator Center	Yokohama, Japan
Blue Gene/L	2005	136.8 TFLOPS	IBM	U.S. Department of Energy	California, USA

1 TFLOPS = 1,000 GFLOPS

It is said that the first supercomputer sold worldwide was the Cray-1, made by an American company called Cray in 1976. It cost 2.7 billion yen and had an eight-megabyte memory. Its peak speed of 250 MFLOPS meant that it could calculate 250 million times per second. This may sound fast, but it is actually less than the peak speed of current personal computers. Then in 1994, a Japanese company called Fujitsu developed NWT, or Numerical Wind Tunnel. It was 680 times faster than the Cray-1, changing the scale of speed to GFLOPS, which are 1,000 times faster than MFLOPS. It was co-developed with its owner, the National Aerospace Laboratory, and used to simulate the movement of the wind as it affects aircraft in flight. Since then, each supercomputer has managed to 34 about three years.

Let's examine the state of supercomputers in recent years and the impact they have had on other fields of science and technology. Since 2005, the U.S. has made better

-12-

supercomputers. However, the Japanese government currently has plans to develop a new supercomputer in the near future so that Japan can reach the top again. This new computer is expected to have 250 times the calculating capabilities of the Earth Simulator.

- 問1 Which of the following is true about the NWT? 3
 - ① It could generate various kinds of wind.
 - ② It has not been used since it lost first place for calculating speed in 1997.
 - 3) It was improved by the Japanese government in 2002 at a large expense.
 - 4 It was made by a Japanese company with help from a laboratory.
- 問2 From the information in the passage and table, which of the following is the most appropriate for the blank? 34
 - ① change its country of location in
 - 2 double its peak speed in
 - 3 keep its first-place position for
 - 4 move to different places in
- 問3 According to the article, what will happen in the future? 3:
 - ① Supercomputers will be used for different purposes.
 - ② The new Japanese supercomputer will be the world's fastest if it works as well as the government hopes.
 - 3 The U.S. and Japan will cooperate with each other to make better supercomputers.
 - The U.S. and Japanese governments will increase their budgets to make better supercomputers.

15

- 問 4 What topic might follow the last paragraph? 36
 - ① An analysis of the similarities between past supercomputers and the latest ones.
 - ② An explanation of the processing power of new supercomputers being planned by Japan.
 - 3 An overview of supercomputers that do not require memory to function.
 - ② Examples of the ways in which supercomputers have changed other areas of work.

🖁 通過時間

4

第4問 次の問い(B) に答えよ。(配点 20)

B 次ページの広告に関する次の問い (問 $1 \sim 4$) を読み、 $37 \sim 40$ に入れるのに最も適当なものを、それぞれ下の $0 \sim 40$ のうちから一つずつ選べ。

問 1 The Beats Method 37

- ① enables improvement in a short time for any level of user
- 2) is most effective when used by young children
- 3 is mostly used by university students majoring in foreign languages
- Offers direct instruction from an authority in applied linguistics

問 2 According to the advertisement, before buying their products the company recommends 38 .

- ① calling to discuss which product is most appropriate
- 2 checking Dr. Mary Pearson's website to better understand her work
- 3 reading their newsletters to check skill levels
- 4 trying the sample lesson online

問3 A person who pays \$110.00 for one of these products 39.

- (1) is probably skilled in the language he or she is studying
- 2) must use the online form to order
- 3 will not receive an MP3 player
- will receive additional learning aids for free

問 4 An order placed on February 22 for one intermediate Package 2 and one advanced Package 1 program by a person who has signed up for the e-mail newsletter will cost dollars.

- **(1)** 140.00
- **2** 170.00
- 3 180.00
- **4** 190.00

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The Beats Method was developed by Dr. Mary Pearson, an authority in the field of applied linguistics. Dr. Pearson earned her Ph.D. from West University and currently heads the University of Colorado Foreign Language Department. She spent years researching the language learning process of children and adults, learning early on the value of rhythmic instruction in learning all aspects of a new language.

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第 5 問 次の文章を読み、下の問い (問 1 ~ 5) の 41 ~ 45 に入れるのに最も適当なものを、それぞれ下の ① ~ ② のうちから一つずつ選べ。(配点 30)

"I think I'll buy something at that furniture shop." That was the first thought that came to my mind when I decided to move to a new apartment after graduating from college. "I want a little round table to put next to my bed. If they don't have one I like, then maybe a little chair would be nice." I went by the shop to make sure it hadn't closed down.

When I was a child, I walked past that shop on my way to school. It was a little place that sold small dressers, tables, chairs and other pieces of furniture. It was old, but everything it sold was lovely and well-arranged. But the truth is I don't remember much about the products themselves. What I remember best is the owner, and how he would sit upright in the back of the shop and flip through pages of a book. I would watch this over and over, from a distance so as not to be noticed.

I have vague memories of some trouble that I caused the owner when I was about six or seven years old. It was a cold evening and I was passing the store as always on my way home from school with my friends. One thing I remember is the sound of breaking glass. I don't remember the sound clearly, but I think it was pretty loud. And I remember not being able to sleep at all that night. Then I remember the next day — or maybe two or three days later — my father and I, and my friend and his father, walking together in silence toward the shop on a pitch-black street. It was freezing that night, and my heart felt like it was going to break from beating so hard. And I can remember the shop owner smiling a little and patting me on the head.

On the day before I moved into my new apartment, I went to the shop, opened the door and stepped inside. The owner, sitting in his usual place, said hello in a small voice. After looking around for a while, I picked up a small table and checked its price. "I'd like this table, please." The owner came over to me in his wheelchair. "Great choice. It's old, but it's a nice piece." Then, as I was getting ready to pay, I started to apologize again for what I'd done a dozen and some odd years before. The owner smiled and went to get a large sketchbook from the back of the store. Then he asked me if I remembered what it was. "It looks like it was mine," I said. But I could hardly remember a thing.

He told me all about what had happened. He told me that the glass I "broke" was already broken and taped together, and how we all came to apologize the next night, and

how he found this sketchbook with my name on it in front of the store the morning after that. When he saw that I looked confused, he said, "It's the eternal mystery, isn't it?" He went on to explain that I had left the sketchbook propped up against the door with potted plants and other objects nearby. He and his wife had each made guesses about what I had done. His guess was that I had left it there to cover the hole in the broken glass. His wife's guess was that I had drawn a picture on the first page of the sketchbook as a way of apologizing.

"I wish I knew the answer ..." I told him. "Like I said, it's the eternal mystery," he replied. We laughed together. Then I told him that I would be moving to the next town over, and would graduate from college and start working in the spring. He handed me 40 my sketchbook with the table and I left the store. As soon as I got home I asked my mother if she remembered the whole event. "Of course," she told me. "You were so worried that the man would be cold."

- 問 1 What is true about the furniture shop in the story?
 - 1 The author checked whether or not the shop was still open.
 - ② The author found out the shop's closing time.
 - The author frequently visited the shop after entering college.
 - The author happened to find the shop near his new apartment.
- 問 2 When the author was a child, he 42
 - 1 had no idea what items the shop sold
 - 2 often had the shop's owner read him books
 - 3 once received a table from that shop as a gift
 - was interested in the actions of the shop's owner

第3回 B

問 3 At the shop, 43

- ① the author confused the owner with someone else
- 2 the author mentioned that he had once caused trouble for the shop's owner
- 3 the owner had completely forgotten an event from over ten years ago
- 4 the owner was convinced that the sketchbook did not belong to the author

問 4 What is the "eternal mystery"? 44

- ① The reason for the author's actions in the past
- 2 The reason for the owner's wife's actions
- 3 The reason the owner often read books
- **1** The reason there were pictures of plants in the sketchbook

問5 By the end of the story, it is most likely true that 45

- the author had thought about the "eternal mystery" for many years
- (2) the author's mother realized that the owner had caught a cold
- 3 the owner's assumption was correct
- 4 there were no pictures drawn in the sketchbook

(下書き用紙)

英語(筆記)の試験問題は次に続く。

第6問 次の文章を読み、下の問い($\mathbf{A} \cdot \mathbf{B}$)に答えよ。なお、文章の左にある(1) \sim (8) は段落の番号を表している。(配点 36)

- small northeastern city called Framingham, and he goes to the local high school, where his favorite subject is English. Someday he would like to be a writer, he thinks. He is on the school track team, and his girlfriend Janet plays drums in the student band. However, there is one big difference between John and other teenagers: when they all go out to fast food shops for burgers and fries after a running competition, John says goodbye to them and heads home to spend hours making sausage and pasta sauce with his grandmother.
- (2) John is possibly the world's youngest member of the "Slow Food Movement," a semi-official gathering of cooks and food lovers from over 120 countries. Founded in 1986 by an Italian man named Carlo Petrini, the Slow Food Movement is just what its name suggests: a protest against fast food restaurants and the way they have shaped our diets and our attitudes towards eating. In John's case, he joined the movement because of his grandmother, whom he calls "Nan." Nan is Italian American, and raised John's mother and John to share her love of slowly and carefully prepared home cooking made using local ingredients.
- Carlo Petrini insists on taking time and on using only locally-produced ingredients. These make Slow Food different from fast food. Fast food is cheap, convenient, and often reasonably tasty, but it is also according to Petrini unexciting and uninteresting, in large part because it is the same everywhere you go. After all, a chain store's burger in Tokyo tastes much the same as the one in Texas or Tehran. Slow Food believers argue that as we eat the same fast food meals over and over again, we lose our ability to appreciate and enjoy a wide range of ingredients, flavors, and cooking techniques.
- (4) Fast food doesn't just affect individual consumers, though. Petrini and the other Slow Food Movement supporters argue that fast food restaurants have changed not just people's diets, but also the economies of the places where they live; and all these changes have been for the worse. As people rely more and more on cheap, pre-made and pre-cooked food, they support not local farmers and market owners, but rather large international corporations, which may well not have a small community's best

interests in mind.

- (5) The final major objection Slow Food Movement members make about fast food restaurants is that they are bad for people's health. While not all Slow Food cooks prepare only healthy meals many of them use high-fat ingredients like butter and cheese they do try to use a lot of local vegetables and lean meats, and to make sure 35 that every ingredient they buy is of the highest possible quality. And because Slow Food Movement members buy food from local farmers, they know more about how the food was raised and whether or not it's safe and nutritious.
- (6) As you can see, the advantages of Slow Food-style cooking are many. For one thing, it's almost always a lot healthier for you. For another, Slow Food is more 40 creative than fast food and offers a wider range of dishes, ingredients, and cooking techniques. And finally, food that is cooked carefully over a longer period of time simply tastes better. This is why John would rather spend four hours making homemade spicy Italian sausage than eat a factory-produced cheeseburger with his classmates. "They laugh at me sometimes," he says, "but they almost always want a 45 taste of the lunches I bring to school."
- How can other teenagers get involved in the Slow Food Movement? There are lots of books in bookstores about slow food, and in some countries there are actual meetings you can attend. But you don't have to go that far. "Just thinking more carefully about the food you eat is a good start," says John. "Go to farmer's markets and buy fruits and vegetables grown close to where you live. They're always fresher and better tasting." In addition, he mentions that even small towns often have local suppliers for meat, cheese, and bread all you have to do is a little research to find them.
- (8) But isn't all of this very expensive? After all, buying high quality local ingredients 55 sounds like it would cost a lot of money. "You'd be surprised," says John. "My mother says that since Nan and I really began cooking the Slow Food way, her monthly grocery bills have actually decreased. And yet we're eating just as much food. It's just that we're eating better food, and enjoying it a lot more." So what are you waiting for? Slow food may not be as fast as fast food, but it's a whole lot better, and better for you. 60

- A 次の問い (問1~5) の 46 ~ 50 に入れるのに最も適当なものを、それぞれ下の ① ~ ④ のうちから一つずつ選べ。
- 問 1 John is unlike his classmates because 46
 - 1 he prefers making Slow Food to eating fast food
 - 2 he thinks Slow Food tastes worse than fast food
 - 3 he thinks that fast food is bad for athletes
 - he would rather spend more money when he eats
- 問 2 The phrase "the way they have shaped our diets and our attitudes towards eating" implies that 47.
 - 1 fast food restaurants have not yet become popular in many places
 - 2 many people use fast food restaurants to readily get something to eat
 - 3 Slow Food Movement members have never tried fast food
 - 1 the Slow Food Movement is not supported by elderly people in large cities
- 問3 In the example described in paragraph (3), fast food hamburgers 48
 - ① are a threat to local farmers and environments
 - 2 are popular everywhere because people like the same things
 - 3 are unhealthy for people who are used to different diets
 - (4) don't vary at all from location to location
- 問 4 According to paragraph (4), eating fast food means 49
 - ① you are determined to stop the Slow Food Movement
 - 2 you are giving help to local farmers and market owners
 - 3 you are helping small communities worldwide
 - (4) you are not caring about the individual community where you live

問5 The phrase don't have to go that far in Paragraph (7) is closest in meaning to

50

- ① can join the Slow Food Movement by doing less work
- 2 have to formally agree with the goals of the Slow Food Movement
- 3 must make a great effort to learn about the Slow Food Movement
- need to achieve much to start a Slow Food Movement
- **B** 次の表は、本文の段落と内容を表すものである。 $\begin{bmatrix} 51 \end{bmatrix}$ \sim $\begin{bmatrix} 55 \end{bmatrix}$ に入れるのに最も適当なものを、下の 0 \sim 0 のうちから一つずつ選び、表を完成させよ。ただし、同じものを繰り返し選んではいけない。

Paragraph	Content	
(2)	51	
(3)	52	
(4)	53	
(5)	54	
(6)	Summary of Slow Food's good points	
(7)	55	
(8)	Conclusion	

- 1 Basic information about the Slow Food Movement
- 2 Nutritious benefits of Slow Food
- 3 The influence of food on regional societies
- The value of a variety of flavors
- (9) Ways to participate in the Slow Food Movement

☑ 通過時間 時 分