

朗阁雅思阅读考题预测

Passage 1

Digital Diet

A

Telecommuting, Internet shopping and online meetings may save energy as compared with in-person alternatives, but as the digital age moves on, its green reputation is turning a lot browner. E-mailing, number crunching and Web searches in the U.S. consumed as much as 61 billion kilowatt-hours last year, or 1.5 percent of the nation's electricity — half of which comes from coal. In 2005 the computers of the world ate up 123 billion kilowatt-hours of energy, a number that will double by 2010 if present trends continue, according to Jonathan Koomey, a staff scientist at Lawrence Berkeley National Laboratory. As a result, the power bill to run a computer over its lifetime will surpass the cost of buying the machine in the first place — giving Internet and computer companies a business reason to cut energy costs, as well as an environmental one.

B

One of the biggest energy sinks comes not from the computers themselves but from the air-conditioning needed to keep them from overheating. For every kilowatt-hour of energy used for computing in a data center, another kilowatt-hour is required to cool the furnace-like nicks of servers.

C

For Internet giant Google, this reality has driven efforts such as the installation of a solar array that can provide 30 percent of the peak power needs of its Mountain View, Calif., headquarters as well as increasing purchases of renewable energy. But to deliver Web pages within seconds, the firm must maintain hundreds of thousands of computer servers in cavernous buildings. "It's a good thing to worry about server energy efficiency," remarks Google's green energy czar Bill Weihl. "We are actively working to maximize the efficiency of our data centers, which account for most of the energy Google consumes worldwide." Google will funnel some of its profits into a new effort, dubbed RE<C (for renewable energy cheaper than coal, as Google translates it) to make sources such as solar-thermal, high-altitude wind and geothermal cheaper than coal "within years, not decades," according to Weihl.

D

In the meantime, the industry as a whole has employed a few tricks to save watts. Efforts include cutting down on the number of transformations the electricity itself must undergo before achieving the correct operating voltage; rearranging the stacks of servers and the mechanics of their cooling; and using software to create multiple "virtual" computers, rather than having to deploy several real ones. Such virtualization has allowed computer maker Hewlett-Packard to consolidate 86 data centers spread throughout the world to just three, with three backups, says Pat Tiernan, the firm's vice president of social and environmental responsibility.

E

The industry is also tackling the energy issue at the computer-chip level. With every doubling of processing power in recent years has come a doubling in power consumption. But to save energy, chipmakers such as Intel and AMD have shifted to so-called multicore technology, which packs multiple processors into one circuit rather than separating them. “When we moved to multicore — away from a linear focus on megahertz and gigahertz — and throttled down microprocessors, the energy savings were pretty substantial,” says Allyson Klein, Intel’s marketing manager for its Ecotech Initiative. Chipmakers continue to shrink circuits on the nanoscale as well, which “means a chip needs less electricity” to deliver the same performance, she adds.

F

With such chips, more personal computers will meet various efficiency standards, such as Energy Star compliance (which mandates that a desktop consume no more than 65 watts). The federal government, led by agencies such as NASA and the Department of Defense may soon require all their purchases to meet the Electronic Product Environmental Assessment Tool standard. And Google, Intel and others have formed the Climate Savers Computing Initiative, an effort to cut power consumption from all computers by 50 percent by 2010.

G

Sleep modes and other power management tools built into most operating systems can offer savings today. Yet about 90 percent of computers do not have such settings enabled, according to Klein. Properly activated, they would prevent a computer from leading to the emission of thousands of kilograms of carbon dioxide from power plants every year. But if powering down or unplugging the computer (the only way it uses zero power) is not an option, then perhaps the most environmentally friendly use of all those wasted computing cycles is in helping to model climate change. The University of Oxford’s ClimatePrediction.net offers an opportunity to at least predict the consequences of all that coal burning.

H

CO₂Stats is a free tool that can be embedded into any Web site to calculate the carbon dioxide emissions associated with using it. That estimate is based on an assumption of 300 watts of power consumed by the personal computer, network and server involved — or 16.5 milligrams of CO₂ emitted every second of use. “The typical carbon footprint is roughly equivalent to 1.5 people breathing,” says physicist Alexander Wissner-Gross of Harvard University, who co-created the Web tool.

Questions 1-6

Use the information in the passage to match the people (listed A-E) with opinions or deeds below. Write the appropriate letters A-E in boxes 1-6 on your answer sheet.

NB you may use any letter more than once

- A Jonathan Koomey
- B Allyson Klein
- C Pat Tiernan
- D Bill Weihl
- E Alexander Wissner-Gross

- 1 Figuring ways to optimize the utilization of energy in certain significant departments in the company.
- 2 A revolutionary improvement in a tiny, but quite imperative component of the computers
- 3 Targeting at developing alternative sources within the near future
- 4 An astounding estimate on the energy to be consumed by computers in a short period based on an unchangeable trend
- 5 A powerful technique developed for integration of resources
- 6 A failure for the vast majority of computers to activate the use of some internal tools already available in them

Questions 7-10

Do the following statements agree with the information given in Reading Passage 1?

In boxes 7-10 on your answer sheet, write

TRUE if the statement is true

FALSE if the statement is false

NOT GIVEN if the information is not given in the passage

- 7 To chill the server does not take up considerable amount of energy needed for the computer.
- 8 It seems that the number of the servers has a severe impact on the speed of the internet connection.
- 9 Several companies from other fields have a joint effort with the internet industry to work on the ways to save energy.
- 10 Actions taken at a governmental level are to be expected to help with savings in the energy in the near future.

Questions 11-13

Summary

Complete the following summary of the paragraphs of Reading Passage, using **No More than Three words** from the Reading Passage for each answer. Write your answers in boxes 11-13 on your answer sheet.

The 11..... has also been reached to save up energy in every possible way and the philosophy behind it lies in the fact that there is a positive correlation between the ability to process and the need for energy. In this context, some firms have switched to 12..... which means several processors are integrated into one single circuit to

Since 1999



make significant energy savings. What is more, they go on to 13..... on an even more delicate level for the chips to save more energy while staying at the constant level in terms of the performance.



Answer keys:

- 1 D
- 2 B
- 3 D
- 4 A
- 5 C
- 6 B
- 7 FALSE
- 8 TRUE
- 9 NOT GIVEN
- 10 TRUE
- 11 computer-chip level
- 12 so-called multicore technology
- 13 shrink circuits



Volatility Kills

A

Despite gun battles in the capital of Chad, rioting in Kenya and galloping inflation in Zimbabwe, the economics of sub-Saharan Africa are, as a whole, in better shape than they were a few years ago. The World Bank has reported recently that this part of the continent experienced a respectable growth rate of 5.6 percent in 2006 and a higher rate from 1995 to 2005 than in previous decades. The bank has given a cautious assessment that the region may have reached a turning point. An overriding question for developmental economists remains whether the upswing will continue so Africans can grow their way out of a poverty that relegates some 40 percent of the nearly 744 million in that region to living on less than a dollar a day. The optimism, when inspected more closely, may be short-lived because of the persistence of a devastating pattern of economic volatility that has lingered for decades.

B

"In reality, African countries grow as fast as Asian countries and other developing countries during the good times, but afterward they see growth collapses," comments Jorge Arbache, a senior World Bank economist. "How to prevent collapses may be as important as promoting growth." If these collapses had not occurred, he observes, the level of gross domestic product for each citizen of the 48 nations of sub-Saharan Africa would have been a third higher.

C

The prerequisites to prevent the next crash are not in place, according to a World Bank study issued in January, *Is Africa's Recent Growth Robust?* The growth period that began in 1995, driven by a commodities boom spurred in particular by demand from China, may not be sustainable, because the economic fundamentals — new investment and the ability to stave off inflation, among other factors — are absent. The region lacks the necessary infrastructure that would encourage investors to look to Africa to find the next Bengaluru (Bangalore) or Shenzhen, a November report from the bank concludes. For sub-Saharan countries rich in oil and other resources, a boom period may even undermine efforts to institute sound economic practices. From 1996 to 2005, with growth accelerating, measures of governance — factors such as political stability, rule of law, and control of corruption — actually worsened, especially for countries endowed with abundant mineral resources, the January report notes.

D

Perhaps the most incisive analysis of the volatility question comes from Paul Collier, a longtime specialist in African economics at the University of Oxford and author of the recent book *The Bottom Billion*. He advocates a range of options that the U.S. and other nations could adopt when formulating policy toward African countries. They include revamped trade measures, better-apportioned aid and sustained military intervention in certain instances, to avert what he sees as a rapidly accelerating divergence of the world's poorest, primarily in Africa, from the rest of the world, even other developing

nations such India and China.

E

Collier find that bad governance is the main reason countries fail to take advantage of the revenue bonanza that results from a boom. Moreover, a democratic government, he adds, often makes the aftermath of a boom worse. “Instead of democracy disciplining governments to manage these resource booms well, what happens is that the resource revenues corrupt the normal functioning of democracy — unless you stop (them from) corrupting the normal function of democracy with sufficient checks and balances,” he said at a talk in January at the Carnegie Council in New York City.

F

Collier advocates that African nations institute an array of standards and codes to bolster governments, one of which would substitute auctions for bribes in apportioning mineral rights and another of which would tax export revenues adequately. He cites the Democratic Republic of the Congo, which took in \$200 million from mineral exports in 2006 yet collected only \$86,000 in royalties for its treasury. “If a nation gets these points right,” he argues, “it’s going to develop. If it gets them wrong, it won’t.”

G

To encourage reform, Collier recommends that the G8 nations agree to accept these measures as voluntary guidelines for multinationals doing business in Africa — companies, for instance, would only enter new contracts through auctions monitored by an international verification group. Such an agreement would follow the examples of the so-called Kimberley Process, which has effectively undercut the trade in blood diamonds, and the Extractive Industries Transparency Initiative, in which a government must report to its citizens the revenues it receives from sales of natural resources.

H

These measures, he says, are more important than elevating aid levels, an approach emphasized by economist Jeffrey D. Sachs of Columbia University and celebrity activists such as Bono. Collier insists that first Angola receives tens of billions of dollars in oil revenue and whether it gets a few hundred million more or less in aid is really second-order.

Since 1999

Questions 1-4

Use the information in the passage to match the people (listed A-C) with opinions or deeds below. Write the appropriate letters A-C in boxes 1-4 on your answer sheet.

NB you may use any letter more than once

- A Jeffrey D. Sachs
- B Paul Collier
- C Jorge Arbache

1. An unexpectedly opposite result
2. Estimated more productive outcomes if it were not for sudden economic downturns
3. A proposal for a range of recommended instructions for certain countries to narrow the widening economic gap
4. An advocate for a method used for a specific assessment

Questions 5-9

Do the following statements agree with the information given in Reading Passage 1. In boxes 5-9 on your answer sheet, write

- TRUE** if the statement is true
- FALSE** if the statement is false
- NOT GIVEN** if the information is not given in the passage

5. The instability in economy in some African countries might negatively impact their continuing growth after a certain level has been reached.
6. Collier is the most influential scholar on the study of volatility problem.
7. Certain African governments levy considerable taxes on people profiting greatly from exportation.
8. Some African nations' decisions on addressing specific existing problems are directly related to the future of their economic trends.
9. Collier regards Jeffrey D. Sachs' recommended way of evaluating of little importance.

Questions 10-13

Complete the following summary of the paragraphs of Reading Passage, using **No More than Three words** from the Reading Passage for each answer. Write your answers in boxes 10-13 on your answer sheet.

According to one research carried by the World Bank, some countries in Africa may suffer from 10..... due to the lack of according preconditions. They experienced a growth stimulated by 11....., but according to another study, they may not keep this trend stable because they don't have 12..... which would attract investors. To some countries with abundant resources this fast-growth period might even mean something devastating to their endeavor. During one specific decade accompanied by 13....., as a matter of fact, the governing saw a deterioration.

Answer keys:

- 1 B
- 2 C
- 3 B
- 4 B
- 5 TRUE
- 6 NOT GIVEN
- 7 FALSE
- 8 TRUE
- 9 NOT GIVEN
- 10 the next crash
- 11 a commodities boom
- 12 necessary infrastructure
- 13 growth accelerating



Passage 2

We have Star performers!

A

The difference between companies is people. With capital and technology in plentiful supply, the critical resource for companies in the knowledge era will be human talent. Companies full of achievers will, by definition, outperform organisations of plodders. Ergo, compete ferociously for the best people. Poach and pamper stars; ruthlessly weed out second-raters. This in essence has been the recruitment strategy of the ambitious company of the past decade. The 'talent mindset' was given definitive form in two reports by the consultancy McKinsey famously entitled *The War for Talent*. Although the intensity of the warfare subsequently subsided along with the air in the internet bubble, it has been warming up again as the economy tightens: labour shortages, for example, are the reason the government has laid out the welcome mat for immigrants from the new Europe.

B

Yet while the diagnosis — people are important — is evident to the point of platitude, the apparently logical prescription — hire the best — like so much in management is not only not obvious: it is in fact profoundly wrong. The first suspicions dawned with the crash to earth of the dotcom meteors, which showed that dumb is dumb whatever the IQ of those who perpetrate it. The point was illuminated in brilliant relief by Enron, whose leaders, as a *New Yorker* article called 'The Talent Myth' entertainingly related, were so convinced of their own cleverness that they never twigged that collective intelligence is not the sum of a lot of individual intelligences. In fact in a profound sense the two are opposites. Enron believed in stars, noted author Malcolm Gladwell, because they didn't believe in systems. But companies don't create: they execute and compete and co-ordinate the efforts of many people, and the organisations that are most successful at that task are the ones where the system is the star.' The truth is that you can't win the talent wars by hiring stars — only lose it. New light on why this should be so is thrown by an analysis of star behaviour in this month's *Harvard Business Review*. In a study of the careers of 1,000 star-stock analysts in the 1990s, the researchers found that when a company recruited a star performer, three things happened.

C

First, stardom doesn't easily transfer from one organisation to another. In many cases, performance dropped sharply when high performers switched employers and in some instances never recovered. More of success than commonly supposed is due to the working environment — systems, processes, leadership, accumulated embedded learning that are absent in and can't be transported to the new firm. Moreover, precisely because of their past stellar performance, stars were unwilling to learn new tricks and antagonised those (on whom they now unwittingly depended) who could teach them. So they moved, upping their salary as they did — 36 per cent moved on within three years, fast even for Wall Street. Second, group performance suffered as a result of tensions and resentment by rivals within the team. One respondent likened hiring a star to an organ

transplant. The new organ can damage others by hogging the blood supply, other organs can start aching or threaten to stop working or the body can reject the transplant altogether, he said. 'You should think about it very carefully before you do a transplant to a healthy body.' Third, investors punished the offender by selling its stock. This is ironic, since the motive for importing stars was often a suffering share price in the first place. Shareholders evidently believe that the company is overpaying, the hiree is cashing in on a glorious past rather than preparing for a glowing present, and a spending spree is in the offing.

D

The result of mass star hirings as well as individual ones seem to confirm such doubts. Look at County NatWest and Barclays de Zoete Wedd, both of which hired teams of stars with loud fanfare to do great things in investment banking in the 1990s. Both failed dismally. Everyone accepts the cliché that people make the organisation — but much more does the organisation make the people. When researchers studied the performance of fund managers in the 1990s, they discovered that just 30 per cent of variation in fund performance was due to the individual, compared to 70 per cent to the company-specific setting.

E

That will be no surprise to those familiar with systems thinking. W Edwards Deming used to say that there was no point in beating up on people when 90 per cent of performance variation was down to the system within which they worked. Consistent improvement, he said, is a matter not of raising the level of individual intelligence, but of the learning of the organisation as a whole. The star system is glamorous — for the few. But it rarely benefits the company that thinks it is working it. And the knock-on consequences indirectly affect everyone else too. As one internet response to Gladwell's New Yorker article put it: after Enron, 'the rest of corporate America is stuck with overpaid, arrogant, underachieving, and relatively useless talent.'

Football is another illustration of the stars vs systems strategic choice. As with investment banks and stockbrokers, it seems obvious that success should ultimately be down to money. Great players are scarce and expensive. So the club that can afford more of them than anyone else will win. But the performance of Arsenal and Manchester United on one hand and Chelsea and Real Madrid on the other proves that it's not as easy as that. While Chelsea and Real have the funds to be compulsive star collectors — as with Juan Sebastian Veron — they are less successful than Arsenal and United which, like Liverpool before them, have put much more emphasis on developing a setting within which stars-in-the-making can flourish. Significantly, Thierry Henry, Patrick Veira and Robert Pires are much bigger stars than when Arsenal bought them, their value (in all senses) enhanced by the Arsenal system. At Chelsea, by contrast, the only context is the stars themselves — managers with different outlooks come and go every couple of seasons. There is no settled system for the stars to blend into. The Chelsea context has not only not added value, it has subtracted it. The side is less than the sum of its

exorbitantly expensive parts. Even Real Madrid's galacticos, the most extravagantly gifted on the planet, are being outperformed by less talented but better-integrated Spanish sides. In football, too, stars are trumped by systems.

G

So if not by hiring stars, how do you compete in the war for talent? You grow your own. This worked for investment analysts, where some companies were not only better at creating stars but also at retaining them. Because they had a much more sophisticated view of the interdependent relationship between star and system, they kept them longer without resorting to the exorbitant salaries that were so destructive to rivals.



Questions 14-17

The reading Passage has seven paragraphs A-G.

Which paragraph contains the following information?

Write the correct letter A-G in boxes 14-17 on your answer sheet.

- 14 One example from non-commerce/business settings that better system wins bigger stars.
- 15 One failed company that believes stars rather than system.
- 16 One suggestion that author made to acquire employees then to win the competition nowadays.
- 17 One metaphor to human medical anatomy that illustrates the problems of hiring stars.

Questions 18-21

Do the following statements agree with the information given in Reading Passage 1?

In boxes 18-21 on your answer sheet, write

- YES** if the statement agrees with the information
- NO** if the statement contradicts the information
- NOT GIVEN** if there is no information on this

- 18 McKinsey who wrote *The War for Talent* had not expected the huge influence made by this book.
- 19 Economic condition becomes one of the factors which decide whether or not a country would prefer to hire foreign employees.
- 20 The collapse of Enron is caused totally by an unfortunate incident instead of company's management mistake.
- 21 Football clubs that focus making stars in the setting are better than simply collecting stars.

Questions 22-26

*Complete the following summary of the paragraphs of Reading Passage, using **no more than two words** from the Reading Passage for each answer. Write your answers in boxes 22-26 on your answer sheet.*

An investigation carried out on 1000 22..... participants of a survey by Harvard Business Review found a company hire a 23..... has negative effects. For instance, they behave considerably worse in a new team than in the 24..... that they used to be. They move faster than wall street and increase their 25..... . Secondly, they faced rejections or refuse from those 26..... within the team. Lastly, the one who made mistakes had been punished by selling his/her stock share.

Answer keys:

- 14 F
- 15 B
- 16 G
- 17 C
- 18 NOT GIVEN
- 19 YES
- 20 NO
- 21 YES
- 22 analysts/ star-stock analysts
- 23 performance star/star/star performer
- 24 working environment/ settings
- 25 salary
- 26 rivals



Finding Our Way

A

“Drive 200 yards, and then turn right,” says the ear’s computer voice. You relax in the driver’s seat, follow the directions and reach your destination without error. It’s certainly nice to have the Global Positioning System (GPS) to direct you to within a few yards of your goal. Yet if the satellite service’s digital maps become even slightly outdated, you can become lost. Then you have to rely on the ancient human skill of navigating in three-dimensional space. Luckily, your biological finder has an important advantage over GPS: it does not go awry if only one part of the guidance system goes wrong, because it works in various ways. You can ask questions of people on the sidewalk. Or follow a street that looks familiar. Or rely on a navigational rubric: “If I keep the East River on my left, I will eventually cross 34th Street.” The human positioning system is flexible and capable of learning. Anyone who knows the way from point A to point B — and from A to C — can probably figure out how to get from B to C, too.

B

But how does this complex cognitive system really work? Researchers are looking at several strategies people use to orient themselves in space: guidance, path integration and route following. We may use all three or combinations thereof. And as experts learn more about these navigational skills, they are making the case that our abilities may underlie our powers of memory and logical thinking. Grand Central, Please imagine that you have arrived in a place you have never visited — New York City. You get off the train at Grand Central Terminal in midtown Manhattan. You have a few hours to explore before you must return for your ride home. You head uptown to see popular spots you have been told about: Rockefeller Center, Central Park, the Metropolitan Museum of Art. You meander in and out of shops along the way. Suddenly, it is time to get back to the station. But how?

C

If you ask passersby for help, most likely you will receive information in many different forms. A person who orients herself by a prominent landmark would gesture southward: “Look down there. See the tall, broad MetLife Building? Head for that — the station is right below it.” Neurologists call this navigational approach “guidance”, meaning that a landmark visible from a distance serves as the marker for one’s destination.

D

Another city dweller might say: “What places do you remember passing? ... Okay. Go toward the end of Central Park, then walk down to St. Patrick’s Cathedral. A few more blocks, and Grand Central will be off to your left.” In this case, you are pointed toward the most recent place you recall, and you aim for it. Once there you head for the next notable place and so on, retracing your path. Your brain is adding together the individual legs of your trek into a cumulative progress report. Researchers call this strategy “path integration”. Many animals rely primarily on path integration to get around, including insects, spiders, crabs and rodents. The desert ants of the genus *Cataglyphis* employ this method to return from foraging as far as 100 yards away. They note the general direction they came from and retrace their steps, using the polarization of sunlight to orient themselves even under overcast skies. On their way back they are faithful to this inner homing vector. Even when a scientist picks up an ant and puts it in a totally different spot, the insect stubbornly proceeds in the originally determined direction until it has

gone “back” all of the distance it wandered from its nest. Only then does the ant realize it has not succeeded, and it begins to walk in successively larger loops to find its way home.

E

Whether it is trying to get back to the anthill or the train station, any animal using path integration must keep track of its own movements so it knows, while returning, which segments it has already completed. As you move, your brain gathers data from your environment — sights, sounds, smells, lighting, muscle contractions, a sense of time passing — to determine which way your body has gone. The church spire, the sizzling sausages on that vendor’s grill, the open courtyard, and the train station — all represent snapshots of memorable junctures during your journey.

F

In addition to guidance and path integration, we use a third method for finding our way. An office worker you approach for help on a Manhattan street corner might say: “Walk straight down Fifth, turn left on 47th, turn right on Park, go through the walkway under the Helmsley Building, then cross the street to the MetLife Building into Grand Central.” This strategy, called route following, uses landmarks such as buildings and street names, plus directions — straight, turn, go through — for reaching intermediate points. Route following is more precise than guidance or path integration, but if you forget the details and take a wrong turn, the only way to recover is to backtrack until you reach a familiar spot, because you do not know the general direction or have a reference landmark for your goal. The route-following navigation strategy truly challenges the brain. We have to keep all the landmarks and intermediate directions in our head. It is the most detailed and therefore most reliable method, but it can be undone by routine memory lapses. With path integration, our cognitive memory is less burdened; it has to deal with only a few general instructions and the homing vector. Path integration works because it relies most fundamentally on our knowledge of our body’s general direction of movement, and we always have access to these inputs. Nevertheless, people often choose to give route-following directions, in part because saying “Go straight that way!” just does not work in our complex, man-made surroundings.

G

Road Map or Metaphor? On your next visit to Manhattan you will rely on your memory to get around. Most likely you will use guidance, path integration and route following in various combinations. But how exactly do these constructs deliver concrete directions? Do we humans have, as an image of the real world, a kind of road map in our heads — with symbols for cities, train stations and churches; thick lines for highways; narrow lines for local streets? Neurobiologists and cognitive psychologists do call the portion of our memory that controls navigation a “cognitive map”. The map metaphor is obviously seductive: maps are the easiest way to present geographic information for convenient visual inspection. In many cultures, maps were developed before writing, and today they are used in almost every society. It is even possible that maps derive from a universal way in which our spatial-memory networks are wired.

H

Yet the notion of a literal map in our heads may be misleading; a growing body of research implies that the cognitive map is mostly a metaphor. It may be more like a



hierarchical structure of relationships. To get back to Grand Central, you first envision the large scale — that is, you visualize the general direction of the station. Within that system you then imagine the route to the last place you remember. After that, you observe your nearby surroundings to pick out a recognizable storefront or street corner that will send you toward that place. In this hierarchical, or nested, scheme, positions and distances are relative, in contrast with a road map, where the same information is shown in a geometrically precise scale.



Questions 14-18

Use the information in the passage to match the category of each navigation method (listed A-C) with correct statement. Write the appropriate letters A-C in boxes 14-18 on your answer sheet.

NB you may use any letter more than once

- A Guidance
- B Path integration
- C Route following

- 14 Using basic direction from starting point and light intensity to move on.
- 15 Using combination of place and direction heading for destination.
- 16 Using an iconic building near your destination as orientation.
- 17 Using a retrase method from a known place if a mistake happens.
- 18 Using a passed spot as reference for a new integration.

Questions 19-21

Choose the correct letter, A, B, C or D.

Write your answers in boxes 19-21 on your answer sheet.

19 What does the ant of Cataglyphis respond if it has been taken to another location according to the passage?

- A Changes the orientation sensors improvingly
- B Releases biological scent for help from others
- C Continues to move by the original orientation
- D Totally gets lost once disturbed

20 Which of the followings is true about "cognitive map" in this passage?

- A There is not obvious difference contrast by real map
- B It exists in our head and is always correct
- C It only exists under some cultures
- D It was managed by brain memory

21 Which of following description of way findings correctly reflects the function of cognitive map?

- A It visualises a virtual route in a large scope
- B It reproduces an exact details of every landmark
- C Observation plays a more important role
- D Store or supermarket is a must in the map

Questions 22-26

Do the following statements agree with the information given in Reading Passage 2?

In boxes 22-26 on your answer sheet write

- TRUE** if the statement is true
- FALSE** if the statement is false
- NOT GIVEN** if the information is not given in the passage

- 22 Biological navigation has a state of flexibility.
- 23 You will always receive good reaction when you ask direction.
- 24 When someone follows a route, he or she collects comprehensive perceptual information in mind on the way.
- 25 Path integration requires more thought from brain compared with route-following.
- 26 In a familiar surrounding, an exact map of where you are will automatically emerge in



your head.



Answer keys:

- 14 B
- 15 C
- 16 A
- 17 C
- 18 B
- 19 C
- 20 D
- 21 A
- 22 TRUE
- 23 NOT GIVEN
- 24 TRUE
- 25 FALSE
- 26 FALSE



Passage 3

Knowledge in Medicine

A

What counts as knowledge? What do we mean when we say that we know something? What is the status of different kinds of knowledge? In order to explore these questions we are going to focus on one particular area of knowledge — medicine.

B

How do you know when you are ill? This may seem to be an absurd question. You know you are ill because you feel ill; your body tells you that you are ill. You may know that you feel pain or discomfort but knowing you are ill is a bit more complex. At times, people experience the symptoms of illness, but in fact they are simply tired or over-worked or they may just have a hangover. At other times, people may be suffering from a disease and fail to be aware of the illness until it has reached a late stage in its development. So how do we know we are ill, and what counts as knowledge?

C

Think about this example. You feel unwell. You have a bad cough and always seem to be tired. Perhaps it could be stress at work, or maybe you should give up smoking. You feel worse. You visit the doctor who listens to your chest and heart, takes your temperature and blood pressure, and then finally prescribes antibiotics for your cough.

D

Things do not improve but you struggle on thinking you should pull yourself together, perhaps things will ease off at work soon. A return visit to your doctor shocks you. This time the doctor, drawing on years of training and experience, diagnoses pneumonia. This means that you will need bed rest and a considerable time off work. The scenario is transformed. Although you still have the same symptoms, you no longer think that these are caused by pressure at work. You now have proof that you are ill. This is the result of the combination of your own subjective experience and the diagnosis of someone who has the status of a medical expert. You have a medically authenticated diagnosis and it appears that you are seriously ill; you know you are ill and have evidence upon which to base this knowledge.

E

This scenario shows many different sources of knowledge. For example, you decide to consult the doctor in the first place because you feel unwell — this is personal knowledge about your own body. However, the doctor's expert diagnosis is based on experience and training, with sources of knowledge as diverse as other experts, laboratory reports, medical textbooks and years of experience.

F

One source of knowledge is the experience of our own bodies; the personal knowledge we have of changes that might be significant, as well as the subjective experience of pain

and physical distress. These experiences are mediated by other forms of knowledge such as the words we have available to describe our experience and the common sense of our families and friends as well as that drawn from popular culture. Over the past decade, for example, Western culture has seen a significant emphasis on stress-related illness in the media. Reference to being 'stressed out' has become a common response in daily exchanges in the workplace and has become part of popular common-sense knowledge. It is thus not surprising that we might seek such an explanation of physical symptoms of discomfort.

G

We might also rely on the observations of others who know us. Comments from friends and family such as 'you do look ill' or 'that's a bad cough' might be another source of knowledge. Complementary health practices, such as holistic medicine, produce their own sets of knowledge upon which we might also draw in deciding the nature and degree of our ill health and about possible treatments.

H

Perhaps the most influential and authoritative source of knowledge is the medical knowledge provided by the general practitioner. We expect the doctor to have access to expert knowledge. This is socially sanctioned. It would not be acceptable to notify our employer that we simply felt too unwell to turn up for work or that our faith healer, astrologer, therapist or even our priest thought it was not a good idea. We need an expert medical diagnosis in order to obtain the necessary certificate if we need to be off work for more than the statutory self-certification period. The knowledge of the medical sciences is privileged in this respect in contemporary Western culture. Medical practitioners are also seen as having the required expert knowledge that permits them legally to prescribe drugs and treatment to which patients would not otherwise have access. However there is a range of different knowledge upon which we draw when making decisions about our own state of health.

However, there is more than existing knowledge in this little story; new-knowledge is constructed within it. Given the doctor's medical training and background, she may hypothesize 'is this now pneumonia?' and then proceed to look for evidence about it. She will use observations and instruments to assess the evidence and — critically — interpret it in the light of her training and experience. This results in new knowledge and new experience both for you and for the doctor. This will then be added to the doctor's medical knowledge and may help in future diagnosis of pneumonia.

Questions 27-32

Complete the table.

Choose **no more than three words** from the passage for each answer.

Write your answers in boxes 27-32 on your answer sheet

Source of knowledge	Examples
Personal experience	Symptoms of a (27)..... and tiredness Doctor's measurement of (28)..... and temperature Common judgment from (29)..... around you
Scientific Evidence	Medical knowledge from the general (30)..... e.g. doctor's medical(31)..... Examine the medical hypothesis with the previous drill and(32).....

Question 33-40

The reading Passage has nine paragraphs A-I

Which paragraph contains the following information?

Write the correct letter A-I, in boxes 33-40 on your answer sheet.

NB You may use any letter more than once

- 33 the contrast between the nature of personal judgment and the nature of doctor
- 34 the reference of culture about pressure
- 35 sick leave will be not permitted if employees are without the professional diagnosis
- 36 how doctors are regarded in the society
- 37 the symptom of the patients can be added as new information
- 38 what the situation will be if we come across knowledge from non-specialised outer sources
- 39 an example of collective judgment from personal experience and professional doctor
- 40 a reference about those people who do not realize their illness



Answer keys:

- 27 bad cough
- 28 blood pressure
- 29 Families and friends
- 30 Practitioner
- 31 Diagnosis
- 32 background
- 33 C
- 34 F
- 35 H
- 36 H
- 37 I
- 38 G
- 39 D
- 40 B



Book review on Musicophilia

A

Music and the brain are both endlessly fascinating subjects, and as a neuroscientist specialising in auditory learning and memory, I find them especially intriguing. So I had high expectations of *Musicophilia*, the latest offering from neurologist and prolific author Oliver Sacks. And I confess to feeling a little guilty reporting that my reactions to the book are mixed.

B

Sacks himself is the best part of *Musicophilia*. He richly documents his own life in the book and reveals highly personal experiences. The photograph of him on the cover of the book — which shows him wearing headphones, eyes closed, clearly enchanted as he listens to Alfred Brendel perform Beethoven's *Pathétique Sonata* — makes a positive impression that is borne out by the contents of the book. Sacks's voice throughout is steady and erudite but never pontifical. He is neither self-conscious nor self-promoting.

C

The preface gives a good idea of what the book will deliver. In it Sacks explains that he wants to convey the insights gleaned from the “enormous and rapidly growing body of work on the neural underpinnings of musical perception and imagery, and the complex and often bizarre disorders to which these are prone.” He also stresses the importance of “the simple art of observation” and “the richness of the human context.” He wants to combine “observation and description with the latest in technology” he says, and to imaginatively enter into the experience of his patients and subjects. The reader can see that Sacks, who has been practicing neurology for 40 years, is torn between the “old-fashioned” path of observation and the new-fangled, high-tech approach: He knows that he needs to take heed of the latter, but his heart lies with the former.

D

The book consists mainly of detailed descriptions of cases, most of them involving patients whom Sacks has seen in his practice. Brief discussions of contemporary neuroscientific reports are sprinkled liberally throughout the text. Part, “*Haunted by Music*”, begins with the strange case of Tony Cicoria, a nonmusical, middle-aged surgeon who was consumed by a love of music after being hit by lightning. He suddenly began to crave listening to piano music, which he had never cared for in the past. He started to play the piano and then to compose music, which arose spontaneously in his mind in a “torrent” of notes. How could this happen? Was the cause psychological? (He had had a near-death experience when the lightning struck him.) Or was it the direct result of a change in the auditory regions of his cerebral cortex? Electroencephalography (EEG) showed his brain waves to be normal in the mid-1990s, just after his trauma and subsequent “conversion” to music. There are now more sensitive tests, but Cicoria, has declined to undergo them; he does not want to delve into the causes of his musicality. What a shame!

E

Part II, “A Range of Musicality,” covers a wider variety of topics, but unfortunately, some of the chapters offer little or nothing that is new. For example, chapter 13, which is five pages long, merely notes that the blind often have better hearing than the sighted. The most interesting chapters are those that present the strangest cases. Chapter 8 is about “amusia”, an inability to hear sounds as music, and “dysharmonia”, a highly specific impairment of the ability to hear harmony, with the ability to understand melody left intact. Such specific “dissociations” are found throughout the cases Sacks recounts.

F

To Sacks’s credit, part III, “Memory, Movement and Music”, brings us into the underappreciated realm of music therapy. Chapter 16 explains how “melodic intonation therapy” is being used to help expressive aphasic patients (those unable to express their thoughts verbally following a stroke or other cerebral incident) once again become capable of fluent speech. In chapter 20, Sacks demonstrates the near-miraculous power of music to animate Parkinson’s patients and other people with severe movement disorders, even those who are frozen into odd postures. Scientists cannot yet explain how music achieves this effect.

G

To readers who are unfamiliar with neuroscience and music behavior, Musicophilia may be something of a revelation. But the book will not satisfy those seeking the causes and implications of the phenomena Sacks describes. For one thing, Sacks appears to be more at ease discussing patients than discussing experiments. And he tends to be rather uncritical in accepting scientific findings and theories.

H

It’s true that the causes of music-brain oddities remain poorly understood. However, Sacks could have done more to draw out some of the implications of the careful observations that he and other neurologists have made and of the treatments that have been successful. For example, he might have noted that the many specific dissociations among components of music comprehension, such as loss of the ability to perceive harmony but not melody, indicate that there is no music center in the brain. Because many people who read the book are likely to believe in the brain localisation of all mental functions, this was a missed educational opportunity.

I

Another conclusion one could draw is that there seem to be no “cures” for neurological problems involving music. A drug can alleviate a symptom in one patient and aggravate it in another, or can have both positive and negative effects in the same patient. Treatments mentioned seem to be almost exclusively antiepileptic medications, which “damp down” the excitability of the brain in general; their effectiveness varies widely.

J

Finally, in many of the cases described here the patient with music-brain symptoms is



reported to have “normal” EEG results. Although Sacks recognizes the existence of new technologies, among them far more sensitive ways to analyze brain waves than the standard neurological EEG test, he does not call for their use. In fact, although he exhibits the greatest compassion for patients, he conveys no sense of urgency about the pursuit of new avenues in the diagnosis and treatment of music-brain disorders. This absence echoes the book’s preface, in which Sacks expresses fear that “the simple art of observation may be lost” if we rely too much on new technologies. He does call for both approaches, though, and we can only hope that the neurological community will respond.



Questions 27-30

Choose the correct letter, A, B, C, or D.

Write the correct letter in boxes 27-30 on your answer sheet

27 Why does the writer have a mixed feeling about the book?

- A The guilty feeling made him so.
- B The writer expected it to be better than it was.
- C Sacks failed to include his personal stories in the book.
- D This is the only book written by Sacks.

28 What is the best part of the book?

- A the photo of Sacks listening to music
- B the tone of voice of the book
- C the autobiographical description in the book
- D the description of Sacks's wealth

29 In the preface, what did Sacks try to achieve?

- A make a herald introduction of the research work and technique applied
- B give detailed description of various musical disorders
- C explain how people understand music
- D explain why he needs to do away with simple observation

30 What is disappointing about Tony Cicoria's case?

- A He refuses to have further tests.
- B He can't determine the cause of his sudden musicality.
- C He nearly died because of the lightning.
- D His brain waves were too normal to show anything.

Questions 31-36

Do the follow statements agree with the views of the writer in Reading Passage 3?

In boxes 31-36 on your answer sheet, write

- YES** if the statement agrees with the views of the writer
- NO** if the statement contradicts with the views of the writer
- NOT GIVEN** if it is impossible to say what the writer thinks about this

31 It is difficult to give a well-reputable writer a less than totally favorable review.

32 Beethoven's Pathetique Sonata is a good treatment for musical disorders.

33 Sacks believes technological methods is of little importance compared with traditional observation when studying his patients.

34 It is difficult to understand why music therapy is undervalued

35 Sacks held little skepticism when borrowing other theories and findings in describing reasons and notion for phenomena he depicts in the book.

36 Sacks is in a rush to use new testing methods to do treatment for patients.

Questions 37-40

Complete each sentence with the correct ending, A-F, below.

Write correct letter, A-F, in boxes 37-40 on your answer sheet.

- 37 The content covered dissociations in understanding between harmony and melody
- 38 The study of treating musical disorders
- 39 The EEG scans of Sacks's patients
- 40 Sacks believes testing based on new technologies

- A show no music-brain disorders.
- B indicates that medication can have varied results.
- C is key for the neurological community to unravel the mysteries.
- D should not be used in isolation.
- E indicate that not everyone can receive good education.
- F show a misconception that there is function centre localized in the brain



Answer keys:

- 27 B
- 28 C
- 29 A
- 30 A
- 31 YES
- 32 NOT GIVEN
- 33 NO
- 34 NOT GIVEN
- 35 YES
- 36 NO
- 37 F
- 38 B
- 39 A
- 40 D

