20   **A** （   ）
        I   **II**   (70   )
                        20   2   7

1   1   5

The Earth Simulator is a powerful supercomputer. Although researchers are still unsure of its ultimate practical value, they say that it has an outstanding capability to predict, analyze, and resolve pressing problems of the global environment, as (1   ) as to monitor the spread of diseases and promote the rapid introduction of new drugs.

As (2   ) speed, the Earth Simulator can instantly carry out (1)more calculations than there are stars in the Milky Way. That's about 35 trillion calculations a second, making it one of the fastest supercomputers in the world. This $350 million computer has been developed by Japanese scientists. It will lead to much greater accuracy in performing climate research because of its capacity for complex simulations that incorporate[*1] a diverse mix of factors.

From 2002 to 2004, Japan's Earth Simulator was the fastest supercomputer in the world. The Earth Simulator replaced American supercomputers, which had previously been the fastest. In late 2004, the Earth Simulator lost its title of "world's fastest" to an American supercomputer. However, the Earth Simulator is still extremely important for a number of reasons.

(3   ) present, the Earth Simulator is being used to measure sea temperatures, rainfall, and crustal[*2] movements around the world. One of the main purpose of this monitoring is to find out the likelihood of natural disasters in the next two to three hundred years. The computer, which is located in a suburb just south of Tokyo, is supported by a 1,900-mile underground network of cable. (4   ) put in a straight line, the cable would reach from the East Coast to the West Coast of the U.S. This huge computer is kept cool by the thirty-five million cubic feet of air which pass through the building (2)every ten seconds.

The Director-General of the Earth Simulator Center is especially proud that the computer can simulate weather (3)at 100 times the accuracy of previous simulations. Such ultra-high precision was incorporated into the computer so that typhoons and volcanic eruptions[*3] can now be predicted with great accuracy. The location and timing of an earthquake are extremely difficult to foresee, but potentially dangerous areas are being monitored closely so that an infrastructure can be developed (4)in

advance. The computer can also be programmed to predict the effort of rising sea levels in a few hundred years by creating a simulated scenario, in which carbon dioxide emissions are cut by 5% instead of 15%.

The Earth Simulator is extremely expensive, but the Japanese government hopes that the huge cost will eventually be offset*4 by the money (5)it will save by reducing the devastation*5 caused by natural disasters. More importantly, in Japan, (5   ) earthquakes and volcanic eruptions occur frequently, this new computer could save many lives.

*1 incorporate   *2 crustal   *3 eruptions
*4 offset   *5 devastation

1   1   5

1	. far	. well	. soon	. long
2	. on	. of	. for	. about
3	. In	. To	. With	. At
4	. If	. Because	. Since	. Although
5	. that	. which	. where	. how

2   (1)   (5)

(1)   . numerous computations   . smooth evaluations
       . rapid assessments   . exact judgments

(2)   . once in sixty seconds   . ten times in every second
       . once in ten minutes   . six times in one minute

(3)   . as correctly as the former computers could
       . as quickly as the former computers could
       . faster than the former computers could
       . more precisely than the former computers could

(4)   . after the computer is developed
       . after the simulation is completed
       . before an earthquake takes place
       . before the buildings are strengthened

(5)   . climate change   . the supercomputer
       . small expense   . an environmental problem

3 The Earth Simulator

. It takes few conditions into account in climate simulations.

. It enables us to measure the amount of rain on the other side of the world.

. It has a capability of predicting serious environmental problems even one hundred years later.

. It can predict sea surface elevation.

4

. Between 2002 and 2004, American supercomputers were the "the world's fastest."

. Researchers have a strong idea of the final purpose of the Earth Simulator.

. The Japanese government believes the expense of developing the Earth Simulator will be worth it.

. The cost of developing the Earth Simulator was less expensive than that of American supercomputers.

5

. The Possible Dangers Caused by a Computer

. The Unique Application of a Computer to Astronomy

. The Surprising Relationships between a Computer and Energy Problems

. The Valuable Invention of a Computer with Great Potential

2   1   10   ( )

1. (   ) from the airplane, the lake looks like a huge doughnut.
   . See   . Seeing   . Seen   . Having seen

2. I have three daughters: one is in Boston and (   ) in Seattle.
   . another is   . other is   . others are   . the others are

3. If we hadn't had your help, we (   ) in last month's project.
   . failed   . were failing   . would fail   . would have failed

4. You don't need (   ).
   . be afraid   . to be afraid   . being afraid   . been afraid

5. There are few mistakes, if (   ), in this long essay.
   . some   . any   . there is   . there are

6. His teacher demanded that he (   ) the homework by tomorrow afternoon.
   . finish   . finished   . has finished   . will finish

7. I'll never forget (   ) the beautiful sea from the hill on my last trip.
   . see   . to see   . seeing   . seen

8. We (   ) for four years in April this year.
   . have married   . will be married
   . will have married   . will have been married

9. Soon we came to a hill at the foot (   ) stood a historical church.
   . which   . of which   . that   . in that

10. He was forced (   ) home right away.
    . go   . going   . gone   . to go

3   1   10

1. You have to <u>hand in</u> your assignment by the end of next week.

   . write   . finish   . receive   . submit

2. The cats will <u>get rid of</u> the rats.

   . hate   . chase   . eliminate   . dislike

3. This species was discovered <u>by chance</u> only a year ago.

   . fortunately   . accidently   . surprisingly   . strangely

4. How did you <u>come by</u> such a precious painting?

   . obtain   . search   . sell   . create

5. I can't <u>figure out</u> what he said to me this morning.

   . remember   . forget   . understand   . believe

6. This much money will do <u>for the time being</u>.

   . temporarily   . occasionally   . timely   . constantly

7. She had better <u>set about</u> her work immediately.

   . stop   . choose   . decide   . begin

8. How could you <u>put up with</u> it?

   . leave   . tolerate   . discover   . extinguish

9. Who do you think you <u>take after</u>?

   . like   . know   . resemble   . trust

10. The sad news of the accident is <u>all but</u> forgotten.

    . almost   . never   . little   . sometimes

4   1 5   1 3
                          4   5

1. Michael: Are you going anywhere during the vacation?
   Jennifer: (   )
   Michael: Wow! Sounds exciting!

       . Yes, I wish I could.
       . I'm intending to go to Canada.
       . No, I haven't decided yet.
       . I have to cancel my trip to Europe.

2. Kate: Why didn't you show up at the party last night?
   Paul: (   )
   Kate: That's too bad. Did you get it done?

       . I didn't know there was a party last night.
       . I wasn't feeling well.
       . I was going to eat out for dinner with my parents.
       . I had to work on my paper.

3. Ellen: Hi, this is Ellen. Can I talk to Walter, please?
   Roger: (   )
   Ellen: I see. Then I will call again in ten minutes.

       . He will be unable to talk tonight.
       . He will be away until tomorrow.
       . He is returning in five minutes or so.
       . He is about to leave here.

4. Kent: You look worried. What's the matter?
   Linda: Well, to be honest, (①   )
   Kent: Oh, you will? What is the interview for?
   Linda: It's for my scholarship. I have to pass this interview to get it.
   Kent: I see. Do you think you are ready?
   Linda: (②   ) But the problem is that I alwasy become too nervous.
   Kent: Come on, you can do it. Just relax.

    . I think I am.
    . I applied for it, but I gave it up after all.
    . I should have passed the interview.
    . I hope I do.
    . I'm a bit afraid because I'll have an interview soon.

5. Cindy: What kind of place is your hometown?
   John: It's a small country town.
   Cindy: I guess it must be nice living in a small town.
   John: Yeah, it is. It's a very quiet and safe place. People are friendly and things are cheap. Best of all, (①   )
   Cindy: It sounds like a great place, but is there anything you don't like about it.
   John: Well, I would say (②   ) If you live there, you need a car because there aren't many buses or taxis.

    . you shouldn't drive there.
    . the scenery is beautiful.
    . I like my hometown so much.
    . the shops are crowded.
    . it's a little inconvenient.

5   1 5

1. I'll <u>send</u> you <u>an email</u> <u>as</u> soon as I <u>will arrive</u> at the hotel.

2. <u>Despite</u> he was not good <u>at</u> English <u>at the begining</u>, he kept <u>making efforts</u>

   to become a fluent speaker.

3. Are you used <u>to</u> <u>drive</u> <u>long distances</u> <u>by yourself</u>?

4. We were taught <u>by</u> our teacher <u>that</u> World War I <u>had been broken out</u> <u>in</u> the summer of 1914.

5. <u>Whatever</u> smart he <u>may</u> be, he is <u>only a</u> <u>seven-year-old</u> boy.

6   1   5   （   ）   （ ）

                                （ ）

(1)

(1. anything   2. no   3. burning   4. smelled   5. one)
   . 1–4–2–3–5   . 2–5–4–1–3
   . 3–1–4–2–5   . 5–4–2–1–3

(2)

(1. to   2. see   3. she is   4. my friend   5. off)
   . 3–1–2–4–5   . 3–2–1–5–4
   . 3–4–1–2–5   . 3–5–1–2–4

(3)

(1. other   2. as smart   3. student   4. is   5. the boy   6. as
7. no   8. in this class)
   . 5–4–2–6–1–7–3–8   . 5–4–6–7–1–3–2–8
   . 7–1–3–4–2–6–5–8   . 7–3–4–2–5–6–1–8

(4)   20

(1. been   2. proud   3. 20 years ago   4. having   5. of
6. is   7. she   8. a well-known actress)
   . 3–6–2–5–4–7–1–8   . 3–6–4–1–2–7–5–8
   . 7–6–2–5–4–1–8–3   . 7–6–4–1–2–5–8–3

(5)

(1, of   2. neither   3. heard   4. saw   5. most   6. the boys
7. nor   8. about the building)
   . 5–1–6–2–4–7–3–8   . 5–6–2–4–7–3–1–8
   . 6–1–5–4–2–7–3–8   . 6–2–4–7–3–1–5–8

1

1					2					3	4	5
1	2	3	4	5	(1)	(2)	(3)	(4)	(5)			

2

1	2	3	4	5	6	7	8	9	10

3

1	2	3	4	5	6	7	8	9	10

4

1	2	3	4		5	
			①	②	①	②

5

1	2	3	4	5

6

1	2	3	4	5