**William Kamkwamba**

In 2002, William Kamkwamba had to drop out of school, as his father, a maize and tobacco farmer, could no longer afford his school fees. But despite this setback, William was determined to get his education. He began visiting a local library that had just opened in his old primary school, where he discovered a tattered science book. With only a rudimentary grasp of English, he taught himself basic physics - mainly by studying photos and diagrams. Another book he found there featured windmills on the cover and inspired him to try and build his own.

He started by constructing a small model. Then, with the help of a cousin and friend, he spent many weeks searching scrap yards and found old tractor fans, shock absorbers, plastic pipe and bicycle parts, which he used to build the real thing.

For windmill blades, William cut some bath pipe in two lengthwise, then heated the pieces over hot coals to press the curled edges flat. To bore holes into the blades, he stuck a nail through half a corncob, heated the metal red and twisted it through the blades. It took three hours to repeatedly heat the nail and bore the holes. He attached the blades to a tractor fan using proper nuts and bolts and then to the back axle of a bicycle. Electricity was generated through the bicycle dynamo. When the wind blew the blades, the bike chain spun the bike wheel, which charged the dynamo and sent a current through wire to his house.

What he had built was a crude machine that produced 12 volts and powered four lights. When it was all done, the windmill's wingspan measured more than eight feet and sat on top of a rickety tower 15 feet tall that swayed violently in strong gales. He eventually replaced the tower with a sturdier one that stands 39 feet, and built a second machine that watered a family garden.

The windmill brought William Kamkwamba instant local fame, but despite his accomplishment, he was still unable to return to school. However, news of his magetsi a mphepo - electric wind - spread beyond Malawi, and eventually things began to change. An education official, who had heard news of the windmill, came to visit his village and was amazed to learn that William had been out of school for five years. He arranged for him to attend secondary school at the government's expense and brought journalists to the farm to see the windmill. Then a story published in the Malawi Daily Mail caught the attention of bloggers, which in turn caught the attention of organisers for the Technology Entertainment and Design conference.

In 2007, William spoke at the TED Global conference in Tanzania and got a standing ova tion. Businessmen stepped forward with offers to fund his education and projects, and with money donated by them, he was able to put his cousin and several friends back into school and pay for some medical needs of his family. With the donation, he also drilled a borehole for a well and water pump in his village and installed drip irrigation in his father's fields.

The water pump has allowed his family to expand its crops. They have abandoned tobacco and now grow maize, beans, soybeans, potatoes and peanuts. The windmills have also brought big lifestyle and health changes to the other villagers. 'The village has changed a lot,' William says. 'Now, the time that they would have spent going to fetch water, they are using for doing other things. And also the water they are drinking is clean water, so there is less disease.' The villagers have also stopped using kerosene and can use the money previously spent on fuel to buy other things.

William Kamkwamba's example has inspired other children in the village to pursue science. William says they now see that if they put their mind to something, they can achieve it. 'It has changed the way people think,' he says.

#### Questions 1-5

Complete the flow chart below.  
  
Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

|  |
| --- |
| **Building the Windmill** |
|  |
| William learned some **(1)** .................... from a library book. |
| http://www.ielts-exam.net/images/reading/a1.gif |
| First, he built a **(2)** .................... of the windmill. |
| http://www.ielts-exam.net/images/reading/a1.gif |
| Then he collected materials from **(3)** .................... with a relative. |
| http://www.ielts-exam.net/images/reading/a1.gif |
| He made the windmill blades from pieces of **(4)** ..................... |
| http://www.ielts-exam.net/images/reading/a1.gif |
| He fixed the blades to a **(5)** .................... and then to part of a bicycle. |
| http://www.ielts-exam.net/images/reading/a1.gif |
| He raised the blades on a tower. |

|  |
| --- |
|  |

#### Questions 6-10

Do the following statements agree with the information given in the [Reading Passage](http://www.ielts-exam.net/docs/reading/IELTS_Reading_Academic_34.htm).

Write- **TRUE / FALSE / NOT GIVEN**

**6)** William used the electricity he created for village transport.

**7)** At first, William's achievement was ignored by local people.

**8)** Journalists from other countries visited William's farm.

**9)** William used money he received to improve water supplies in his village.

**10)** The health of the villagers has improved since the windmill was built.

#### Questions 11-13

#### Answer the questions below. Use **NO MORE THAN ONE WORD** and/or **a NUMBER** from the passage for each answer.

**11)** How tall was the final tower that William built?

**12)** What did the villagers use for fuel before the windmill was built?

**13)** What school subject has become more popular in William's village?

**LIFE WITHOUT DEATH**

*by Duncan Turner*

Until recently, the thought that there might ever be a cure for ageing seemed preposterous. Growing older and more decrepit appeared to be an inevitable and necessary part of being human. Over the last decade, however, scientists have begun to see ageing differently. Some now believe that the average life-expectancy may soon be pushed up to 160 years; others think that it may be extended to 200 or 300 years. A handful even wonder whether we might one day live for a millennium or more.

Behind this new excitement is the theory that the primary cause of ageing lies in highly reactive molecules called free radicals, left behind by the oxygen we breathe. Free radicals react with the molecules in our bodies, damaging DNA, proteins and other cell tissues, and are known to be implicated in diseases as diverse as cataracts, cancer and Alzheimer's. The body does its best to protect itself against free radicals by producing its own chemicals to prevent ageing, such as vitamins E and C, but it is always fighting a losing battle.

A year ago Gordon Lithgow of the University of Manchester discovered a way to help combat free radicals. Using one of these anti-ageing chemicals. he managed to increase the lifespan of one species of earthworm by 50 per cent. Despite cautionary words from the scientists, many welcomed this as the first step towards a drug which would extend life. Research involving the mutation of genes has also thrown up fascinating results: after identifying two of the genes that appear to control how long the earthworm lives, similar genes were found in organisms as various as fruit-flies, mice and human beings. When one considers the vast evolutionary distances that separate these species, it suggests that we may have discovered a key to how ageing is regulated throughout the entire animal kingdom.

In June last year a small American company called Eukarion sought permission to carry out the first trials of an anti-ageing drug, SCS, on human beings. Although it will initially be used to treat diseases associated with old age, Eukarion said, that 'if the effect of treating diseases of old age is to extend life, everyone's going to be happy.'

Some scientists, however, are quick to discourage extravagant speculation. 'There is no evidence whatsoever that swallowing any chemical would have an effect on mammals', says Rich Miller of the University of Michigan. 'And those people who claim it might need to go out and do some experimenting'. Some research, moreover, has produced alarming results. As well as controlling ageing, these, genes also partly control the hormones which regulate growth. The upshot of this is that although the lives of mutant mice can be extended by up to 80 per cent, they remain smaller than normal.

Quite apart from these sorts of horrors, the ethical implications of extending human lifespan are likely to worry many people. Even if the falling birth-rates reported in the world's developed nations were to be repeated throughout the world, would this be sufficient to compensate for massively extended life-expectancy, and would we be willing to see the demographic balance of our society change out of all recognition? David Gems, the head of the Centre for Research into Ageing at University College, London, is enthusiastic about the opportunities opened up by extended life, but even he observes, 'If people live much longer, the proportion of children would. of course, he very small. It strikes me that it might feel rather claustrophobic: all those middle-aged people and very few children or young people.'

The philosopher John Polkinghorne emphasises that any discussion of the merits of life-extending therapies must take into account the quality of the life that is lived: 'One would not wish to prolong life beyond the point it had ceased to be creative and fulfilling and meaningful,' he says. 'Presumably, there would have to come a point at which life ceased to be creative and became just repetition. Clearly, there are only so many rounds of golf one would want to play.'

But Polkinghorne, a member of the Human Genetics Commission, also observes that so far our experience of extended life-expectancy has not resulted in world-weariness. Throughout the last century, life-expectancy rose consistently, thanks to improved diet, better hygiene, continuous medical innovation and the provision of free or subsidised healthcare. In 1952 the Queen sent out 225 telegrams to people on their 100th birthday; in 1996 she sent out 5218. 'Consider also, the lives of our Roman and Anglo-Saxon ancestors' he says. By and large, the doubling of human lifespan we have seen since then has not been a bad thing. Life has not become frustrating and boring. For example, we now live to see our children's children, and this is good.'

#### Questions 1-5

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

Write: **TRUE / FALSE / NOT GIVEN**

1. Scientific predictions about how much it will be possible to lengthen human life vary greatly.

**2)** Research into extending life involves both new drugs and changes to genes.   
**3)** Scientific experiments have not succeeded in making any animals live longer.    
**4)** Most people in the future will decide not to have children.    
**5)** Life expectancy has improved partly because people eat better.

#### Questions 6-9

Look at the following names of people or organisations (Questions 6-9) and the list of opinions (A-F).  
Match each name with the opinion which the person or organisation expressed.  
  
**NB** There are more opinions than names, so you will not use them all.

|  |
| --- |
| **A** Increases in longevity may cause unwelcome changes in society. |
| **B** People will live longer but become tired of life. | |
| **C** Past experience shows that people do not lose interest in life as a result of living longer. | |
| **D** There is no scientific proof that any drug can prolong human life expectancy. |
| **E** One medicine we are developing may have a welcome benefit apart from its original purpose. |
| **F** Using drugs to treat the diseases of old age is only the beginning. |

**6)** Eukarion   
  
**7)** Rich Miller   
  
**8)** David Gems   
  
**9)** John Polkinghorne

#### Question 10

Which **TWO** of the following are characteristics of free radicals? Choose **TWO** letters A-E.

|  |  |
| --- | --- |
|  | **A** They are a partial cause of certain diseases. |
|  | **B** They escape into the atmosphere when we breathe. |
|  | **C** They are present in two vitamins. |
|  | **D** They harm our body chemistry. |
|  | **E** They are produced by our bodies. |

#### Questions 11-14

Complete the following summary of the scientific progress towards extending life expectancy.  
Choose your answers from the box below the summary.  
  
**NB** There are more words than spaces, so you will not use them all.

In one experiment using anti-ageing chemicals, the life of **(11)** ..................................... was extended by half. **(12)**................................... like the ones which control the ageing process in these animals have also been found in other species. Unfortunately, however, experiments on **(13)** ................................. have been less successful: while they live longer, the **(14)** .................................. controlling their growth are also affected with the result that they grow less.

|  |
| --- |
| **A** chemicals **B** earthworms **C** fruit files **D** genes |
| **E** hormones **F** human beings **G** mice **H** organisms |
|  |
|  |

# High-tech crime-fighting tools

**A** Crime-fighting technology is getting more sophisticated and rightly so. The police need to be equipped for the 21st century. In Britain we’ve already got the world's biggest DNA database. By next year the state will have access to the genetic data of 4.25m people: one British-based person in 14. Hundreds of thousands of those on the database will never have been charged with a crime.

**B** Britain is also reported to have more than £4 million CCTV (closed circuit television) cameras. There is a continuing debate about the effectiveness of CCTV. Some evidence suggests that it is helpful in reducing shoplifting and car crime. It has also been used to successfully identify terrorists and murderers. However, many claim that better lighting is just as effective to prevent crime and that cameras could displace crime. An internal police report said that only one crime was solved for every 1,000 cameras in London in 2007. In short, there is conflicting evidence about the effectiveness of cameras, so it is likely that the debate will continue.

**C** Professor Mike Press, who has spent the past decade studying how design can contribute to crime reduction, said that, in order for CCTV to have any effect, it must be used in a targeted way. For example, a scheme in Manchester records every license plate at the entrance of a shopping complex and alerts police when one is found to belong to an untaxed or stolen car. This is an effective example of monitoring, he said. Most schemes that simply record city centers continually — often not being watched - do not produce results. CCTV can also have the opposite effect of that intended, by giving citizens a false sense of security and encouraging them to be careless with property and personal safety. Professor Press said: All the evidence suggests that CCTV alone makes no positive impact on crime reduction and prevention at all The weight of evidence would suggest the investment is more or less a waste of money unless you have lots of other things in place.’ He believes that much of the increase is driven by the marketing efforts of security companies who promote the crime-reducing benefits of their products. He described it as a lazy approach to crime prevention’ and said that authorities should instead be focusing on how to alter the environment to reduce crime.

**D** But in reality, this is not what is happening. Instead, police are considering using more technology. Police forces have recently begun experimenting with cameras in their helmets. The footage will be stored on police computers, along with the footage from thousands of CCTV cameras and millions of pictures from number plate recognition cameras used increasingly to check up on motorists.

**E** And now another type of technology is being introduced. It's called the Microdrone and it’s a toy-sized remote-control craft that hovers above streets or crowds to film what’s going on beneath. The Microdrone has already been used to monitor rock festivals, but its supplier has also been in discussions to supply it to the Metropolitan Police, and Soca, the Serious Organised Crime Agency. The drones are small enough to be unnoticed by people on the ground when they are flying at 350ft. They contain high-resolution video surveillance equipment and an infrared night vision capability, so even in darkness they give their operators a bird’s-eye view of locations while remaining virtually undetectable.

**F** The worrying thing is, who will get access to this technology? Merseyside police are already employing two of the devices as part of a pilot scheme to watch football crowds and city parks looking for antisocial behaviour. It is not just about crime detection: West Midlands fire brigade is about to lease a drone, for example, to get a better view of fire and flood scenes and aid rescue attempts; the Environment Agency is considering their use for monitoring of illegal fly tipping and oil spills. The company that makes the drone says it has no plans to license the equipment to individuals or private companies, which hopefully will prevent private security firms from getting their hands on them. But what about local authorities? In theory, this technology could be used against motorists. And where will the surveillance society end? Already there are plans to introduce smart water’ containing a unique DNA code identifier that when sprayed on a suspect will cling to their clothes and skin and allow officers to identify them later. As long as high-tech tools are being used in the fight against crime and terrorism, fine. But if it’s another weapon to be used to invade our privacy then we don’t want it.

**Glossary:**  
**drone:** a remote-controlled pilotless aircraft  
**350ft:** about 107 meters  
**bird's eye view:** a view from above  
**fly-tipping:** illegally dumping waste (British English)

**Questions 1-5**

The Reading Passage has six paragraphs **A–F**.  
  
Choose the correct heading for each paragraph from the list of headings below and write the alphabet (A-F) beside the phrase.

|  |  |
| --- | --- |
| **List of Phrases** | |
| **i** The Spy in the sky | **vi** Lack of conclusive evidence |
| **ii** The spread of technology | **vii**  Cars and cameras |
| **iii** The limitations of cameras | **viii**  Advantages and disadvantages |
| **iv** The cost of cameras | **ix**  A natural progression |
| **v** Robots solving serious crimes | **x**  A feeling of safety |

#### Questions 6-8

#### Choose the correct answer:

|  |  |
| --- | --- |
| **6)** | Britain has already got |
|  | **A**    four million CCTV cameras. |
|  | **B**    more data about DNA than any other country. |
|  | **C**    the most sophisticated crime-fighting technology. |
|  | **D**    access to the genetic data of one in fourteen people living in Britain. |

|  |  |
| --- | --- |
| **7)** | Professor Press |
|  | **A**    works at the University of Manchester. |
|  | **B**    studies car-related crime. |
|  | **C**    is concerned about the negative impact of the use of CCTV. |
|  | **D**    feels that some marketing departments lie about the crime-reducing benefits of CCTV. |

|  |  |
| --- | --- |
| **8)** | The Microdrone is |
|  | **A**    a type of toy in the shape of a plane. |
|  | **B**    being used by the Metropolitan Police. |
|  | **C**    being used by the government. |
|  | **D**    able to film in the dark. |

#### Questions 9 and 10

#### Answer the questions below with words taken from the Reading Passage. Use **NO MORE THAN THREE WORDS** for each answer.

**9)** Give examples of 2 events where technology is used to watch crowds.    
  
**10)** According to the passage, who do we not want to use the Microdrone?

#### Questions 11-13

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

Write: **TRUE / FALSE / NOT GIVEN**

**11)** The British authorities use too much technology to monitor their citizens.    
  
**12)** Microdrone is currently not used to check drivers.    
  
**13)** Technology should not be used to check on people's private affairs.

**AUSTRALIA’S SPORTING SUCCESS**

A They play hard, they play often, and they play to win .Australian sports teams win more then their fair share of **t**itles, demolishing rivals with seeming ease. How do they do it ?A big part of the secret is an extensive and expensive network of sporting academies underpinned by science and medicine. At the Australian institute of sport (AIS), hundreds of youngsters and pros live and under the eyes of coaches. Another body, the Australian sports Commission (ASC), finances programmes of excellence in a total of 96 sports for thousands of sportsmen and women. Both provide intensive coaching, training facilities and nutritional advice.

B Inside the academies, science takes centre stage .The AIS employs more than 100 sports Scientists and doctors, and collaborates with scores of others in universities and research centre. AIS scientists works across a number of sports, applying skills learned in one –such as building muscle strength in golfers-to others, such as swimming and squash. They are backed up by technicians who design instruments to collect data from athletes. They all focus on one aim :wining ‘we can‘t waste our time looking at ethereal scientific questions that don’t help the coach work with an athlete and improve performance ; says Peter Friker, chief of science at AIS.

C A lot of their work comes down to measurement everything from the exact angle of a swimmer’s dive to the second –by –second power output of a cyclist .This data is used to wring improvements out of athletes .The focus is on individuals, tweaking performances to squeeze a extra hundredth of a second here , an extra millimtre there. No gain is too slight to brother with .It’s the tiny, gradual improvements that add up to world –beating results. To demonstrate how the system works. Bruce Mason at AIS shows off the prototype of a 3D analysis tool for studying swimmers. A wire –frame model of a champion swimmer slices through the water ,her arms moving in slow motion .Looking side –on, mason measures the distance between strokes .From above ,he analyses how her spine swivels. When fully developed, this system will enable him to build a biomechanical profile for coaches to use to help budding swimmers. Mason’s contribution to sport also includes the development of the SWAN (Swimming analysis) system now used in Australian national competitions. It collects images from digital cameras running at 50 frames a second and breaks down each part of a swimmer’s performance into factors that can be analysed individually –stroke frequency, average duration of each stroke, velocity, start, lap and finish times, and so on .At the end of each race, SWAN spits out data on each swimmer.

D ‘Take a look; says Mason, pulling out a sheet of data. He points out the data on the swimmers in second and third place, which shows that the one who finished third actually swam faster. So why did he finish 35 hundredths of a second down? His turn times were 44 hundredths of a second behind the other guy, says Mason. If he can improve on his turns, he can do much better. This is the kind of accuracy that AIS scientists’ research is bringing to a range of sports. With the cooperative Research Centre for Micro Technology in Melbourne, they are developing unobtrusive sensors that will be embedded in an athlete’s clothes or running shoes to monitor heart rate, sweating, heat production or any other factor that might have an impact on an athlete’s ability to run. There’s more to it than simply measuring performance. Fricker gives the example of athletes who may be down with coughs and colds 11or 12 times a year. After years of experimentation, AIS and the University of Newcastle in New South Wales developed a test that measures how much of the immune –system protein immunoglobulin A is present in athletes’ saliva. If lgA levels suddenly fall below a certain level, training is eased or dropped altogether. Soon, lgA levels start rising again, and the danger passes. Since the tests were introduced, AIS athletes in all sports have been remarkably successful at staying healthy.

E Using data is a complex business. well before a championship, sports scientists and coaches start to prepare the athlete by developing a competition model; based on what they expect will be the winning times .You design the model to make that time; says Mason’ A start of this much, each free –swimming period has to be this fast, with a certain stroke frequency and stroke length, with turns done in these times. All the training is then geared towards making the athlete hit those targets, both overall and for each segment of the race. Techniques like these have transformed Australia into arguably the words most successful sporting nation.

F Of course, there is nothing to stop other countries coping –and many have tried. Some years ago, the AIS unveiled coolant –lined jackets for endurance athletes. Atthe Atlanta Olympic Games in 1996, these sliced as much as two percent off cyclists and powers times. Now everyone uses them. The same has happened to the altitude tent’ developed by AIS to replicate the effect of altitude training at sea level. But Australia’s success story is about more than easily copied technological fixes, and up to now no nation has replicated it all –encompassing system.

**Questions 1-7**

This reading passage has six paragraphs, A-F. Which paragraph contains the following information?

Write correct letter, A-F, in boxes 1-7 on your answer sheet.

NB You may use any letter more than once.

1. a reference to the exchange of expertise between different sports
2. an explanation of how visual imaging is employed in investigations
3. a reason for narrowing the scope of research activity
4. how some AIS ideas have been reproduced
5. how obstacles to optimum achievement can be investigated
6. an overview of the funded support of athletes
7. how performance requirements are calculated before an event

**Questions 8-11**

Classify the following techniques according to whether the writer states they

A are currently exclusively used by Australians

B will be used in the future by Australians

C are currently used by both Australians and their rivals

Write the correct letter- A, B or C, in boxes 8-11 on your answer sheet.

1. cameras
2. sensors

10 protein tests

11 altitude tents

**Questions 12 and 13**

Answer the questions below.

Choose **NO MORE THAN THREE WORDS ANDIOR A NUMBER** from the passage for each answer.

Write your answer in boxes 12 and 13 on your answer sheet.

12 What is produced to help an athlete plan their performance in an event?

Ans:

13 By how much did some cyclists’ performance improve at the 1996 Olympic Games?

Ans:

**DELIVERING THE GOODS**

A International trade is growing at a starting pace .While the global economy has been expanding at a bit over 3% a year, the volume of trade has been rising at a compound annual rate of about twice that. Foreign products, from meat to machinery, play a more important role in almost every economy in the world, and foreign markets now tempt businesses that never much worried about sales beyond their nation’s borders.

B What lies behind this explosion in international commerce? The general world wide decline in trade barriers, such as customs duties and import quotas, is surely one explanation. The economic opening of countries that have traditionally been minor players is another. But one force behind the import –export boom has passed all but unnoticed ;the rapidly falling cost of getting goods to market .Theoretically, in the world of trade, shipping costs do not matter .Goods ,one they have been made ,are assumed to move instantly and at on cost from place to place .The real world ,however ,is full of frictions. Cheap labour may make Chinese clothing competitive in America, but if delays in shipment tie up working capital and cause winter coats to arrive in spring ,trade may lose its advantages.

C At the turn of the 20th century, agriculture and manufacturing were the most important sectors almost everywhere, accounting for about 70% of total output in Germany, Italy and France, and 40-50% in America, Britain and Japan. International commerce was therefore dominated by raw materials, such as wheat, wood and iron ore, or processed commodities such as meat and steel. But these sorts of products are heavy and bulky and the cost of transporting them relatively high.

D Countries still trade disproportionately with their geographic neighbours. Over time, however world output has shifted into goods whose worth is unrelated to their size and weight. Today it is finished manufactured products that dominate the flow of trade, and thanks to technological advances such as lightweight components, manufactured goods themselves have tended to become lighter and less bulky. As a result, less transportation is required for every dollar worth of imports or exports.

E To see how this influences trade, consider the business of making disk drives for computers. Most of the world disk–drive manufacturing is concentrated in south-east Asia. This is possible only because disk drives, while valuable, are small and light and so cost little to ship. Computer manufacturers in Japan or Taxes will not face hugely bigger freight bills if they import drives from Singapore rather than purchasing them on the domestic market. Distance therefore poses no obstacle to the globalisation of the disk –drive industry.

F This is even more true of the fast –growing information industries. Films and compact discoes little to transport, even by aero plane. Computer software can be exported without ever loading it onto a ship, simply by transmitting it over telephone lines from one country to another ,so freight rates and cargo –handling schedules become insignificant factors in deciding where to make the product. Businesses can locate based on other considerations, such as the availability of labour, while worrying less about he cost of delivering their output.

G In many countries deregulation has helped to drive the process along. But behind the scenes, a series of technological innovations known broadly as containerisation and inter modal transportation has led to swift productivity improvements in cargo-handling. Forty years ago, the process of exporting or importing involved a great many stages of handling,which risked portions of the shipment being damaged or stolen along the way. The invention of the container crane made it possible to load and unload containers without capsizing the ship and the adoption of standard container sizes allowed almost any box to be transported on any ship. By 1967, dual –purpose ships, carrying loose cargo in the hold and containers on the deck, were giving way to all container vessels that moved thousands of boxes at a time.

H The shipping container transformed ocean shipping into highly efficient intensely competitive business. But getting cargo to and from the dock was different story. National governments, by and large, kept a much firmer hand on truck and railroad tariffs than on charges for ocean freight. This started changing however, in the mid-1970s ,when America began to deregulate its transportation industry. First airlines, then road haulers and railways, were free from restrictions on what they could carry, where they could haul it and what price they could charge. Big productivity gains resulted. Between 1985and 1996, for example, America’s freight railways dramatically reduced their employment, trackage, and their fleets of locomotives- while increasing the amount of cargo they hauled. Europe’s railways have also shown marked, albeit smaller productivity improvements.

I in America the period of huge productivity gains in transportation may be almost over but in most countries the process still has far to go. State ownership of railways airlines regulation of freight rates and toleration of anti-competitive practices, such as cargo handling monopolies, all keep the cost of shipping unnecessarily high and deter international trade. Bringing these barriers down would help the world’s economies grow even closer.

**Questions 14-17**

Reading passage 2 has nine paragraphs, A-I.

Which paragraph contains the following information?

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

14 a suggestion for improving trade in the future

15 the effect of the introduction of electronic delivery

16 the similar cost involved in transporting a product from abroad or from a local supplier

17 the weakening relationship between the value of goods and the cost of their delivery

**Questions 18-22**

Do the following statements agree with the information given in reading passage 2?

In boxes 18-22 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

18 International trade is increasing at a greater rate than the world economy.

19 Cheap labour guarantees effective trade condition

20 Japan imports more meat and steel than France.

21 Most countries continue to prefer to trade with nearby nations.

22 Small computer components are manufactured in Germany.

**Questions 23-26**

Complete the summary using the list of words, A-K, below.

Write the correct letter, A-K, in boxes 23-26 on your answer sheet.