READING MOCK TEST 4

READING PASSAGE 1

You should spend about 20 minutes on Question 1-13, which are based on Reading Passage 1 below.

Volatility Kills

A Despite gun battles in the capital of Chad, rioting in Kenya, and Galloping inflation in Zimbabwe, the economies 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 cautions 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 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, maybe 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 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 finds 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 ion 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 $86000 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

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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.

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. Dachs
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 the Reading Passage?
*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 an 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 in the study of the volatility problem.
7 Certain African governments levy considerable taxes on people profiting greatly from exportation.
8 Some African nation's decisions on addressing specific existing problems are directly related to the future of their economic trends.
9 Collier regards Jeffrey D. Sachs recommended a way of evaluating of title importance.

Questions 10-13
*Complete the following summary of the paragraphs of Reading Passage Volatility Kills, using **NO MORE THAN THREE WORDS** from the Reading Passage 1 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.

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READING PASSAGE 2

You should spend about 20 minutes on Question 14-26, which are based on Reading Passage 2 below.

Renewable Energy

An insight into the progress in renewable energy research

A The race is on for the ultimate goal of renewable energy: electricity production at prices that are competitive with coal-fired power stations, but without coal's pollution. Some new technologies are aiming to be the first to push coal from its position as Australia's chief source of electricity.

B At the moment the front-runner in renewable energy is wind technology. According to Peter Bergin of Australian Hydro, one of Australia's leading wind energy companies, there have been no dramatic changes in windmill design for many years, but the cumulative effects of numerous small improvements have had a major impact on cost. 'We're reaping the benefits of 30 years of research in Europe, without have to make the same mistakes that they did,' Mr Bergin says.

C Electricity can be produced from coal at around 4 cents per kilowatt-hour, but only if the environmental costs are ignored. 'Australia has the second cheapest electricity in the world, and this makes it difficult for renewable to compete,' says Richard Hunter of the Australian Ecogeneration Association (AEA). Nevertheless, the AEA reports: 'The production cost of a kilowatt-hour of wind power is one-fifth of what it was 20 years ago,' or around 7 cents per kilowatt-hour.

D Australian Hydro has dozens of wind monitoring stations across Australia as part of its aim to become Australia's pre-eminent renewable energy company. Despite all these developments, wind power remains one of the few forms of alternative energy where Australia is nowhere near the global cutting edge, mostly just replicating European designs.

E While wind may currently lead the way, some consider a number of technologies under development have more potential. In several cases, Australia is at the forefront of global research in the area. Some of them are very site-specific, ensuring that they may never become dominant market players. On the other hand, these newer developments are capable of providing more reliable power, avoiding the major criticism of windmills – the need for back-up on a calm day.

F One such development uses hot, dry rocks. Deep beneath South Australia, radiation from elements contained in granite heats the rocks. Layers of insulating sedimentation raise the temperatures in some location to 250° centigrade. An Australian firm, Geoenergy, is proposing to pump water 3.5 kilometres into the earth, where it will travel through tiny fissures in the granite, heating up as it goes until it escapes as steam through another drilled hole.

G No greenhouse gases are produced, but the system needs some additional features if it is to be environmentally friendly. Dr Prue Chopra, a geophysicist at the Australian National University and one of the founders of Geoenergy, note that the steam will bring with it radon gas, along through a heat exchanger and then sent back underground for another cycle. Technically speaking, hot dry rocks are not a renewable source of energy. However, the Australian source is so large it could supply the entire country's needs for thousands of years at current rates of consumption.

H Two other proposals for very different ways to harness sun and wind energy have surfaced recently. Progress continues with Australian company EnviroPower's plans for Australia's first solar chimney near Mildura, in Victoria. Under this scheme, a tall tower will draw hot air from a greenhouse built to cover the surrounding 5 km². As the air rises, it will drive a turbine* to produce electricity. The solar tower combines three very old technologies – the chimney, the turbine and the greenhouse – to produce something quite new. It is this reliance on proven engineering principles that led Enviropower's CEO, Richard Davies, to state: There is no doubt this technology will work, none at all.'

I This year, Enviropower recognized that the quality of sunlight in the Mildura district will require a substantially larger collecting area than was previously thought. However, spokesperson kay Firth says that a

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new location closer to Mildura will enable Enviropower to balance the increased costs with extra revenue. Besides saving in transmission costs, the new site 'will mean increased revenue from tourism and use of power for telecommunications. We'll also be able to use the outer 500 metres for agribusiness.' Wind speeds closer to the tower will be too high for farming.

J Another Australian company, Wavetech, is achieving success with ways of harvesting the energy in waves. Wavetech's invention uses a curved surface to push waves into a chamber, where the flowing water column pushes air back and forth through a turbine. Wavetech was created when Dr Tim Devine offered the idea to the world leader in wave generator manufacturers, who rather surprisingly rejected it. Dr Devine responded by establishing Wavetech and making a number of other improvements to generator design. Wavetech claims that, at appropriate sites, 'the cost of electricity produced with our technology should be below 4 cents per kilowatt-hour.

K The diversity of forms of greenhouse – friendly energy under development in Australia is remarkable. However, support on a national level is disappointing. According to Richard Hunter of the AEA, 'Australia has huge potential for wind, sun and wave technology. We should really be at the forefront, but the reality is we are a long way behind.'

Questions 14-20
Do the following statements agree with the information given in Reading Passage?
*In boxes **14-20** on your answer sheet, write*

TRUE	if the statement agrees with the information
FALSE	if the statement contradicts the information
NOT GIVEN	if there is no information on this

14 In Australia, alternative energies are less expensive than conventional electricity
15 Geoenergy needs to adapt its system to make it less harmful to the environment.
16 Dr Prue Chopra has studied the effects of radon gas on the environment.
17 Hot, dry rocks could provide enough power for the whole of Australia.
18 The new Enviropower facility will keep tourists away.
19 Wavetech was established when its founders were turned down by another company.
20 According to AEA, Australia is a world leader in developing renewable energy

Questions 21-26
Look at the following statements (Questions 21-26) and the list of companies below.
*Match each statement with the correct company, **A-D**.*
*Write the correct letter, **A-D**, in boxes **21-26** on your answer sheet.*
***NB** You may use any letter **more than once**.*
21 During the process, harmful substances are prevented from escaping.
22 Water is used to force air through a special device.
23 Techniques used by other countries are being copied.
24 The system can provide services other than energy production.
25 It is planned to force water deep under the ground.
26 Original estimates for part of the project have been revised.

A Australian Hydro
B Geoenergy
C Enviropower
D Wavetech

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READING PASSAGE 3

You should spend about 20 minutes on Question 27-40, which are based on Reading Passage 3 below

INSIDE THE MIND OF A FAN: HOW WATCHING SPORT AFFECTS THE BRAIN

A At about the same time that the poet Homer invented the epic here, the ancient Greeks started a festival in which men competed in a single race, about 200 metres long. The winner received a branch of wild olives. The Greeks called this celebration the Olympics. Through the ancient sprint remains, today the Olympics are far more than that. Indeed, the Games seem to celebrate the dream of progress as embodied in the human form. That the Games are intoxicating to watch is beyond question. During the Athens Olympics in 2004, 3.4 billion people, half the world, watched them on television. Certainly, being a spectator is a thrilling experience: but why?

B In 1996, three Italian neuroscientists, Giacomo Rizzolatti, Leonardo Forgassi and Vittorio Gallese, examined the premotor cortex of monkeys. The discovered that inside these primate brains there were groups of cells that 'store vocabularies of motor actions'. Just as there are grammars of movement. These networks of cells are the bodily 'sentences' we use every day, the ones our brain has chosen to retain and refine. Think, for example, about a golf swing. To those who have only watched the Master's Tournament on TV, golfing seems easy. To the novice, however, the skill of casting a smooth arc with a lop-side metal stick is virtually impossible. This is because most novices swing with their consciousness, using an area of brain next to the premotor cortex. To the expert, on the other hand, a perfectly balanced stroke is second nature. For him, the motor action has become memorized, and the movements are embedded in the neurons of his premotor cortex. He hits the ball with the tranquility of his perfected autopilot.

C These neurons in the premotor cortex, besides explaining why certain athletes seem to possess almost unbelievable levels of skill, have an even more amazing characteristic, one that caused Rizzolatti, Fogassi and Gallese to give them the lofty title 'mirror neurons'. They note, The main functional characteristic of mirror neurons is that they become active both when the monkey performs a particular action (for example, grasping an object or holding it) and, astonishingly, when it sees another individual performing a similar action.' Humans have an even more elaborate mirror neuron system. These peculiar cells mirror, inside the brain, the outside world: they enable us to internalize the actions of another. In order to be activated, though, these cells require what the scientists call 'goal-orientated movements'. If we are staring at a photograph, a fixed image of a runner mid-stride, our mirror neurons are totally silent. They only fire when the runner is active: running, moving or sprinting.

D What these electrophysiological studies indicate is that when we watch a golfer or a runner in action, the mirror neurons in our own premotor cortex light up as if we were the ones competing. This phenomenon of neural mirror was first discovered in 1954, when two French physiologists, Gastaut and Berf, found that the brains of humans vibrate with two distinct wavelengths, alpha and mu. The mu system is involved in neural mirroring. It is active when your bodies are still, and disappears whenever we do something active, like playing a sport or changing the TV channel. The surprising fact is that the mu signal is also quiet when we watch someone else being active, as on TV, these results are the effect of mirror neurons.

E Rizzolatti, Fogassi and Gallese call the idea for mirror neurons the 'direct matching hypothesis'. They believe that we only understand the movement of sports stars when we 'map the visual representation of the observed action onto our motor representation of the same action'. According to this theory, watching an Olympic athlete 'causes the motor system of the observer to resonate. The "motor knowledge" of the observer is used to understand the observed action.' But mirror neurons are more than just the neural basis for our attitude to sport. It turns out that watching a great golfer makes us better golfers, and watching a great sprinter actually makes us run faster. This ability to learn by watching is a crucial skill. From the acquisition of language as infants to learning facial expressions, mimesis (copying) is an essential part of being conscious. The best athletes are those with a premotor cortex capable of imagining the movements of victory, together with the physical properties to make those movements real.

F But how many of us regularly watch sports in order to be a better athlete? Rather, we watch sport for

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the feeling, the human drama. This feeling also derives from mirror neurons. By letting spectators share in the motions of victory, they also allow us to share in its feelings. This is because they are directly connected to the amygdale, one of the main brain regions involved in emotion. During the Olympics, the mirror neurons of whole nations will be electrically identical, their athletes causing spectators to feel, just for a second or two, the same thing. Watching sports brings people together. Most of us will never run a mile in under four minutes, or hit a home run. Our consolation comes in watching, when we gather around the TV, we all feel, just for a moment, what it is to do something perfectly.

Questions 27-32
Reading Passage 3 has six paragraphs, ***A-F****.*
Which paragraph contains the following information?
Write the correct letter, ***A-F****, in boxes* ***27-32*** *on your answer sheet.*
NB *You may use any letter* ***more than once****.*
27 an explanation of why watching sport may be emotionally satisfying
28 an explanation of why beginners find sporting tasks difficult
29 a factor that needs to combine with mirroring to attain sporting excellence
30 a comparison of human and animal mirror neurons
31 the first discovery of brain activity related to mirror neurons
32 a claim linking observation to improvement in performance

Questions 33-35
Choose the correct letter, ***A, B, C*** *or* ***D****.*
Write your answers in boxes ***33-35*** *on your answer sheet.*
33. The writer uses the term 'grammar of movement' to mean
A a level of sporting skill.
B a system of words about movement.
C a pattern of connected cells.
D a type of golf swing.
34. The writer states that expert players perform their actions
A without conscious thought.
B by planning each phase of movement.
C without regular practice.
D by thinking about the actions of others.
35. The writer states that the most common motive for watching sport is to
A improve personal performance.
B feel linked with people of different nationalities.
C experience strong positive emotions.
D realize what skill consists of.

Questions 36-40
Do the following statements agree with the views of the writer in the Reading Passage 3?
In boxes ***36-40*** *on your answer sheet, write*

TRUE	if the statement agrees with the information
FALSE	if the statement contradicts the information
NOT GIVEN	if there is no information on this

36 Inexpert sports players are too aware of what they are doing.
37 Monkeys have a more complex mirror neuron system than humans.
38 Looking at a photograph can activate mirror neurons.
39 Gastaut and Bert were both researchers and sports players.
40 The mu system is at rest when we are engaged in an activity.

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