

TEST 1

Listening module (approx 30 minutes + 10 minutes transfer time)

Guidance

Overview

The Listening test is taken by both Academic and General Training candidates. It lasts for forty minutes (thirty minutes plus ten minutes transfer time) and consists of four sections. There are a total of forty questions: ten in each section. The recording is only played ONCE. As you listen, you must note down your answers on the question paper. When the recording is finished you will be given ten minutes to transfer your answers to the answer sheet.

Sections 1 and 2 relate to social contexts, testing the listening skills you need for survival in an English-speaking country. Section 1 is a conversation between two speakers, e.g. two people talking about holiday preparations, and Section 2 is a monologue, e.g. a podcast about what you can do at a theme park.

Sections 3 and 4 have a more academic or training context. Section 3 is a conversation between two or more people, e.g. a seminar between a tutor and a student about a work placement, and Section 4 is a monologue, e.g. a lecturer presenting the findings of a research project.

Before each section, you will hear a brief introduction explaining who the speakers are and what the situation is. You will also be given a short time to look through the questions before the recording for that section starts. In sections 1 to 3, there is a short break in the middle giving you time to look at the questions in the second half. There is no break in Section 4.

All answers will occur in the correct form in the recording (so you will not change it), and you will only get a mark if the answer is correctly spelt. You must also follow the instructions regarding the maximum number of words for each answer.

Tasks

A variety of questions are used, chosen from the following types:

- Multiple choice.
- Note/table/summary/flow chart completion.
- Matching.
- Diagram/map/plan labelling.
- True, false, not given.

In some tasks you will have to write words or phrases, and in other tasks you will have to write letters or numbers.

Tip strip**Questions 1–10**

- When you read task instructions, always underline how many words are allowed for each answer. Never write more than the maximum stated, though you can use fewer. In this task, the maximum number of words you can use is two, but many of the answers are just one word.

- Only write down words you hear, in the form you hear them. If you need to change the form of a word to make it fit grammatically, then it's incorrect.

Example

For Section 1 only, you will be given an example and you will hear the first few lines twice. After that you will only hear the recording once.

Question 1

Listen for a phrase which means the same as 'occupation'.

Question 4

You will hear several numbers mentioned. Don't just write down the first number you hear – wait until the woman confirms how many years she has been a member.

Questions 1–10**Questions 1–10**

Complete the form below.

Write **NO MORE THAN TWO WORDS OR A NUMBER** for each answer.

Health club customer research

<i>Example</i>	<i>Answer</i>
Name:	Selina Thompson
Occupation:	1
Age group:	2
Type of membership:	3
Length of membership:	4 years
Why joined:	Recommended by a 5
Visits to club per month:	Eight (on an average)
Facility used most:	6
Facility not used (if any):	Tennis courts (because reluctant to 7)
Suggestions for improvements:	Have more 8 Install 9 in the gym. Open 10 later at weekends.

Tip strip**Question 6 and Question 9**

Listen to both speakers. Most of the answers are supplied by the woman, but not all of them. For Questions 6 and 9, the man suggests something and the woman agrees.

Question 8

Be careful with answers which require plural

endings. You will not get a mark if you leave off the 's'.

Questions 8–10

There are three suggestions for improvements listed. Carefully read the words given for each bullet point: this will tell you where to note each suggested improvement. You will lose a mark if you do not put the word in the correct gap.

Questions 11–20**Tip strip****Questions 11–16**

- As with all flow chart tasks, listen carefully for the words and phrases which signal the beginning of each new stage in the sequence.
- For this type of question, check how many extra options are given: in this case, there is just ONE.
- In these tasks, options are only used once. (In tasks where you can use options more than once, the instructions will clearly state this.)

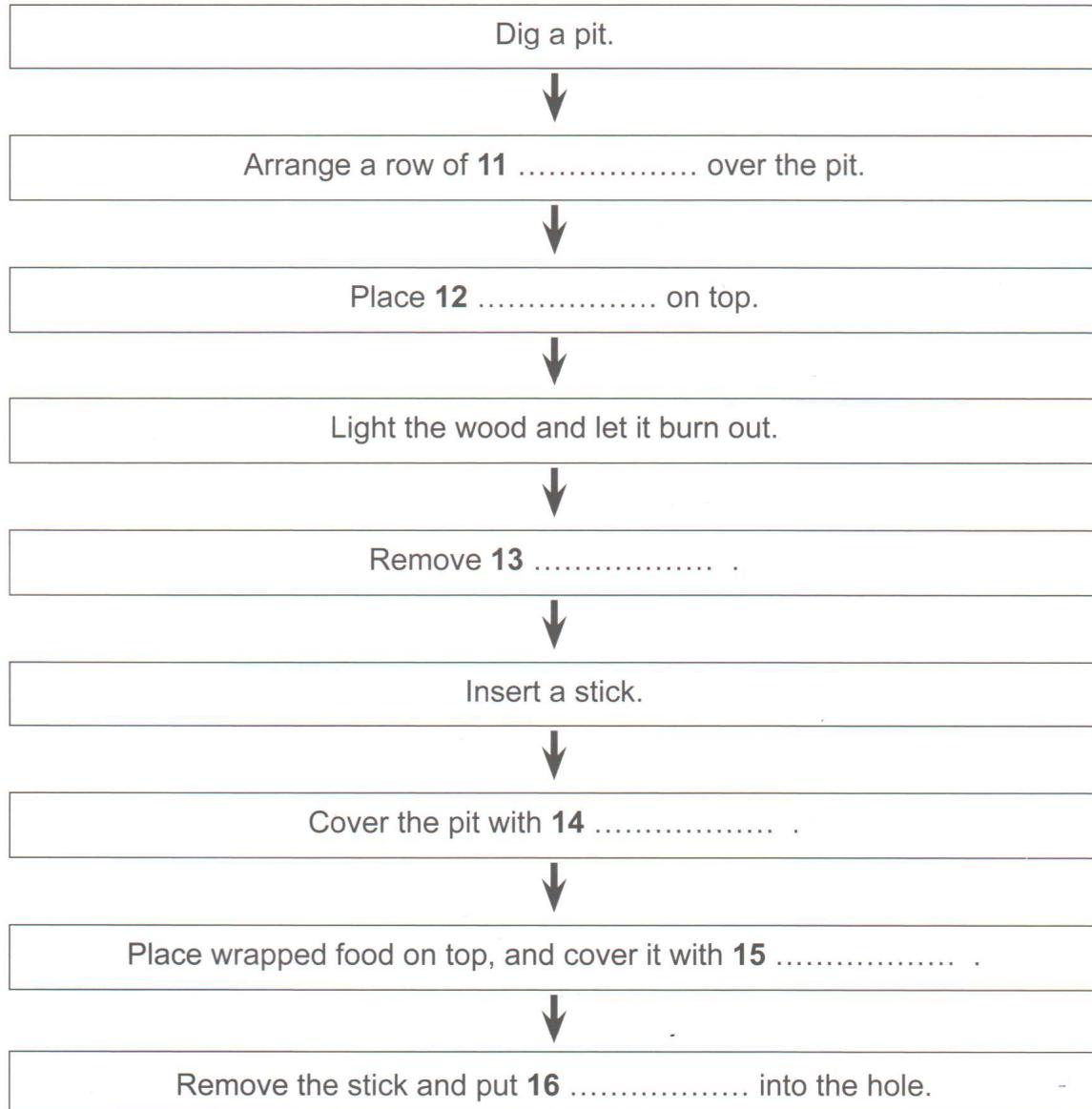
Questions 11–16

Complete the flow chart below.

Choose **SIX** answers from the box and write the correct letter, **A–G**, next to questions 11–16.

- | | | | |
|-----------------|-----------------|----------------|----------------|
| A air | B ash | C earth | D grass |
| E sticks | F stones | G water | |

Making a steam pit



Questions 17–18

Tip strip

Questions 17–20

- In this type of multiple-choice item, you must choose **TWO** options from a list of five.
- The options might not be in the same order as the information in the recording.

Choose **TWO** letters, **A–E**.

Which **TWO** characteristics apply to the bamboo oven?

- A** It's suitable for windy weather.
- B** The fire is lit below the bottom end of the bamboo.
- C** The bamboo is cut into equal lengths.
- D** The oven hangs from a stick.
- E** It cooks food by steaming it.

Questions 19–20

Choose **TWO** letters, **A–E**.

Which **TWO** pieces of advice does the speaker give about eating wild fungi?

- A** Cooking doesn't make poisonous fungi edible.
- B** Edible wild fungi can be eaten without cooking.
- C** Wild fungi are highly nutritious.
- D** Some edible fungi look very similar to poisonous varieties.
- E** Fungi which cannot be identified should only be eaten in small quantities.

Questions 21–30**Tip strip****Questions 21–30**

- For these questions it is important to know who is talking – their names and roles. Listen to the context information given at the beginning of this section: Phoebe is the young female student and Tony is her male tutor. (Note that this information is only spoken – it is not written on the answer paper.)
- For **Questions 21–24**, listen for what Phoebe does/thinks. For **Question 25**, listen for what Tony thinks.

Question 24

Listen for a paraphrase of 'flexibility'.

Questions 21–25

Choose the correct letter, A, B or C.

Research project on attitudes towards study

21 Phoebe's main reason for choosing her topic was that

- A** her classmates had been very interested in it.
- B** it would help prepare her for her first teaching post.
- C** she had been inspired by a particular book.

22 Phoebe's main research question related to

- A** the effect of teacher discipline.
- B** the variety of learning activities.
- C** levels of pupil confidence.

23 Phoebe was most surprised by her finding that

- A** gender did not influence behaviour significantly.
- B** girls were more negative about school than boys.
- C** boys were more talkative than girls in class.

24 Regarding teaching, Phoebe says she has learned that

- A** teachers should be flexible in their lesson planning.
- B** brighter children learn from supporting weaker ones.
- C** children vary from each other in unpredictable ways.

25 Tony is particularly impressed by Phoebe's ability to

- A** recognise the limitations of such small-scale research.
- B** reflect on her own research experience in an interesting way.
- C** design her research in such a way as to minimise difficulties.

Questions 26–30

Tip strip

Questions 26–30

- For matching exercises like these, it is important to be clear on the specific task. In this case you must listen for what is DIFFICULT about each of the five research techniques. The focus will also be indicated in the heading of the box: 'Difficulties'.

What did Phoebe find difficult about the different research techniques she used?

Choose **FIVE** answers from the box and write the correct letter **A–G**, next to questions 26–30.

Difficulties

- A** Obtaining permission
- B** Deciding on a suitable focus
- C** Concentrating while gathering data
- D** Working collaboratively
- E** Processing data she had gathered
- F** Finding a suitable time to conduct the research
- G** Getting hold of suitable equipment

Research techniques

- 26** Observing lessons
- 27** Interviewing teachers
- 28** Interviewing pupils
- 29** Using questionnaires
- 30** Taking photographs

Questions 31–40**Questions 31–40***Complete the sentences below.**Write **NO MORE THAN TWO WORDS** for each answer.***Saving the juniper plant****Background****31** Juniper was one of the first plants to colonise Britain after the last**32** Its smoke is virtually , so juniper wood was used as fuel in illegal activities.**33** Oils from the plant were used to prevent spreading.**34** Nowadays, its berries are widely used to food and drink.**Ecology****35** Juniper plants also support several species of insects and**Problems****36** In current juniper populations, ratios of the are poor.**37** Many of the bushes in each group are of the same age so of whole populations is rapid.**Solutions****38** Plantlife is trialling novel techniques across areas of England.**39** One measure is to introduce for seedlings.**40** A further step is to plant from healthy bushes.**Tip strip****Questions 31–40**

- Section 4 of the listening paper is a presentation or lecture. Read the heading and listen carefully to the information given at the beginning of the recording. It tells you who is talking and his/her general subject or field. Also the first part of the lecture itself often gives useful information about the focus.
- The field of this presentation is Environmental Science – knowing this will help you predict

what will be important to the speaker: the destruction of an ancient species of plant and ways to protect it.

- Read the sub-headings on the answer sheet. The speaker will clearly state when he/she is changing to a new sub-section. He/She will either mention the word in the heading or give a close paraphrase. Listen for structuring phrases such as 'Turning now to ...' or a rhetorical question such as 'Why is the juniper plant declining ...?'

Reading module (1 hour)

Guidance

Overview

The Academic Reading test lasts for an hour, and it consists of three parts, so you should spend about twenty minutes on each part. The first part is generally a bit easier than the second and third parts, so you might decide to spend a little less time on this.

As you do the test you can make notes on the question paper, but all your answers have to be written on a separate mark sheet, so you must allow enough time to do this.

The test has a total of 40 questions, so in two of the sections there are 13 questions, and in one there are 14 questions.

Reading passages

The reading passages in all three sections are of a similar length, each one consisting of between 750–950 words. The first passage is usually more factual than the others, and the third contains more opinion. There is a range of topics, and these might be related to any academic subject area, such as natural sciences, history, archaeology or education. However, the subject matter of the passages is not highly technical, and should be accessible to any IELTS candidate, whatever their personal educational history.

Tasks

The Academic Reading paper uses a variety of task types, including:

- Giving short answers to questions.
- Deciding whether statements/opinions correspond to what is written in the reading passage.
- Matching statements to people or events which are mentioned in the reading passage.
- Completing a summary, or individual sentences, which are based on the reading passage.
- Completing a table, a diagram, a flow chart, or notes which are based on the reading passage.
- Choosing a statement about the reading passage from several options.
- Choosing the answer to a question about the reading passage from several options.
- Choosing the best heading for each of the paragraphs in a reading passage.

In some tasks, you will have to write words or phrases, and in other tasks you will have to write letters or numbers.

Reducing electricity consumption on the Isle of Eigg

Background

The Isle of Eigg is situated off the West Coast of Scotland, and is reached by ferry from the mainland. For the island community of about a hundred residents, it has always been expensive to import products, materials and skilled labour from the mainland, and this has encouraged a culture of self-sufficiency and careful use of resources. Today, although the island now has most modern conveniences, CO₂ emissions per household are 20 percent lower than the UK average, and electricity use is 50 percent lower.

When Eigg designed its electricity grid, which was switched on in February 2008, it quickly became apparent that in order to keep the capital building costs down, it would be necessary to manage demand. This would also allow the island to generate most of its electricity from renewable sources, mainly water, wind and solar power. This goal was overseen by the Eigg Heritage Trust (EHT).

The technology

Eigg manages electricity demand mainly by capping the instantaneous power that can be used to five kilowatts (kW) for a household and ten kW for a business. If usage goes over the limit, the electricity supply is cut off and the maintenance team must be called to come and switch it back on again. All households and businesses have energy monitors, which display current and cumulative electricity usage, and sound an alarm when consumption reaches a user-defined level, usually set a few hundred watts below the actual limit. The result is that Eigg residents have a keen sense of how much power different electrical appliances use, and are careful to minimise energy consumption.

Demand is also managed by warning the entire island when renewable energy generation is lower

than demand, and diesel generators are operating to back it up – a so-called ‘red light day’, as opposed to ‘green light days’ when there is sufficient renewable energy. Residents then take steps to temporarily reduce electricity demand further still, or postpone demand until renewable energy generation has increased.

Energy use on the island has also been reduced through improved wall and loft insulation in homes, new boilers, solar water heating, car-sharing and various small, energy-saving measures in households. New energy supplies are being developed, including sustainably harvested forests to supply wood for heating.

Eigg Heritage Trust has installed insulation in all of its own properties at no cost to the tenants, while private properties have paid for their own insulation to be installed. The same applies for installations of solar water heating, although not all Trust properties have received this as yet. The Trust also operates a Green Grants scheme, where residents can claim 50 percent of the cost of equipment to reduce carbon emissions, up to a limit of £300. Purchases included bikes, solar water heating, secondary glazing, thicker curtains, and greenhouses to grow food locally, rather than importing it.

Environmental benefits

Prior to the installation of the new electricity grid and renewable energy generation, most households on Eigg used diesel generators to supply electricity, resulting in significant carbon emissions. Homes were also poorly insulated and had old, inefficient oil-burning boilers, or used coal for heating.

The work by the Eigg Heritage Trust to reduce energy use has resulted in significant reductions in carbon emissions from the island’s households and businesses. The average annual electricity use per household is just 2,160 kilowatt hours (kWh),

compared to a UK average in 2008 of 4,198 kWh. Domestic carbon emissions have fallen by 47 percent, from 8.4 to 4.45 tonnes per year. This compares to average UK household emissions of 5.5 to 6 tonnes per year. The emissions should fall even further over the next few years as the supply of wood for heating increases.

Social benefits

The completion of Eigg's electricity grid has made a significant difference to the island's residents, freeing them from dependence on diesel generators and providing them with a stable and affordable power supply. A reliable electricity supply has brought improvements in other areas, for example, better treatment of drinking water in some houses, and the elimination of the constant noise of diesel generators. Improved home insulation and heating has also yielded benefits, making it more affordable to keep homes at a comfortable temperature. One of the incentives for capping electricity use, rather than charging different amounts according to usage, was to make

access to energy equitable. Every household has the same five kW cap, irrespective of income, so distributing the available resources equally across the island's population.

Economic and employment benefits

Eigg's electricity grid supports four part-time maintenance jobs on the island, and residents have also been employed for building work to improve Trust-owned houses and other buildings. Likewise, the start of organised harvesting of wood for heating has created several forestry jobs for residents. A part-time 'green project manager' post has also been created. A wider economic impact has come from having a reliable and affordable electricity supply, which has enabled several new businesses to start up, including restaurants, shops, guest houses and self-catering accommodation. As Eigg has become known for cutting carbon emissions and protecting the environment, an increasing number of visitors have come to the island to learn about its work, bringing a further economic benefit to the residents.

Questions 1–7

Tip strip

Questions 1–7

- Only choose words or numbers which appear in the reading passage. *Don't* use your own words.
- *Don't* make any changes to the words from the reading passage. For example, *don't* change a singular noun to a plural noun.
- You *can* use fewer words than the maximum number in the instructions.
- *Don't* write *more* words than the instructions tell you.

Question 1

When you're trying to find the answer, look for a word that has a similar meaning to 'approximately'.

Question 3

When you're trying to find the answer, look for a word that has a similar meaning to 'most of'.

Question 7

The answer is a plural noun. Don't leave the plural 's' off the end of the word.

Answer the questions below.

Choose **NO MORE THAN TWO WORDS AND/OR A NUMBER** from the passage for each answer.

- 1 Approximately how many people live on Eigg?
- 2 What proportion of a UK household's electricity consumption does an Eigg household consume?
- 3 Apart from wind and sun, where does most of Eigg's electricity come from?
- 4 What device measures the amount of electricity Eigg's households are using?
- 5 When renewable energy supplies are insufficient, what backs them up?
- 6 What has EHT provided free of charge in all the houses it owns?
- 7 Which gardening aid did some Eigg inhabitants claim grants for?

Questions 8–13

Tip strip

Questions 8–13

- The statements follow the order of the information in the reading passage.
- Some of the words in the statements might be the same or similar to words in the reading passage, whether the statement is *true*, *false* or *not given*.
- Read the *whole* statement carefully before you decide whether it matches information in the reading passage or not.

Question 8

There are several references to 'electricity grid' in the reading passage. Look at each one in turn, to find where the answer to Question 8 is.

Question 10

Look carefully at the words in the reading passage to see whether there is a word or phrase with a similar meaning to 'main'.

Question 12

When the reading passage mentions electricity prices, it uses the word 'equitable'. Even if you don't know this word, you can probably guess its meaning.

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

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

- 8 Electricity was available for the first time on Eigg when a new grid was switched on.
- 9 Eigg's carbon emissions are now much lower than before.
- 10 Wood will soon be the main source of heating on Eigg.
- 11 Eigg is quieter as a result of having a new electricity supply.
- 12 Well-off households pay higher prices for the use of extra electricity.
- 13 The new electricity grid has created additional employment opportunities on Eigg.

Change in business organisations

- A** The forces that operate to bring about change in organisations can be thought of as winds which are many and varied – from small summer breezes that merely disturb a few papers, to mighty howling gales which cause devastation to structures and operations, causing consequent reorientation of purpose and rebuilding. Sometimes, however, the winds die down to give periods of relative calm, periods of relative organisational stability. Such a period was the agricultural age, which Goodman (1995) maintains prevailed in Europe and western societies as a whole until the early 1700s. During this period, wealth was created in the context of an agriculturally based society influenced mainly by local markets (both customer and labour) and factors outside people's control, such as the weather. During this time, people could fairly well predict the cycle of activities required to maintain life, even if that life might be at little more than subsistence level.
- B** To maintain the meteorological metaphor, stronger winds of change blew to bring in the Industrial Revolution and the industrial age. Again, according to Goodman, this lasted for a long time, until around 1945. It was characterised by a series of inventions and innovations that reduced the number of people needed to work the land and, in turn, provided the means of production of hitherto rarely obtainable goods; for organisations, supplying these in ever increasing numbers became the aim. To a large extent, demand and supply were predictable, enabling companies to structure their organisations along what Burns and Stalker (1966) described as mechanistic lines, that is as systems of strict hierarchical structures and firm means of control.
- C** This situation prevailed for some time, with demand still coming mainly from the domestic market and organisations striving to fill the 'supply gap'. Thus the most disturbing environmental influence on organisations of this time was the demand for products, which outstripped supply. The saying attributed to Henry Ford that 'You can have any colour of car so long as it is black', gives a flavour of the supply-led state of the market. Apart from any technical difficulties of producing different colours of car, Ford did not have to worry about customers' colour preferences: he could sell all that he made. Organisations of this period can be regarded as 'task-oriented', with effort being put into increasing production through more effective and efficient production processes.
- D** As time passed, this favourable period for organisations began to decline. In the neo-industrial age, people became more discriminating in the goods and services they wished to buy and, as technological advancements brought about increased productivity, supply overtook demand. Companies began, increasingly, to look abroad for additional markets.
- E** At the same time, organisations faced more intensive competition from abroad for their own products and services. In the West, this development was accompanied by a shift in focus from manufacturing to service, whether this merely added value to manufactured products, or whether it was service in its own right. In the neo-industrial age of western countries, the emphasis moved towards adding value to goods and services – what Goodman calls the value-

oriented time, as contrasted with the task-oriented and products/services-oriented times of the past.

- F Today, in the post-industrial age, most people agree that organisational life is becoming ever more uncertain, as the pace of change quickens and the future becomes less predictable. Writing in 1999, Nadler and Tushman, two US academics, said: 'Poised on the eve of the next century, we are witnessing a profound transformation in the very nature of our business organisations. Historic forces have converged to fundamentally reshape the scope, strategies, and structures of large enterprises.' At a less general level of analysis, Graeme Leach, Chief Economist at the British Institute of Directors, claimed in the *Guardian* newspaper (2000) that: 'By 2020, the nine-to-five rat race will be extinct and present levels of self-employment, commuting and technology use, as well as age and sex gaps, will have changed beyond recognition.' According to the article, Leach anticipates that: 'In 20 years time, 20-25 percent of the workforce will be temporary workers and many more will be flexible, ...'

25 percent of people will no longer work in a traditional office and ... 50 percent will work from home in some form.' Continuing to use the 'winds of change' metaphor, the expectation is of damaging gale-force winds bringing the need for rebuilding that takes the opportunity to incorporate new ideas and ways of doing things.

- G Whether all this will happen is arguable. Forecasting the future is always fraught with difficulties. For instance, Mannermann (1998) sees future studies as part art and part science and notes: 'The future is full of surprises, uncertainty, trends and trend breaks, irrationality and rationality, and it is changing and escaping from our hands as time goes by. It is also the result of actions made by innumerable more or less powerful forces.' What seems certain is that the organisational world is changing at a fast rate – even if the direction of change is not always predictable. Consequently, it is crucial that organisational managers and decision makers are aware of, and able to analyse the factors which trigger organisational change.

Questions 14–18

Tip strip

Questions 14–18

- This information does *not* appear in the same order as it does in the reading passage.
- To find where the answers are, look for words with the same or similar meanings as the words in the questions.
- You may have to read several sentences before you can be sure you have found the appropriate section in the reading passage.

Question 14

The question has ‘predictions’, so find a paragraph which contains more than one of these.

Question 16

- The word ‘warning’ does not appear in the reading passage, so you have to look for the same idea expressed in an *indirect* way.
- Find references to future developments which might have negative consequences.

Question 18

To find the answer, look for a phrase with a meaning similar to ‘not a high priority’, or any references to customers’ needs.

Reading Passage 2 has **SEVEN** paragraphs, **A–G**.

Which paragraph contains the following information?

Write the correct letter, **A–G**.

- 14 some specific predictions about businesses and working practices
- 15 reference to the way company employees were usually managed
- 16 a warning for business leaders
- 17 the description of an era notable for the relative absence of change
- 18 a reason why customer satisfaction was not a high priority

Questions 19–23

Look at the following characteristics (Questions 19–23) and the list of periods below.

Match each characteristic with the correct period, **A**, **B** or **C**.

Write the correct letter, **A**, **B** or **C**.

NB You may use any letter more than once.

- 19 a surplus of goods.
- 20 an emphasis on production quantity.
- 21 the proximity of consumers to workplaces.
- 22 a focus on the quality of goods.
- 23 new products and new ways of working.

List of periods

A The agricultural age.

B The industrial age.

C The neo-industrial age.

Tip strip

Questions 19–23

- The ‘periods’ are in the same order as they are in the reading passage.
- Find the relevant paragraphs, then look for words with the same or similar meanings as the words in the questions.
- Don’t leave any questions unanswered. When you have attempted all the questions, go back and guess any remaining answers.

Question 19

In which age were companies producing more things than they could easily sell?

Question 21

Look for a word which has a meaning connected to ‘proximity’.

Question 23

Look for words with a meaning similar to ‘new products’.

Questions 24–26

Tip strip

Questions 24–26

- You can see from the summary title that it is about the present time, so look for the answers in the last two paragraphs.
- The missing words *may* not be in the same order as they appear in the reading passage.
- *Don't* write more than the number of words you are allowed in the instructions.
- Look only for words which fit the summary grammatically as well as in meaning.
- *Don't* change any words. Write them exactly as they appear in the reading passage.

Question 24

There is more than one reference to 2020, and one of them is indirect (you have to identify the year from what is written).

Question 25

There is an article (the) in front of the space, so the answer is a noun.

Question 26

To find where the answer is, look for a phrase which has a similar meaning to 'business leaders'.

Complete the summary below.

Choose **ONE WORD ONLY** from the passage for each answer.

Businesses in the 21st century

It is generally agreed that changes are taking place more quickly now, and that organisations are being transformed. One leading economist suggested that by 2020, up to a quarter of employees would be 24 , and half of all employees would be based in the 25 Although predictions can be wrong, the speed of change is not in doubt, and business leaders need to understand the 26 that will be influential.

The creation of lasting memories

Many studies of the brain processes underlying the creation of memory consolidation (lasting memories) have involved giving various human and animal subjects treatment, while training them to perform a task. These have contributed greatly to our understanding.

In pioneering studies using goldfish, Bernard Agranoff found that protein synthesis inhibitors* injected after training caused the goldfish to forget what they had learned. In other experiments, he administered protein synthesis inhibitors immediately before the fish were trained. The remarkable finding was that the fish learned the task completely normally, but forgot it within a few hours – that is, the protein synthesis inhibitors blocked memory consolidation, but did not influence short-term memory.

There is now extensive evidence that short-term memory is spared by many kinds of treatments, including electro-convulsive therapy (ECT), that block memory consolidation. On the other hand, and equally importantly, neuroscientist Ivan Izquierdo found that many drug treatments can block short-term memory without blocking memory consolidation. Contrary to the hypothesis put forward by Canadian psychologist Donald Hebb, in 1949, long-term memory does not require short-term memory, and vice versa.

Such findings suggest that our experiences create parallel, and possibly independent stages of memory, each with a different life span. All of this evidence from clinical and experimental studies strongly indicates that the brain handles recent and remote memory in different ways; but why does it do that?

We obviously need to have memory that is created rapidly: reacting to an ever and rapidly changing environment requires that. For example, most current building codes require that the heights of all steps in a staircase be equal. After taking a couple of steps, up or down, we implicitly remember the heights of the steps and assume that the others will be the same. If they are not the same, we are very likely to trip and fall. Lack of this kind of rapidly created implicit memory would be bad for us and for insurance companies, but perhaps good for lawyers. It would be of little value to us if we remembered the heights of the steps only after a delay of many hours, when the memory becomes consolidated.

The hypothesis that lasting memory consolidates slowly over time is supported primarily by clinical and experimental evidence that the formation of long-term memory is influenced by treatments and disorders affecting brain functioning. There are also other kinds of evidence indicating more directly that the memories consolidate over time after learning. Avi Kami and Dov Sagi reported that the performance of human subjects trained in a visual skill did not improve until eight hours after the training was completed, and that improvement was even greater the following day. Furthermore, the skill was retained for several years.

Studies using human brain imaging to study changes in neural activity induced by learning have also reported that the changes continue to develop for hours after learning. In an innovative study using functional imaging of the brain, Reza Shadmehr and Henry Holcomb examined brain activity in several brain regions shortly after human subjects were trained in a motor learning task requiring arm and hand movements. They found that while the performance of the subjects remained stable for several hours after completion of the training,

* substances which stop or slow the growth of cells

their brain activity did not; different regions of the brain were predominantly active at different times over a period of several hours after the training. The activity shifted from the prefrontal cortex to two areas known to be involved in controlling movements, the motor cortex and cerebellar cortex. Consolidation of the motor skill appeared to involve activation of different neural systems that increased the stability of the brain processes underlying the skill.

There is also evidence that learning-induced changes in the activity of neurons in the cerebral cortex continue to increase for many days after the training. In an extensive series of studies using rats with electrodes implanted in the auditory cortex, Norman Weinberger reported that, after a tone of specific frequency was paired a few times with footshock, neurons in the rats' auditory cortex responded more to that specific tone and less to other tones of other frequencies. Even more interestingly, the selectivity of the neurons' response to the specific tone used in training continued to increase for several days after the training was terminated.

It is not intuitively obvious why our lasting memories consolidate slowly. Certainly, one can wonder why we have a form of memory that we

have to rely on for many hours, days or a lifetime, that is so susceptible to disruption shortly after it is initiated. Perhaps the brain system that consolidates long-term memory over time was a late development in vertebrate evolution. Moreover, maybe we consolidate memories slowly because our mammalian brains are large and enormously complex. We can readily reject these ideas. All species of animals studied to date have both short and long-term memory; and all are susceptible to retrograde amnesia. Like humans, birds, bees, and molluscs, as well as fish and rats, make long-term memory slowly. Consolidation of memory clearly emerged early in evolution, and was conserved.

Although there seems to be no compelling reason to conclude that a biological system such as a brain could not quickly make a lasting memory, the fact is that animal brains do not. Thus, memory consolidation must serve some very important adaptive function or functions. There is considerable evidence suggesting that the slow consolidation is adaptive because it enables neurobiological processes occurring shortly after learning to influence the strength of memory for experiences. The extensive evidence that memory can be enhanced, as well as impaired, by treatments administered shortly after training, provides intriguing support for this hypothesis.

Questions 27–40

Questions 27–31

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

- 27** Experiments by Bernard Agranoff described in Reading Passage 3 involved
- A** injecting goldfish at different stages of the experiments.
 - B** training goldfish to do different types of task.
 - C** using different types of treatment on goldfish.
 - D** comparing the performance of different goldfish on certain tasks.
- 28** Most findings from recent studies suggest that
- A** drug treatments do not normally affect short-term memories.
 - B** long-term memories build upon short-term memories.
 - C** short and long-term memories are formed by separate processes.
 - D** ECT treatment affects both short-and long-term memories.
- 29** In the fifth paragraph, what does the writer want to show by the example of staircases?
- A** Prompt memory formation underlies the performance of everyday tasks.
 - B** Routine tasks can be carried out unconsciously.
 - C** Physical accidents can impair the function of memory.
 - D** Complex information such as regulations cannot be retained by the memory.
- 30** Observations about memory by Kami and Sagi
- A** cast doubt on existing hypotheses.
 - B** related only to short-term memory.
 - C** were based on tasks involving hearing.
 - D** confirmed other experimental findings.
- 31** What did the experiment by Shadmehr and Holcomb show?
- A** Different areas of the brain were activated by different tasks.
 - B** Activity in the brain gradually moved from one area to other areas.
 - C** Subjects continued to get better at a task after training had finished.
 - D** Treatment given to subjects improved their performance on a task.

Questions 32–36

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

Write

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

- 32** The training which Kami and Sagi's subjects were given was repeated over several days.
- 33** The rats in Weinberger's studies learned to associate a certain sound with a specific experience.
- 34** The results of Weinberger's studies indicated that the strength of the rats' learned associations increases with time.
- 35** It is easy to see the evolutionary advantage of the way lasting memories in humans are created.
- 36** Long-term memories in humans are more stable than in many other species.

Questions 37–40

Complete the summary using the list of words, **A–I**, below.

Long-term memory

Various researchers have examined the way lasting memories are formed. Laboratory experiments usually involve teaching subjects to do something **37** , and treating them with mild electric shocks or drugs. Other studies monitor behaviour after a learning experience, or use sophisticated equipment to observe brain activity.

The results are generally consistent: they show that lasting memories are the result of a **38** and complex biological process.

The fact that humans share this trait with other species, including animals with **39** brains, suggests that it developed **40** in our evolutionary history.

- | | | | | |
|----------------|-------------------|----------------|----------------|------------------|
| A early | B easy | C large | D late | E lengthy |
| F new | G recently | H small | I quick | |

Writing module (1 hour)

Guidance

Overview

The Academic Writing test lasts for an hour, and consists of two parts. The first part is shorter than the second, and carries only one third of the marks, so you should spend about 20 minutes on this part and 40 minutes on the second part. For each part you should allow enough time to plan what you are going to say before you begin writing, and to check what you have written afterwards.

Tasks

Task 1

In the first part, you have to write a minimum of 150 words altogether. You are presented with a visual which you have to describe in words, providing a general overview with supporting details. The visual might be a line graph, a bar chart, a pie chart, a diagram or a plan, and the subject of the visuals are varied. Subjects might include social trends, economics, natural or industrial processes, or health, but you do not need any specialist knowledge to do the task.

You are expected to write in a neutral or formal style.

Task 2

In the second part, you have to write an essay with a minimum of 250 words. This involves commenting on an issue or problem which is presented in the task. You are expected to discuss various points of view and arrive at a conclusion. Topics are varied, and might include health, lifestyles, environment, or education, but you do not have to have any special knowledge to be able to do the task.

You are expected to write in a neutral or formal style.

WRITING TASK 1

You should spend about 20 minutes on this task.

The table below shows the results of surveys in 2000, 2005 and 2010 about one university.

Summarise the information by selecting and reporting the main features, and make comparisons where relevant.

Write at least 150 words.

Percentage of students giving good ratings for different aspects of a university			
	2000	2005	2010
Teaching quality	65	63	69
Print resources	87	89	88
Electronic resources	45	72	88
Range of modules offered	32	30	27
Buildings/teaching facilities	77	77	77

Tip strip

- Make sure you understand exactly what the visual shows. In this task, the figures in the table:
 - relate to just one university,
 - are from three different surveys,
 - indicate changes in student attitudes.
- You get this key information from two sources: the first sentence of the task itself and the title of the visual(s).
- For Task 1, the second part of the rubric is always the same.

- Start with an introductory sentence which summarises what the visual shows. Don't simply copy down what's in the rubric – this is a waste of your time.
- Take some time before you start writing to look for any improvements, reductions, fluctuations and similarities.

Report the most striking point first. In this task, it is probably that there was a great improvement in students' opinions of the university's electronic resources.

- Give data to support the claims you make – citing specific percentages. But you don't need to quote exact figures for every point – you will gain marks for showing that you can be selective.
- Don't write too much: 150–200 words will be enough. You won't be given any extra marks for writing a longer piece, and you need to leave enough time for Task 2.

WRITING TASK 2

You should spend about 40 minutes on this task.

Write about the following topic:

Some say that because many people are living much longer, the age at which people retire from work should be raised considerably.

To what extent do you agree or disagree?

Give reasons for your answer and include any relevant examples from your own knowledge and experience.

Write at least 250 words.

Tip strip

- Be clear which specific aspect of the task you need to discuss. In this task, you need to talk about whether the age of retirement should be raised and if so, whether it should be by a small or large amount.

- The second line of the task in Task 2 differs from paper to paper.
- You could give your point of view and then provide illustrations and evidence to support this opinion. Or, you could explore both sides of the question and then go on to

give your own opinion and explain the arguments you find particularly persuasive.

- Write using paragraphs and make sure each paragraph has a clear central topic.

Speaking module (11–14 minutes)

Guidance

Overview

The speaking test lasts for 11–14 minutes, and it consists of three parts:

- **Part 1** takes the form of a dialogue with the examiner, who asks questions about you, your life, and things you are familiar with. It lasts for four to five minutes.
- **Part 2** is a short presentation given by you about a general topic that the examiner chooses. You can decide the specific topic yourself. The topic is connected to your own life and experiences.

You have up to one minute to prepare your presentation, and you can speak for up to two minutes. There is a clock on the table, and the examiner reminds you of the timing if necessary.

- **Part 3** takes the form of a dialogue with the examiner. He/she asks you about your views on impersonal subjects which are loosely connected to the topic of your presentation. This lasts between four and five minutes.

Tasks

- In **Part 1**, the questions which the examiner asks you are usually factual, and quite simple, such as 'When ...?', 'Who ...?', 'How often ...?', or 'What kind of ...?'
- In **Part 2**, you will be given a candidate card.
 - The topic of your presentation is outlined in the first line of the candidate card. It starts with 'Describe ...'.
 - You may be asked about something that happened in the past, or someone you know, or something you would like to do in the future.
 - Three separate bullet points tell you what to include in your presentation, and a fourth line tells you to explain something in more detail, such as your feelings, or the reason for something.
- In **Part 3**, the questions that the examiner asks you are more complex, and involve lengthier responses. You may be asked 'What is your opinion about ...?'; 'To what extent do you think ...?'; 'How important is it to ...?'; compared to 'What do you think ...?'; or 'What might the reason be for ...?'

PART 1

Tip strip

Your country ...

- **Question 1** Remember that 'What's the ... like?' means 'Describe'.
- **Questions 2–3** Give a reason for your answer.

Your family ...

Question 4 Don't spend a long time deciding who to talk about.

Answer these questions.

Tell me about your country.

What's the weather like in your country?

Which time of year do you think is best in your country? Why?

Have you visited many different parts of your country? Why/Why not?

Now let's talk about your family.

Do you share a house with any of your family? Who?

Do most people in your family live in the same town or village?

When did you last have a family party?

Which person in your family are you most similar to? How?

PART 2

Tip strip

- Choose a place that you can talk about easily.
- It is all right to spend more time on one bullet than on others.
- Don't forget to include the last line ('and explain...') in your presentation.

Describe a place in another part of the world that you would love to visit in the future.

You should say:

what you know about the place

how you know about it

how you would go there

and explain why you would love to visit that place.

Who would you go to that place with?

Do you enjoy travelling generally?

PART 3

Tip strip

TV programmes ...

- If you don't understand the question, ask the examiner to repeat or explain it.

Other countries ...

- Listen carefully to what the examiner says he/she wants to talk about.
- **Question 2** It doesn't matter whether you agree or disagree with this opinion, but give as many reasons and examples as you can.

The tourism industry ...

- **Question 1** If you don't know the answer, you can guess. If you don't want to guess, tell the examiner that you don't know much about this subject.
- **Question 2** Ask for help if there's a word you don't understand.

Consider these questions and then answer them.

Let's go on to discuss TV programmes about other places.

What kinds of TV programme about different places are most popular in your country?

Can people learn more about geography from TV than they can from books? Why/Why not?

Do you think TV programmes about different places encourage people to travel themselves? Why/Why not?

Now let's talk about visiting other countries.

For what reasons do you think international travel has increased in recent years?

Some people say it's important for people to find out about another country before they visit it. Do you agree?

How useful is it for people to understand the language of the countries they visit? Why?

Now let's consider the tourism industry.

Does tourism play a big part in the economy of your country? How?

What kinds of unpredictable factors can have a negative effect on the tourism industry?

In the future, what kinds of development might there be in the tourism industry?