1. Bài tập 1

The life of the European bee-eater

A brilliant movement of colour as it catches its food in the air, the European bee-eater moves between three continents.

True to their name, bee-eaters eat bees (though their diet includes just about any flying insect). When the bird catches a bee, it returns to its tree to get rid of the bees poison, which it does very efficiently. It hits the insect's head on one side of the branch, then rubs its body on the other. The rubbing makes its prey harmless.

European bee-eaters (Merops apiaster) form families that breed in the spring and summer across an area that extends from Spain to Kazakhstan. Farmland and river valleys provide huge numbers of insects. Flocks of bee-eaters follow tractors as they work fields. When the birds come upon a beehive, they eat well - a researcher once found a hundred bees in the stomach of a bee-eater near a hive.

European bees pass the winter by sleeping in their hives, which cuts off the bee-eater's main source of food. So, in late summer, bee-eaters begin a long, dangerous journey. Massive flocks from Spain, France and northern Italy cross the Sahara desert to their wintering grounds in West Africa. Bee-eaters from Hungary and other parts of Central and Eastern Europe cross the Mediterranean Sea and Arabian Desert to winter in southern Africa. 'It's an extremely risky stratagem, this migration,' says C. Hilary Fry, a British ornithologist who has studied European bee-eaters for more than 45 years. 'At least 30 percent of the birds will be killed by predators before they make it back to Europe the following spring.'

In April, they return to Europe. Birds build nests by digging tunnels in riverbanks. They work for up to 20 days. By the end of the job, they've moved 15 to 26 pounds of soil - more than 80 times their weight.

The nesting season is a time when families help each other, and sons or uncles help feed their father's or brother's chicks as soon as they come out of their eggs. The helpers benefit, too: parents with helpers can provide more food for chicks to continue the family line.

It's a short, spectacular life. European bee-eaters live for five to six years. The difficulties of migration and avoiding predators along the way affect every bird. Bee-eaters today also find it harder to find food, as there are fewer insects around as a result of pesticides. Breeding sites are also disappearing, as rivers are turned into concrete-walled canals.

Question 1-8

Write NO MORE THAN 2 WORDS from the passage for each answer.

1. Bee-eaters' prey are bees and other.....
2. Bee-eaters need to remove the..... from bees before eating them.
3. there is plenty of food for bee-eaters on agricultural land and in.....
4. Bee-eaters migrate to spend the winter in different parts of.....
5. Because of ...., almost one-third off bee-eaters do not survive migration.
6. Bee-eaters make nests in ....., which they build themselves.
7. When nesting, the ..... receive food from different family members.
8. One problem for bee-eaters is ....., which have reduced the amount of food available.

2. Bài tập 2

THE BURDEN OF THIRST

Millions of women carry water long distances. If they had a tap by their door, whole societies would be transformed.

A. Aylito Binayo's feet know the mountain. Even at four in the morning, she can run down the rocks to the river by starlight alone and climb the steep mountain back up to her village with a container of water on her back. She has made this journey three times a day since she was a small child. So has every other woman in her village of Foro, in the Konso district of south-western Ethiopia in Africa. Binayo left school when she was eight years old, in part because she had to help her mother fetch water from the Toiro River. The water is unsafe to drink; every year that the drought continues, the river carries less water, and its flow is reduced. But it is the only water Foro has ever had.

B. In developed parts of the world, people turn on a tap and out pours abundant, clean water. Yet nearly 900 million people in the world have no access to clean water. Furthermore, 2.5 billion people have no safe way to get rid of human waste. Polluted water and lack of proper hygiene cause disease and kill 3.3 million people around the world annually, most of them children. In southern Ethiopia and in northern Kenya, a lack of rain over the past few years has made even dirty water hard to find. But soon, for the first time, things are going to change.

C. Bringing clean water close to villagers' homes is the key to the problem. Communities where clean water becomes accessible and plentiful are transformed. All the hours previously spent hauling water can be used to cultivate more crops, raise more animals or even start a business. Families spend less time sick or caring for family members who are unwell. Most

important, not having to collect water means girls can go to school and get jobs. The need to fetch water for the family, or to take care of younger siblings while their mother goes, usually prevents them ever having this experience. ***D.*** But the challenges of bringing water to remote villages like those in Konso are overwhelming. Locating water underground and then reaching it by means of deep wells requires geological expertise and expensive, heavy machines. Abandoned wells and water projects litter the villages of Konso. In similar villages around the developing world, the biggest problem with water schemes is that about half of them break down soon after the groups that built them move on. Sometimes technology is used that can't be repaired locally, or spare parts are available only in the capital. ***E.*** Today, a UK-based international non-profit organization called WaterAid is tackling the job of bringing water to the most remote villages of Konso. Their approach combines technologies proven to last - such as building a sand dam to capture and filter rainwater that would otherwise drain away. But the real innovation is that WaterAid believes technology is only part of the solution. Just as important is involving the local community in designing, building and maintaining new water projects. Before beginning any project, WaterAid asks the community to create a WASH (water, sanitation, hygiene) committee of seven people. The committee works with WaterAid to plan projects and involve the village in construction. Then it maintains and runs the project. ***F.*** The people of Konso, who grow their crops on terraces they have dug into the sides of mountains, are famous for hard work. In the village of Orbesho, resident evev constructed a road themselves so that drilling machinery could come in. Last summer, their pump, installed by the river, was being motorised to push its water to a newly built reservoir on top of a nearby mountain. From there, gravity will carry it down in pipes to villages on the other side of the mountain. Residents of those villages have each given some money to help

fund the project. They have made concrete and collected stones for the structures. Now they are digging trenches to lay pipes. If all goes well, Aylito Binayo will have a tap with safe water just a three-minute walk from her front door.

Completion the sentences below. Choose NO MORE THAN ONE WORD AND/ OR A NUMBER from the passage for each answer.

7. The water levels in the Toiro River are falling because of _____ .
8. Globally, the number of people who die each year as a result of using dirty water is _____
9. When families have clean water, they can spend more time growing _____.
10. Specialist knowledge and equipment are needed to dig _____.
11. WaterAid uses a dam made of _____ to capture rainwater.

3. Bài tập 3

The truth about lying

Over the years RichardWiseman hastriedto unravel the truth about deception - investigating the signs that give away a liar.

A - Do only humans lie?

In the 1970s, as part of a large-scale research programme exploring the area of Interspecies communication, Dr Francine Patterson from Stanford University attempted to teach two lowland gorillas called Michael and Koko a simplified version of Sign Language. According to Patterson, the great apes were capable of holding meaningful conversations, and could even reflect upon profound topics, such as love and death. During the project, their trainers believe they uncovered instances where the two gorillas' linguistic skills seemed to provide reliable evidence of intentional deceit. In one example, Kobo broke a toy cat, and then signed to indicate that the breakage had been caused by one of her trainers.

In another episode, Michael ripped a jacket belonging to a trainer and, when asked who was responsible for the incident, signed 'Kobo'. When the trainer expressed some scepticism, Michael appeared to change his mind, and indicated that Dr Patterson was actually responsible, before finally confessing.

B - When do we begin to lie?

Other researchers have explored the development of deception in children. Some of the most interesting experiments have involved asking youngsters not to take a peek at their favourite toys. During these studies, a child is led into a laboratory and asked to face one of the walls. The experimenter then explains that he is going to set up an elaborate toy a few feet behind them. After setting up the toy, the experimenter says that he has to leave the laboratory, and asks the child not to turn around and peek at the toy. The child is secretly filmed by

hidden cameras for a few minutes, and then the experimenter returns and asks them whether they peeked. Almost all three-year do, and then half of them lie about it to the experimenter. By the time the children have reached the age of five, all of them peek and all of them lie. The results provide compelling evidence that lying starts to emerge the moment we learn to speak. ***C - A public test of our ability to spot a lie*** So what are the tell-tale signs that give away a lie? In 1994, the psychologist Richard Wiseman devised a large-scale experiment on a TV programme called Tomorrow's World. As part of the experiment, viewers watched two interviews in which Wiseman asked a presenter in front of the cameras to describe his favourite film. In one interview, the presenter picked Some Like It Hot and he told the truth; in the other interview, he picked Gone with the Wind and lied. The viewers were then invited to make a choice - to telephone in to say which film he was lying about. More than 30,000 calls were received, but viewers were unable to tell the difference and the vote was a 50/50 split. In similar experiments, the results have been remarkably consistent - when it comes to lie detection, people might as well simply toss a coin. It doesn't matter if you are male or female, young or old; very few people are able to detect deception. ***D - Exposing some false beliefs*** Why is this? Professor Charles Bond from the Texas Christian University has conducted surveys into the sorts of behaviour people associate with lying. He has interviewed thousands of people from more than 60 countries, asking them to describe how they set about telling whether someone is lying. People's answers are remarkably consistent. Almost everyone thinks liars tend to avert their gaze, nervously wave their hands around and shift about in their seats. There is, however, one small problem. Researchers have spent hour upon hour carefully comparing films of liars and truth-tellers. The results are clear. Liars do not nescessarily look away from you they do not appear nervous and move

their hands around or shift about in their seats. People fail to detect lies because they are basing their opinions on behaviours that are not actually associated with deception. ***E - Some of the things liars really do*** So what are we missing? It is obvious that the more information you give away, the greater the chances of some of it coming back to haunt you. As a result, liars tend to say less and provide fewer details than truth-tellers. Looking back at the transcripts of the interviews with the presenter, his lie about Gone with the Wind contained about 40 words, whereas the truth about Some Like It Hot was nearly twice as long. People who lie also try psychologically to keep a distance from their falsehoods, and so tend to include fewer references to themselves in their stories. In his entire interview about Gone with the Wind, the presenter only once mentioned how the film made him feel, compared with the several references to his feelings when he talked about Some Like It Hot. ***F - Which form of communication best exposes a lie?*** The simple fact is that the real clues to deceit are in the words that people use, not the body language. So do people become better lie detectors when they listen to a liar, or even just read a transcript of their comments? The interviews with the presenter were also broadcast on radio and published in a newspaper, and although the lie-detecting abilities of the television viewers were no better than chance, the newspaper readers were correct 64% of the time, and the radio listeners scored impressive 73% accuracy rate.

Complete the sentence below. Choose ONE WORD ONLY from the passage for each answer.

1. Filming liars has shown that they do not display_____ behaviour.
2. Liars tend to avoid talking about their own_____
3. Signs of lying are exposed in people's _____ rather than their movements.

4. Bài tập 4

Last man standing

Some 50,000 years ago, Homo sapiens beat other hominids to become the only surviving species. Kate Ravilious reveals how we did it.

A. Today, there are over seven billion people living on Earth. No other species has exerted as much influence over the planet as us. But turn the clock back 80,000 years and we were one of a number of species roaming the Earth. Our own species. Homo sapiens (Latin for 'wise man'), was most successful in Africa. In western Eurasia, the Neanderthals dominated, while Homo erectus may have lived in Indonesia. Meanwhile, an unusual finger bone and tooth, discovered in Denisova cave in Siberia in 2008, have led scientists to believe that yet another human population - the Denisovans - may also have been widespread across Asia. Somewhere along the line, these other human species died out, leaving Homo sapiens as the sole survivor. So what made us the winners in the battle for survival?

B. Some 74.000 years ago, the Toba 'supervolcano' on the Indonesian island of Sumatra erupted. The scale of the event was so great that ash from the eruption was flung as far as eastern India, more than 2,000 kilometres away. Oxford archaeologist Mike Petraglia and his team have uncovered thousands of stone tools buried underneath the Toba ash. The mix of hand axes and spear tips have led Petraglia to speculate that Homo sapiens and Homo erectus were both living in eastern India prior to the Toba eruption. Based on careful examination of the tools and dating of the sediment layers where they were found. Petraglia and his team suggest that Homo sapiens arrived in eastern

India around 78.000 years ago. migrating out of Africa and across Arabia during a favourable climate period. After their arrival, the simple tools belonging to Homo erectus seemed to lessen in number and eventually disappear completely. 'We think that Homo sapiens had a more efficient hunting technology, which could have given them the edge.' says Petraglia. 'Whether the eruption of Toba also played a role in the extinction of the Homo erectus-like species is unclear to us.'

C. Some 45,000 years later, another fight for survival took place. This time, the location was Europe and the protagonists were another species, the Neanderthals. They were a highly successful species that dominated the European landscape for 300.000 years. Yet within just a few thousand years of the arrival of Homo sapiens, their numbers plummeted. They eventually disappeared from the landscape around 30.000 years ago. with their last known refuge being southern Iberia, including Gibraltar. Initially. Homo sapiens and Neanderthals lived alongside each other and had no reason to compete. But then Europe's climate swung into a cold, inhospitable, dry phase. 'Neanderthal and Homo sapiens populations had to retreat to refugia (pockets of habitable land). This heightened competition between the two groups,' explains Chris Stringer, an anthropologist at the Natural History Museum in London.

D. Both species were strong and stockier than the average human today, but Neanderthals were particularly robust. 'Their skeletons show that they had broad shoulders and thick necks,' says Stringer. 'Homo sapiens, on the other hand, had longer forearms, which undoubtedly enabled them to throw a spear from some distance, with less danger and using relatively little energy,' explains Stringer. This long-range ability may have given Homo sapiens an advantage in hunting. When it came to keeping warm. Homo sapiens had another skill: weaving and sewing. Archaeologists have uncovered simple needles fashioned

from ivory and bone alongside Homo sapiens, dating as far back as 35,000 years ago. ‘Using this technology, we could use animal skins to make ourselves tents, warm clothes and fur boots,’ says Stringer. In contrast. Neanderthals never seemed to master sewing skills, instead relying on pinning skins together with thorns.

E. A thirst for exploration provided Homo sapiens with another significant advantage over Neanderthals. Objects such as shell beads and flint tools, discovered many miles from their source, show that our ancestors travelled over large distances, in order to barter and exchange useful materials, and share ideas and knowledge. By contrast. Neanderthals tended to keep themselves to themselves, living in small groups. They misdirected their energies by only gathering resources from their immediate surroundings and perhaps failing to discover new technologies outside their territory.

F. Some of these differences in behaviour may have emerged because the two species thought in different ways. By comparing skull shapes, archaeologists have shown that Homo sapiens had a more developed temporal lobe - the regions at the side of the brain, associated with listening, language and long-term memory. 'We think that Homo sapiens had a significantly more complex language than Neanderthals and were able to comprehend and discuss concepts such as the distant past and future.' says Stringer. Penny Spikins, an archaeologist at the University of York, has recently suggested that Homo sapiens may also have had a greater diversity of brain types than Neanderthals.

‘Our research indicates that high-precision tools, new hunting technologies and the development of symbolic communication may all have come about because they were willing to include people with "different" minds and specialised roles in their society,’ she explains. 'We see similar kinds of injuries on male and

female Neanderthal skeletons, implying there was no such division of labour,' says Spikins.

G. Thus by around 30,000 years ago. many talents and traits were well established in Homo sapiens societies but still absent from Neanderthal communities. Stringer thinks that the Neanderthals were just living in the wrong place at the wrong time. 'They had to compete with Homo sapiens during a phase of very unstable climate across Europe. During each rapid climate fluctuation, they may have suffered greater losses of people than Homo sapiens, and thus were slowly worn down,' he says. 'If the climate had remained stable throughout, they might still be here.'

Questions 1-4

Complete the sentences below.

Choose NO MORE THAN THREE WORDS from the passage for each answer.

1. Analysis of stone tools and ……. has enabled Petraglia's team to put forward an arrival date for Homo sapiens in eastern India.
2. Homo sapiens used both …….. to make sewing implements.
3. The territorial nature of Neanderthals may have limited their ability to acquire resources and ……
4. Archaeologists examined …….. in order to get an insight into Neanderthal and Homo sapiens' capacity for language and thought.

5. Bài tập 5

The happiest country in the world

Children growing up in Costa Rica are surrounded by some of the most beautiful and diverse landscapes in the world. Preserving tropical rainforests isn't Costa Rica's only success, because the government also makes sure everyone has access to health-care and education. So when the New Economics Foundation released its second Happy Planet Index, Costa Rica came out number one. The index is a ranking of countries based on their impact on the environment and the health and happiness of their citizens.

Created in 2008, the Happy Planet Index examines happiness on a national level and ranks 143 countries according to three measurements: their citizens' happiness, how long they live (which reflects their health), and how much of the planet's resources each country consumes. According to researcher Saamah Abdallah, the Index also measures the outcomes that are most important, and those are happy, healthy lives for everyone.

Questions 1-6

ChooseONEWORDOR ONE NUMBER from the passage for each answer.

The Happy Planet Index

Year started: ***1***_____ .

Number of countries it lists: ***2*** _____ .

Measures each country's happiness according to:

■ its effect on the ***3***_____ (i.e. the quantity of the Earth's ***4***_____ that it uses);

■ the ***5***_____ of the population (i.e. how long people live);

■ how happy its ***6***_____ are.

6. Bài tập 6

Business Communication

In all communication, whether this is verbal or non-verbal, a sender transfers a message to a receiver, choosing a certain medium. The receiver uses the message clues and the context, and decodes it to understand it. This is often followed by a new message in return, and so the communication process continues.

Although this procedure is always the same, it can take many different forms depending on the typo of communication. For example, in non-verbal communication (as opposed to written and spoken communication, which are both verbal), the code used could be gestures, body language, eye contact and facial expressions, such as a smile.

Communication is extremely important in the business world. It is likely that in this context both informal and formal styles will be used. If we take the example of meetings, we might say that they are often conducted in quite a relaxed way, with participants using first names and informal language. However, as soon as the meeting is official, careful records, called minutes, will be kept, following a predetermined format which is standard across many business situations. Layout is one aspect of a formal style. Content will also be dictated to some extent by the level of formality. Annual business reports must include certain types of information to be legal, e.g. financial information, but even a simple letter would not function as it should without the use of somebody's title (e.g. Mr or Ms). Language is another aspect which needs to be taken into account.

Formal, written communication needs to be clear and to the point, without spelling or grammar mistakes, and in a formal register (e.g. Dear.... instead of Hi). Not following these important rules would have a negative effect in any business context.

Use no more than TWO words from the text each time.

Itis important to follow the rules when communicating in writing, especially if you are in ***(1) ……*** environment. There are three areas which are important: ***(2) ……*** content and language. The language needs to be formal and there should be no ***(3) ……*** You cannot choose to include exactly what you like, for example financial information must be included in your business's ***(4) ……*** It also needs to look good on the page, with everything written in a ***(5) ……*** format.

7. Bài tập 7

The World Wide Web from its origins

Science inspired the World Wide Web, and the Web has responded by changing science. 'Information Management: A Proposal'. That was the bland title of a document written in March 1989 by a then little- known computer scientist called Tim Berners-Lee, who was working at CERN, Europe's particle physics laboratory, near Geneva. His proposal, modestly called the World Wide Web, has achieved far more than anyone expected at the time.

In fact, the Web was invented to deal with a specific problem. In the late 1980s, CERN was planning one of the most ambitious scientific projects ever, the Large Hadron Collider*, or LHC. As the first few lines of the original proposal put it, 'Many of the discussions of the future at CERN and the LHC end with the question "Yes, but how will we ever keep track of such a large project?" This proposal provides an answer to such questions.

The Web, as everyone now knows, has many more uses than the original idea of linking electronic documents about particle physics in laboratories around the world. But among all the changes it has brought about, from personal social networks to political campaigning, it has also transformed the business of doing science itself, as the man who invented it hoped it would.

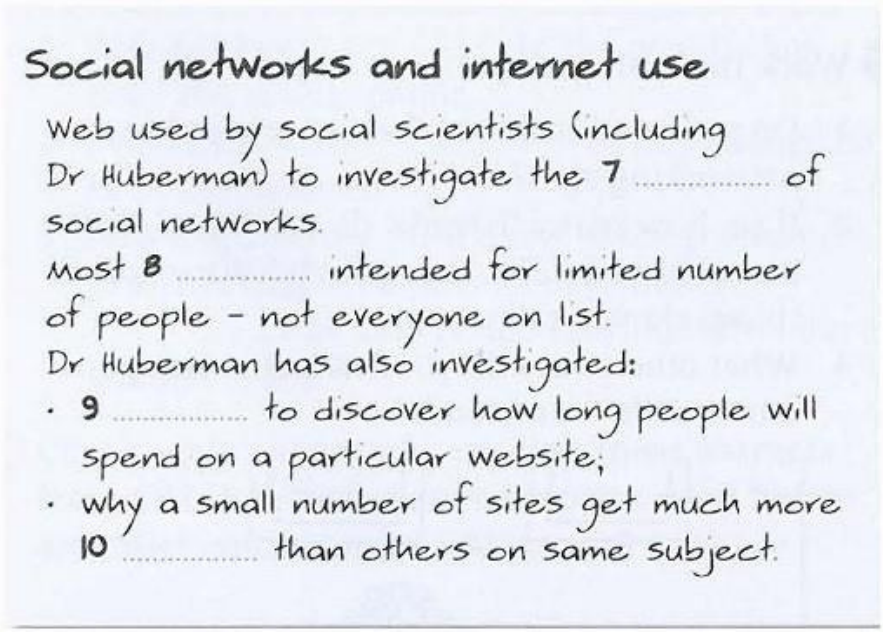
It allows journals to be published online and links to be made from one paper to another. It also permits professional scientists to recruit thousands of amateurs to give them a hand. One project of this type, called GalaxyZoo, used these unpaid workers to classify one million images of galaxies into various types (spiral, elliptical and irregular). This project, which was intended to help astronomers understand how galaxies evolve, was so successful that a successor has now been launched, to classify the brightest quarter of a million

of them in finer detail. People working for a more modest project called Herbaria@home examine scanned images of handwritten notes about old plants stored in British museums. This will allow them to track the changes in the distribution of species in response to climate change. Another new scientific application of the Web is to use it as an experimental laboratory. It is allowing social scientists, in particular, to do things that were previously impossible. In one project, scientists made observations about the sizes of human social networks using data from Facebook. A second investigation of these networks, produced by Bernardo Huberman of HP Labs, Hewlett-Packard's research arm in Pato Alto, California, looked at Twitter, a social networking website that allows people to post short messages to long lists of friends. At first glance, the networks seemed enormous - the 300,000 Twitterers sampled had 80 friends each, on average (those on Facebook had 120), but some listed up to 1,000. Closer statistical inspection, however, revealed that the majority of the messages were directed at a few specific friends. This showed that an individual's active social network is far smaller than his 'clan'. Dr Huberman has also helped uncover several laws of web surfing, including the number of times an average person will go from web page to web page on a given site before giving up, and the details of the 'winner takes all' phenomenon, whereby a few sites on a given subject attract most of the attention, and the rest get very little. Scientists have been good at using the Web to carry out research. However, they have not been so effective at employing the latest web-based social-networking tools to open up scientific discussion and encourage more effective collaboration. Journalists are now used to having their articles commented on by dozens of readers. Indeed, many bloggers develop and refine their essays as a result of

these comments. Yet although people have tried to have scientific research reviewed in the same way, most researchers only accept reviews from a few anonymous experts. When Nature, one of the world's most respected scientific journals, experimented with open peer review in 2006, the results were disappointing. Only 5% of the authors it spoke to agreed to have their article posted for review on the Web - and their instinct turned out to be right, because almost half of the papers attracted no comments. Michael Nielsen, an expert on quantum computers, belongs to a new wave of scientist bloggers who want to change this. He thinks the reason for the lack of comments is that potential reviewers lack incentive.

* The Large Hardon Collider (LHC) is the world's largest particle accelerator and collides particle beams. It provides information on fundamental questions of physics.

Completes the notes below. Choose NO MORE THAN TWO WORDS from the passage for each answer.



Social networks and internet use

Web used by social scientists (including Dr Huberman) to investigate the 7 ..... of social networks.

Most 8 ..... intended for limited number of people – not everyone on list.

Dr Huberman has also investigated:

- 9 ..... to discover how long people will spend on a particular website;
- why a small number of sites get much more 10 ..... than others on same subject.

8. Bài tập 8

The MIT factor: celebrating 150 years of maverick genius

The Massachusetts Institute of Technology has led the world into the future for 150 years with scientific innovations.

The musician Yo-Yo Ma's cello may not be the obvious starting point for a journey into one of the world's great universities. But, as you quickly realise when you step inside the Massachusetts Institute of Technology, there's precious little going on that you would normally see on a university campus. The cello, resting in a corner of MIT's celebrated media laboratory — a hub of creativity — looks like any other electric classical instrument. But it is much more. Machover, the composer, teacher and inventor responsible for its creation, calls it a 'hyperinstrument', a sort of thinking machine that allows Ma and his cello to interact with one another and make music together. 'The aim is to build an instrument worthy of a great musician like Yo-Yo Ma that can understand what he is trying to do and respond to it,' Machover says. The cello has numerous sensors across its body and by measuring the pressure, speed and angle of the virtuoso's performance it can interpret his mood and engage with it, producing extraordinary new sounds. The virtuoso cellist frequently performs on the instrument as he tours around the world.

Machover's passion for pushing at the boundaries of the existing world to extend and unleash human potential is not a bad description of MIT as a whole. This unusual community brings highly gifted, highly motivated individuals

together from a vast range of disciplines, united by a common desire: to leap into the dark and reach for the unknown.

The result of that single unifying ambition is visible all around. For the past 150 years, MIT has been leading the world into the future. The discoveries of its teachers and students have become the common everyday objects that we now all take for granted. The telephone, electromagnets, radars, high-speed photography, office photocopiers, cancer treatments, pocket calculators, computers, the Internet, the decoding of the human genome, lasers, space travel ... the list of innovations that involved essential contributions from MIT and its faculty goes on and on.

From the moment MIT was founded by William Barton Rogers in 1861, it was clear what it was not. While Harvard stuck to the English model of a classical education, with its emphasis on Latin and Greek, MIT looked to the German system of learning based on research and hands-on experimentation. Knowledge was at a premium, but it had to be useful.

This down-to-earth quality is enshrined in the school motto, Mens et manus - Mind and hand - as well as its logo, which shows a gowned scholar standing beside an ironmonger bearing a hammer and anvil. That symbiosis of intellect and craftsmanship still suffuses the institute's classrooms, where students are not so much taught as engaged and inspired.

Take Christopher Merrill, 21, a third-year undergraduate in computer science. He is spending most of his time on a competition set in his robotics class. The contest is to see which student can most effectively program a robot to build a house out of blocks in under ten minutes. Merrill says he could have gone for the easiest route - designing a simple robot that would build the house quickly. But he wanted to try to master an area of robotics that remains unconquered — adaptability, the ability of the robot to rethink its plans as the environment

around it changes, as would a human. 'I like to take on things that have never been done before rather than to work in an iterative way just making small steps forward,' he explains.

Merrill is already planning the start-up he wants to set up when he graduates in a year's time. He has an idea for an original version of a contact lens that would augment reality by allowing consumers to see additional visual information. He is fearful that he might be just too late in taking his concept to market, as he has heard that a Silicon Valley firm is already developing something similar. As such, he might become one of many MIT graduates who go on to form companies that fail. Alternatively, he might become one of those who go on to succeed in spectacular fashion. And there are many of them. A survey of living MIT alumni* found that they have formed 25,800 companies, employing more than three million people, including about a quarter of the workforce of Silicon Valley. What MIT delights in is taking brilliant minds from around the world in vastly diverse disciplines and putting them together. You can see that in its sparkling new David Koch Institute for Integrative Cancer Research, which brings scientists, engineers and clinicians under one roof.

Or in its Energy Initiative, which acts as a bridge for MIT's combined work across all its five schools, channelling huge resources into the search for a solution to global warming. It works to improve the efficiency of existing energy sources, including nuclear power. It is also forging ahead with alternative energies from solar to wind and geothermal, and has recently developed the use of viruses to synthesise batteries that could prove crucial in the advancement of electric cars.

In the words of Tim Berners-Lee, the Briton who invented the World Wide Web, 'It's not just another university.

Even though I spend my time with my head buried in the details of web technology, the nice thing is that when I do walk the corridors, I bump into people who are working in other fields with their students that are fascinating, and that keeps me intellectually alive.'

[adapted from the Guardian]

**** people who have left a university or college after completing their studies there.***

Questions 6-9

Complete the notes below.

Choose NO MORE THAN TWO WORDS from the passage for each answer.

Christopher Merrill - student at MIT

Degree subject: ***6 .....***

Competition: to 7 ***.....*** the automated construction of a house

Special focus on: the 8 ***.....*** of robots

Future plans: to develop new type of 9 ***.....***

9. Bài tập 9

The world's friendliest city

A team social psychologists from California has spent six years studying the reactions of people in cities around the world to different situations. The results show that cities where people have less money generally have friendlier populations. Rio de Janeiro in Brazil, which is often known for its crime, comes out top, and the capital of Malawi, Lilongwe, comes third.

But what makes one city friendlier than another? The psychologists from California State University say it has got more to do with environment than culture or nationality. They carried out a study into the way locals treated strangers in 23 cities around the world. The team conducted their research through a series of tests, where they dropped pens or pretended they were blind and needed help crossing the street. The study concludes that people are more helpful in cities with a more relaxed way of life such as Rio. While they were there, researchers received help in 93 percent of cases, and the percentage in Lilongwe was only a little lower. However, richer cities such as Amsterdam and New York are considered the least friendly. Inhabitants of Amsterdam helped the researchers in 53 percent of cases and in New York just 44 percent. The psychologists found that, in these cities, people tend to be short of time, so they hurry and often ignore strangers.

Adapted from an article by Victoria Harrisson, BBC New

Now complete the table. Choose ONE word from the passage for each answer.

City	***Positive aspects***	***Negative aspects***	***% of help received***
Rio de Janeiro	Friendly ***inhabitants*** More ***1 ……. Has reputation for lifestyle***	People ***don't have so much 2 …….*** ***3 ……***	93%
Amsterdam and New York	richer	People … ***Have little 4 ……..*** ***Don't pay attention to 5 ……..***	Amsterdam: 53% New York: 44%

10. Bài tập 10

SPEED READING

What is speed reading and why do we need it?

A. Speed reading is not just about reading fast. It is also about how much information you can remember when you have finished reading. The World Championship Speed-Reading Competition says that its top competitors average between 1,000 and 2,000 words a minute. But they must remember at least 50 percent of this in order to qualify for the competition. ***B.*** Nowadays, speed reading has become an essential skill in any environment where people have to master a large volume of information. Professional workers need reading skills to help them get through many documents every day, while students under pressure to deal with assignments may feel they have to read more and read faster all the time. ***C.*** Although there are various methods to increase reading speed, the trick is deciding what information you want first. For example, if you only want a rough outline of an issue, then you can skim the material quickly and extract the key facts. However, if you need to understand every detail in a document, then you must read it slowly enough to understand this. ***D.*** Even when you know how to ignore irrelevant detail, there are other improvements you can make to your reading style which will increase your speed. For example, most people can read much faster if they read silently. Reading each word aloud takes time for the information to make a complete circuit in your brain before being pronounced. Some researchers believe that as long as the first and last letters are in place, the brain can still understand

the arrangement of the other letters in the word because it logically puts each piece into place. ***E.*** Chunking is another important method. Most people learn to read either letter by letter or word by word. As you improve, this changes. You will probably find that you are fixing your eyes on a block of words, then moving your eyes to the next block of words, and so on. You are reading blocks of words at a time, not individual words one by one. You may also notice that you do not always go from one block to the next: sometimes you may move back to a previous block if you are unsure about something. ***F.*** A ***skilled reader*** will read a lot of words in each block. He or she will only look at each block for an instant and will then move on. Only rarely will the reader's eyes skip back to a previous block of words. This reduces the amount of work that the reader's eyes have to do. It also increases the volume of information that can be taken in over a given period of time. ***G.*** On the other hand, a slow reader will spend a lot of time reading small blocks of words. He or she will skip back often, losing the flow and structure of the text, and muddling their overall understanding of the subject. This irregular eye movement quickly makes the reader tired. Poor readers tend to dislike reading because they feel it is difficult to concentrate and comprehend written information. ***H.*** The best tip anyone can have to improve their reading speed is to practice. In order to do this effectively, a person must be engaged in the material and want to know more. If you find yourself constantly having to re-read the same paragraph, you may want to switch to reading material that grabs your attention. If you enjoy what you are reading, you will make quicker progress.

Question 7 – 13

Complete the table below. Choose NO MORE THAN TWO WORDS from the passage for each answer.

Chunking

Type of reader	***Reading method***	***Effect of method on reader***
Skilled reader	Many ***7……..*** in a block Reader hardly ever goes back	Reader's ***8……..*** do less work More ***9……..*** is processed
10 ……	Small blocks Reader ***11 ……*** goes ***……..*** back	Reader easily gets ***12 ……..*** Finds it hard to ***13 ……..*** on passage

11. Bài tập 11

Australian culture and culture shock

Sometimes work, study or a sense of adventure take us out of our familiar surroundings to go and live in a different culture. The experience can be difficult, even shocking.

Almost everyone who studies, lives or works abroad has problems adjusting to a new culture. This response is commonly referred to as 'culture shock'. Culture shock can be defined as 'the physical and emotional discomfort a person experiences when entering a culture different from their own' (Weaver, 1993). For people moving to Australia, Price (2001) has identified certain values which may give rise to culture shock. Firstly, he argues that Australians place a high value on independence and personal choice. This means that a teacher or course tutor will not tell students what to do, but will give them a number of options and suggest they work out which one is the best in their circumstances. It also means that they are expected to take action if something goes wrong and seek out resources and support for themselves.

Australians are also prepared to accept a range of opinions rather than believing there is one truth. This means that in an educational setting, students will be expected to form their own opinions and defend the reasons for that point of view and the evidence for it.

Price also comments that Australians are uncomfortable with differences in status and hence idealise the idea of treating everyone equally. An illustration of this is that most adult Australians call each other by their first names. This concern with equality means that Australians are uncomfortable taking anything too seriously and are even ready to joke about themselves.

Australians believe that life should have a balance between work and leisure time. As a consequence, some students may be critical of others who they perceive as doing nothing but study.

Australian notions of privacy mean that areas such as financial matters, appearance and relationships are only discussed with close friends. While people may volunteer such information, they may resent someone actually asking them unless the friendship is firmly established. Even then, it is considered very impolite to ask someone what they earn. With older people, it is also rude to ask how old they are, why they are not married or why they do not have children. It is also impolite to ask people how much they have paid for something, unless there is a very good reason for asking.

Kohls (1996) describes culture shock as a process of change marked by four basic stages. During the first stage, the new arrival is excited to be in a new place, so this is often referred to as the "honeymoon" stage. Like a tourist, they are intrigued by all the new sights and sounds, new smells and tastes of their surroundings. They may have some problems, but usually, they accept them as just part of the novelty. At this point, it is the similarities that stand out, and it seems to the newcomer that people everywhere and their way of life are very

much alike. This period of euphoria may last from a couple of weeks to a month, but the letdown is inevitable.

During the second stage, known as the 'rejection' stage, the newcomer starts to experience difficulties due to the differences between the new culture and the way they were accustomed to living. The initial enthusiasm turns into irritation, frustration, anger and depression, and these feelings may have the effect of people rejecting the new culture so that they notice only the things that cause them trouble, which they then complain about. In addition, they may feel homesick, bored, withdrawn and irritable during this period as well.

Fortunately, most people gradually learn to adapt to the new culture and move on to the third stage, known as 'adjustment and reorientation'. During this stage, a transition occurs to a new optimistic attitude. As the newcomer begins to understand more of the new culture, they are able to interpret some of the subtle cultural clues which passed by unnoticed earlier. Now things make more sense and the culture seems more familiar. As a result, they begin to develop problem- solving skills, and feelings of disorientation and anxiety no longer affect them. In Kohls's model, in the fourth stage, newcomers undergo a process of adaptation. They have settled into the new culture, and this results in a feeling of direction and self-confidence. They have accepted the new food, drinks, habits and customs and may even find themselves enjoying some of the very customs that bothered them so much previously. In addition, they realise that the new culture has good and bad things to offer and that no way is really better than another, just different.

Complete the table below. Choose NO MORE THAN TWO WORDS from the passage to each answer.

THE STAGES OF CULTURE SHOCK

	Name	***Newcomers' reaction to problems***
Stage 1	***7 ……***	They notice the ***8 ……*** between different nationalities and cultures. They may experience this stage for up to ***9 ……***
Stage 2	Rejection	They reject the new culture and lose the ***10……*** they had at the beginning.
Stage 3	Adjustment and reorientation	They can understand some ***11 ……*** which they had not previously observed. They learn ***12 ……*** for dealing with difficulties.
Stage 4	***13 ……***	They enjoy some of the customs that annoyed them before.

12. Bài tập 12

The history of the poster

The appearance of theposterhaschangedcontinuouslyoverthe past two centuries.

The first posters were known as ‘broadsides’ and were used for public and commercial announcements. Printed on one side only using metal type, they were quickly and crudely produced in large quantities. As they were meant to be read at a distance, they required large lettering.

There were a number of negative aspects of large metal type. It was expensive, required a large amount of storage space and was extremely heavy. If a printer did have a collection of large metal type, it was likely that there were not enough letters. So printers did their best by mixing and matching styles.
Commercial pressure for large type was answered with the invention of a system for wood type production. In 1827, Darius Wells invented a special wood drill - the lateral router - capable of cutting letters on wood blocks. The router was used in combination with William Leavenworth’s pantograph (1834) to create decorative wooden letters of all shapes and sizes. The first posters began to appear, but they had little colour and design; often wooden type was mixed with metal type in a conglomeration of styles.

A major development in poster design was the application of lithography, invented by Alois Senefelder in 1796, which allowed artists to hand-draw letters, opening the field of type design to endless styles. The method involved drawing with a greasy crayon onto finely surfaced Bavarian limestone and offsetting that image onto paper. This direct process captured the artist's true intention; however, the final printed image was in reverse. The images and lettering needed to be drawn backwards, often reflected in a mirror or traced on transfer paper.

As a result of this technical difficulty, the invention of the lithographic process had little impact on posters until the 1860s, when Jules Cheret came up with his 'three-stone lithographic process'. This gave artists the opportunity to experiment with a wide spectrum of colours.

Although the process was difficult, the result was remarkable, with nuances of colour impossible in other media even to this day. The ability to mix words and images in such an attractive and economical format finally made the lithographic poster a powerful innovation.

Starting in the 1870s, posters became the main vehicle for advertising prior to the magazine era and the dominant means of mass communication in the rapidly growing cities of Europe and America. Yet in the streets of Paris, Milan and Berlin, these artistic prints were so popular that they were stolen off walls almost as soon as they were hung. Cheret, later known as 'the father of the modern poster', organised the first exhibition of posters in 1884 and two years later published the first book on poster art. He quickly took advantage of the public interest by arranging for artists to create posters, at a reduced size, that were suitable for in-home display.

Thanks to Cheret. the poster slowly took hold in other countries in the 1890s and came to celebrate each society's unique cultural institutions: the cafe in France, the opera and fashion in Italy, festivals in Spain, literature in Holland and trade fairs in Germany. The first poster shows were held in Great Britain and Italy in 1894, Germany in 1896 and Russia in 1897. The most important poster show ever, to many observers, was held in Reims, France, in 1896 and featured an unbelievable 1,690 posters arranged by country.

In the early 20th century, the poster continued to play a large communication role and to go through a range of styles. By the 1950s, however, it had begun

to share the spotlight with other media, mainly radio and print. By this time, most posters were printed using the mass production technique of photo offset, which resulted in the familiar dot pattern seen in newspapers and magazines. In addition, the use of photography in posters, begun in Russia in the twenties, started to become as common as illustration.

In the late fifties, a new graphic style that had a strong reliance on typographic elements in black and white appeared. The new style came to be known as the International Typographic Style. It made use of a mathematical grid, strict graphic rules and black-and-white photography to provide a clear and logical structure. It became the predominant style in the world in the 1970s and continues to exert its influence today.

It was perfectly suited to the increasingly international post-war marketplace, where there was a strong demand for clarity. This meant that the accessibility of words and symbols had to be taken into account. Corporations wanted international identification, and events such as the Olympics called for universal solutions, which the Typographic Style could provide. However, the International Typographic Style began to lose its energy in the late 1970s. Many criticised it for being cold, formal and dogmatic.

A young teacher in Basel. Wolfgang Weingart, experimented with the offset printing process to produce posters that appeared complex and chaotic, playful and spontaneous - all in stark contrast to what had gone before. Weingart's liberation of typography was an important foundation for several new styles. These ranged from Memphis and Retro to the advances now being made in computer graphics.

[Adapted from www.internationalposter.com]

Complete the table below. Choose NO MORE THAN THREE WORDS from the passage for each answer.

Early Printing Methods

	Features	***Problems***
Metal type	Produced large print	Cost, weight and ***1 …….*** difficulties Mixed styles
Wood type	Darius's wood drill used in Lack connection with another ***2……..*** Produced a range of letters	both ***3 ……..*** Mixed type
Lithography	Letters drawn by hand Design tool – a ***4 ……..***	Had to use a mirror or ***5……..*** to achieve correct image