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IELTS

Academic

19

剑桥雅思官方真题集

学术类

Authentic Practice Tests

Produced by Cambridge University Press & Assessment

剑桥大学出版社与考试委员会 编著

- With Audio
- With Answers
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	Resources can be found at back of book
	Answer key
	Audioscript
	Sample Writing answer

RESOURCE BANK

You can access the Listening test audio files, example Speaking test video, answer keys with extra explanations, additional sample Writing answers by scanning the QR code*.

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· 北 京 ·

图书在版编目(CIP)数据

剑桥雅思官方真题集19 学术类 / 英国剑桥大学出版社与考试委员会编著. -- 北京 : 群言出版社, 2024.6

书名原文: Cambridge IELTS 19 Academic

ISBN 978-7-5193-0938-1

Ⅰ. ①剑… Ⅱ. ①英… Ⅲ. ①IELTS - 习题集 Ⅳ. ①H310.41-44

中国国家版本馆CIP数据核字(2024)第083214号

版权登记: 图字01—2024—1581号

This is a reprint of the following title published by Cambridge University Press & Assessment:

Cambridge IELTS 19 (Academic) (ISBN: 9781009454735)

Cambridge University Press & Assessment 2024

This reprint for the People's Republic of China (excluding Hong Kong, Macau and Taiwan) is published by arrangement with the Press Syndicate of the University of Cambridge, Cambridge, United Kingdom.

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责任编辑：孙平平
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出版发行：群言出版社
地　　址：北京市东城区东厂胡同北巷1号（100006）
网　　址：www.qypublish.com（官网书城）
电子信箱：dywh@xdf.cn　qunyancbs@126.com
联系电话：010-62418641　65267783　65263836
法律顾问：北京法政安邦律师事务所
经　　销：全国新华书店

印　　刷：北京华联印刷有限公司
版　　次：2024年6月第1版
印　　次：2024年6月第1次印刷
开　　本：787mm×1092mm　1/16
印　　张：9
字　　数：209千字
书　　号：ISBN 978-7-5193-0938-1
定　　价：128.00元

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Contents

Introduction	4
Test 1	10
Test 2	33
Test 3	55
Test 4	78
Audioscripts	99
Listening and Reading answer keys	120
Sample Writing answers	128
Sample answer sheets	139
Acknowledgements	143

Introduction

Prepare for the exam with practice tests from Cambridge

Inside you'll find four authentic examination papers from Cambridge University Press & Assessment. They are the perfect way to practise – EXACTLY like the real exam.

Why are they unique?

All our authentic practice tests go through the same design process as the IELTS test. We check every single part of our practice tests with real students under exam conditions, to make sure we give you the most authentic experience possible.

Students can take these tests on their own or with the help of a teacher to familiarise themselves with the exam format, understand the scoring system and practise exam technique.

Further information

IELTS is jointly managed by the British Council, IDP: IELTS Australia and Cambridge University Press & Assessment. Further information can be found on the IELTS official website at ielts.org.

WHAT IS THE TEST FORMAT?

IELTS consists of four components. All candidates take the same Listening and Speaking tests. There is a choice of Reading and Writing tests according to whether a candidate is taking the Academic or General Training module.

Academic	**General Training**
For candidates wishing to study at undergraduate or postgraduate levels, and for those seeking professional registration.	For candidates wishing to migrate to an English-speaking country (Australia, Canada, New Zealand, UK) and for those wishing to train or study below degree level.

The test components are taken in the following order:

Listening 4 parts, 40 items, approximately 30 minutes		
Academic Reading 3 sections, 40 items 60 minutes	or	**General Training Reading** 3 sections, 40 items 60 minutes
Academic Writing 2 tasks 60 minutes	or	**General Training Writing** 2 tasks 60 minutes
Speaking 11 to 14 minutes		
Total (Maximum) Test Time 2 hours 44 minutes		

ACADEMIC TEST FORMAT

Listening

This test consists of four parts, each with ten questions. The first two parts are concerned with social needs. The first part is a conversation between two speakers and the second part is a monologue. The final two parts are concerned with situations related to educational or training contexts. The third part is a conversation between up to four people and the fourth part is a monologue.

A variety of question types is used, including: multiple choice, matching, plan/map/diagram labelling, form completion, note completion, table completion, flowchart completion, summary completion, sentence completion and short-answer questions.

Candidates hear the recording once only and answer the questions as they listen. Ten minutes are allowed at the end for candidates to transfer their answers to the answer sheet.

Reading

This test consists of three sections with 40 questions. There are three texts, which are taken from journals, books, magazines and newspapers. The texts are on topics of general interest. At least one text contains detailed logical argument.

A variety of question types is used, including: multiple choice, identifying information (True/False/Not Given), identifying the writer's views/claims (Yes/No/Not Given), matching information, matching headings, matching features, matching sentence endings, sentence completion, summary completion, note completion, table completion, flowchart completion, diagram-label completion and short-answer questions.

Writing

This test consists of two tasks. It is suggested that candidates spend about 20 minutes on Task 1, which requires them to write at least 150 words, and 40 minutes on Task 2, which requires them to write at least 250 words. Task 2 contributes twice as much as Task 1 to the Writing score.

Task 1 requires candidates to look at a diagram or some data (in a graph, table or chart) and to present the information in their own words. They are assessed on their ability to organise, present and possibly compare data, and are required to describe the stages of a process, describe an object or event, or explain how something works.

In Task 2, candidates are presented with a point of view, argument or problem. They are assessed on their ability to present a solution to the problem, present and justify an opinion, compare and contrast evidence and opinions, and evaluate and challenge ideas, evidence or arguments.

Candidates are also assessed on their ability to write in an appropriate style. More information on assessing the Writing test, including Writing assessment criteria (public version), is available at ielts.org.

Speaking

This test takes between 11 and 14 minutes and is conducted by a trained examiner. There are three parts:

Part 1

The candidate and the examiner introduce themselves. Candidates then answer general questions about themselves, their home/family, their job/studies, their interests and a wide range of similar familiar topic areas. This part lasts between four and five minutes.

Part 2

The candidate is given a task card with prompts and is asked to talk on a particular topic. The candidate has one minute to prepare and they can make some notes if they wish, before speaking for between one and two minutes. The examiner then asks one or two questions on the same topic.

Part 3

The examiner and the candidate engage in a discussion of more abstract issues which are thematically linked to the topic in Part 2. The discussion lasts between four and five minutes.

The Speaking test assesses whether candidates can communicate effectively in English. The assessment takes into account Fluency and Coherence, Lexical Resource, Grammatical Range and Accuracy, and Pronunciation. More information on assessing the Speaking test, including Speaking assessment criteria (public version), is available at ielts.org.

HOW IS IELTS SCORED?

IELTS results are reported on a nine-band scale. In addition to the score for overall language ability, IELTS provides a score in the form of a profile for each of the four skills (Listening, Reading, Writing and Speaking). These scores are also reported on a nine-band scale. All scores are recorded on the Test Report Form along with details of the candidate's nationality, first language and date of birth. Each Overall Band Score corresponds to a descriptive statement which gives a summary of the English-language ability of a candidate classified at that level. The nine bands and their descriptive statements are as follows:

9 ***Expert user*** *– Has fully operational command of the language: appropriate, accurate and fluent with complete understanding.*

8 ***Very good user*** *– Has fully operational command of the language with only occasional unsystematic inaccuracies and inappropriacies. Misunderstandings may occur in unfamiliar situations. Handles complex detailed argumentation well.*

7 ***Good user*** *– Has operational command of the language, though with occasional inaccuracies, inappropriacies and misunderstandings in some situations. Generally handles complex language well and understands detailed reasoning.*

6 ***Competent user*** *– Has generally effective command of the language despite some inaccuracies, inappropriacies and misunderstandings. Can use and understand fairly complex language, particularly in familiar situations.*

5 ***Modest user*** *– Has partial command of the language, coping with overall meaning in most situations, though is likely to make many mistakes. Should be able to handle basic communication in own field.*

4 ***Limited user*** *– Basic competence is limited to familiar situations. Has frequent problems in understanding and expression. Is not able to use complex language.*

3 ***Extremely limited user*** *– Conveys and understands only general meaning in very familiar situations. Frequent breakdowns in communication occur.*

2 ***Intermittent user*** *– Has great difficulty understanding spoken and written English.*

1 ***Non-user*** *– Essentially has no ability to use the language beyond possibly a few isolated words.*

0 ***Did not attempt the test*** *– Did not answer the questions.*

MARKING THE PRACTICE TESTS

Listening and Reading

The answer keys are on pages 120–127.
Each question in the Listening and Reading tests is worth one mark.

Questions which require letter / Roman numeral answers

For questions where the answers are letters or Roman numerals, you should write *only* the number of answers required. For example, if the answer is a single letter or numeral, you should write only one answer. If you have written more letters or numerals than are required, the answer must be marked wrong.

Questions which require answers in the form of words or numbers

- Answers may be written in upper or lower case.
- Words in brackets are *optional* – they are correct, but not necessary.
- Alternative answers are separated by a slash (/).
- If you are asked to write an answer using a certain number of words and/or (a) number(s), you will be penalised if you exceed this. For example, if a question specifies an answer using NO MORE THAN THREE WORDS and the correct answer is 'black leather coat', the answer 'coat of black leather' is *incorrect*.
- In questions where you are expected to complete a gap, you should only transfer the necessary missing word(s) onto the answer sheet. For example, to complete 'in the . . .', where the correct answer is 'morning', the answer 'in the morning' would be *incorrect*.
- All answers require correct spelling (including words in brackets).
- Both US and UK spelling are acceptable and are included in the answer key.
- All standard alternatives for numbers, dates and currencies are acceptable.
- All standard abbreviations are acceptable.
- You will find additional notes about individual answers in the answer key.

Writing

The sample answers are on pages 128–138. It is not possible for you to give yourself a mark for the Writing tasks. We have provided sample answers (written by candidates), showing their score and the examiners' comments. Additional sample and model answers can be downloaded from the Resource Bank. These sample and model answers will give you an insight into what is required for the Writing test.

HOW SHOULD YOU INTERPRET YOUR SCORES?

At the end of each Listening and Reading answer key you will find a chart which will help you assess whether, on the basis of your practice test results, you are ready to take the IELTS test.

In interpreting your score, there are a number of points you should bear in mind. Your performance in the real IELTS test will be reported in two ways: there will be a Band Score from 1 to 9 for each of the components and an Overall Band Score from 1 to 9, which is the average of your scores in the four components. However, institutions considering your application are advised to look at both the Overall Band Score and the Band Score for each component in order to determine whether you have the language skills needed for a particular course of study. For example, if your course involves a lot of reading and writing, but no lectures, listening skills might be less important and a score of 5 in Listening might be acceptable if the Overall Band Score was 7. However, for a course which has lots of lectures and spoken instructions, a score of 5 in Listening might be unacceptable even though the Overall Band Score was 7.

Once you have marked your tests, you should have some idea of whether your listening and reading skills are good enough for you to try the IELTS test. If you did well enough in one component, but not in others, you will have to decide for yourself whether you are ready to take the test.

The practice tests have been checked to ensure that they are the same level of difficulty as the real IELTS test. However, we cannot guarantee that your score in the practice tests will be reflected in the real IELTS test. The practice tests can only give you an idea of your possible future performance and it is ultimately up to you to make decisions based on your score.

Different institutions accept different IELTS scores for different types of courses. We have based our recommendations on the average scores which the majority of institutions accept. The institution to which you are applying may, of course, require a higher or lower score than most other institutions.

Test 1

LISTENING

PART 1 *Questions 1–10*

Complete the notes below.

Write ***ONE WORD AND/OR A NUMBER*** *for each answer.*

Hinchingbrooke Country Park

The park

Area: **1** ..... hectares

Habitats: wetland, grassland and woodland

Wetland: lakes, ponds and a **2** .....

Wildlife includes birds, insects and animals

Subjects studied in educational visits include

Science: Children look at **3** ..... about plants, etc.

Geography: includes learning to use a **4** ..... and compass

History: changes in land use

Leisure and tourism: mostly concentrates on the park's **5** .....

Music: Children make **6** ..... with natural materials, and experiment with rhythm and speed.

Benefits of outdoor educational visits

They give children a feeling of **7** ..... that they may not have elsewhere.

Children learn new **8** ..... and gain self-confidence.

Practical issues

Cost per child: **9** £ .....

Adults, such as **10** ..... , free

 → p. 120 p. 99

PART 2 *Questions 11–20*

Questions 11–15

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

Stanthorpe Twinning Association

11 During the visit to Malatte, in France, members especially enjoyed

A going to a theme park.
B experiencing a river trip.
C visiting a cheese factory.

12 What will happen in Stanthorpe to mark the 25th anniversary of the Twinning Association?

A A tree will be planted.
B A garden seat will be bought.
C A footbridge will be built.

13 Which event raised most funds this year?

A the film show
B the pancake evening
C the cookery demonstration

14 For the first evening with the French visitors host families are advised to

A take them for a walk round the town.
B go to a local restaurant.
C have a meal at home.

15 On Saturday evening there will be the chance to

A listen to a concert.
B watch a match.
C take part in a competition.

Questions 16–20

Label the map below.

Write the correct letter, ***A–H****, next to Questions 16–20.*

Farley House

16 Farm shop .....

17 Disabled entry .....

18 Adventure playground .....

19 Kitchen gardens .....

20 The Temple of the Four Winds .....

PART 3 *Questions 21–30*

Questions 21 and 22

*Choose **TWO** letters, **A–E**.*

Which **TWO** things did Colin find most satisfying about his bread reuse project?

A receiving support from local restaurants
B finding a good way to prevent waste
C overcoming problems in a basic process
D experimenting with designs and colours
E learning how to apply 3-D printing

Questions 23 and 24

*Choose **TWO** letters, **A–E**.*

Which **TWO** ways do the students agree that touch-sensitive sensors for food labels could be developed in future?

A for use on medical products
B to show that food is no longer fit to eat
C for use with drinks as well as foods
D to provide applications for blind people
E to indicate the weight of certain foods

Questions 25–30

What is the students' opinion about each of the following food trends?

*Choose **SIX** answers from the box and write the correct letter, **A–H**, next to Questions 25–30.*

Opinions

A This is only relevant to young people.

B This may have disappointing results.

C This already seems to be widespread.

D Retailers should do more to encourage this.

E More financial support is needed for this.

F Most people know little about this.

G There should be stricter regulations about this.

H This could be dangerous.

Food trends

25 Use of local products .....

26 Reduction in unnecessary packaging .....

27 Gluten-free and lactose-free food .....

28 Use of branded products related to celebrity chefs .....

29 Development of 'ghost kitchens' for takeaway food .....

30 Use of mushrooms for common health concerns .....

 → p. 120 p. 101

PART 4 *Questions 31–40*

Complete the notes below.

*Write **ONE WORD ONLY** for each answer.*

Céide Fields

- an important Neolithic archaeological site in the northwest of Ireland

Discovery

- In the 1930s, a local teacher realised that stones beneath the bog surface were once **31** ..... .
- His **32** ..... became an archaeologist and undertook an investigation of the site:
  - a traditional method used by local people to dig for **33** ..... was used to identify where stones were located
  - carbon dating later proved the site was Neolithic.
- Items are well preserved in the bog because of a lack of **34** ..... .

Neolithic farmers

- Houses were **35** ..... in shape and had a hole in the roof.
- Neolithic innovations include:
  - cooking indoors
  - pots used for storage and to make **36** ..... .
- Each field at Céide was large enough to support a big **37** ..... .
- The fields were probably used to restrict the grazing of animals – no evidence of structures to house them during **38** ..... .

Reasons for the decline in farming

- a decline in **39** ..... quality
- an increase in **40** .....

→ p. 120 p. 102

READING

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1–13**, which are based on Reading Passage 1 below.*

How tennis rackets have changed

In 2016, the British professional tennis player Andy Murray was ranked as the world's number one. It was an incredible achievement by any standard – made even more remarkable by the fact that he did this during a period considered to be one of the strongest in the sport's history, competing against the likes of Rafael Nadal, Roger Federer and Novak Djokovic, to name just a few. Yet five years previously, he had been regarded as a talented outsider who entered but never won the major tournaments.

Of the changes that account for this transformation, one was visible and widely publicised: in 2011, Murray invited former number one player Ivan Lendl onto his coaching team – a valuable addition that had a visible impact on the player's playing style. Another change was so subtle as to pass more or less unnoticed. Like many players, Murray has long preferred a racket that consists of two types of string: one for the mains (verticals) and another for the crosses (horizontals). While he continued to use natural string in the crosses, in 2012 he switched to a synthetic string for the mains. A small change, perhaps, but its importance should not be underestimated.

The modification that Murray made is just one of a number of options available to players looking to tweak their rackets in order to improve their games. 'Touring professionals have their rackets customised to their specific needs,' says Colin Triplow, a UK-based professional racket stringer. 'It's a highly important part of performance maximisation.' Consequently, the specific rackets used by the world's elite are not actually readily available to the public; rather, each racket is individually made to suit the player who uses it. Take the US professional tennis players Mike and Bob Bryan, for example: 'We're very particular with our racket specifications,' they say. 'All our rackets are sent from our manufacturer to Tampa, Florida, where our frames go through a . . . thorough customisation process.' They explain how they have adjusted not only racket length, but even experimented with different kinds of paint. The rackets they use now weigh more than the average model and also have a denser string pattern (i.e. more crosses and mains).

The primary reason for these modifications is simple: as the line between winning and losing becomes thinner and thinner, even these slight changes become more and more important. As a result, players and their teams are becoming increasingly creative with the modifications to their rackets as they look to maximise their competitive advantage.

Racket modifications mainly date back to the 1970s, when the amateur German tennis player Werner Fischer started playing with the so-called spaghetti-strung racket. It created a string bed that generated so much topspin that it was quickly banned by the International Tennis Federation. However, within a decade or two, racket modification became a regularity. Today it is, in many ways, an aspect of the game that is equal in significance to nutrition or training.

Modifications can be divided into two categories: those to the string bed and those to the racket frame. The former is far more common than the latter: the choice of the strings and the tension with which they are installed is something that nearly all professional players experiment with. They will continually change it depending on various factors including the court surface, climatic conditions, and game styles. Some will even change it depending on how they feel at the time.

At one time, all tennis rackets were strung with natural gut made from the outer layer of sheep or cow intestines. This all changed in the early 1990s with the development of synthetic strings that were cheaper and more durable. They are made from three materials: nylon (relatively durable and affordable), Kevlar (too stiff to be used alone) or co-polyester (polyester combined with additives that enhance its performance). Even so, many professional players continue to use a 'hybrid set-up', where a combination of both synthetic and natural strings are used.

Of the synthetics, co-polyester is by far the most widely used. It's a perfect fit for the style of tennis now played, where players tend to battle it out from the back of the court rather than coming to the net. Studies indicate that the average spin from a co-polyester string is 25% greater than that from natural string or other synthetics. In a sense, the development of co-polyester strings has revolutionised the game.

However, many players go beyond these basic adjustments to the strings and make changes to the racket frame itself. For example, much of the serving power of US professional player Pete Sampras was attributed to the addition of four to five lead weights onto his rackets, and today many professionals have the weight adjusted during the manufacturing process.

Other changes to the frame involve the handle. Players have individual preferences for the shape of the handle and some will have the handle of one racket moulded onto the frame of a different racket. Other players make different changes. The professional Portuguese player Gonçalo Oliveira replaced the original grips of his rackets with something thinner because they had previously felt uncomfortable to hold.

Racket customisation and modification have pushed the standards of the game to greater levels that few could have anticipated in the days of natural strings and heavy, wooden frames, and it's exciting to see what further developments there will be in the future.

Questions 1–7

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

In boxes 1–7 on your answer sheet, write

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

1 People had expected Andy Murray to become the world's top tennis player for at least five years before 2016.

2 The change that Andy Murray made to his rackets attracted a lot of attention.

3 Most of the world's top players take a professional racket stringer on tour with them.

4 Mike and Bob Bryan use rackets that are light in comparison to the majority of rackets.

5 Werner Fischer played with a spaghetti-strung racket that he designed himself.

6 The weather can affect how professional players adjust the strings on their rackets.

7 It was believed that the change Pete Sampras made to his rackets contributed to his strong serve.

Questions 8–13

Complete the notes below.

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

Write your answers in boxes 8–13 on your answer sheet.

The tennis racket and how it has changed

- Mike and Bob Bryan made changes to the types of **8** ..... used on their racket frames.
- Players were not allowed to use the spaghetti-strung racket because of the amount of **9** ..... it created.
- Changes to rackets can be regarded as being as important as players' diets or the **10** ..... they do.
- All rackets used to have natural strings made from the **11** ..... of animals.
- Pete Sampras had metal **12** ..... put into the frames of his rackets.
- Gonçalo Oliveira changed the **13** ..... on his racket handles.

→ p. 121

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14–26**, which are based on Reading Passage 2 below.*

The pirates of the ancient Mediterranean

In the first and second millennia BCE, pirates sailed around the Mediterranean, attacking ships and avoiding pursuers

A When one mentions pirates, an image springs to most people's minds of a crew of misfits, daredevils and adventurers in command of a tall sailing ship in the Caribbean Sea. Yet from the first to the third millennium BCE, thousands of years before these swashbucklers began spreading fear across the Caribbean, pirates prowled the Mediterranean, raiding merchant ships and threatening vital trade routes. However, despite all efforts and the might of various ancient states, piracy could not be stopped. The situation remained unchanged for thousands of years. Only when the pirates directly threatened the interests of ancient Rome did the Roman Republic organise a massive fleet to eliminate piracy. Under the command of the Roman general Pompey, Rome eradicated piracy, transforming the Mediterranean into *'Mare Nostrum'* (Our Sea).

B Although piracy in the Mediterranean is first recorded in ancient Egypt during the reign of Pharaoh Amenhotep III (c 1390–1353 BCE), it is reasonable to assume it predated this powerful civilisation. This is partly due to the great importance the Mediterranean held at this time, and partly due to its geography. While the Mediterranean region is predominantly fertile, some parts are rugged and hilly, even mountainous. In the ancient times, the inhabitants of these areas relied heavily on marine resources, including fish and salt. Most had their own boats, possessed good seafaring skills, and unsurpassed knowledge of the local coastline and sailing routes. Thus, it is not surprising that during hardships, these men turned to piracy. Geography itself further benefited the pirates, with the numerous coves along the coast providing places for them to hide their boats and strike undetected. Before the invention of ocean-going caravels* in the 15th century, ships could not easily cross long distances over open water. Thus, in the ancient world most were restricted to a few well-known navigable routes that followed the coastline. Caught in a trap, a slow merchant ship laden with goods had no other option but to surrender. In addition, knowledge of the local area helped the pirates to avoid retaliation once a state fleet arrived.

C One should also add that it was not unknown in the first and second millennia BCE for governments to resort to pirates' services, especially during wartime, employing their skills and numbers against their opponents. A pirate fleet would serve in the first wave of attack, preparing the way for the navy. Some of the regions were known for providing safe harbours to pirates, who, in return, boosted the local economy.

* caravel: a small, highly manoeuvrable sailing ship developed by the Portuguese

D The first known record of a named group of Mediterranean pirates, made during the rule of ancient Egyptian Pharaoh Akhenaten (c 1353–1336 BCE), was in the Amarna Letters. These were extracts of diplomatic correspondence between the pharaoh and his allies, and covered many pressing issues, including piracy. It seems the pharaoh was troubled by two distinct pirate groups, the Lukka and the Sherden. Despite the Egyptian fleet's best efforts, the pirates continued to cause substantial disruption to regional commerce. In the letters, the king of Alashiya (modern Cyprus) rejected Akhenaten's claims of a connection with the Lukka (based in modern-day Turkey). The king assured Akhenaten he was prepared to punish any of his subjects involved in piracy.

E The ancient Greek world's experience of piracy was different from that of Egyptian rulers. While Egypt's power was land-based, the ancient Greeks relied on the Mediterranean in almost all aspects of life, from trade to warfare. Interestingly, in his works the *Iliad* and the *Odyssey*, the ancient Greek writer Homer not only condones, but praises the lifestyle and actions of pirates. The opinion remained unchanged in the following centuries. The ancient Greek historian Thucydides, for instance, glorified pirates' daring attacks on ships or even cities. For Greeks, piracy was a part of everyday life. Even high-ranking members of the state were not beyond engaging in such activities. According to the Greek orator Demosthenes, in 355 BCE, Athenian ambassadors made a detour from their official travel to capture a ship sailing from Egypt, taking the wealth found onboard for themselves! The Greeks' liberal approach towards piracy does not mean they always tolerated it, but attempts to curtail piracy were hampered by the large number of pirates operating in the Mediterranean.

F The rising power of ancient Rome required the Roman Republic to deal with piracy in the Mediterranean. While piracy was a serious issue for the Republic, Rome profited greatly from its existence. Pirate raids provided a steady source of slaves, essential for Rome's agriculture and mining industries. But this arrangement could work only while the pirates left Roman interests alone. Pirate attacks on grain ships, which were essential to Roman citizens, led to angry voices in the Senate, demanding punishment of the culprits. Rome, however, did nothing, further encouraging piracy. By the 1st century BCE, emboldened pirates kidnapped prominent Roman dignitaries, asking for a large ransom to be paid. Their most famous hostage was none other than Julius Caesar, captured in 75 BCE.

G By now, Rome was well aware that pirates had outlived their usefulness. The time had come for concerted action. In 67 BCE, a new law granted Pompey vast funds to combat the Mediterranean menace. Taking personal command, Pompey divided the entire Mediterranean into 13 districts, assigning a fleet and commander to each. After cleansing one district of pirates, the fleet would join another in the next district. The process continued until the entire Mediterranean was free of pirates. Although thousands of pirates died at the hands of Pompey's troops, as a long-term solution to the problem, many more were offered land in fertile areas located far from the sea. Instead of a maritime menace, Rome got productive farmers that further boosted its economy.

Questions 14–19

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

Which paragraph contains the following information?

Write the correct letter, ***A–G****, in boxes 14–19 on your answer sheet.*

NB *You may use any letter more than once.*

14 a reference to a denial of involvement in piracy

15 details of how a campaign to eradicate piracy was carried out

16 a mention of the circumstances in which states in the ancient world would make use of pirates

17 a reference to how people today commonly view pirates

18 an explanation of how some people were encouraged not to return to piracy

19 a mention of the need for many sailing vessels to stay relatively close to land

Questions 20 and 21

Choose ***TWO*** *letters,* ***A–E****.*

Write the correct letters in boxes 20 and 21 on your answer sheet.

Which **TWO** of the following statements does the writer make about inhabitants of the Mediterranean region in the ancient world?

A They often used stolen vessels to carry out pirate attacks.
B They managed to escape capture by the authorities because they knew the area so well.
C They paid for information about the routes merchant ships would take.
D They depended more on the sea for their livelihood than on farming.
E They stored many of the goods taken in pirate attacks in coves along the coastline.

Questions 22 and 23

*Choose **TWO** letters, **A–E**.*

Write the correct letters in boxes 22 and 23 on your answer sheet.

Which **TWO** of the following statements does the writer make about piracy and ancient Greece?

A The state estimated that very few people were involved in piracy.
B Attitudes towards piracy changed shortly after the *Iliad* and the *Odyssey* were written.
C Important officials were known to occasionally take part in piracy.
D Every citizen regarded pirate attacks on cities as unacceptable.
E A favourable view of piracy is evident in certain ancient Greek texts.

Questions 24–26

Complete the summary below.

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

Write your answers in boxes 24–26 on your answer sheet.

Ancient Rome and piracy

Piracy was an issue ancient Rome had to deal with, but it also brought some benefits for Rome. For example, pirates supplied slaves that were important for Rome's industries. However, attacks on vessels transporting **24** ..... to Rome resulted in calls for **25** ..... for the pirates responsible. Nevertheless, piracy continued, with some pirates demanding a **26** ..... for the return of the Roman officials they captured.

 → p. 121

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27–40**, which are based on Reading Passage 3 below.*

The persistence and peril of misinformation

Brian Southwell looks at how human brains verify information and discusses some of the challenges of battling widespread falsehoods

Misinformation – both deliberately promoted and accidentally shared – is perhaps an inevitable part of the world in which we live, but it is not a new problem. People likely have lied to one another for roughly as long as verbal communication has existed. Deceiving others can offer an apparent opportunity to gain strategic advantage, to motivate others to action, or even to protect interpersonal bonds. Moreover, people inadvertently have been sharing inaccurate information with one another for thousands of years.

However, we currently live in an era in which technology enables information to reach large audiences distributed across the globe, and thus the potential for immediate and widespread effects from misinformation now looms larger than in the past. Yet the means to correct misinformation might, over time, be found in those same patterns of mass communication and of the facilitated spread of information.

The main worry regarding misinformation is its potential to unduly influence attitudes and behavior, leading people to think and act differently than they would if they were correctly informed, as suggested by the research teams of Stephan Lewandowsky of the University of Bristol and Elizabeth Marsh of Duke University, among others. In other words, we worry that misinformation might lead people to hold misperceptions (or false beliefs) and that these misperceptions, especially when they occur among large groups of people, may have detrimental, downstream consequences for health, social harmony, and the political climate.

At least three observations related to misinformation in the contemporary mass-media environment warrant the attention of researchers, policy makers, and really everyone who watches television, listens to the radio, or reads information online. First of all, people who encounter misinformation tend to believe it, at least initially. Secondly, electronic and print media often do not block many types of misinformation before it appears in content available to large audiences. Thirdly, countering misinformation once it has enjoyed wide exposure can be a resource-intensive effort.

Knowing what happens when people initially encounter misinformation holds tremendous importance for estimating the potential for subsequent problems. Although it is fairly routine for individuals to come across information that is false, the question of exactly how – and when – we mentally label information as true or false has garnered philosophical debate. The dilemma is neatly summarized by a contrast between how the 17th-century philosophers René Descartes and Baruch Spinoza described human information engagement, with conflicting predictions that only

recently have been empirically tested in robust ways. Descartes argued that a person only accepts or rejects information after considering its truth or falsehood; Spinoza argued that people accept all encountered information (or misinformation) by default and then subsequently verify or reject it through a separate cognitive process. In recent decades, empirical evidence from the research teams of Erik Asp of the University of Chicago and Daniel Gilbert at Harvard University, among others, has supported Spinoza's account: people appear to encode all new information as if it were true, even if only momentarily, and later tag the information as being either true or false, a pattern that seems consistent with the observation that mental resources for skepticism physically reside in a different part of the brain than the resources used in perceiving and encoding.

What about our second observation that misinformation often can appear in electronic or print media without being preemptively blocked? In support of this, one might consider the nature of regulatory structures in the United States: regulatory agencies here tend to focus on post hoc detection of broadcast information. Organizations such as the Food and Drug Administration (FDA) offer considerable monitoring and notification functions, but these roles typically do not involve preemptive censoring. The FDA oversees direct-to-consumer prescription drug advertising, for example, and has developed mechanisms such as the 'Bad Ad' program, through which people can report advertising in apparent violation of FDA guidelines on drug risks. Such programs, although laudable and useful, do not keep false advertising off the airwaves. In addition, even misinformation that is successfully corrected can continue to affect attitudes.

This leads us to our third observation: a campaign to correct misinformation, even if rhetorically compelling, requires resources and planning to accomplish necessary reach and frequency. For corrective campaigns to be persuasive, audiences need to be able to comprehend them, which requires either effort to frame messages in ways that are accessible or effort to educate and sensitize audiences to the possibility of misinformation. That some audiences might be unaware of the potential for misinformation also suggests the utility of media literacy efforts as early as elementary school. Even with journalists and scholars pointing to the phenomenon of 'fake news', people do not distinguish between demonstrably false stories and those based in fact when scanning and processing written information.

We live at a time when widespread misinformation is common. Yet at this time many people also are passionately developing potential solutions and remedies. The journey forward undoubtedly will be a long and arduous one. Future remedies will require not only continued theoretical consideration but also the development and maintenance of consistent monitoring tools – and a recognition among fellow members of society that claims which find prominence in the media that are insufficiently based in scientific consensus and social reality should be countered. Misinformation arises as a result of human fallibility and human information needs. To overcome the worst effects of the phenomenon, we will need coordinated efforts over time, rather than any singular one-time panacea we could hope to offer.

Questions 27–30

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

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

27 What point does the writer make about misinformation in the first paragraph?

- **A** Misinformation is a relatively recent phenomenon.
- **B** Some people find it easy to identify misinformation.
- **C** Misinformation changes as it is passed from one person to another.
- **D** There may be a number of reasons for the spread of misinformation.

28 What does the writer say about the role of technology?

- **A** It may at some point provide us with a solution to misinformation.
- **B** It could fundamentally alter the way in which people regard information.
- **C** It has changed the way in which organisations use misinformation.
- **D** It has made it easier for people to check whether information is accurate.

29 What is the writer doing in the fourth paragraph?

- **A** comparing the different opinions people have of misinformation
- **B** explaining how the effects of misinformation have changed over time
- **C** outlining which issues connected with misinformation are significant today
- **D** describing the attitude of policy makers towards misinformation in the media

30 What point does the writer make about regulation in the USA?

- **A** The guidelines issued by the FDA need to be simplified.
- **B** Regulation does not affect people's opinions of new prescription drugs.
- **C** The USA has more regulatory bodies than most other countries.
- **D** Regulation fails to prevent misinformation from appearing in the media.

Questions 31–36

*Complete the summary using the list of phrases, **A–J**, below.*

*Write the correct letter, **A–J**, in boxes 31–36 on your answer sheet.*

What happens when people encounter misinformation?

Although people have **31** ..... to misinformation, there is debate about precisely how and when we label something as true or untrue. The philosophers Descartes and Spinoza had **32** ..... about how people engage with information. While Descartes believed that people accept or reject information after considering whether it is true or not, Spinoza argued that people accepted *all* information they encountered (and by default misinformation) and did not verify or reject it until afterwards. Moreover, Spinoza believed that a distinct **33** ..... is involved in these stages. Recent research has provided **34** ..... for Spinoza's theory and it would appear that people accept all encountered information as if it were true, even if this is for an extremely **35** ..... , and do not label the information as true or false until later. This is consistent with the fact that the resources for scepticism and the resources for perceiving and encoding are in **36** ..... in the brain.

A	constant conflict	**B**	additional evidence	**C**	different locations
D	experimental subjects	**E**	short period	**F**	extreme distrust
G	frequent exposure	**H**	mental operation	**I**	dubious reason
J	different ideas				

Questions 37–40

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

In boxes 37–40 on your answer sheet, write

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

37 Campaigns designed to correct misinformation will fail to achieve their purpose if people are unable to understand them.

38 Attempts to teach elementary school students about misinformation have been opposed.

39 It may be possible to overcome the problem of misinformation in a relatively short period.

40 The need to keep up with new information is hugely exaggerated in today's world.

→ p. 121

WRITING

WRITING TASK 1

You should spend about 20 minutes on this task.

The graph below gives information on the numbers of participants for different activities at one social centre in Melbourne, Australia for the period 2000 to 2020.

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

Write at least 150 words.

 → p. 128

WRITING TASK 2

You should spend about 40 minutes on this task.

Write about the following topic:

> ***Some people think that competition at work, at school and in daily life is a good thing. Others believe that we should try to cooperate more, rather than competing against each other.***
>
> ***Discuss both these views and give your own opinion.***

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

Write at least 250 words.

→ p. 129

SPEAKING

PART 1

The examiner asks you about yourself, your home, work or studies and other familiar topics.

EXAMPLE

International food

- Can you find food from many different countries where you live? [Why/Why not?]
- How often do you eat typical food from other countries? [Why/Why not?]
- Have you ever tried making food from another country? [Why/Why not?]
- What food from your country would you recommend to people from other countries? [Why?]

PART 2

Describe a law that was introduced in your country and that you thought was a very good idea.

You should say:
what the law was
who introduced it
when and why it was introduced

and explain why you thought this law was such a good idea.

You will have to talk about the topic for one to two minutes. You have one minute to think about what you are going to say. You can make some notes to help you if you wish.

PART 3

Discussion topics:

School rules

Example questions:
What kinds of rules are common in a school?
How important is it to have rules in a school?
What do you recommend should happen if children break school rules?

Working in the legal profession

Example questions:
Can you suggest why many students decide to study law at university?
What are the key personal qualities needed to be a successful lawyer?
Do you agree that working in the legal profession is very stressful?

Test 2

LISTENING

PART 1 *Questions 1–10*

Questions 1–6

Complete the form below.

Write ***ONE WORD AND/OR A NUMBER*** *for each answer.*

	Guitar Group
Coordinator:	Gary **1** .....
Level:	**2** .....
Place:	the **3** .....
	4 ..... Street
	First floor, Room T347
Time:	Thursday morning at **5** .....
Recommended website:	'The perfect **6** ..... '

Questions 7–10

Complete the table below.

*Write **ONE WORD ONLY** for each answer.*

A typical 45-minute guitar lesson		
Time	**Activity**	**Notes**
5 minutes	tuning guitars	using an app or by **7** .....
10 minutes	strumming chords using our thumbs	keeping time while the teacher is **8** .....
15 minutes	playing songs	often listening to a **9** ..... of a song
10 minutes	playing single notes and simple tunes	playing together, then **10** .....
5 minutes	noting things to practise at home	

 → p. 122 p. 103

PART 2 *Questions 11–20*

Questions 11–16

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

Working as a lifeboat volunteer

11 What made David leave London and move to Northsea?

A He was eager to develop a hobby.
B He wanted to work shorter hours.
C He found his job in website design unsatisfying.

12 The Lifeboat Institution in Northsea was built with money provided by

A a local organisation.
B a local resident.
C the local council.

13 In his health assessment, the doctor was concerned about the fact that David

A might be colour blind.
B was rather short-sighted.
C had undergone eye surgery.

14 After arriving at the lifeboat station, they aim to launch the boat within

A five minutes.
B six to eight minutes.
C eight and a half minutes.

15 As a 'helmsman', David has the responsibility of deciding

A who will be the members of his crew.
B what equipment it will be necessary to take.
C if the lifeboat should be launched.

16 As well as going out on the lifeboat, David

A gives talks on safety at sea.
B helps with fundraising.
C recruits new volunteers.

Questions 17 and 18

*Choose **TWO** letters, **A–E**.*

Which **TWO** things does David say about the lifeboat volunteer training?

A The residential course developed his leadership skills.
B The training in use of ropes and knots was quite brief.
C The training exercises have built up his mental strength.
D The casualty care activities were particularly challenging for him.
E The wave tank activities provided practice in survival techniques.

Questions 19 and 20

*Choose **TWO** letters, **A–E**.*

Which **TWO** things does David find most motivating about the work he does?

A working as part of a team
B experiences when working in winter
C being thanked by those he has helped
D the fact that it keeps him fit
E the chance to develop new equipment

PART 3 *Questions 21–30*

Questions 21–24

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

21 At first, Don thought the topic of recycling footwear might be too

A limited in scope.
B hard to research.
C boring for listeners.

22 When discussing trainers, Bella and Don disagree about

A how popular they are among young people.
B how suitable they are for school.
C how quickly they wear out.

23 Bella says that she sometimes recycles shoes because

A they no longer fit.
B she no longer likes them.
C they are no longer in fashion.

24 What did the article say that confused Don?

A Public consumption of footwear has risen.
B Less footwear is recycled now than in the past.
C People dispose of more footwear than they used to.

Questions 25–28

What reasons did the recycling manager give for rejecting footwear, according to the students?

*Choose **FOUR** answers from the box and write the correct letter, **A–F**, next to Questions 25–28.*

	Reasons
A	one shoe was missing
B	the colour of one shoe had faded
C	one shoe had a hole in it
D	the shoes were brand new
E	the shoes were too dirty
F	the stitching on the shoes was broken

Footwear

25 the high-heeled shoes .....

26 the ankle boots .....

27 the baby shoes .....

28 the trainers .....

Questions 29–30

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

29 Why did the project to make 'new' shoes out of old shoes fail?

A People believed the 'new' pairs of shoes were unhygienic.
B There were not enough good parts to use in the old shoes.
C The shoes in the 'new' pairs were not completely alike.

30 Bella and Don agree that they can present their topic

A from a new angle.
B with relevant images.
C in a straightforward way.

PART 4 *Questions 31–40*

Complete the notes below.

*Write **ONE WORD ONLY** for each answer.*

Tardigrades

- more than 1,000 species, 0.05–1.2 millimetres long
- also known as water 'bears' (due to how they **31** .....) and 'moss piglets'

Physical appearance

- a **32** ..... round body and four pairs of legs
- claws or **33** ..... for gripping
- absence of respiratory organs
- body filled with a liquid that carries both **34** ..... and blood
- mouth shaped like a **35** ..... with teeth called stylets

Habitat

- often found at the bottom of a lake or on plants
- very resilient and can exist in very low or high **36** .....

Cryptobiosis

- In dry conditions, they roll into a ball called a 'tun'.
- They stay alive with a much lower metabolism than usual.
- A type of **37** ..... ensures their DNA is not damaged.
- Research is underway to find out how many days they can stay alive in **38** ..... .

Feeding

- consume liquids, e.g., those found in moss or **39** .....
- may eat other tardigrades

Conservation status

- They are not considered to be **40** ..... .

→ p. 122 p. 107

READING

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1–13**, which are based on Reading Passage 1 below.*

The Industrial Revolution in Britain

The Industrial Revolution began in Britain in the mid-1700s and by the 1830s and 1840s had spread to many other parts of the world, including the United States. In Britain, it was a period when a largely rural, agrarian* society was transformed into an industrialised, urban one. Goods that had once been crafted by hand started to be produced in mass quantities by machines in factories, thanks to the invention of steam power and the introduction of new machines and manufacturing techniques in textiles, iron-making and other industries.

The foundations of the Industrial Revolution date back to the early 1700s, when the English inventor Thomas Newcomen designed the first modern steam engine. Called the 'atmospheric steam engine', Newcomen's invention was originally used to power machines that pumped water out of mines. In the 1760s, the Scottish engineer James Watt started to adapt one of Newcomen's models, and succeeded in making it far more efficient. Watt later worked with the English manufacturer Matthew Boulton to invent a new steam engine driven by both the forward and backward strokes of the piston, while the gear mechanism it was connected to produced rotary motion. It was a key innovation that would allow steam power to spread across British industries.

The demand for coal, which was a relatively cheap energy source, grew rapidly during the Industrial Revolution, as it was needed to run not only the factories used to produce manufactured goods, but also steam-powered transportation. In the early 1800s, the English engineer Richard Trevithick built a steam-powered locomotive, and by 1830 goods and passengers were being transported between the industrial centres of Manchester and Liverpool. In addition, steam-powered boats and ships were widely used to carry goods along Britain's canals as well as across the Atlantic.

Britain had produced textiles like wool, linen and cotton, for hundreds of years, but prior to the Industrial Revolution, the British textile business was a true 'cottage industry', with the work performed in small workshops or even homes by individual spinners, weavers and dyers. Starting in the mid-1700s, innovations like the spinning jenny and the power loom made weaving cloth and spinning yarn and thread much easier. With these machines, relatively little labour was required to produce cloth, and the new, mechanised textile factories that opened around the country were quickly able to meet customer demand for cloth both at home and abroad.

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* agrarian: relating to the land, especially the use of land for farming

The British iron industry also underwent major change as it adopted new innovations. Chief among the new techniques was the smelting of iron ore with coke (a material made by heating coal) instead of the traditional charcoal. This method was cheaper and produced metals that were of a higher quality, enabling Britain's iron and steel production to expand in response to demand created by the Napoleonic Wars (1803–15) and the expansion of the railways from the 1830s.

The latter part of the Industrial Revolution also saw key advances in communication methods, as people increasingly saw the need to communicate efficiently over long distances. In 1837, British inventors William Cooke and Charles Wheatstone patented the first commercial telegraphy system. In the 1830s and 1840s, Samuel Morse and other inventors worked on their own versions in the United States. Cooke and Wheatstone's system was soon used for railway signalling in the UK. As the speed of the new locomotives increased, it was essential to have a fast and effective means of avoiding collisions.

The impact of the Industrial Revolution on people's lives was immense. Although many people in Britain had begun moving to the cities from rural areas before the Industrial Revolution, this accelerated dramatically with industrialisation, as the rise of large factories turned smaller towns into major cities in just a few decades. This rapid urbanisation brought significant challenges, as overcrowded cities suffered from pollution and inadequate sanitation.

Although industrialisation increased the country's economic output overall and improved the standard of living for the middle and upper classes, many poor people continued to struggle. Factory workers had to work long hours in dangerous conditions for extremely low wages. These conditions along with the rapid pace of change fuelled opposition to industrialisation. A group of British workers who became known as 'Luddites' were British weavers and textile workers who objected to the increased use of mechanised looms and knitting frames. Many had spent years learning their craft, and they feared that unskilled machine operators were robbing them of their livelihood. A few desperate weavers began breaking into factories and smashing textile machines. They called themselves Luddites after Ned Ludd, a young apprentice who was rumoured to have wrecked a textile machine in 1779.

The first major instances of machine breaking took place in 1811 in the city of Nottingham, and the practice soon spread across the country. Machine-breaking Luddites attacked and burned factories, and in some cases they even exchanged gunfire with company guards and soldiers. The workers wanted employers to stop installing new machinery, but the British government responded to the uprisings by making machine-breaking punishable by death. The unrest finally reached its peak in April 1812, when a few Luddites were shot during an attack on a mill near Huddersfield. In the days that followed, other Luddites were arrested, and dozens were hanged or transported to Australia. By 1813, the Luddite resistance had all but vanished.

Questions 1–7

Complete the notes below.

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

Write your answers in boxes 1–7 on your answer sheet.

Britain's Industrial Revolution

Steam power

- Newcomen's steam engine was used in mines to remove water.
- In Watt and Boulton's steam engine, the movement of the **1** ..... was linked to a gear system.
- A greater supply of **2** ..... was required to power steam engines.

Textile industry

- Before the Industrial Revolution, spinners and weavers worked at home and in **3** ..... .
- Not as much **4** ..... was needed to produce cloth once the spinning jenny and power loom were invented.

Iron industry

- Smelting of iron ore with coke resulted in material that was better **5** ..... .
- Demand for iron increased with the growth of the **6** ..... .

Communications

- Cooke and Wheatstone patented the first telegraphy system.
- The telegraphy system was used to prevent locomotives colliding.

Urbanisation

- Small towns turned into cities very quickly.
- The new cities were dirty, crowded and lacked sufficient **7** ..... .

Questions 8–13

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

In boxes 8–13 on your answer sheet, write

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

8 Britain's canal network grew rapidly so that more goods could be transported around the country.

9 Costs in the iron industry rose when the technique of smelting iron ore with coke was introduced.

10 Samuel Morse's communication system was more reliable than that developed by William Cooke and Charles Wheatstone.

11 The economic benefits of industrialisation were limited to certain sectors of society.

12 Some skilled weavers believed that the introduction of the new textile machines would lead to job losses.

13 There was some sympathy among local people for the Luddites who were arrested near Huddersfield.

→ p. 123

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14–26**, which are based on Reading Passage 2 below.*

Athletes and stress

A It isn't easy being a professional athlete. Not only are the physical demands greater than most people could handle, athletes also face intense psychological pressure during competition. This is something that British tennis player Emma Raducanu wrote about on social media following her withdrawal from the 2021 Wimbledon tournament. Though the young player had been doing well in the tournament, she began having difficulty regulating her breathing and heart rate during a match, which she later attributed to 'the accumulation of the excitement and the buzz'.

B For athletes, some level of performance stress is almost unavoidable. But there are many different factors that dictate just how people's minds and bodies respond to stressful events. Typically, stress is the result of an exchange between two factors: demands and resources. An athlete may feel stressed about an event if they feel the demands on them are greater than they can handle. These demands include the high level of physical and mental effort required to succeed, and also the athlete's concerns about the difficulty of the event, their chance of succeeding, and any potential dangers such as injury. Resources, on the other hand, are a person's ability to cope with these demands. These include factors such as the competitor's degree of confidence, how much they believe they can control the situation's outcome, and whether they're looking forward to the event or not.

C Each new demand or change in circumstances affects whether a person responds positively or negatively to stress. Typically, the more resources a person feels they have in handling the situation, the more positive their stress response. This positive stress response is called a challenge state. But should the person feel there are too many demands placed on them, the more likely they are to experience a negative stress response – known as a threat state. Research shows that the challenge states lead to good performance, while threat states lead to poorer performance. So, in Emma Raducanu's case, a much larger audience, higher expectations and facing a more skilful opponent, may all have led her to feel there were greater demands being placed on her at Wimbledon – but she didn't have the resources to tackle them. This led to her experiencing a threat response.

D Our challenge and threat responses essentially influence how our body responds to stressful situations, as both affect the production of adrenaline and cortisol – also known as 'stress hormones'. During a challenge state, adrenaline increases the amount of blood pumped from the heart and expands the blood vessels, which allows more energy to be delivered to the muscles and brain. This increase of blood and decrease of pressure in the blood vessels has been consistently related to superior sport performance in everything from cricket batting, to golf putting and

football penalty taking. But during a threat state, cortisol inhibits the positive effect of adrenaline, resulting in tighter blood vessels, higher blood pressure, slower psychological responses, and a faster heart rate. In short, a threat state makes people more anxious – they make worse decisions and perform more poorly. In tennis players, cortisol has been associated with more unsuccessful serves and greater anxiety.

E That said, anxiety is also a common experience for athletes when they're under pressure. Anxiety can increase heart rate and perspiration, cause heart palpitations, muscle tremors and shortness of breath, as well as headaches, nausea, stomach pain, weakness and a desire to escape in more extreme cases. Anxiety can also reduce concentration and self-control and cause overthinking. The intensity with which a person experiences anxiety depends on the demands and resources they have. Anxiety may also manifest itself in the form of excitement or nervousness depending on the stress response. Negative stress responses can be damaging to both physical and mental health – and repeated episodes of anxiety coupled with negative responses can increase risk of heart disease and depression.

F But there are many ways athletes can ensure they respond positively under pressure. Positive stress responses can be promoted through the language that they and others – such as coaches or parents – use. Psychologists can also help athletes change how they see their physiological responses – such as helping them see a higher heart rate as excitement, rather than nerves. Developing psychological skills, such as visualisation, can also help decrease physiological responses to threat. Visualisation may involve the athlete recreating a mental picture of a time when they performed well, or picturing themselves doing well in the future. This can help create a feeling of control over the stressful event. Recreating competitive pressure during training can also help athletes learn how to deal with stress. An example of this might be scoring athletes against their peers to create a sense of competition. This would increase the demands which players experience compared to a normal training session, while still allowing them to practise coping with stress.

Questions 14–18

Reading Passage 2 has six paragraphs, **A–F**.

Which paragraph contains the following information?

Write the correct letter, ***A–F****, in boxes 14–18 on your answer sheet.*

NB *You may use any letter more than once.*

14 reference to two chemical compounds which impact on performance

15 examples of strategies for minimising the effects of stress

16 how a sportsperson accounted for their own experience of stress

17 study results indicating links between stress responses and performance

18 mention of people who can influence how athletes perceive their stress responses

Questions 19–22

Complete the sentences below.

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

Write your answers in boxes 19–22 on your answer sheet.

19 Performance stress involves many demands on the athlete, for example, coping with the possible risk of ..... .

20 Cortisol can cause tennis players to produce fewer good ..... .

21 Psychologists can help athletes to view their physiological responses as the effect of a positive feeling such as ..... .

22 ..... is an example of a psychological technique which can reduce an athlete's stress responses.

Questions 23 and 24

*Choose **TWO** letters, **A–E**.*

Write the correct letters in boxes 23 and 24 on your answer sheet.

Which **TWO** facts about Emma Raducanu's withdrawal from the Wimbledon tournament are mentioned in the text?

A the stage at which she dropped out of the tournament
B symptoms of her performance stress at the tournament
C measures which she had taken to manage her stress levels
D aspects of the Wimbledon tournament which increased her stress levels
E reactions to her social media posts about her experience at Wimbledon

Questions 25 and 26

*Choose **TWO** letters, **A–E**.*

Write the correct letters in boxes 25 and 26 on your answer sheet.

Which **TWO** facts about anxiety are mentioned in Paragraph E of the text?

A the factors which determine how severe it may be
B how long it takes for its effects to become apparent
C which of its symptoms is most frequently encountered
D the types of athletes who are most likely to suffer from it
E the harm that can result if athletes experience it too often

→ p. 123

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27–40**, which are based on Reading Passage 3 below.*

An inquiry into the existence of the gifted child

Let us start by looking at a modern 'genius', Maryam Mirzakhani, who died at the early age of 40. She was the only woman to win the Fields Medal – the mathematical equivalent of a Nobel prize. It would be easy to assume that someone as special as Mirzakhani must have been one of those 'gifted' children, those who have an extraordinary ability in a specific sphere of activity or knowledge. But look closer and a different story emerges. Mirzakhani was born in Tehran, Iran. She went to a highly selective girls' school but maths wasn't her interest – reading was. She loved novels and would read anything she could lay her hands on. As for maths, she did rather poorly at it for the first couple of years in her middle school, but became interested when her elder brother told her about what he'd learned. He shared a famous maths problem from a magazine that fascinated her – and she was hooked.

In adult life it is clear that she was curious, excited by what she did and also resolute in the face of setbacks. One of her comments sums it up. 'Of course, the most rewarding part is the "Aha" moment, the excitement of discovery and enjoyment of understanding something new . . . But most of the time, doing mathematics for me is like being on a long hike with no trail and no end in sight.' That trail took her to the heights of original research into mathematics.

Is her background unusual? Apparently not. Most Nobel prize winners were unexceptional in childhood. Einstein was slow to talk as a baby. He failed the general part of the entry test to Zurich Polytechnic – though they let him in because of high physics and maths scores. He struggled at work initially, but he kept plugging away and eventually rewrote the laws of Newtonian mechanics with his theory of relativity.

There has been a considerable amount of research on high performance over the last century that suggests it goes way beyond tested intelligence. On top of that, research is clear that brains are flexible, new neural pathways can be created, and IQ isn't fixed. For example, just because you can read stories with hundreds of pages at the age of five doesn't mean you will still be ahead of your contemporaries in your teens.

While the jury is out on giftedness being innate and other factors potentially making the difference, what is certain is that the behaviours associated with high levels of performance are replicable and most can be taught – even traits such as curiosity.

According to my colleague Prof Deborah Eyre, with whom I've collaborated on the book *Great Minds and How to Grow Them*, the latest neuroscience and psychological research suggests most individuals can reach levels of performance associated in school with the gifted and talented. However, they must be taught the right attitudes and approaches to their learning and develop the attributes of

high performers – curiosity, persistence and hard work, for example – an approach Eyre calls 'high performance learning'. Critically, they need the right support in developing those approaches at home as well as at school.

Prof Anders Ericsson, an eminent education psychologist at Florida State University, US, is the co-author of *Peak: Secrets from the New Science of Expertise*. After research going back to 1980 into diverse achievements, from music to memory to sport, he doesn't think unique and innate talents are at the heart of performance. Deliberate practice, that stretches you every step of the way, and around 10,000 hours of it, is what produces the goods. It's not a magic number – the highest performers move on to doing a whole lot more, of course. Ericsson's memory research is particularly interesting because random students, trained in memory techniques for the study, went on to outperform others thought to have innately superior memories – those who you might call gifted.

But it is perhaps the work of Benjamin Bloom, another distinguished American educationist working in the 1980s, that gives the most pause for thought. Bloom's team looked at a group of extraordinarily high achieving people in disciplines as varied as ballet, swimming, piano, tennis, maths, sculpture and neurology. He found a pattern of parents encouraging and supporting their children, often in areas they enjoyed themselves. Bloom's outstanding people had worked very hard and consistently at something they had become hooked on when at a young age, and their parents all emerged as having strong work ethics themselves.

Eyre says we know how high performers learn. From that she has developed a high performing learning approach. She is working on this with a group of schools, both in Britain and abroad. Some spin-off research, which looked in detail at 24 of the 3,000 children being studied who were succeeding despite difficult circumstances, found something remarkable. Half were getting free school meals because of poverty, more than half were living with a single parent, and four in five were living in disadvantaged areas. Interviews uncovered strong evidence of an adult or adults in the child's life who valued and supported education, either in the immediate or extended family or in the child's wider community. Children talked about the need to work hard at school, to listen in class and keep trying.

Let us end with Einstein, the epitome of a genius. He clearly had curiosity, character and determination. He struggled against rejection in early life but was undeterred. Did he think he was a genius or even gifted? He once wrote: 'It's not that I'm so smart, it's just that I stay with problems longer. Most people say it is the intellect which makes a great scientist. They are wrong: it is character.'

Questions 27–32

*Complete the summary using the list of phrases, **A–K**, below.*

*Write the correct letter, **A–K**, in boxes 27–32 on your answer sheet.*

Maryam Mirzakhani

Maryam Mirzakhani is regarded as **27** ..... in the field of mathematics because she was the only female holder of the prestigious Fields Medal – a record that she retained at the time of her death. However, maths held little **28** ..... for her as a child and in fact her performance was below average until she was **29** ..... by a difficult puzzle that one of her siblings showed her.

Later, as a professional mathematician, she had an inquiring mind and proved herself to be **30** ..... when things did not go smoothly. She said she got the greatest **31** ..... from making ground-breaking discoveries and in fact she was responsible for some extremely **32** ..... mathematical studies.

A appeal	**B** determined	**C** intrigued
D single	**E** achievement	**F** devoted
G involved	**H** unique	**I** innovative
J satisfaction	**K** intent	

Questions 33–37

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

In boxes 33–37 on your answer sheet, write

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

33 Many people who ended up winning prestigious intellectual prizes only reached an average standard when young.

34 Einstein's failures as a young man were due to his lack of confidence.

35 It is difficult to reach agreement on whether some children are actually born gifted.

36 Einstein was upset by the public's view of his life's work.

37 Einstein put his success down to the speed at which he dealt with scientific questions.

Questions 38–40

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

Write the correct letter in boxes 38–40 on your answer sheet.

38 What does Eyre believe is needed for children to equal 'gifted' standards?

A strict discipline from the teaching staff
B assistance from their peers in the classroom
C the development of a spirit of inquiry towards their studies
D the determination to surpass everyone else's achievements

39 What is the result of Ericsson's research?

A Very gifted students do not need to work on improving memory skills.
B Being born with a special gift is not the key factor in becoming expert.
C Including time for physical exercise is crucial in raising performance.
D 10,000 hours of relevant and demanding work will create a genius.

40 In the penultimate paragraph, it is stated the key to some deprived children's success is

A a regular and nourishing diet at home.
B the loving support of more than one parent.
C a community which has well-funded facilities for learning.
D the guidance of someone who recognises the benefits of learning.

→ p. 123

WRITING

WRITING TASK 1

You should spend about 20 minutes on this task.

The plans below show a harbour in 2000 and how it looks today.

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

Write at least 150 words.

Porth Harbour (in 2000)

Porth Harbour (today)

 → p. 130

WRITING TASK 2

You should spend about 40 minutes on this task.

Write about the following topic:

> ***The working week should be shorter and workers should have a longer weekend.***
>
> ***Do you agree or disagree?***

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

Write at least 250 words.

→ p. 131

SPEAKING

PART 1

The examiner asks you about yourself, your home, work or studies and other familiar topics.

EXAMPLE

Travelling by plane

- Have you travelled a lot by plane? [To where?/Why not?]
- Why do you think some people enjoy travelling by plane?
- Would you like to live near an airport? [Why/Why not?]
- In the future, do you think that you will travel by plane more often? [Why/Why not?]

PART 2

Describe a person from your country who has won a prize, award or medal.

You should say:
who this person is
which prize, award or medal they received
what they did to win this

and explain whether you think it was right that this person received this prize, award or medal.

You will have to talk about the topic for one to two minutes. You have one minute to think about what you are going to say. You can make some notes to help you if you wish.

PART 3

Discussion topics:

Rewards for children at school

Example questions:
What types of school prizes do children in your country receive?
What do you think are the advantages of rewarding schoolchildren for good work?
Do you agree that it's more important for children to receive rewards from their parents than from teachers?

Rewards for sportspeople

Example questions:
Do you think that some sportspeople (e.g., top footballers) are paid too much money?
Should everyone on a team get the same prize money when they win?
Do you agree with the view that, in sport, taking part is more important than winning?

Test 3

LISTENING

PART 1 *Questions 1–10*

Questions 1–6

Complete the notes below.

Write ***ONE WORD AND/OR A NUMBER*** *for each answer.*

Local food shops

Where to go

- Kite Place – near the **1** .....

Fish market

- cross the **2** ..... and turn right
- best to go before **3** ..... pm, earlier than closing time

Organic shop

- called **4** '.....'
- below a restaurant in the large, grey building
- look for the large **5** ..... outside

Supermarket

- take a **6** ..... minibus, number 289

Questions 7–10

Complete the table below.

*Write **ONE WORD ONLY** for each answer.*

Shopping		
	To buy	**Other ideas**
Fish market	a dozen prawns	a handful of **7** ..... (type of seaweed)
Organic shop	beans and a **8** ..... for dessert	spices and **9** .....
Bakery	a brown loaf	a **10** ..... tart

PART 2 *Questions 11–20*

Questions 11–16

What information is given about each of the following festival workshops?

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

	Information
A	involves painting and drawing
B	will be led by a prize-winning author
C	is aimed at children with a disability
D	involves a drama activity
E	focuses on new relationships
F	is aimed at a specific age group
G	explores an unhappy feeling
H	raises awareness of a particular culture

Festival workshops

11 Superheroes .....

12 Just do it .....

13 Count on me .....

14 Speak up .....

15 Jump for joy .....

16 Sticks and stones .....

Questions 17 and 18

*Choose **TWO** letters, **A–E**.*

Which **TWO** reasons does the speaker give for recommending *Alive and Kicking*?

A It will appeal to both boys and girls.
B The author is well known.
C It has colourful illustrations.
D It is funny.
E It deals with an important topic.

Questions 19 and 20

*Choose **TWO** letters, **A–E**.*

Which **TWO** pieces of advice does the speaker give to parents about reading?

A Encourage children to write down new vocabulary.
B Allow children to listen to audio books.
C Get recommendations from librarians.
D Give children a choice about what they read.
E Only read aloud to children until they can read independently.

 → p. 124 p. 110

PART 3 *Questions 21–30*

Questions 21–25

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

Science experiment for Year 12 students

21 How does Clare feel about the students in her Year 12 science class?

A worried that they are not making progress
B challenged by their poor behaviour in class
C frustrated at their lack of interest in the subject

22 How does Jake react to Clare's suggestion about an experiment based on children's diet?

A He is concerned that the results might not be meaningful.
B He feels some of the data might be difficult to obtain.
C He suspects that the conclusions might be upsetting.

23 What problem do they agree may be involved in an experiment involving animals?

A Any results may not apply to humans.
B It may be complicated to get permission.
C Students may not be happy about animal experiments.

24 What question do they decide the experiment should address?

A Are mice capable of controlling their food intake?
B Does an increase in sugar lead to health problems?
C How much do supplements of different kinds affect health?

25 Clare might also consider doing another experiment involving

A other types of food supplement.
B different genetic strains of mice.
C varying amounts of exercise.

Questions 26–30

Complete the flowchart below.

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

A	size
B	escape
C	age
D	water
E	cereal
F	calculations
G	changes
H	colour

Choose mice which are all the same **26** ..... .

↓

Divide the mice into two groups, each with a different **27** ..... .

↓

Put each group in a separate cage.
Feed group A commercial mouse food.
Feed group B the same, but also sugar contained in **28** ..... .

↓

Take measurements using an electronic scale.
Place them in a weighing chamber to prevent **29** ..... .

↓

Do all necessary **30** ..... .

 → p. 124 p. 111

PART 4 *Questions 31–40*

Complete the notes below.

*Write **ONE WORD ONLY** for each answer.*

Microplastics

Where microplastics come from

- fibres from some **31** ..... during washing
- the breakdown of large pieces of plastic
- waste from industry
- the action of vehicle tyres on roads

Effects of microplastics

- They cause injuries to the **32** ..... of wildlife and affect their digestive systems.
- They enter the food chain, e.g., in bottled and tap water, **33** ..... and seafood.
- They may not affect human health, but they are already banned in skin cleaning products and **34** ..... in some countries.
- Microplastics enter the soil through the air, rain and **35** ..... .

Microplastics in the soil – a study by Anglia Ruskin University

- Earthworms are important because they add **36** ..... to the soil.
- The study aimed to find whether microplastics in earthworms affect the **37** ..... of plants.
- The study found that microplastics caused:
  - **38** ..... loss in earthworms
  - fewer seeds to germinate
  - a rise in the level of **39** ..... in the soil.

The study concluded:

- soil should be seen as an important natural process.
- changes to soil damage both ecosystems and **40** ..... .

→ p. 124 | p. 112

READING

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1–13**, which are based on Reading Passage 1 below.*

Archaeologists discover evidence of prehistoric island settlers

In early April 2019, Dr Ceri Shipton and his colleagues from Australian National University became the first archaeologists to explore Obi, one of many tropical islands in Indonesia's Maluku Utara province. The research team's discoveries suggest that the prehistoric people who lived on Obi were adept on both land and sea, hunting in the dense rainforest, foraging on the seashore, and possibly even voyaging between islands.

The excavations were part of a project to learn more about how people first dispersed from mainland Asia, through the Indonesian archipelago and into the prehistoric continent that once connected Australia and New Guinea. The team's earlier research suggested that the northernmost islands in the group, known as the Wallacean islands, including Obi, would have offered the easiest migration route. It also seemed likely that these islands were crucial 'stepping stones' on humans' island-hopping voyages through this region millennia ago. But to support this idea, they needed archaeological evidence for humans living in this remote area in the ancient past. So, they travelled to Obi to look for sites that might reveal evidence of early occupation.

Just inland from the village of Kelo on Obi's northern coast, Shipton and his colleagues found two caves containing prehistoric rock shelters that were suitable for excavation. With the permission and help of the local people of Kelo, they dug a small test excavation in each shelter. There they found numerous artefacts, including fragments of axes, some dating to about 14,000 years ago. The earliest axes at Kelo were made using clam shells. Axes made from clam shells from roughly the same time had also previously been found elsewhere in this region, including on the nearby island of Gebe to the northeast. As on Gebe, it is highly likely that Obi's axes were used in the construction of canoes, thus allowing these early peoples to maintain connections between communities on neighbouring islands.

The oldest cultural layers from the Kelo site provided the team with the earliest record for human occupation on Obi, dating back around 18,000 years. At this time the climate was drier and colder than today, and the island's dense rainforests would likely have been much less impenetrable than they are now. Sea levels were about 120 metres lower, meaning Obi was a much larger island, encompassing what is today the separate island of Bisa, as well as several other small islands nearby.

Roughly 11,700 years ago, as the most recent ice age ended, the climate became significantly warmer and wetter, no doubt making Obi's jungle much thicker. According to the researchers, it is no coincidence that around this time the first axes crafted from stone rather than sea shells appear, likely in response to their heavy-duty use for clearing and modification of the increasingly dense rainforest. While stone takes about twice as long to grind into an axe compared to shell, the harder material keeps its sharp edge for longer.

Judging by the bones which the researchers unearthed in the Kelo caves, people living there mainly hunted the Rothschild's cuscus, a possum-like creature that still lives on Obi today. As the forest grew more dense, people probably used axes to clear patches of forest and make hunting easier.

Shipton's team's excavation of the shelters at the Kelo site unearthed a volcanic glass substance called obsidian, which must have been brought over from another island, as there is no known source on Obi. It also revealed particular types of beads, similar to those previously found on islands in southern Wallacea. These finds again support the idea that Obi islanders routinely travelled to other islands.

The excavations suggest people successfully lived in the two Kelo shelters for about 10,000 years. But then, about 8,000 years ago, both were abandoned. Did the residents leave Obi completely, or move elsewhere on the island? Perhaps the jungle had grown so thick that axes were no longer a match for the dense undergrowth. Perhaps people simply moved to the coast and turned to fishing rather than hunting as a means of survival.

Whatever the reason for the departure, there is no evidence for use of the Kelo shelters after this time, until about 1,000 years ago, when they were re-occupied by people who owned pottery as well as items made out of gold and silver. It seems likely, in view of Obi's location, that this final phase of occupation also saw the Kelo shelters used by people involved in the historic trade in spices between the Maluku islands and the rest of the world.

Questions 1–7

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

In boxes 1–7 on your answer sheet, write

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

1 Archaeological research had taken place on the island of Obi before the arrival of Ceri Shipton and his colleagues.

2 At the Kelo sites, the researchers found the first clam shell axes ever to be discovered in the region.

3 The size of Obi today is less than it was 18,000 years ago.

4 A change in the climate around 11,700 years ago had a greater impact on Obi than on the surrounding islands.

5 The researchers believe there is a connection between warmer, wetter weather and a change in the material used to make axes.

6 Shipton's team were surprised to find evidence of the Obi islanders' hunting practices.

7 It is thought that the Kelo shelters were occupied continuously until about 1,000 years ago.

Questions 8–13

Complete the notes below.

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

Write your answers in boxes 8–13 on your answer sheet.

Archaeological findings on Obi

Excavations of rock shelters inside **8** ..... near the village of Kelo revealed:

- axes from around 14,000 years ago, probably used to make canoes
- axes made out of **9** ..... , dating from around 11,700 years ago
- **10** ..... of an animal: evidence of what ancient islanders ate
- evidence of travel between islands:
  - obsidian: a material that is not found naturally on Obi
  - **11** ..... which resembled ones found on other islands.

It is thought that from 8,000 years ago, Obi islanders:

- may have switched from hunting to fishing
- had **12** ..... as well as items made out of metal
- probably took part in the production and sale of **13** ..... .

→ p. 125

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14–26**, which are based on Reading Passage 2 below.*

The global importance of wetlands

A Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil, for all or part of the year. These are complex ecosystems, rich in unique plant and animal life. But according to the World Wide Fund for Nature (WWFN), half of the world's wetlands have disappeared since 1990 – converted or destroyed for commercial development, drainage schemes and the extraction of minerals and peat*. Many of those that remain have been damaged by agricultural pesticides and fertilisers, industrial pollutants, and construction works.

B Throughout history, humans have gathered around wetlands, and their fertile ecosystems have played an important part in human development. Consequently, they are of considerable religious, historical and archaeological value to many communities around the world. 'Wetlands directly support the livelihoods and well-being of millions of people,' says Dr Matthew McCartney, principal researcher and hydrologist at the International Water Management Institute (IWMI). 'In many developing countries, large numbers of people are dependent on wetland agriculture for their livelihoods.'

C They also serve a crucial environmental purpose. 'Wetlands are one of the key tools in mitigating climate change across the planet,' says Pieter van Eijk, head of Climate Adaptation at Wetlands International (WI), pointing to their use as buffers that protect coastal areas from sea-level rise and extreme weather events such as hurricanes and flooding. Wetland coastal forests provide food and water, as well as shelter from storms, and WI and other agencies are working to restore those forests which have been lost. 'It can be as simple as planting a few trees per hectare to create shade and substantially change a microclimate,' he says. 'Implementing climate change projects isn't so much about money.'

D The world's wetlands are, unfortunately, rich sources for in-demand commodities, such as palm oil and pulpwood. Peatlands – wetlands with a waterlogged organic soil layer – are particularly targeted. When peatlands are drained for cultivation, they become net carbon emitters instead of active carbon stores, and, according to Marcel Silvius, head of Climate-smart Land-use at WI, this practice causes six per cent of all global carbon emissions. The clearance of peatlands for planting also increases the risk of forest fires, which release huge amounts of CO_2. 'We're seeing huge peatland forests with extremely high biodiversity value being lost for a few decades of oil palm revenues,' says Silvius.

* peat: a brown deposit formed by the partial decomposition of vegetation in wet acidic conditions, often cut out and dried for use as fuel

E The damage starts when logging companies arrive to clear the trees. They dig ditches to enter the peat swamps by boat and then float the logs out the same way. These are then used to drain water out of the peatlands to allow for the planting of corn, oil palms or pulpwood trees. Once the water has drained away, bacteria and fungi then break down the carbon in the peat and turn it into CO_2 and methane. Meanwhile, the remainder of the solid matter in the peat starts to move downwards, in a process known as subsidence**. Peat comprises 90 per cent water, so this is one of the most alarming consequences of peatland clearances. 'In the tropics, peat subsides at about four centimetres a year, so within half a century, very large landscapes on Sumatra and Borneo will become flooded as the peat drops below water level,' says Silvius. 'It's a huge catastrophe that's in preparation. Some provinces will lose 40 per cent of their landmass.'

F And while these industries affect wetlands in ways that can easily be documented, Dr Dave Tickner of the WWFN believes that more subtle impacts can be even more devastating. 'Sediment run-off and fertilisers can be pretty invisible,' says Tickner. 'Over-extraction of water is equally invisible. You do get shock stories about rivers running red, or even catching fire, but there's seldom one big impact that really hurts a wetland.' Tickner does not blame anyone for deliberate damage, however. 'I've worked on wetland issues for 20 years and have never met anybody who wanted to damage a wetland,' he says. 'It isn't something that people generally set out to do. Quite often, the effects simply come from people trying to make a living.'

G Silvius also acknowledges the importance of income generation. 'It's not that we just want to restore the biodiversity of wetlands – which we do – but we recognise there's a need to provide an income for local people.' This approach is supported by IWMI. 'The idea is that people in a developing country will only protect wetlands if they value and profit from them,' says McCartney. 'For sustainability, it's essential that local people are involved in wetland planning and decision making and have clear rights to use wetlands.'

H The fortunes of wetlands would be improved, Silvius suggests, if more governments recognised their long-term value. 'Different governments have different attitudes,' he says, and goes on to explain that some countries place a high priority on restoring wetlands, while others still deny the issue. McCartney is cautiously optimistic, however. 'Awareness of the importance of wetlands is growing,' he says. 'It's true that wetland degradation still continues at a rapid pace, but my impression is that things are slowly changing.'

** subsidence: the sinking of the Earth's surface, most often caused by the removal of resources from the ground

Questions 14–17

Reading Passage 2 has eight paragraphs, **A–H**.

Which paragraph contains the following information?

Write the correct letter, ***A–H****, in boxes 14–17 on your answer sheet.*

14 reference to the need to ensure that inhabitants of wetland regions continue to benefit from them

15 the proportion of wetlands which have already been lost

16 reference to the idea that people are beginning to appreciate the value of wetlands

17 mention of the cultural significance of wetlands

Questions 18–22

Complete the sentences below.

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

Write your answers in boxes 18–22 on your answer sheet.

18 Peatlands which have been drained begin to release ..... instead of storing it.

19 Once peatland areas have been cleared, ... are more likely to occur.

20 Clearing peatland forests to make way for oil palm plantations destroys the ..... of the local environment.

21 Water is drained out of peatlands through the ..... which are created by logging companies.

22 Draining peatlands leads to ..... : a serious problem which can eventually result in coastal flooding and land loss.

Questions 23–26

Look at the following statements (Questions 23–26) and the list of experts below.

Match each statement with the correct expert, ***A–D****.*

Write the correct letter, ***A–D****, in boxes 23–26 on your answer sheet.*

23 Communities living in wetland regions must be included in discussions about the future of these areas.

24 Official policies towards wetlands vary from one nation to the next.

25 People cause harm to wetlands without having any intention to do so.

26 Initiatives to reverse environmental damage need not be complex.

List of Experts

A Matthew McCartney

B Pieter van Eijk

C Marcel Silvius

D Dave Tickner

→ p. 125

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27–40**, which are based on Reading Passage 3 below.*

Is the era of artificial speech translation upon us?

Once the stuff of science fiction, technology that enables people to talk using different languages is now here. But how effective is it?

Noise, Alex Waibel tells me, is one of the major challenges that artificial speech translation has to meet. A device may be able to recognise speech in a laboratory, or a meeting room, but will struggle to cope with the kind of background noise I can hear in my office surrounding Professor Waibel as he speaks to me from Kyoto station in Japan. I'm struggling to follow him in English, on a scratchy line that reminds me we are nearly 10,000 kilometres apart – and that distance is still an obstacle to communication even if you're speaking the same language, as we are. We haven't reached the future yet. If we had, Waibel would have been able to speak more comfortably in his native German and I would have been able to hear his words in English.

At Karlsruhe Institute of Technology, where he is a professor of computer science, Waibel and his colleagues already give lectures in German that their students can follow in English via an electronic translator. The system generates text that students can read on their laptops or phones, so the process is somewhat similar to subtitling. It helps that lecturers speak clearly, don't have to compete with background chatter, and say much the same thing each year.

The idea of artificial speech translation has been around for a long time. Douglas Adams' science fiction novel, *The Hitchhiker's Guide to the Galaxy*, published in 1979, featured a life form called the 'Babel fish' which, when placed in the ear, enabled a listener to understand any language in the universe. It came to represent one of those devices that technology enthusiasts dream of long before they become practically realisable, like TVs flat enough to hang on walls: objects that we once could only dream of having but that are now commonplace. Now devices that look like prototype Babel fish have started to appear, riding a wave of advances in artificial translation and voice recognition.

At this stage, however, they seem to be regarded as eye-catching novelties rather than steps towards what Waibel calls 'making a language-transparent society'. They tend to be domestic devices or applications suitable for hotel check-ins, for example, providing a practical alternative to speaking traveller's English. The efficiency of the translator is less important than the social function. However, 'Professionals are less inclined to be patient in a conversation,' founder and CEO at Waverly Labs, Andrew Ochoa, observes. To redress this, Waverly is now preparing a new model for professional applications, which entails performance improvements in speech recognition, translation accuracy and the time it takes to deliver the translated speech.

For a conversation, both speakers need to have devices called Pilots (translator earpieces) in their ears. 'We find that there's a barrier with sharing one of the earphones with a stranger,' says Ochoa. That can't have been totally unexpected. The problem would be solved if earpiece translators became sufficiently prevalent that strangers would be likely to already have their own in their ears. Whether that happens, and how quickly, will probably depend not so much on the earpieces themselves, but on the prevalence of voice-controlled devices and artificial translation in general.

Waibel highlights the significance of certain Asian nations, noting that voice translation has really taken off in countries such as Japan with a range of systems. There is still a long way to go, though. A translation system needs to be simultaneous, like the translator's voice speaking over the foreign politician being interviewed on the TV, rather than in sections that oblige speakers to pause after every few remarks and wait for the translation to be delivered. It needs to work offline, for situations where internet access isn't possible, and to address apprehensions about the amount of private speech data accumulating in the cloud, having been sent to servers for processing.

Systems not only need to cope with physical challenges such as noise, they will also need to be socially aware by addressing people in the right way. Some cultural traditions demand solemn respect for academic status, for example, and it is only polite to respect this. Etiquette-sensitive artificial translators could relieve people of the need to know these differing cultural norms. At the same time, they might help to preserve local customs, slowing the spread of habits associated with international English, such as its readiness to get on first-name terms.

Professors and other professionals will not outsource language awareness to software, though. If the technology matures into seamless, ubiquitous artificial speech translation, it will actually add value to language skills. Whether it will help people conduct their family lives or relationships is open to question – though one noteworthy possibility is that it could overcome the language barriers that often arise between generations after migration, leaving children and their grandparents without a shared language.

Whatever uses it is put to, though, it will never be as good as the real thing. Even if voice-morphing technology simulates the speaker's voice, their lip movements won't match, and they will look like they are in a dubbed movie. The contrast will underline the value of shared languages, and the value of learning them. Sharing a language can promote a sense of belonging and community, as with the international scientists who use English as a lingua franca, where their predecessors used Latin. Though the practical need for a common language will diminish, the social value of sharing one will persist. And software will never be a substitute for the subtle but vital understanding that comes with knowledge of a language.

Questions 27–30

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

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

27 What does the reader learn about the conversation in the first paragraph?

- **A** The speakers are communicating in different languages.
- **B** Neither of the speakers is familiar with their environment.
- **C** The topic of the conversation is difficult for both speakers.
- **D** Aspects of the conversation are challenging for both speakers.

28 What assists the electronic translator during lectures at Karlsruhe Institute of Technology?

- **A** the repeated content of lectures
- **B** the students' reading skills
- **C** the languages used
- **D** the lecturers' technical ability

29 When referring to *The Hitchhiker's Guide to the Galaxy,* the writer suggests that

- **A** the Babel fish was considered undesirable at the time.
- **B** this book was not seriously intending to predict the future.
- **C** artificial speech translation was not a surprising development.
- **D** some speech translation techniques are better than others.

30 What does the writer say about sharing earpieces?

- **A** It is something people will get used to doing.
- **B** The reluctance to do this is understandable.
- **C** The equipment will be unnecessary in the future.
- **D** It is something few people need to worry about.

Questions 31–34

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

Write the correct letter, ***A–F****, in boxes 31–34 on your answer sheet.*

31 Speech translation methods are developing fast in Japan

32 TV interviews that use translation voiceover methods are successful

33 Future translation systems should address people appropriately

34 Users may be able to maintain their local customs

A	but there are concerns about this.
B	as systems do not need to conform to standard practices.
C	but they are far from perfect.
D	despite the noise issues.
E	because translation is immediate.
F	and have an awareness of good manners.

Questions 35–40

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

In boxes 35–40 on your answer sheet, 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*

35 Language translation systems will be seen as very useful throughout the academic and professional worlds.

36 The overall value of automated translation to family life is yet to be shown.

37 Automated translation could make life more difficult for immigrant families.

38 Visual aspects of language translation are being considered by scientists.

39 International scientists have found English easier to translate into other languages than Latin.

40 As far as language is concerned, there is a difference between people's social and practical needs.

 → p. 125

WRITING

WRITING TASK 1

You should spend about 20 minutes on this task.

> ***The diagram below shows how a biofuel called ethanol is produced.***
>
> ***Summarise the information by selecting and reporting the main features, and make comparisons where relevant.***

Write at least 150 words.

Biofuel production: how ethanol is made

→ p. 133

WRITING TASK 2

You should spend about 40 minutes on this task.

Write about the following topic:

> ***It is important for everyone, including young people, to save money for their future.***
>
> ***To what extent do you agree or disagree with this statement?***

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

Write at least 250 words.

 → p. 134

SPEAKING

PART 1

The examiner asks you about yourself, your home, work or studies and other familiar topics.

EXAMPLE

Holidays

- Do you prefer spending holidays with friends or with family? [Why?]
- What kind of holiday accommodation do you like to stay in? [Why?]
- What plans do you have for your next holiday?
- Is your city or region a good place for other people to visit on holiday? [Why/Why not?]

PART 2

Describe a car journey you made that took longer than expected.

You should say:
where you were going
who you were with
how you felt during the journey

and explain why this car journey took longer than expected.

You will have to talk about the topic for one to two minutes. You have one minute to think about what you are going to say. You can make some notes to help you if you wish.

PART 3

Discussion topics:

Driving a car

Example questions:
How interested are young people in your country in learning to drive?
What are the differences between driving in the countryside and driving in the city?
Do you consider most drivers where you live to be good drivers?

Electric cars

Example questions:
How popular are electric cars in your country?
In what ways could more people be persuaded to buy electric cars?
Do you think all cars will be electric one day?

Test 4

LISTENING

PART 1 *Questions 1–10*

Questions 1–6

Complete the notes below.

*Write **ONE WORD AND/OR A NUMBER** for each answer.*

First day at work

- Name of supervisor: **1** .....
- Where to leave coat and bag: use **2** ..... in staffroom
- See Tiffany in HR: to give **3** ..... number
  to collect **4** .....
- Location of HR office: on **5** ..... floor
- Supervisor's mobile number: **6** .....

Questions 7–10

Complete the table below.

*Write **ONE WORD ONLY** for each answer.*

Responsibilities			
	Task 1	**Task 2**	**Notes**
Bakery section	Check sell-by dates	Change price labels	Use **7** ..... labels
Sushi takeaway counter	Re-stock with **8** ..... boxes if needed	Wipe preparation area and clean the sink	Do not clean any knives
Meat and fish counters	Clean the serving area, including the weighing scales	Collect **9** ..... for the fish from the cold-room	Must wear special **10** .....

 → p. 126 p. 114

PART 2 *Questions 11–20*

Questions 11 and 12

*Choose **TWO** letters, **A–E**.*

Which **TWO** problems with some training programmes for new runners does Liz mention?

A There is a risk of serious injury.
B They are unsuitable for certain age groups.
C They are unsuitable for people with health issues.
D It is difficult to stay motivated.
E There is a lack of individual support.

Questions 13 and 14

*Choose **TWO** letters, **A–E**.*

Which **TWO** tips does Liz recommend for new runners?

A doing two runs a week
B running in the evening
C going on runs with a friend
D listening to music during runs
E running very slowly

Questions 15–18

What reason prevented each of the following members of the Compton Park Runners Club from joining until recently?

Write the correct letter, ***A****,* ***B****, or* ***C*** *next to Questions 15–18.*

	Reasons
A	a lack of confidence
B	a dislike of running
C	a lack of time

Club members

15 Ceri .....

16 James .....

17 Leo .....

18 Mark .....

Questions 19 and 20

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

19 What does Liz say about running her first marathon?

A It had always been her ambition.
B Her husband persuaded her to do it.
C She nearly gave up before the end.

20 Liz says new runners should sign up for a race

A every six months.
B within a few weeks of taking up running.
C after completing several practice runs.

 → p. 126 p. 115

PART 3 *Questions 21–30*

Questions 21–25

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

21 Kieran thinks the packing advice given by Jane's grandfather is

A common sense.
B hard to follow.
C over-protective.

22 How does Jane feel about the books her grandfather has given her?

A They are not worth keeping.
B They should go to a collector.
C They have sentimental value for her.

23 Jane and Kieran agree that hardback books should be

A put out on display.
B given as gifts to visitors.
C more attractively designed.

24 While talking about taking a book from a shelf, Jane

A describes the mistakes other people make doing it.
B reflects on a significant childhood experience.
C explains why some books are easier to remove than others.

25 What do Jane and Kieran suggest about new books?

A Their parents liked buying them as presents.
B They would like to buy more of them.
C Not everyone can afford them.

Questions 26–30

Where does Jane's grandfather keep each of the following types of books in his shop?

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

	Location of books
A	near the entrance
B	in the attic
C	at the back of the shop
D	on a high shelf
E	near the stairs
F	in a specially designed space
G	within the café

	Types of books	
26	rare books	.....
27	children's books	.....
28	unwanted books	.....
29	requested books	.....
30	coursebooks	.....

 → p. 126 p. 116

PART 4 *Questions 31–40*

Complete the notes below.

*Write **ONE WORD ONLY** for each answer.*

Tree planting

Reforestation projects should:

- include a range of tree species
- not include invasive species because of possible **31** ..... with native species
- aim to capture carbon, protect the environment and provide sustainable sources of **32** ..... for local people
- use tree seeds with a high genetic diversity to increase resistance to **33** ..... and climate change
- plant trees on previously forested land which is in a bad condition, not select land which is being used for **34** .....

Large-scale reforestation projects

- Base planning decisions on information from accurate **35** ..... .
- Drones are useful for identifying areas in Brazil which are endangered by keeping **36** ..... and illegal logging.

Lampang Province, Northern Thailand

- A forest was restored in an area damaged by mining.
- A variety of native fig trees were planted, which are important for
  - supporting many wildlife species
  - increasing the **37** ..... of recovery by attracting animals and birds, e.g., **38** ..... were soon attracted to the area.

Involving local communities

- Destruction of mangrove forests in Madagascar made it difficult for people to make a living from **39** ..... .
- The mangrove reforestation project:
  - provided employment for local people
  - restored a healthy ecosystem
  - protects against the higher risk of **40** ..... .

→ p. 126 p. 118

READING

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1–13**, which are based on Reading Passage 1 below.*

The impact of climate change on butterflies in Britain

According to conservationists, populations of around two thirds of butterfly species have declined in Britain over the past 40 years. If this trend continues, it might have unpredictable knock-on effects for other species in the ecosystem. Butterfly eggs develop into caterpillars and these insects, which are the second stage in a new butterfly's lifecycle, consume vast quantities of plant material, and in turn act as prey for birds as well as bats and other small mammals. Only by arming themselves with an understanding of why butterfly numbers are down can conservationists hope to halt or reverse the decline.

Butterflies prefer outdoor conditions to be 'just right', which means neither too hot nor too cold. Under the conditions of climate change, the temperature at any given time in summer is generally getting warmer, leaving butterflies with the challenge of how to deal with this. One of the main ways in which species are ensuring conditions suit them is by changing the time of year at which they are active and reproduce. Scientists refer to the timing of such lifecycle events as 'phenology', so when an animal or plant starts to do something earlier in the year than it usually does, it is said to be 'advancing its phenology'.

These advances have been observed already in a wide range of butterflies – indeed, most species are advancing their phenology to some extent. In Britain, as the average spring temperature has increased by roughly 0.5 °C over the past 20 years, species have advanced by between three days and a week on average, to keep in line with cooler temperatures. Is this a sign that butterflies are well equipped to cope with climate change, and readily adjust to new temperatures? Or are these populations under stress, being dragged along unwillingly by unnaturally fast changes? The answer is still unknown, but a new study is seeking to answer these questions.

First, the researchers pulled together data from millions of records that had been submitted by butterfly enthusiasts – people who spend their free time observing the activities of different species. This provided information on 130 species of butterflies in Great Britain every year for a 20-year period. They then estimated the abundance and distribution of each species across this time, along with how far north in the country they had moved. The data also, crucially, allowed researchers to estimate subtle changes in what time of the year each species was changing into an adult butterfly.

Analysing the trends in each variable, the researchers discovered that species with more flexible lifecycles were more likely to be able to benefit from an earlier emergence driven by climate change. Some species are able to go from caterpillar to butterfly twice or more per year, so that the individual butterflies you see flying in the spring are the grandchildren or great-grandchildren of the individuals seen a year previously.

Among these species, researchers observed that those which have been advancing their phenology the most over the 20-year study period also had the most positive trends in abundance, distribution and northwards extent. For these species, such as Britain's tiniest butterfly, the dainty Small Blue, whose colonies are up to a hundred strong, some develop into butterflies early in spring, allowing their summer generations to complete another reproductive cycle by autumn so that more population growth occurs.

Other species, however, are less flexible and restricted to a single reproductive cycle per year. For these species, there was no evidence of any benefit to emerging earlier. Indeed, worryingly, it was found that the species in this group that specialise in very specific habitat types, often related to the caterpillar's preferred diet, actually tended to be most at harm from advancing phenology. The beautiful High Brown Fritillary, often described as Britain's most endangered butterfly, is in this group. It is found only in coppiced woodland and limestone pavement habitats. It is also a single-generation butterfly that has advanced its phenology. This suggests that climate change, while undoubtedly not the sole cause, might have played a part in the downfall of this species.

All is not lost, however. Many of Britain's single-generation species show the capacity, in continental Europe, to add a second generation in years that are sufficiently warm. Therefore, as the climate continues to warm, species like the Silver-studded Blue might be able to switch to multiple generations in the UK as well, and so begin to extract benefits from the additional warmth, potentially leading to population increases.

More immediately, conservationists can arm themselves with all this knowledge to spot the warning signs of species that may be at risk. The White Admiral of southern England, a much sought-after butterfly, experienced a significant increase in numbers from the 1920s but has shown a considerable decline in the past 20 years. This may be because the caterpillar exists solely on a diet of a plant called honeysuckle. But it is also likely to be due to climate change.

Questions 1–6

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

In boxes 1–6 on your answer sheet, write

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

1 Forty years ago, there were fewer butterflies in Britain than at present.

2 Caterpillars are eaten by a number of different predators.

3 'Phenology' is a term used to describe a creature's ability to alter the location of a lifecycle event.

4 Some species of butterfly have a reduced lifespan due to spring temperature increases.

5 There is a clear reason for the adaptations that butterflies are making to climate change.

6 The data used in the study was taken from the work of amateur butterfly watchers.

Questions 7–13

Complete the notes below.

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

Write your answers in boxes 7–13 on your answer sheet.

Butterflies in the UK

The Small Blue

- lives in large **7** .....
- first appears at the start of **8** .....
- completes more than one reproductive cycle per year

The High Brown Fritillary

- has one reproductive cycle
- is considered to be more **9** ..... than other species
- its caterpillars occupy a limited range of **10** .....

The Silver-studded Blue

- is already able to reproduce twice a year in warm areas of **11** .....

The White Admiral

- is found in **12** ..... areas of England
- both climate change and the **13** ..... of the caterpillar are possible reasons for decline

→ p. 127

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14–26**, which are based on Reading Passage 2.*

Deep-sea mining

Bacteria from the ocean floor can beat superbugs and cancer. But habitats are at risk from the hunger for marine minerals

A When Professor Mat Upton found that a microbe from a deep-sea sponge was killing pathogenic bugs in his laboratory, he realised it could be a breakthrough in the fight against antibiotic-resistant superbugs, which are responsible for thousands of deaths a year in the UK alone. Further tests confirmed that an antibiotic from the sponge bacteria, found living more than 700 metres under the sea at the Rockall trough in the north-east Atlantic, was previously unknown to science, boosting its potential as a life-saving medicine. But Upton, and other scientists who view the deep ocean and its wealth of unique and undocumented species as a prospecting ground for new medicines, fear such potential will be lost in the rush to exploit the deep sea's equally rich metal and mineral resources.

B 'We're looking at the bioactive potential of marine resources, to see if there are any more medicines or drugs down there before we destroy it for ever,' says Upton, a medical microbiologist at the University of Plymouth. He is among many scientists urging a halt to deep-sea mining, asking for time to weigh up the pros and cons. 'In sustainability terms, this could be a better way of exploiting the economic potential of the deep sea,' he argues. Oceanographers using remotely operated vehicles have spotted many new species. Among them have been sea cucumbers with tails allowing them to sail along the ocean floor, and a rare 'Dumbo' octopus, found 3,000 metres under the Pacific Ocean, off the coast of California. Any one of these could offer lifesaving potential. Upton estimates it could take up to a decade for a newly discovered antibiotic to become a medicine – but the race towards commercial mining in the ocean abyss has already begun.

C The deep sea contains more nickel, cobalt and rare earth metals than all land reserves combined, according to the US Geological Survey. Mining corporations argue that deep-sea exploration could help diversify the supply of metals and point to the fact that demand for resources such as copper, aluminium, cobalt for electric car batteries and other metals to power technology and smartphones, is soaring. They say that deep-sea mining could yield far superior ore to land mining with little, if any, waste. Different methods of extraction exist, but most involve employing some form of converted machinery previously used in terrestrial mining to excavate materials from the sea floor, at depths of up to 6,000 metres, then drawing a seawater slurry, containing rock and other solid particles, from the sea floor to ships on the surface. The slurry is then 'de-watered' and transferred to another vessel for shipping. Extracted seawater is pumped back down and discharged close to the sea floor.

D But environmental and legal groups have urged caution, arguing there are potentially massive and unknown ramifications for the environment and for nearby communities, and that the global regulatory framework is not yet drafted. 'Despite arising in the last half century, the "new global gold rush" of deep-sea mining shares many features with past resource scrambles – including a general disregard for environmental and social impacts, and the marginalisation of indigenous peoples and their rights,' a paper, written by Julie Hunter and Julian Aguon, from Blue Ocean Law, and Pradeep Singh, from the Center for Marine Environmental Sciences, Bremen, argues. The authors say that knowledge of the deep seabed remains extremely limited. 'The surface of the Moon, Mars and even Venus have all been mapped and studied in much greater detail, leading marine scientists to commonly remark that, with respect to the deep sea, "We don't yet know what we need to know".'

E Scientific research – including a recent paper in Marine Policy journal – has suggested the deep seabed, and hydrothermal vents, which are created when seawater meets volcanic magma, have crucial impacts upon biodiversity and the global climate. The mineral-rich vents and their surrounds are also home to many well-known animals including crustaceans, tubeworms, clams, slugs, anemones and fish. 'It is becoming increasingly clear that deep-sea mining poses a grave threat to these vital seabed functions,' the paper says. 'Extraction methods would produce large sediment plumes and involve the discharge of waste back into the ocean, significantly disturbing seafloor environments,' the paper continues. 'On deep sea vents, scientists are clear,' says Dr Jon Copley of the National Oceanography Centre, Southampton: 'we don't want mining on them.'

F The oceans occupy around 70% of the planet and are relatively unexplored, says Mike Johnston, chief executive of Nautilus, a Canadian underwater exploration company: 'It makes sense to explore this untapped potential in an environmentally sustainable way, instead of continually looking at the fast depleting land resources of the planet to meet society's rising needs.' Those leading the global rush to place giant mining machines thousands of metres below the sea surface say the environmental impacts will be far lower than on land. But critics say exotic and little-known ecosystems in the deep oceans could be destroyed and must be protected. 'Mining will be the greatest assault on deep-sea ecosystems ever inflicted by humans,' according to hydrothermal vent expert Verena Tunnicliffe, at the University of Victoria in Canada. She argues that active vents must be off-limits for mining to protect the new knowledge and biotechnology spin-offs they can deliver, and that strict controls must be in place elsewhere.

Questions 14–17

Reading Passage 2 has six paragraphs, **A–F**.

Which paragraph contains the following information?

*Write the correct letter, **A–F**, in boxes 14–17 on your answer sheet.*

14 reference to the rapidly increasing need for one raw material in the transport industry

15 a rough estimate of the area of the Earth covered by the oceans

16 how a particular underwater habitat, where minerals and organisms co-exist, is formed

17 reference to the fact that the countries of the world have yet to agree on rules for the exploration of the seabed

Questions 18–23

Look at the following statements (Questions 18–23) and the list of people below.

*Match each statement with the correct person or people, **A–E**.*

*Write the correct letter, **A–E**, in boxes 18–23 on your answer sheet.*

NB *You may use any letter more than once.*

18 A move away from the exploration of heavily mined reserves on land is a good idea.

19 The negative effects of undersea exploration on local areas and their inhabitants are being ignored.

20 There are more worthwhile things to extract from the sea than minerals.

21 No other form of human exploration will have such a destructive impact on marine life as deep-sea mining.

22 More is known about outer space than about what lies beneath the oceans.

23 There is one marine life habitat where experts agree mining should not take place.

List of People

A Professor Mat Upton

B Julie Hunter, Julian Aguon and Pradeep Singh

C Dr Jon Copley

D Mike Johnston

E Verena Tunnicliffe

Questions 24–26

Complete the summary below.

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

Write your answers in boxes 24–26 on your answer sheet.

Mining the sea floor

Mining corporations believe that the mineral resources lying under the sea may be superior to those found in the earth. They also say that these can be removed without producing much **24** ..... .

The extraction is often done by adapting the **25** ..... that has already been used to work on land. The method of excavation involves removing the seawater from the slurry that is brought up to ships and returning it to the seabed. However, concerned groups strongly believe that **26** ..... is necessary due to the possible number of unidentified consequences.

→ p. 127

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27–40**, which are based on Reading Passage 3 below.*

The Unselfish Gene

A psychologist gives his view on how humans became self-centred

There has long been a general assumption that human beings are essentially selfish. We're apparently ruthless, with strong impulses to compete against each other for resources and to accumulate power and possessions. If we are kind to one another, it's usually because we have ulterior motives. If we are good, it's only because we have managed to control and transcend our innate selfishness and brutality.

This bleak view of human nature is closely associated with the science writer Richard Dawkins, whose 1976 book *The Selfish Gene* became popular because it fitted so well with – and helped to justify – the competitive and individualistic ethos that was so prevalent in late 20th-century societies. Like many others, Dawkins justifies his views with reference to the field of evolutionary psychology. Evolutionary psychology theorises that present-day human traits developed in prehistoric times, during what is termed the 'environment of evolutionary adaptedness'.

Prehistory is usually seen as a period of intense competition, when life was such a brutal battle that only those with traits such as selfishness, aggression and ruthlessness survived. And because survival depended on access to resources – such as rivers, forests and animals – there was bound to be conflict between rival groups, which led to the development of traits such as racism and warfare. This seems logical. But, in fact, the assumption on which this all rests – that prehistoric life was a desperate struggle for survival – is false.

It's important to remember that in the prehistoric era, the world was very sparsely populated. According to some estimates, around 15,000 years ago, the population of Europe was only 29,000, and the population of the whole world was less than half a million. Humans at that time were hunter-gatherers: people who lived by hunting wild animals and collecting wild plants. With such small population densities, it seems unlikely that prehistoric hunter-gatherer groups had to compete against each other for resources or had any need to develop ruthlessness and competitiveness, or to go to war.

There is significant evidence to back this notion from contemporary hunter-gatherer groups, who live in the same way as prehistoric humans did. As the anthropologist Bruce Knauft has remarked, hunter-gatherers are characterised by 'extreme political and sexual egalitarianism'. Knauft has observed that individuals in such groups don't accumulate property or possessions and have an ethical obligation to share everything. They also have methods of preserving egalitarianism by ensuring that disparities of status don't arise.

The *!Kung* people of southern Africa, for example, swap arrows before going hunting and when an animal is killed, the acclaim does not go to the person who fired the arrow, but to the person the arrow belongs to. And if a person becomes too domineering, the other members of the group ostracise them, exiling the offender from society. Typically in such groups, men do not dictate what women do. Women in hunter-gatherer groups worldwide often benefit from a high level of autonomy, being able to select their own marriage partners, decide what work they do and work whenever they choose to. And if a marriage breaks down, they have custody rights over their children.

Many anthropologists believe that societies such as the *!Kung* were normal until a few thousand years ago, when population growth led to the development of agriculture and a settled lifestyle. In view of the above, there seems little reason to assume that traits such as racism, warfare and male domination should have been selected by evolution – as they would have been of little benefit in the prehistoric era. Individuals who behaved selfishly and ruthlessly would be less likely to survive, since they would have been ostracised from their groups.

It makes more sense, then, to see traits such as cooperation, egalitarianism, altruism and peacefulness as innate characteristics of human beings. These were the traits that were prevalent in human life for tens of thousands of years. So presumably these traits are still strong in us now.

But if prehistoric life wasn't really as brutal as has often been assumed, why do modern humans behave so selfishly and ruthlessly? Perhaps these negative traits should be seen as a later development, the result of environmental and psychological factors. Research has shown repeatedly that when the natural habitats of primates such as apes and gorillas are disrupted, they tend to become more violent and hierarchical.

So, it could well be that the same thing has happened to us. I believe that the end of the hunter-gatherer lifestyle and the advent of farming was connected to a psychological change that occurred in some groups of people. There was a new sense of individuality and separateness, which led to a new selfishness, and ultimately to hierarchical societies, patriarchy and warfare. At any rate, these negative traits appear to have developed so recently that it doesn't seem feasible to explain them in adaptive or evolutionary terms.

Questions 27–30

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

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

27 What is the writer doing in the first paragraph?

A setting out two opposing views about human nature
B justifying his opinion about our tendency to be greedy
C describing a commonly held belief about people's behaviour
D explaining why he thinks that humans act in a selfish manner

28 What point is made about Richard Dawkins' book *The Selfish Gene*?

A Its appeal lay in the radical nature of its ideas.
B Its success was due to the scientific support it offered.
C It presented a view that was in line with the attitudes of its time.
D It took an innovative approach to the analysis of human psychology.

29 What does the writer suggest about the prehistoric era in the fourth paragraph?

A Societies were more complex than many people believe.
B Supplies of natural resources were probably relatively plentiful.
C Most estimates about population sizes are likely to be inaccurate.
D Humans moved across continents more than was previously thought.

30 The writer refers to Bruce Knauft's work as support for the idea that

A selfishness is a relatively recent development in human societies.
B only people in isolated communities can live in an unselfish manner.
C very few lifestyles have survived unchanged since prehistoric times.
D hunter-gatherer cultures worldwide are declining in number.

Questions 31–35

Complete the summary below.

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

Write your answers in boxes 31–35 on your answer sheet.

Contemporary hunter-gatherer societies

Bruce Knauft's research shows that contemporary hunter-gatherer societies tend to exhibit a high level of **31** ..... in all areas of life. In these cultures, distributing resources fairly among all members is a moral obligation. These societies also employ strategies to prevent differences in **32** ..... occurring: for example, the *!Kung* follow a custom whereby the credit for one person's success at **33** ..... is given to another member of the group. Individuals who behave in a **34** ..... manner are punished by being excluded from the group, and women have a considerable amount of **35** ..... in choices regarding work and marriage.

Questions 36–40

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

In boxes 36–40 on your answer sheet, 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*

36 Some anthropologists are mistaken about the point when the number of societies such as the *!Kung* began to decline.

37 Humans who developed warlike traits in prehistory would have had an advantage over those who did not.

38 Being peaceful and cooperative is a natural way for people to behave.

39 Negative traits are more apparent in some modern cultures than in others.

40 Animal research has failed to reveal a link between changes in the environment and the emergence of aggressive tendencies.

→ p. 127

WRITING

WRITING TASK 1

You should spend about 20 minutes on this task.

The charts below give information on the location and types of dance classes young people in a town in Australia are currently attending.

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

Write at least 150 words.

 → p. 136

WRITING TASK 2

You should spend about 40 minutes on this task.

Write about the following topic:

> ***In many countries nowadays, consumers can go to a supermarket and buy food produced all over the world.***
>
> ***Do you think this is a positive or negative development?***

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

Write at least 250 words.

→ p. 137

SPEAKING

PART 1

The examiner asks you about yourself, your home, work or studies and other familiar topics.

EXAMPLE

Cafés

- Do you have a favourite café? [Why/Why not?]
- Do you often go to cafés by yourself? [Why/Why not?]
- What do you think helps to make a café very popular? [Why?]
- Why do some people prefer cafés that are part of large chains, rather than small, local cafés?

PART 2

Describe a place you visited that has beautiful views.

You should say:
where this place is
when and why you visited it
what views you can see from this place

and explain why you think these views are so beautiful.

You will have to talk about the topic for one to two minutes. You have one minute to think about what you are going to say. You can make some notes to help you if you wish.

PART 3

Discussion topics:

The beauty industry

Example questions:
Do you agree that most beauty products are a waste of money?
How does the beauty industry advertise its products so successfully?
What do you think of the view that beauty products should not be advertised to children?

Beauty and culture

Example questions:
Why do many people equate youth with beauty?
Do you think that being beautiful could affect a person's success in life?
Why might society's ideas about beauty change over time?

Audioscripts

TEST 1

PART 1

SALLY: Good morning. Hinchingbrooke Country Park, Sally speaking. I'm one of the rangers.

JOHN: Oh hello. My name's John Chapman, and I'm a teaching assistant at a local primary school. I've been asked to arrange a visit to the park for two of our classes.

SALLY: OK. What would you like to know?

JOHN: Well, I'm new to this area, so perhaps you could tell me something about the park first, please.

SALLY: Of course. Altogether the park covers 170 acres, that's 69 hectares. There are three main types of habitat: wetland, grassland and woodland. The woods are well established and varied, with an oak plantation, and other areas of mixed species. *Q1*

JOHN: Right.

SALLY: The wetland is quite varied, too. The original farmland was dug up around 40 years ago to extract gravel. Once this work was completed, the gravel pits filled with water, forming the two large lakes. There are also several smaller ones, ponds and a stream that flows through the park. *Q2*

JOHN: OK, so I suppose with these different habitats there's quite a variety of wildlife.

SALLY: There certainly is – a lot of different species of birds and insects, and also animals like deer and rabbits.

JOHN: And I understand you organise educational visits for school parties.

SALLY: That's right. We can organise a wide range of activities and adapt them to suit all ages.

JOHN: Can you give me some examples of the activities?

SALLY: Well, one focus is on science, where we help children to discover and study plants, trees and insects. They also collect and analyse data about the things they see. *Q3*

JOHN: Uhuh.

SALLY: Another focus is on geography. The park is a great environment to learn and practise reading a map and using a compass to navigate around the park. *Q4*

JOHN: Do you do anything connected with history?

SALLY: Yes, we do. For instance, the children can explore how the use of the land has changed over time. Then there's leisure and tourism.

JOHN: That focuses on your visitors, I would imagine. *Q5*

SALLY: Yes, mostly. The children find out about them, their requirements, the problems they may cause and how we manage these. And another subject we cover is music: here the children experiment with natural materials to create sounds and explore rhythm and tempo. *Q6*

JOHN: That must be fun!

SALLY: Most children really enjoy it.

SALLY: And of course, all the activities are educational, too. Learning outside the classroom encourages children to be creative, and to explore and discover for themselves.

JOHN: I would imagine they get a sense of freedom that might not be a normal part of their lives. *Q7*

SALLY: That's right. And very often the children discover that they can do things they didn't know they could do, and they develop new skills. This gives them greater self-confidence. *Q8*

JOHN: It sounds great. So, what about the practical side of it? How much does it cost for a full-day visit? We would expect to bring between 30 and 40 children.

SALLY: If there are over 30, it costs £4.95 for each child who attends on the day. We invoice you afterwards, so you don't pay for children who can't come because of sickness, for example. There's no charge for leaders and other adults – as many as you want to bring. *Q9* *Q10*

JOHN: That sounds very fair. Well, thanks for all the information. I'll need to discuss it with my colleagues, and I hope to get back to you soon to make a booking.

SALLY: We'll look forward to hearing from you. Goodbye.

JOHN: Goodbye, and thank you.

PART 2

It's great to see so many members of the Twinning Association here tonight. Since the twinning link between our two towns, Stanthorpe here in England and Malatte in France, was established, the relationship between the towns has gone from strength to strength.

Last month, 25 members of the association from Stanthorpe spent a weekend in Malatte. Our hosts had arranged a great programme. We learned how cheese is produced in the region and had the chance to taste the products. The theme park trip had to be cancelled, but we all had a great time on the final boat trip down the river – that was the real highlight. *Q11*

This is a special year for the Association because it's 25 years since we were founded. In Malatte, they're planning to mark this by building a footbridge in the municipal park. We've been discussing what to do here and we've decided to plant a poplar tree in the museum gardens. We considered buying a garden seat to put there, but the authorities weren't happy with that idea. *Q12*

In terms of fundraising to support our activities, we've done very well. Our pancake evening was well attended and made record profits. And everyone enjoyed the demonstration of French cookery, which was nearly as successful. Numbers for our film show were limited because of the venue so we're looking for somewhere bigger next year. *Q13*

We're looking forward to welcoming our French visitors here next week, and I know that many of you here will be hosting individuals or families. The coach from France will arrive at 5 pm on Friday. Don't try to do too much that first evening as they'll be tired, so have dinner in the house or garden rather than eating out. The weather looks as if it'll be OK so you might like to plan a barbecue. Then the next morning's market day in town, and that's always a good place to stroll round. *Q14*

On Saturday evening, we'll all meet up at the football club, where once again we'll have Toby Sharp and his band performing English and Scottish country songs. Toby will already be well known to many of you as last year he organised our special quiz night and presented the prizes. *Q15*

Now on Sunday, we'll be taking our visitors to Farley House. You may not all be familiar with it, so here's a map to help you. You can see the car park at the bottom of the map. There's an excellent farm shop in the grounds where our visitors can buy local produce – it's in the old stables, which is the first building you come to. They're built round a courtyard, and the shop's in the far corner on the left. There's also a small café on the right as you go in. *Q16*

I know that one or two of our visitors may not be all that mobile. The main entrance to the house has a lot of steps so you might want to use the disabled entry. This is on the far side of the house from the car park. *Q17*

Children will probably be most interested in the adventure playground. That's at the northern end of the larger lake, in a bend on the path that leads to the lake. There's lots for children to do there. *Q18*

There are a number of lovely gardens near the house. The kitchen gardens are rectangular and surrounded by a wall. They're to the north-east of the house, quite near the smaller lake. They're still in use and have a great collection of fruit and vegetables. *Q19*

The Temple of the Four Winds is a bit more of a walk – but it's worth it. Take the path from the car park and go past the western sides of the stables and the house. Then when the path forks, take the right-hand path. Go up there with the woods on your left and the temple is right at the end. There are great views over the whole area. *Q20*

OK, so that's . . .

PART 3

COLIN: I haven't seen you for a bit, Marie.

MARIE: No. I've been busy with my project.

COLIN: You're making a vegan alternative to eggs, aren't you? Something that doesn't use animal products?

MARIE: Yes. I'm using chickpeas. I had two main aims when I first started looking for an alternative to eggs, but actually I've found chickpeas have got more advantages.

COLIN: Right.

MARIE: But how about *your* project on reusing waste food – you were looking at bread, weren't you?

COLIN: Yes. It's been hard work, but I've enjoyed it. The basic process was quite straightforward – breaking the stale bread down to a paste then reforming it.

MARIE: But you were using 3-D printing, weren't you, to make the paste into biscuits?

COLIN: Yeah, I'd used that before, but in this project, I had time to play around with different patterns for the biscuits and finding how I could add fruit and vegetables to make them a more appetising colour, and I was really pleased with what I managed to produce. *Q21/22*

MARIE: It must've been a great feeling to make something appetising out of bits of old bread that would've been thrown away otherwise. *Q21/22*

COLIN: It was. And I'm hoping that some of the restaurants in town will be interested in the biscuits. I'm going to send them some samples.

MARIE: I came across something on the internet yesterday that might interest you. It was a company that's developed touch-sensitive sensors for food labels.

COLIN: Mmm?

MARIE: It's a special sort of label on the food package. When the label's smooth, the food is fresh and then when you can feel bumps on the label, that means the food's gone bad. It started off as a project to help visually impaired people know whether food was fit to eat or not.

COLIN: Interesting. So just solid food?

MARIE: No, things like milk and juice as well. But actually, I thought it might be really good for drug storage in hospitals and pharmacies. *Q23/24*

COLIN: Right. And coming back to food, maybe it'd be possible to use it for other things besides freshness. Like how many kilograms a joint of meat is, for example. *Q23/24*

MARIE: Yes, there's all sorts of possibilities.

COLIN: I was reading an article about food trends predicting how eating habits might change in the next few years.

MARIE: Oh – things like more focus on local products? That seems so obvious, but the shops are still full of imported foods. *Q25*

COLIN: Yes, they need to be more proactive to address that.

MARIE: And somehow motivate consumers to change, yes.

COLIN: One thing everyone's aware of is the need for a reduction in unnecessary packaging – but just about everything you buy in supermarkets is still covered in plastic. The government needs to do something about it. *Q26*

MARIE: Absolutely. It's got to change.

COLIN: Do you think there'll be more interest in gluten- and lactose-free food?

MARIE: For people with allergies or food intolerances? I don't know. Lots of people I know have been buying that type of food for years now. *Q27*

COLIN: Yes, even if they haven't been diagnosed with an allergy.

MARIE: That's right. One thing I've noticed is the number of branded products related to celebrity chefs – people watch them cooking on TV and then buy things like spice mixes or frozen foods with the chef's name on . . . I bought something like that once, but I won't again. *Q28*

COLIN: Yeah – I bought a ready-made spice mix for chicken which was supposed to be used by a chef I'd seen on television, and it didn't actually taste of anything.

MARIE: Mm. Did the article mention 'ghost kitchens' used to produce takeaway food?

COLIN: No. What are they?

MARIE: Well, they might have the name of a restaurant, but actually they're a cooking facility just for delivery meals – the public don't ever go there. But people aren't aware of that – it's all kept very quiet. *Q29*

COLIN: So people don't realise the food's not actually from the restaurant?

MARIE: Right.

COLIN: Did you know more and more people are using all sorts of different mushrooms now, to treat different health concerns? Things like heart problems?

MARIE: Hmm. They might be taking a big risk there. *Q30*

COLIN: Yes, it's hard to know which varieties are safe to eat.
Anyway maybe now . . .

PART 4

For my presentation today, I'm going to talk about the Céide Fields in the northwest of Ireland, one of the largest Neolithic sites in the world. I recently visited this site and observed the work that is currently being done by a team of archaeologists there.

The site was first discovered in the 1930s by a local teacher, Patrick Caulfield. He noticed that when local people were digging in the bog, they were constantly hitting against what seemed to be rows of stones. He realised that these must be walls and that they must be thousands of years old for them to predate the bog which subsequently grew over them. *Q31*

He wrote to the National Museum in Dublin to ask them to investigate, but no one took him seriously. It wasn't until 40 years later, when Patrick Caulfield's son Seamus, who had become an archaeologist by then, began to explore further. He inserted iron probes into the bog to map the formation of the stones, a traditional method which local people had always used for finding fuel buried in the bog for thousands of years. Carbon dating later proved that the site was over 5,000 years old and was the largest Neolithic site in Ireland. *Q32* *Q33*

Thanks to the bog which covers the area, the remains of the settlement at Céide Fields, which is over 5,000 years old, are extremely well-preserved. A bog is 90 percent water; its soil is so saturated that when the grasses and heathers that grow on its surface die, they don't fully decay but accumulate in layers. Objects remain so well preserved in these conditions because of the acidity of the peat and the deficiency of oxygen. At least 175 days of rain a year are required for this to happen; this part of Ireland gets an average of 225 days. *Q34*

The Neolithic farmers at Céide would have enjoyed several centuries of relative peace and stability. Neolithic farmers generally lived in larger communities than their predecessors, with a number of houses built around a community building. As they lived in permanent settlements, Neolithic farmers were able to build bigger houses. These weren't round as people often assume, but rectangular with a small hole in the roof that allowed smoke to escape. This is one of many innovations and indicates that the Neolithic farmers were the first people to cook indoors. Another new technology that Neolithic settlers brought to Ireland was pottery. Fragments of Neolithic pots have been found in Céide and elsewhere in Ireland. The pots were used for many things; as well as for storing food, pots were filled with a small amount of fat and when this was set alight, they served as lamps. *Q35* *Q36*

It's thought that the Céide Fields were mainly used as paddocks for animals to graze in. Evidence from the Céide Fields suggests that each plot of land was of a suitable size to sustain an extended family. They may have used a system of rotational grazing in order to prevent over-grazing and to allow for plant recovery and regrowth. This must have been a year-round activity as no structures have been found which would have been used to shelter animals in the winter. *Q37* *Q38*

However, archaeologists believe that this way of life at Céide ceased abruptly. Why was this? Well, several factors may have contributed to the changing circumstances. The soil would have become less productive and led to the abandonment of farming. The crop rotation system was partly responsible for this as it would have been very intensive and was not sustainable. But there were also climatic pressures too. The farmers at Céide would have enjoyed a relatively dry period, but this began to change and the conditions became wetter as there was a lot more rain. It was these conditions that encouraged the bog to form over the area which survives today. *Q39* *Q40*

So now I'd like to show you some . . .

TEST 2

PART 1

WOMAN: Hi Coleman, how are you?
COLEMAN: Good, thanks.
WOMAN: I wanted to have a chat with you because our friend Josh told me that you've joined a guitar group and it sounds interesting. I'd really like to learn myself.
COLEMAN: Why don't you come along? I'm sure there's room for another person.
WOMAN: Really? So – who runs the classes?
COLEMAN: He's called a 'coordinator' – his name's Gary Mathieson. *Q1*
WOMAN: Let me note that down. Gary. . . . How do you spell his surname?
COLEMAN: It's M-A-T-H-I-E-S-O-N.
WOMAN: Right, thanks.

COLEMAN: He's retired, actually, but he's a really nice guy and he used to play in a lot of bands.
WOMAN: Thanks. So how long have you been going?
COLEMAN: About a month now.
WOMAN: And could you play anything before you started?
COLEMAN: I knew a few chords, but that's all.
WOMAN: I'm sure everyone will be better than me.
COLEMAN: That's what I thought, too. When I first spoke to Gary on the phone, he said it was a class for beginners, but I was still worried that everyone would be better than me, but we were all equally hopeless! *Q2*
WOMAN: Oh, that's reassuring. So where do you meet?
COLEMAN: Well, when I joined the group, they were meeting in Gary's home, but as the group got bigger, he decided to book a room at the college in town. I prefer going there. *Q3*
WOMAN: I know that place. I used to go to tap dancing classes there when I was at secondary school. I haven't been since, though and I can't remember what road it's in . . . is it Lock Street?
COLEMAN: It's just beyond there at the bottom of New Street near the city roundabout. *Q4*
WOMAN: Yes, of course.
COLEMAN: The guitar club is on the first floor in Room T347.
WOMAN: Right. And when do you meet? Is it at the weekend?
COLEMAN: We meet on Thursdays. It used to be 10.30 and that suited me well, but now we meet at 11. The class that's in there before us asked if they could have the room for another 30 minutes. *Q5*
WOMAN: Oh, I see. Well, I'd love to come, but I don't have a guitar.
COLEMAN: Well, you can always buy a second-hand one. There's a website called 'The perfect instrument' that sells all kinds of guitars, violins and so on. I'm sure you'll find something there. *Q6*

WOMAN: So what's a typical lesson like with Gary?
COLEMAN: Well, he always starts by getting us to tune our guitars. That takes about five minutes.
WOMAN: Uhuh.
COLEMAN: Some people have an app they use, but others do it by ear. Gary goes round and helps them. And while he's doing that, he tells us what he's going to do during the lesson. *Q7*
WOMAN: Right.
COLEMAN: First, we usually spend about ten minutes doing some strumming.
WOMAN: So is that using . . . what are they called . . . plectrums?
COLEMAN: No – we just use our thumbs.
WOMAN: Much easier.
COLEMAN: Gary reminds us where to put our fingers for each chord and then we play them together. Sometimes we all just start laughing because we're so bad at keeping time, so Gary starts clapping to help us. *Q8*
WOMAN: Do you learn to play any songs?
COLEMAN: Yes – we do at least one song with words and chords. I mean that's harder than you think.
WOMAN: Oh, I'm sure it is!
COLEMAN: That part of the lesson takes about 15 minutes. He often brings a recording of the song and plays it to us first. Then he hands out the song and if there's a new chord in it, we practise that before we play it together – but really slowly. *Q9*
WOMAN: Do you do any finger picking?

COLEMAN: That's the last ten minutes of the lesson, when we pick out the individual notes from a tune he's made up. It's always quite simple.

WOMAN: That must be hard, though.

COLEMAN: It is, but people like it because they can really concentrate and if we're all playing well, it sounds quite impressive. The only trouble is that he sometimes gets us to play one at a time – you know, alone. *Q10*

WOMAN: That's scary.

COLEMAN: It is, but I've got used to it now. At the end he spends about five minutes telling us what to practise for the following week.

WOMAN: Well, thanks Coleman. I'll go and have a look at that website, I think.

PART 2

I never really planned to be a lifeboat volunteer when I came to live in Northsea. I'd been working in London as a website designer, but although that was interesting, I didn't like city life. I'd been really keen on boats as a teenager, and I thought if I went to live by the sea, I might be able to pursue that interest a bit more in my free time. Then I found that the Lifeboat Institution was looking for volunteers, so I decided to apply. *Q11*

The Lifeboat Institution building here in Northsea's hard to miss, it's one of the largest in the country. It was built 15 years ago with funds provided by a generous member of the public who'd lived here all her life. As the Lifeboat Institution is a charity that relies on that kind of donation, rather than funding provided by the government, that was a huge help to us. *Q12*

When I applied, I had to have a health assessment. The doctors were particularly interested in my vision. I used to be short-sighted, so I'd had to wear glasses, but I'd had laser eye surgery two years earlier so that was OK. They gave me tests for colour blindness and they thought I might have a problem there, but it turned out I was OK. *Q13*

When the coastguard gets an alert, all the volunteers are contacted and rush to the lifeboat station. Our target's to get there in five minutes, then we try to get the boat off the dock and out to sea in another six to eight minutes. Our team's proud that we usually achieve that – the average time across the country's eight and a half minutes. *Q14*

I've recently qualified as what's called a 'helmsman', which means I have the ultimate responsibility for the lifeboat. I have to check that the equipment we use is in working order – the crew have special life jackets that can support up to four people in the water. And it's ultimately my decision whether it's safe to launch the boat. But it's very rare not to launch it, even in the worst weather. *Q15*

As well as going out on the lifeboat, my work involves other things too. A lot of people underestimate how quickly conditions can change at sea, so I speak to youth groups and sailing clubs in the area about the sorts of problems that sailors and swimmers can have if the weather suddenly gets bad. We also have a lot of volunteers who organise activities to raise money for us, and we couldn't manage without them. *Q16*

The training we get is a continuous process, focusing on technical competence and safe handling techniques, and it's given me the confidence to deal with extreme situations without panicking. I was glad I'd done a first aid course before I started, as that's a big help with the casualty care activities we do. We've done a lot on how to deal with ropes and tie knots – that's an essential skill. After a year, I did a one-week residential course, led by specialists. *Q17/18*

They had a wave-tank where they could create extreme weather conditions – so we could get experience at what to do if the boat turned over in a storm at night, for example. *Q17/18*

Since I started, I've had to deal with a range of emergency situations.

But the work's hugely motivating. It's not just about saving lives – I've learned a lot about the technology involved. My background in IT's been useful here, and I can use my expertise to help other volunteers. They're a great group – we're like a family really, which helps when you're dragging yourself out of bed on a cold stormy night. But actually, it's the colder months that can be the most rewarding time. That's when the incidents tend to be more serious, and you realise that you can make a huge difference to the outcome. *Q19/20*

So if any of you listeners are interested. . . .

PART 3

BELLA: Hi Don – did you get the copy of the article on recycling footwear that I emailed you?

DON: Yeah – it's here . . . I've had a look at it.

BELLA: So do you think it's a good topic for our presentation?

DON: Well, before I started reading it, I thought *recycling footwear*, well, although it's quite interesting, perhaps there isn't enough to say about it, cos we put shoes in recycling bins, they go to charity shops and that's about it. *Q21*

BELLA: . . . but there's much more to it than that.

DON: I realise that now and I'm keen to research the topic more.

BELLA: That's great.

DON: One of the things I didn't realise until I read the article was just how many pairs of trainers get recycled!

BELLA: Well, a lot of young people wear them all the time now. They've become more popular than ordinary shoes.

DON: I know. I guess they *are* very hard-wearing, but don't they look a bit casual for school uniform? I don't think they're right for that. *Q22*

BELLA: Actually, I think some of them look quite smart on pupils . . . better than a scruffy old pair of shoes.
So do you keep shoes a *long* time?

DON: Yes. Though I do tend to wear my old pairs for doing dirty jobs like cleaning my bike.

BELLA: I must admit, I've recycled some perfectly good shoes, that haven't gone out of fashion and still fit, just because they don't look great on me any more. That's awful isn't it? *Q23*

DON: I think it's common because there's so much choice. The article did say that recent sales of footwear have increased enormously.

BELLA: That didn't surprise me.

DON: No. But then it said that the amount of recycled footwear has fallen: it's 6 percent now compared to a previous level of 11 percent. That doesn't seem to make sense. *Q24*

BELLA: That's because not everything goes through the recycling process. Some footwear just isn't good enough to re-sell, for one reason or another, and gets rejected.

BELLA: So let's find some examples in the article of footwear that was rejected for recycling.

DON: OK. I think there are some in the interview with the recycling manager. Yeah – here it is.

BELLA: Mmm. Let's start with the ladies' high-heeled shoes. What did he say about those?

DON: He said they were probably expensive – the material was suede and they were beige in colour – it looked like someone had only worn them once, *but* in a very wet field so the heels were too stained with mud and grass to re-sell them. *Q25*

BELLA: OK . . . and the leather ankle boots. What was wrong with them?

DON: Apparently, the heels were worn – but that wasn't the problem. One of the shoes was a much lighter shade than the other one – it had obviously been left in the sun. I suppose even second-hand shoes should look the same! *Q26*

BELLA: Sure. Then there were the red baby shoes.

DON: Oh yes – we're told to tie shoes together when we put them in a recycling bin, but people often don't bother.

BELLA: You'd think it would have been easy to find the other, but it wasn't. That was a shame because they were obviously new. *Q27*

DON: The trainers were interesting. He said they looked like they'd been worn by a marathon runner.

BELLA: Yeah – weren't they split?

DON: Not exactly. One of the soles was so worn under the foot that you could put your finger through it. *Q28*
Well, we could certainly use some of those examples in our presentation to explain why 90 percent of shoes that people take to recycling centres or bins get thrown into landfill.

BELLA: Mmm. What did you think about the project his team set up to avoid this by making new shoes out of the *good* parts of old shoes?

DON: It sounded like a good idea. They get so many shoes, they should be able to match parts. I wasn't surprised that it failed, though. I mean who wants to buy second-hand shoes really? Think of all the germs you could catch!

BELLA: Well, people didn't refuse them for that reason, did they? It was because the pairs of shoes weren't identical. *Q29*

DON: They still managed to ship them overseas, though.

BELLA: That's another area we need to discuss.

DON: You know I used to consider this topic just from my own perspective, by thinking about my own recycling behaviour without looking at the bigger picture. So much happens once shoes leave the recycling area.

BELLA: It's not as simple as you first think, and we can show that by taking a very different approach to it. *Q30*

DON: Absolutely. So let's discuss . . .

PART 4

For my project on invertebrates, I chose to study tardigrades. These are microscopic – or to be more precise – near-microscopic animals. There are well over a thousand known species of these tiny animals, which belong to the phylum *Tardigrada*. Most tardigrades range in length from 0.05 to 1 millimetre, though the largest species can grow to be 1.2 millimetres in length. They are also sometimes called 'water bears': 'water' because that's where they thrive best, and 'bear' because of the way they move. 'Moss piglet' is another name for tardigrades because of the way they look when viewed from the front. They were first discovered in Germany in 1773 by Johann Goeze, who coined the name *Tardigrada*. *Q31*

As I say, there are many different species of tardigrade – too many to describe here – but, generally speaking, the different species share similar physical traits. They have a body which is short, and also rounded – a bit like a barrel – and the body comprises four segments. *Q32*
Each segment has a pair of legs, at the end of which are between four and eight sharp claws. I should also say that some species don't have any claws; what they have are discs, and these work by means of suction. They enable the tardigrade to cling on to surfaces or to grip its prey. *Q33*
Within the body, there are no lungs, or any organs for breathing at all. Instead, oxygen and also blood are transported in a fluid that fills the cavity of the body. *Q34*

As far as the tardigrade's head is concerned, the best way I can describe this is that it looks rather strange – a bit squashed even – though many of the websites I looked at described its appearance as cute, which isn't exactly very scientific. The tardigrade's mouth is a kind of tube that can open outwards to reveal teeth-like structures known as 'stylets'. These are sharp enough to pierce plant or animal cells. *Q35*

So, where are tardigrades found? Well, they live in every part of the world, in a variety of habitats: most commonly, on the bed of a lake, or on many kinds of plants or in very wet environments. There's been some interesting research which has found that tardigrades are capable of surviving radiation and very high pressure, and they're also able to withstand temperatures as cold as –200 degrees centigrade, or highs of more than 148 degrees centigrade, which is incredibly hot. *Q36*

It has been said that tardigrades could survive long after human beings have been wiped out, even in the event of an asteroid hitting the earth. If conditions become too extreme and tardigrades are at risk of drying out, they enter a state called cryptobiosis. They curl into a ball, called a tun – that's T-U-N – by retracting their head and legs, and their metabolism drops to less than one percent of normal levels. They can remain like this until they are re-introduced to water, when they will come back to life in a matter of a few hours. While in a state of cryptobiosis, tardigrades produce a protein that protects their DNA. In 2016, scientists revived two tardigrades that had been tuns for more than 30 years. There was a report that, in 1948, a 120-year-old tun was revived, but this experiment has never been repeated. There are currently several tests taking place in space, to determine how long tardigrades might be able to survive there. I believe the record so far is 10 days. *Q37* *Q38*

So, erm, moving on. In terms of their diet, tardigrades consume liquids in order to survive. Although they have teeth, they don't use these for chewing. They suck the juices from moss, or extract fluid from seaweed, but some species prey on other tardigrades, from other species or within their own. I suppose this isn't surprising, given that tardigrades are mainly comprised of liquid and are coated with a type of gel. *Q39*

Finally, I'd like to mention the conservation status of tardigrades. It is estimated that they have been in existence for approximately half a billion years and, in that time, they have survived five mass extinctions. So, it will probably come as no surprise to you, that tardigrades have not been evaluated by the International Union for Conservation of Nature and are not on any endangered list. Some researchers have described them as thriving. *Q40*

Does anyone have any questions they'd like to ask?

TEST 3

PART 1

LEON: Hi Shannon – how are you settling into your new flat?
SHANNON: Really well, thanks.
LEON: You look like you're going shopping.
SHANNON: Yes, I am. My cousins are coming to stay for a couple of days, and I have to cook for them.
LEON: Well, there are plenty of places to buy food in Kite Place – it's the area by the harbour. *Q1*
SHANNON: Oh, OK, I'll find that on the map. Thanks.
LEON: What sort of food do you need to get?
SHANNON: Well, neither of them eats meat but they both like fish.

LEON: Well, there's a really good fish market there.
SHANNON: Oh great – where is it exactly?
LEON: It's at the far end of Kite Place, so you have to go over the bridge and then it's on the right. *Q2*
SHANNON: OK – is it open all day?
LEON: It doesn't close until four, but I'd recommend going earlier than that – it does run out of some things.
SHANNON: Oh, I don't want that to happen.
LEON: As long as you get there by 3.30, you should be fine. It's only 11 now, so plenty of time. *Q3*
SHANNON: Right.
LEON: Do you need to buy vegetables too?
SHANNON: I do, and I want to avoid all the plastic packaging in the supermarket!
LEON: Well, there's a really nice organic shop there. Now what's it called . . . it's the name of a flower. I know, it's 'Rose'. *Q4*
SHANNON: That's a nice name.
LEON: Yeah – it sells vegetables and quite a lot of other stuff.
SHANNON: And where's that?
LEON: Well, as you reach the market, you'll see a big grey building on your left – I think it used to be a warehouse. Anyway, now it's a restaurant upstairs, but the ground floor has two shops either side of the entrance and it's the one on the left.
SHANNON: That's easy enough.
LEON: You can't miss it – there's also a big sign on the pavement so you can look for that. *Q5*
SHANNON: Fine! I guess if I need anything else, I'll have to go to the supermarket.
LEON: Yeah – you should be able to get everything you need, but there's a minibus that goes to the supermarket if you need it. It's purple and the number is 289. *Q6*
SHANNON: Thanks, that's great.

LEON: So what do you need to get at the fish market? The salmon is always very good and the shellfish.
SHANNON: I'm going to make a curry, I think, and I need about 12 prawns for that.
LEON: They'll have plenty of those.
SHANNON: OK.
LEON: Have you ever tried samphire? *Q7*
SHANNON: No – what's that?
LEON: It's a type of seaweed. I just ask for a handful and you fry it in butter. It's delicious!
SHANNON: Oh, I might try that – how do you spell it?
LEON: It's S-A-M-P-H-I-R-E.
SHANNON: Great – it's always good to try something different.
LEON: Yeah.
SHANNON: I'll see what beans they have in the organic shop and I think I'll get something for dessert there.
LEON: How about a mango?
SHANNON: I'm not sure – they're not always ripe. I'd prefer a melon – it's bigger too. *Q8*
LEON: Good idea. The owner also sells a lot of spices there that you can put in a curry, and things like coconut. *Q9*
SHANNON: Oh, that's very helpful. I'll have a look.
LEON: No problem.
SHANNON: I know bread doesn't really go with curry but I always like to have some in case.
LEON: As I said – all the bread is home-made and there's lots of variety. I like the brown bread myself.
SHANNON: Mm, sounds good.

LEON: They sell other things there too.
SHANNON: Like cakes? I love chocolate cake.
LEON: Well – not that, but they have a whole range of tarts and the best are the strawberry ones. *Q10*
SHANNON: Perfect – hopefully I won't even have to go to the supermarket!

PART 2

PRESENTER: The children's book festival is coming up again soon and here to tell us all about it is the festival's organiser, Jenny Morgan. So tell us what we can expect this year, Jenny.

JENNY: Well, as usual we've got five days of action-packed exciting events for children, with writers coming from all over the country getting involved.
Just to give you an idea of what's on offer in the workshops, first of all, there's a very special event called Superheroes. This is a chance for deaf children to share their reading experiences with author Madeleine Gordon, who is herself hearing impaired. *Q11*
'Just do it' is a practical workshop led by the well-known illustrator Mark Keane. He'll take participants on a magical journey to faraway lands with an opportunity for aspiring actors to do some role play. *Q12*
'Count on me' is an inspiring and entertaining look at the issues of friendship for 13–14-year-olds. It looks at some of the friendships described in popular books and asks participants to compare these with their own experiences. *Q13*
'Speak up' is part of a series of workshops on the subject of mental health. This is a creative writing workshop encouraging children to describe situations where young people experience loneliness. A recent survey revealed that children can be lonely even when they're at home with their families. *Q14*
'Jump for joy', as many of you will know, is the heart-warming, best-selling story by Nina Karan about a young girl's trip to visit her relatives in India. It recently received the gold medal at the Waterford Awards. Nina will get children to celebrate the word 'joy' by writing a poem. *Q15*
'Sticks and stones' is the beautifully illustrated picture book for young readers about a community who organise an African-Caribbean festival to help local children learn about their Jamaican roots. This will be a musical event where children will have the chance to play steel drums. This is bound to be very popular, so please book as soon as possible. *Q16*

PRESENTER: Thanks Jenny. That all sounds really interesting. I'm just wondering if you have a favourite book you could recommend for our readers?

JENNY: It's hard to choose, but *Alive and Kicking* is definitely worth mentioning. You won't have heard of the writer as it's her first book – which is really impressive. It's basically the teenage diary of a boy from Somalia who comes to live in the UK. It deals with the serious issue of immigration and all the challenges the boy has to face at school and with the language barrier, etc. Usually, books like this are quite sad, but this one actually made me cry with laughter. On each page, there are simple but hilarious black and white stick drawings of the boy with his friends and teachers. At the end of each diary entry, there are new English words the boy learns each day, which may help develop some children's vocabulary. *Q17/18* *Q17/18*

PRESENTER: I think my kids would enjoy that. What about any advice for parents on how to encourage their children to read more?

JENNY: Well, this is something I get asked about a lot. There are so many distractions for kids these days that it can be hard to find time for reading. One thing I'd say is to make time to sit down with your child and share books with them. A lot of parents give up reading aloud to their children as soon as they learn to read independently, but this is a mistake. It's good to read more advanced books to them as it helps to develop their vocabulary. If you don't have time for this, then let them listen to audio books. Often, they'll want to read books they've listened to for themselves. I think it's a good idea to make a mental note of the type of books your child is reading – often they just read the same genre all the time, which can get a bit boring. You can introduce new authors and genres to them. Librarians should be able to help you with this. *Q19/20* *Q19/20*

PRESENTER: Well Jenny, I think that's really useful. . . .

PART 3

CLARE: Hi Jake. How are you getting on with the practical teaching?

JAKE: It's harder than I expected, but I've got some great classes. How about you?

CLARE: Not brilliant. I'm really struggling with my Year 12 science class.

JAKE: Are they hard to control?

CLARE: Well, I don't have discipline problems as such. It's just that they don't seem to think that science has anything to do with their lives. It's depressing. They listen to what I say, and I gave them a test last week and the results weren't too bad, but there's no real engagement. *Q21*

JAKE: Right.

CLARE: And as part of my teaching practice, I have to design an experiment for them to do. I was wondering about something on the children's diets . . . you know, asking them to record what they eat and maybe linking it to their state of health.

JAKE: Mmm. Let's think. So your methodology would involve the children recording what they eat. OK, but you'd also need to have access to the children's medical records and I don't think people would be happy about that; confidentiality would be an issue. If you could get the right data, the conclusions might be significant, but I suspect it's not going to be easy. *Q22*

CLARE: Right.

JAKE: Have you thought about doing an experiment using animals?

CLARE: Wouldn't that be upsetting for the children?

JAKE: Well, the animals don't have to be harmed in any way. It could just be an experiment where they're given a certain diet and the effects are observed.

CLARE: Would I have to get permission to use animals?

JAKE: Yes, you'd have to submit an outline of the experiment and fill in a form, but it's quite straightforward.

CLARE: But if we found out that, say, a particular diet affects the health of animals, the same thing wouldn't necessarily be true for people, would it? *Q23*

JAKE: No that's true, but the findings for any experiment are going to be limited. It's inevitable.

CLARE: I suppose so. So what animals could I use to investigate the effects of diet? Mice?

JAKE: Yes. You'd need experimental mice – ones that have been specially bred for experiments.
OK, so what will your experiment be investigating exactly?

CLARE: Well, something to do with nutrition. So maybe we could look at food supplements . . . things like extra iron and extra protein, and their impact on health.

JAKE: Mmm. That might be rather broad. Maybe just look at the effects of one supplement, like sugar, on the health of the mice?

CLARE: In fact, maybe the focus could be on whether mice can control their own diet. *Q24*

JAKE: So, what happens when they have access to more sugar, that they don't really need?

CLARE: Exactly. Do they eat it or do they decide to leave it?

JAKE: Great. Then later on, you could do a follow-up experiment adding another variable. Like, you could give some of the mice the chance to be more active, running on a wheel or something, and the others just sit around and don't do much. *Q25*

CLARE: Or I could repeat the experiment but change the type of food I provided . . . or use mice with a different genetic structure. But I think your idea would be more interesting, I might think about that some more.

CLARE: So can I talk through a possible procedure for the experiment where mice are given a sugar supplement?

JAKE: Sure. I did a similar experiment in college actually.

CLARE: Great. So how many mice would I need?

JAKE: I'd say about 12. And all young ones, not a mixture of old and young. *Q26*

CLARE: OK. And I'd need two groups of equal sizes, so six in each group. And how would I tell them apart? I suppose I could put some sort of tag on one group . . . or just mark them in some way? *Q27*

JAKE: You could use food colouring, that wouldn't hurt them.

CLARE: Perfect. Then each group would go into a separate cage, and one group, let's call them group A, would be the control group. So they'd just have ordinary mouse food. I suppose you can buy that?

JAKE: Yes, it comes in dry pellets.

CLARE: And the other group would have the same as the first group, but they'd also have the extra sugar.

JAKE: Would you just give them straight sugar?

CLARE: It might be better to give them something like cereal with it. *Q28*

JAKE: Mmm. Then you'd need to weigh the mice, I should think once a week. And you'd need an electronic balance.

CLARE: But we can't hold them on the balance, or it'd affect the reading.

JAKE: Exactly. So you need something called a weighing chamber to stop the mice from running away. It sounds complicated, but actually you can just use a plastic box with holes in the top. *Q29*

CLARE: OK. So once we've measured the weight gain of each mouse we can work out the average for each group, as well as the standard deviation. And then see where we go from there. That sounds cool, I think the students will enjoy it. *Q30*

JAKE: Yes. One thing . . .

PART 4

In today's lecture, I'm going to be talking about microplastics.

Microplastics are tiny pieces of plastic smaller than five millimetres in size. Recently there's been a greater awareness that there are large quantities of plastic waste – big and small – in the environment. The amount of plastic waste in the oceans has received widespread attention, but far less is known about the effects of microplastics in freshwater and particularly in soil.

Microplastics can enter the environment via a number of different sources. Threads and microfibres detach from synthetic clothing every time they're put in a washing machine, and *Q31*

these find their way into the water system. Other sources include big pieces of plastic waste that are already in the environment, and these break down into microscopic particles over a period of time. On a larger scale, factory waste is another route, as are tyres which wear down as cars, lorries and so on travel along road surfaces.

We already understand some of the impacts of microplastics from studies involving fish and other animals. There is evidence that microplastics harm small creatures in a variety of ways, such as by damaging their mouths, or by impairing their ability to feed, for example when microplastics get lodged in their digestive system. *Q32*

Surprisingly perhaps, it is likely that humans consume microplastics, as these have been detected in a wide range of food and drink products, including bottled water, as well as in water that comes direct from the tap. What's more, salt and many kinds of seafood have also been found to contain microplastics. *Q33*

However, it's important to underline that there is not yet conclusive proof that microplastics cause significant harm to people. In many countries, including here in the UK, there is legislation which prevents manufacturers from adding plastic microbeads to shower gels, facial cleansers and toothpaste. *Q34*

It is very difficult to accurately estimate the total amount of microplastic particles in the soil as they can be hard to detect, but we do know they are carried in the air and deposited in the soil by rain. What's more, many of the fertilisers used by both farmers and gardeners contain microplastics. *Q35*

A team from the Anglia Ruskin University in Cambridge has carried out a study of the effects of microplastics on the digestive tracts of earthworms. These worms, which live in topsoil, are an essential component of our agricultural system. By feeding on soil, they mix nutrients into it, thereby making it more fertile. *Q36*

The researchers set out to discover whether the introduction of microplastics into the soil – and the subsequent ingestion of these by earthworms – would impact soil quality and ultimately inhibit plant growth. *Q37* The short answer was, yes, it did. After placing three different types of microplastic particles into the soil, they planted perennial rye grass. The particles of microplastic, which included biodegradable PLA and conventional high-density polyethylene, or HDPE, were then ingested by the earthworms in the soil. The result was that the worms lost weight rapidly. *Q38* What's more, a lower percentage than normal of the rye grass seeds germinated, and the researchers concluded that this was a direct result of the earthworms being unable to fulfil their normal role in making soil more fertile. The team also discovered that there was an increase in the amount of acid found in the soil, and this was attributed mainly to the microplastic particles from conventional HDPE plastic. *Q39*

The conclusions of the study make for very interesting reading – I've included the reference in the notes to give you at the end of this session. To summarise, the authors proposed the idea that we need to regard soil as we would regard any other process in nature. This means we should accept the implications of soil being dependent on decaying and dead matter constantly being passed through the bodies of earthworms. That is, when soil becomes impoverished by the presence of microplastics, not only ecosystems but also the whole of society are negatively impacted. *Q40*

TEST 4

PART 1

KAEDEN: Hello Charlotte. I'm Kaeden, one of the supervisors. Welcome to the team.
CHARLOTTE: Hi Aiden.
KAEDEN: It's Kaeden. *Q1*
CHARLOTTE: I'm so sorry.
KAEDEN: Don't worry. People often get my name wrong; they never know how to spell it. It's K-A-E-D-E-N, in case you ever need to write it.
CHARLOTTE: I'll try and remember.
KAEDEN: So, there are a few practical things you need to sort out this morning. Then I'll show you what you're going to do today.
CHARLOTTE: The email I received said to go to the front desk, to show my letter of appointment and pick up my badge.
KAEDEN: You'll need that for the staffroom and other areas of the supermarket where shoppers aren't allowed.
So, after you've finished at the front desk, I'll take you to the staffroom. Put your coat and rucksack in one of the lockers there. Take whichever one is free. *Q2*
CHARLOTTE: Will I have a key?
KAEDEN: Yes. Try not to lose it. At the end of the day, leave it in the door for the next person to use.
CHARLOTTE: Will do.
KAEDEN: You also need to go to the HR department to see Tiffany. She's really helpful.
CHARLOTTE: I was told to bring my passport with me. HR need to take a note of the number in it. *Q3*
KAEDEN: That's right. Or you can show your ID card.
CHARLOTTE: I don't have one of those.
KAEDEN: OK. Tiffany will give you a uniform. They have lots in different sizes, so you just tell her what you need. I won't come with you to HR – I've got to go and sort something else out. Problem with a bread slicer. *Q4*
CHARLOTTE: Is the HR office near the staffroom?
KAEDEN: The staffroom's on the first floor, and HR are a couple of floors above that, on the third floor. There's a staircase outside the staffroom. *Q5*
CHARLOTTE: OK.
KAEDEN: When you've finished with HR, come and find me in the bakery section of the shop.
CHARLOTTE: I'm looking forward to getting started.
KAEDEN: I'll just give you my phone number, in case you can't find me. Have you got your phone there?
CHARLOTTE: Yes . . . OK, ready.
KAEDEN: It's oh-four-one-two double-six-five nine-oh-three. *Q6*
CHARLOTTE: OK, done.

KAEDEN: So, Charlotte, your tasks today are in the bakery section, on the sushi counter, and on the meat and fish counters. The first job is to check sell-by dates on the bread and cakes. If any of the dates are today's, put a new price label on the packaging.
CHARLOTTE: What if any of the labels are yesterday's dates, or older? Do I throw those items away?

KAEDEN: Yes, but that shouldn't happen – we check the stock every day. When something needs a new price label, put a yellow one on the package, next to the original price. *Q7*

CHARLOTTE: OK.

KAEDEN: After that, you'll go to the sushi takeaway counter.

CHARLOTTE: Will I be preparing boxes of food?

KAEDEN: For today, you'll just be helping the staff.

CHARLOTTE: Yes, of course.

KAEDEN: You'll see lots of flat cardboard boxes at one end of the counter. Beneath those is where we keep the plastic boxes – we run out of those really quickly, so you should bring more from the storeroom. *Q8*

CHARLOTTE: Is that my only task on the sushi counter?

KAEDEN: No. You also need to clean the area where they prepare the dishes. There are cloths and bottles of spray by the sink. Oh, and please make sure you clean *that* too.

CHARLOTTE: Sure. That's important, isn't it?

KAEDEN: Absolutely. But you mustn't wash up knives. You have to do some training before you're allowed to touch sharp objects.

CHARLOTTE: What should I do if there are any?

KAEDEN: Ask someone to put them in the dishwasher.

CHARLOTTE: OK, thanks. I don't want to get anything wrong.

KAEDEN: Don't worry. You'll be fine. And I'll be around to help.

CHARLOTTE: Right.

KAEDEN: Finally, the meat and fish counters. You need to clean the area where staff serve customers, including wiping the weighing scales.

CHARLOTTE: OK. Anything else?

KAEDEN: The fish is laid on ice, but when that starts to melt, you'll need to get more from the cold-room. *Q9*

CHARLOTTE: I know the staff on the food counters wear a hat. Will that be the same for me?

KAEDEN: You won't be serving customers directly, so no. But make sure you put on thermal gloves when you take anything out of the cold-room. The temperature's low enough in there to get frostbite from touching things. *Q10*

CHARLOTTE: Understood.

PART 2

My name's Liz Fuller and I'm a running coach with Compton Park Runners Club.

Welcome to my podcast. If you're thinking about taking up running – I'm here to help.

There are many training programmes available online which aim to help people build up to running 5 kilometres. Some of them are great and thousands of people of all ages are taking part in 5-kilometre races across the country as a result. People like them because they're easy to follow and don't push them too hard. However, they don't work for everyone – especially if you suffer from something like a heart condition or asthma, because they're aimed at people with average fitness and running ability. Another thing is that everyone is different – and if you have any specific questions related to your needs, there's no one to provide any answers. *Q11/12* *Q11/12*

I have a couple of simple tips I always give to new runners. I expect you've been told to run very slowly until your fitness increases – well, I find that can prevent progress. You should run at a speed that feels comfortable, but time yourself and try to run a bit faster each time. Listening to music can be very helpful – it takes your mind off things and helps your body get into a rhythm. I'd say that is better than running with a friend – especially as most people are *Q13/14*

competitive and that's not what you want when you're just starting. I don't think the time of day is especially important – some people are better in the evening, while others are morning people – but you need to be consistent, so aim to train regularly – twice a week is enough to begin with. *Q13/14*

New members often say to me that they've been put off running either because they lack confidence, or they don't have time, or they think they dislike running. Ceri, for example, joined the club two years ago at the age of 40. She'd always enjoyed running at school but wasn't sure if she'd be able to do it. She was worried about being left behind and being the slowest runner. But she says she was made to feel so welcome she soon forgot all about that. *Q15*

James had always hated the idea of running but a friend encouraged him to come along for a taster session and he hasn't looked back. He never misses a training session despite having a really demanding job. *Q16*

Leo was worried about having to commit himself to training sessions every week and wasn't sure he'd be able to fit training into his busy schedule. But after experiencing a lot of stress at work he came along to us and gave it a go. Now he says he feels much more relaxed and he looks forward to his weekly run. *Q17*

Mark is quite typical of our new members. He's never considered himself to be a sporty person and it was only when he retired that he decided to take up the challenge of trying to run 5 kilometres. It took him months to find the courage to contact us but felt reassured immediately as there were other people his age who were only just taking up running for the first time. *Q18*

My own journey hasn't been easy. I did my first marathon when I was 37, after having had two kids. My husband had been running marathons for years, but I never dreamed I'd be doing one with him. I managed to complete it in four hours, but I felt like giving up halfway through – it was only the support of the spectators that kept me going. *Q19*

I do think signing up for a race of whatever length is motivating – whether it's 5K or 25K – because it's good to have something to work towards and it gives you a sense of achievement. I did my first 10K after only six months, which was certainly very challenging and not something I'd necessarily recommend. But after you've been training for a few weeks, it's worth putting your name down for a 5K – some people find they only need a few practice runs before taking part in a race, but I'd give yourself a couple of months at least. *Q20*

Well, I hope that's given . . .

PART 3

KIERAN: So Jane – you'll be off to Denmark soon to do your work placement.

JANE: Yes, I'm really looking forward to it and I've just started packing up all my books to put in storage.

KIERAN: Well, I hope they don't get spoilt.

JANE: It's OK – my grandfather works in a bookshop and he told me how to pack them.

KIERAN: Oh, that's helpful.

JANE: He says you have to support the spine otherwise the paper can come away from the cover. *Q21*

KIERAN: Yeah – that's obvious.

JANE: He also told me to pack them flat in the box not on their side – again because they can bend and if you leave them like that for, say, a year, it's quite hard to get them back to their normal shape.

KIERAN: Well, it's pretty clear that ruins them, but a lot of people just can't be bothered to protect their books.
JANE: He always says it's such a shame that publishers don't use better-quality paper.
KIERAN: It's the acid in the paper that causes the problem, isn't it?
JANE: Yeah – that's why old books go yellow. You know some of the books my grandfather's given me are like that already.
KIERAN: Oh . . .
JANE: I should dump them really if they're going to deteriorate further, but I'd feel bad. They'll always remind me of him. He's quite a collector, you know. *Q22*
KIERAN: Well, if they're important to you . . .
JANE: Yeah – I'd regret just throwing them away.
KIERAN: You know, maybe it's because I was taught to treasure books . . . but I hate seeing students force open the pages – of paperbacks. They press so hard they end up breaking the spine.
JANE: I know, but unfortunately, paperbacks aren't designed to last a long time and people know that. Hardbacks aren't quite as weak.
KIERAN: Yeah, they're different, I suppose. But I still don't think people value hardbacks like they used to.
JANE: Well, they aren't decorative, are they, like other objects. Plus, nowadays, people don't keep them out on shelves as much as they used to.
KIERAN: That's such a pity. When I visit someone – if they have, say, a colourful book on a table, it's the first thing I'm drawn to. *Q23*
JANE: I agree – and book covers can be a work of art in themselves. Some are really eye-catching.
KIERAN: I've always been taught to handle books carefully. If you watch someone take a book off a shelf, well, they usually do it wrong.
JANE: Ah, my grandfather says, you should put your hand right over the top of the book . . . or if you can't do that, pull the other books on the shelf aside so that you can hold the whole cover.
KIERAN: When did you learn all this?
JANE: He watched me pull a heavy book off the shelf when I was small, and it fell on the floor and broke apart. *Q24*
KIERAN: Oh dear!
JANE: I can still remember it!
KIERAN: You know what I *really* like?
JANE: What?
KIERAN: The smell of new books.
JANE: Me too.
KIERAN: My parents used to laugh at me when I was a kid because I loved putting books up to my nose. Almost as much as reading them!
JANE: New books aren't cheap, though, are they? *Q25*
KIERAN: I guess we're lucky we can buy them.
JANE: My grandfather stocks second-hand books as well as new ones and they don't smell quite as good.

KIERAN: I'd love to have a bookshop like your grandfather. What's it like?
JANE: Well, it's quite big – it's got two floors and an attic, and he stocks all kinds of books really.
KIERAN: I guess he treasures things like first editions and other rare books.
JANE: Yeah – you might think he'd keep those in the attic or somewhere.
KIERAN: . . . so they'd be hidden?

JANE: Yeah. But he likes people to know that he has them. So, he puts them out in the shop but makes sure you need a ladder to get them. *Q26*

KIERAN: Right. That would prevent any thefts!

JANE: Uhuh.

KIERAN: Does he stock books for children?

JANE: He does. He particularly likes to encourage kids to read; he always says that he used to sit under the stairs as a child with a pile of books and read them all.

KIERAN: Is that where he keeps them, then?

JANE: Not exactly – he's got a dedicated area on the ground floor with cushions so that parents can enter with their toddlers, go there and spend some time reading to them. *Q27*

KIERAN: Oh cool.

JANE: And then there's a place for pushchairs by the front door. And a café if anyone needs refreshments.

KIERAN: That's good to know.

JANE: As I said, it's a big shop and there's a storage area out the back as well.

KIERAN: Oh, what does he keep there? Books he wants to throw away?

JANE: He hardly ever throws anything away – he just leaves unwanted books by the front door for customers to take. *Q28*

KIERAN: Well, that's very nice.

JANE: Yeah – and books people or institutions have requested, they all go at the far end. *Q29*

KIERAN: Oh.

JANE: He thinks it's best to keep these out of the main shopping area as they're boxed and new.

KIERAN: Did you get *your* coursebooks from him?

JANE: Naturally. He stocks books for a lot of the colleges. He used to keep these books on the first floor, but now there's a new university in my hometown, he's moved them downstairs to attract the students. They're actually part of the coffee shop, on low shelves all around it. *Q30*

KIERAN: Pretty central then. You'll have to take me there some time!

PART 4

Tree planting now dominates political and popular agendas and is often presented as an easy answer to the climate crisis, as well as a way for business corporations to offset their carbon emissions. But unfortunately, tree planting isn't as straightforward as some people think. When the wrong trees are planted in the wrong place, it can do considerably more damage than good, failing to help either people or the environment.

Reforestation projects are currently being undertaken on a huge scale in many countries and it's crucial that the right trees are selected. A mix of species should always be planted, typical of the local natural forest ecosystem and including rare and endangered species in order to create a rich ecosystem. It's important to avoid non-native species that could become invasive. Invasive species are a significant contributor to the current global biodiversity crisis and are often in competition with native species and may threaten their long-term survival. *Q31*

Restoring biodiversity that will maximise carbon capture is key when reforesting an area, but ideally any reforestation project should have several goals. These could include selecting trees that can contribute to wildlife conservation, improve the availability of food for the local community and maintain the stability of soil systems. Meeting as many of these goals as possible, whilst doing no harm to local communities, native ecosystems and vulnerable *Q32*

species, is the sign of a highly successful tree-planting scheme. To ensure the survival and resilience of a planted forest, it's vital to use tree seeds with appropriate levels of genetic diversity: the amount of genetic variation found within a species essential for their survival. Using seeds with low genetic diversity generally lowers the resilience of restored forests, which can make them vulnerable to disease and unable to adapt to climate change. *Q33*

Choosing the right location for reforestation projects is as important as choosing the right trees. Ultimately, the best area for planting trees would be in formerly forested areas that are in poor condition. It's better to avoid non-forested landscapes such as natural grasslands, savannas or wetlands as these ecosystems already contribute greatly to capturing carbon. It would also be advantageous to choose an area where trees could provide other benefits, such as recreational spaces. Reforesting areas which are currently exploited for agriculture should be avoided as this often leads to other areas being deforested. *Q34*

Large-scale reforestation projects require careful planning. Making the right decisions about where to plant trees depends on having the right information. Having detailed and up-to-date maps identifying high-priority areas for intervention is essential. *Q35* Drone technology is a useful tool in helping to prioritise and monitor areas of degraded forest for restoration. In Brazil, it's being used to identify and quantify how parts of the Amazon are being devastated by human activities such as rearing cattle and illegal logging. *Q36*

A good example of where the right trees were picked to achieve a restored forest is in Lampang Province in Northern Thailand. A previously forested site which had been degraded through mining was reforested by a cement company together with Chiang Mai University. After spreading 60 cm of topsoil, they planted 14 different native tree species which included several species of fig. Figs are a keystone species because of the critical role they play in maintaining wildlife populations. They are central to tropical reforestation projects as they accelerate the speed of the recovery process by attracting animals and birds which act as natural seed dispersers. *Q37* This helps to promote diversity through the healthy regrowth of a wide range of plant species. Unlike the majority of fruit trees, figs bear fruit all year round, providing a reliable food source for many species. At this site, for example, after only three rainy seasons, monkeys started visiting to eat the fig fruits, *Q38* naturally dispersing seeds through defecation.

Reforestation projects should always aim to make sure that local communities are consulted and involved in the decision-making process.

The restoration of mangrove forests in Madagascar is an example of a project which has succeeded in creating real benefits for the community. Destruction of the mangrove forests had a terrible impact on plant and animal life, and also badly affected the fishing industry, which was a major source of employment for local people *Q39* living in coastal areas. The reforestation project involved hiring local people to plant and care for the new mangrove trees. Millions of mangrove trees have now been planted which has resulted in the return of a healthy aquatic ecosystem. The mangroves also act as a defence against the increased threat of flooding *Q40* caused by climate change. What's more, the local economy is more stable and thousands more Madagascans are now able to send their children to school.

One other important point to consider . . .

Listening and Reading answer keys

TEST 1

LISTENING

Answer key with extra explanations in Resource Bank

Part 1, Questions 1–10

1 69 / sixty-nine
2 stream
3 data
4 map
5 visitors
6 sounds
7 freedom
8 skills
9 4.95
10 leaders

Part 2, Questions 11–20

11 B
12 A
13 B
14 C
15 A
16 G
17 C
18 B
19 D
20 A

Part 3, Questions 21–30

21&22 *IN EITHER ORDER*
B
D
23&24 *IN EITHER ORDER*
A
E
25 D
26 G
27 C
28 B
29 F
30 H

Part 4, Questions 31–40

31 walls
32 son
33 fuel
34 oxygen
35 rectangular
36 lamps
37 family
38 winter
39 soil
40 rain

If you score . . .

0–18	19–28	29–40
you are unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

TEST 1

READING

Answer key with extra explanations in Resource Bank

Reading Passage 1, Questions 1–13

1 FALSE
2 FALSE
3 NOT GIVEN
4 FALSE
5 NOT GIVEN
6 TRUE
7 TRUE
8 paint
9 topspin
10 training
11 intestines / gut
12 weights
13 grips

Reading Passage 2, Questions 14–26

14 D
15 G
16 C
17 A
18 G
19 B
20&21 *IN EITHER ORDER*
B
D
22&23 *IN EITHER ORDER*
C
E
24 grain
25 punishment
26 ransom

Reading Passage 3, Questions 27–40

27 D
28 A
29 C
30 D
31 G
32 J
33 H
34 B
35 E
36 C
37 YES
38 NOT GIVEN
39 NO
40 NOT GIVEN

If you score . . .

0–18	19–27	28–40
you are unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

TEST 2

LISTENING

Answer key with extra explanations in Resource Bank

Part 1, Questions 1–10

1 Mathieson
2 beginners
3 college
4 New
5 11 / eleven (am)
6 instrument
7 ear
8 clapping
9 recording
10 alone

Part 2, Questions 11–20

11 A
12 B
13 A
14 B
15 C
16 A
17&18 *IN EITHER ORDER*
C
E
19&20 *IN EITHER ORDER*
A
B

Part 3, Questions 21–30

21 A
22 B
23 B
24 B
25 E
26 B
27 A
28 C
29 C
30 A

Part 4, Questions 31–40

31 move
32 short
33 discs
34 oxygen
35 tube
36 temperatures
37 protein
38 space
39 seaweed
40 endangered

If you score . . .

0–20	21–29	30–40
you are unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

TEST 2

READING

Answer key with extra explanations in Resource Bank

Reading Passage 1, Questions 1–13

1 piston
2 coal
3 workshops
4 labour / labor
5 quality
6 railway(s)
7 sanitation
8 NOT GIVEN
9 FALSE
10 NOT GIVEN
11 TRUE
12 TRUE
13 NOT GIVEN

Reading Passage 2, Questions 14–26

14 D
15 F
16 A
17 C
18 F
19 injury
20 serves
21 excitement
22 Visualisation / Visualization
23&24 *IN EITHER ORDER*
B
D
25&26 *IN EITHER ORDER*
A
E

Reading Passage 3, Questions 27–40

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

If you score . . .

0–18	19–26	27–40
you are unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

TEST 3

LISTENING

Answer key with extra explanations in Resource Bank

Part 1, Questions 1–10

1 harbour / harbor
2 bridge
3 3.30 / three thirty / ½ / half 3 / three
4 Rose / rose
5 sign
6 purple
7 samphire
8 melon
9 coconut
10 strawberry

Part 2, Questions 11–20

11 C
12 D
13 F
14 G
15 B
16 H
17&18 *IN EITHER ORDER*
D
E
19&20 *IN EITHER ORDER*
B
C

Part 3, Questions 21–30

21 C
22 B
23 A
24 A
25 C
26 C
27 H
28 E
29 B
30 F

Part 4, Questions 31–40

31 clothing
32 mouths
33 salt
34 toothpaste
35 fertilisers / fertilizers
36 nutrients
37 growth
38 weight
39 acid
40 society

If you score . . .

0–17	18–27	28–40
you are unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

TEST 3

READING

Answer key with extra explanations in Resource Bank

Reading Passage 1, Questions 1–13

1 FALSE
2 FALSE
3 TRUE
4 NOT GIVEN
5 TRUE
6 NOT GIVEN
7 FALSE
8 caves
9 stone
10 bones
11 beads
12 pottery
13 spices

Reading Passage 2, Questions 14–26

14 G
15 A
16 H
17 B
18 carbon
19 fires
20 biodiversity
21 ditches
22 subsidence
23 A
24 C
25 D
26 B

Reading Passage 3, Questions 27–40

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

If you score . . .

0–17	18–26	27–40
you are unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

TEST 4

LISTENING

Answer key with extra explanations in Resource Bank

Part 1, Questions 1–10

1 Kaeden
2 locker(s)
3 passport
4 uniform
5 third / 3rd
6 0412 665 903
7 yellow
8 plastic
9 ice
10 gloves

Part 2, Questions 11–20

11&12 *IN EITHER ORDER*
C
E
13&14 *IN EITHER ORDER*
A
D
15 A
16 B
17 C
18 A
19 C
20 B

Part 3, Questions 21–30

21 A
22 C
23 A
24 B
25 C
26 D
27 F
28 A
29 C
30 G

Part 4, Questions 31–40

31 competition
32 food
33 disease
34 agriculture
35 maps
36 cattle
37 speed
38 monkeys
39 fishing
40 flooding

If you score . . .

0–19	20–28	29–40
you are unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

TEST 4

READING

Answer key with extra explanations in Resource Bank

Reading Passage 1, Questions 1–13

1 FALSE
2 TRUE
3 FALSE
4 NOT GIVEN
5 FALSE
6 TRUE
7 colonies
8 spring
9 endangered
10 habitat(s)
11 Europe
12 southern
13 diet

Reading Passage 2, Questions 14–26

14 C
15 F
16 E
17 D
18 D
19 B
20 A
21 E
22 B
23 C
24 waste
25 machinery
26 caution

Reading Passage 3, Questions 27–40

27 C
28 C
29 B
30 A
31 egalitarianism
32 status
33 hunting
34 domineering
35 autonomy
36 NOT GIVEN
37 NO
38 YES
39 NOT GIVEN
40 NO

If you score . . .

0–18	19–27	28–40
you are unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

Sample Writing answers

Additional sample Writing answers in Resource Bank

TEST 1, WRITING TASK 1

This is an answer written by a candidate who achieved a **Band 6.5** score.

The line graph highlights data about how many people participated in 5 various activities at one social club in Melbourne, Australia for the first two decades of XXI century.

Overall, over the years more participants got involved in activities on Table tennis and Musical plays, while Amateur dramatics lost its interest for public. Being flactuated, two types of activities, which are Film club and Martial arts levelled off. Another striking point is that over a twenty - year period between 2000 and 2020, the Film club kept its position as the most popular activity.

Looking at the details of Table tennis, in 2000, there were about 15 participants in club for it. In the next 10 years, it attracted 5 more members, before dramatic surge from 20 to below 60 participants. In 2005, the activity on Musical performances introduced and over the following 15 years, it saw a steady increase on the number of participants by about 20 in the last year.

Regarding next two activities, Film club and Martial arts, the saw fluactions, but without any changes in the overall position. Film club started the process with about 60 members and finished it just below 70, while the participants of Martial arts kept their numbers at around 35.

The number of participants of amateurs on draturgy was about 25 and it saw a steady decrease then by 10.

Here is the examiner's comment:

> This good response begins with an introduction, then in the second paragraph summarises the main trends. The next few paragraphs contain the data and cover each of the participant groups. The information is organised logically and a range of linking devices are used [*Overall* | *Another striking point* | *In the next 10 years*]. There is also some flexible reference and substitution [*while* | *which* | *it* | *their*] with a few inaccuracies.
>
> Vocabulary is generally good [*got involved in* | *levelled off* | *dramatic surge*], but there are some errors [*flactuated* / fluctuated | *amateurs on draturgy* / amateur dramatics]. This response has a variety of grammatical structures and the past simple tense is well controlled. There are sentences with multiple clauses, including superlatives [*most popular*], but also some errors in verb forms [*introduced* / was introduced], some missing articles [*public* / the public | *dramatic surge* / a dramatic surge | *next two* / the next two], some errors with prepositions [*in club for it* / in the club | *by about 20* / to about 20] and inconsistent capitalisation. The candidate should demonstrate a greater level of accuracy with grammatical structures.

TEST 1, WRITING TASK 2

This is an answer written by a candidate who achieved a **Band 6.0** score.

In my opinion competition at work, at school and in daily life can both be a good thing and a bad thing. Why? because I think too much of anything can be destructive. Yes, it's a very good thing to be competitive but don't overdo it! Having no competition in your life at all can be very depressing, because you have no motivation, no goals you want to achieve, everytime you wake up in the morning. I don't believe that there is such thing as "co-operating" too much, when you work with someone you should work together as a team and co-operate, but also do things for yourself, like something career-wise. You should think of your future in your work. That goes the same if you are still in school, take my school life for example. If I am very good at one subject in particular, lots of other student may come up to me and ask for pointers. I would be very glad to help them. If there is any homework, school mates may come over to do it together. this is also fine and very good for building relationship. But sometimes there are people who think you are so nice and ask you to do their work for them. This is where you should draw the line, yes you are friends and you should help each other, but that doesn't mean that you have to do their homework or give them answer when there is a test. Remember life is a competition, be a winner.

Here is the examiner's comment:

> This response covers the task and is engaging to read. The candidate starts by saying competition can be good and bad, too much can be [*destructive*] and too little can be [*depressing*] as you would have [*no motivation, no goals*]. No specific examples are given, and they would improve the response. The rest of the response addresses 'cooperation' but is mostly about how people can cooperate rather than comparing 'cooperation' with 'competition' in line with the question. The conclusion [. . . *be a winner*] slightly contradicts the earlier point [*I don't believe that there is such a thing as "co-operating" too much*].
>
> Unfortunately, there is no paragraphing to group ideas together or indicate main topics. This affects the rating for coherence and cohesion.
>
> There is some higher-level vocabulary [*destructive* | *motivation* | *career-wise*] with some idiomatic use [*draw the line*] which makes vocabulary the strongest area in this response. A wider range would be needed for a higher score. There is a range of grammatical structures, including comparative forms and conditional [*if*] structures.
>
> Although they do address the task and present relevant ideas, to achieve a higher score, the candidate should organise the response into paragraphs and discuss both views. They could also demonstrate a greater level of accuracy with vocabulary and grammatical structures.

TEST 2, WRITING TASK 1

This is an answer written by a candidate who achieved a **Band 6.5** score.

The maps give the information about the improvement of the Porth Harbour from 2000 to today. The first impression is that the Harbour today made use of more areas than in the past.

It can be seen that there are several areas that still stay the same today as in 2000. These include the Carpark and the Showers and Toilets which are located in the north west of the map. However, one more Showers and Toilets are built between the two Carpark today. Besides, the Porth Harbour today also has one more Passenger ferries which right next to the left of the existing one from 2000. Moreover, an area for Cafés and shops is added next to the Lifeboat one. Another significant difference is the relocation of the Marina (private yachts) and the fishing boats areas. Today, the Marina is moved down to the place of the old Fishing boats area to have more space and vice-versa, the Fishing boats area is relocated at the old Marina area. The last noticeable change in this Harbour is the Construction in the South East. The disused old Castle was destroyed and a new Hotel was built there today and another Hotel Is also added in the Private beach area.

Overall, even that the harbour still keeps some areas unchanged, there are many reconstructions and improvements for the Porth Harbour today.

Here is the examiner's comment:

> Overall, this is a strong response. The candidate has covered the main features of the changes and has included an overview to summarise the changes, in the first and the last paragraph. The main details are accurate, apart from the addition of [*another Hotel*] in the private beach area.
>
> The reader can follow the ideas as they are logically organised. This is due to the linking words [*However* | *Besides* | *also* | *Another* | *Overall*] and cohesive features [*existing one* | *vice-versa*], but there are some errors.
>
> Vocabulary demonstrates some flexibility [*first impression* | *relocated* | *noticeable change*], but there is also some inaccuracy and repetition. The weakest area, though, is the use of grammatical structures. There is a mix of sentence forms, with some good complex use [*made use of* | *can be seen that* | *These include . . . which are*] but some errors, such as inaccurate use of the plural [*one more Showers* | *boats areas*] (because the candidate has copied the plural form from the question) and incorrect verb form [*is moved down* | has been moved down].
>
> To achieve a higher score, the candidate should present an overview to summarise the main stages, for example: *The changes to the harbour between 2000 and now focus on improvements that are targeted towards attracting visitors or tourists to the harbour, and include a new hotel, with private beach, more capacity for the passenger ferries and expanded facilities.*

TEST 2, WRITING TASK 2

This is an answer written by a candidate who achieved a **Band 6.0** score.

I personally disagree with the issue whether the working days should be one day less. By no means should we make the weekend three days long. There are two aspects that support my point of view.

First of all, now all over the world are facing an unprecedented economic recession caused by COVID-19. Many factories are forced to close and the shops shut down. The economic loss is substantial. Nevertheless, with the advent of vaccine, I perceive that now people can go back to their work. This would certainly be conducive to our economy. If we reduce one day from work, even just from a week, it would cause repercussions on our society in terms of the development of economy.

Secondly, I am used to do my leisure activities in Saturday and Sunday. If there is one day more, I would wonder what to do on that day, and that means I have to rearrange my weekend plans. I think it would be tiring. Most importantly, I come to admit that, too some degree, I am a workaholic. I cannot even image if I am separated from my favourite place – my office. It is the place where I retreat to when I feel anxious and want to get rid of everything. Working, indeed, gives me a sense of achievement and contentment. I, therefore, would oppose to the idea of cutting one working day.

Though some people may argue that they need one day more in the week to reduce their stress from work, it could be harmful to our economic growth in this harsh time. Also, I believe that many people are used to the current working system, which provides two days for break. The sudden change will make people confused. Unless the government enacts a comprehensive policy for this new system, I think the idea does not work, and it would surely brings chaos in our society.

Here is the examiner's comment:

> In this good response, the candidate presents their opinion at the start, then gives two main points about why the current working week should not change: economic development and the disruption to our existing pattern of a two-day weekend. In the final paragraph, they consider the other side of the argument and people who might like an additional day off. (However, a counter argument is not necessary for this type of question.)
>
> Overall, ideas are presented in a clear order, and there is some good use of linking words and expressions [*First of all* | *Nevertheless* | *Most importantly* | *Unless*].
>
> The response contains some good vocabulary with effective collocation [*unprecedented economic recession* | *conducive to* | *sense of achievement*], and

there is a range of structures including conditionals [*if*], modals [*would* | *may* | *could*] and multi-clause sentences. There are some errors in prepositions and other structures [*I am used to do* / I am used to doing], but the impact is not disruptive.

To achieve a higher score, ideas could be more fully extended, for example, by giving more detail on how removing a working day could be negative for the economy or for workers.

TEST 3, WRITING TASK 1

This is an answer written by a candidate who achieved a **Band 6.5** score.

The given diagram illustrates the various stages in the process of producing ethanol, a kind of biofuel.

Overall, there are about 9 main phrases in the ethanol production, starting with growing plants and tress, and finishing with supplying ethanol for transportation and gas mission.

At the first stage in the process of making ethanol, a large number of trees and plants are grown. Thanks to the source of energy from sunlight and carbon dioxide from humman and transportattin, plants and trees grow up and are haverested when they are mature enough. After being collected by machine, they are put into another machine where slice them into small pieces to form cellulose. This step is call pre-processing.

In the following stage, cellulose are taken to a factory where "processing" stage occurs. Subsequently, Sugars are extracted from original cellulose before microbes are added to make ethanol. It is then used as a tupe of fuel for a lot of means of transportation such as cars, trucks, airplanes. Finally, a huge amount of carbon dioxide which is released into the air become energy for process of "photosynthesis" of plants and trees.

Here is the examiner's comment:

> This is a strong response. The first short paragraph is an introduction, then the second paragraph contains an overview of the process [*starting with growing plants*] and [*finishing with supplying ethanol*]. This is sufficient as an overview, but the candidate should also summarise the main stages. The rest of the response presents and highlights the process.
>
> Ideas are logically organised and the response follows the order given in the diagram. There is good use of linking words to describe a process [*At the first stage* | *After being* | *Subsequently*] and other linking devices, including reference and substitution [*they* | *then used*].
>
> The candidate uses vocabulary well with some flexibility [*extracted* | *photosynthesis*], but there are a handful of errors [*phrases* / phases | *tress* / trees | *humman* / human | *transportattin* / transportation | *tupe* / type]. These errors do not get in the way of the meaning.
>
> Grammatical range is quite broad and there is a variety of complex structures and sentences with multiple clauses. There are a few errors [*where slice them* / which slices them].
>
> To achieve a higher score, an overview which summarises the main stages should be presented, for example: *This cycle for biofuel production involves three main stages: harvesting and preparing plant material for processing, producing ethanol by chemical processing, then using the fuel for transportation, before the cycle begins again.*

TEST 3, WRITING TASK 2

This is an answer written by a candidate who achieved a **Band 7.0** score.

Saving money for the future is always a very good idea. First of all money is something that is needed in almost all areas in life. Whether you are young or old you need money to buy everyday things like food, clothing, ~~etc~~. living etc.

young people are ~~usually~~ often full of enthusiasm about ~~life~~ their future. They are looking forward to their first job, to meeting new people or to getting to know as much of the world as they can. Many tend to live in the present rather than in the future so that they don't always plan ahead.

When ~~you~~ people get older and settle down they realize that buying a house, starting a family or caring for your health takes up a good considerable amount of money and everybody who began saving money in younger years is glad to have done so. However, saving money is not always possible ~~when you are young~~. Sometimes unforeseen expenses cannot be avoided, life situations are suddenly changing or there is never even enough money available even for the most necessary things. ~~So~~ So how could you save money for the future in this case? In general, you have to ask yourself what your priorities in life are. What are the things you cherish most? Is it more important for you to plan ahead or do you prefer to just enjoy the moment that you live in?

Everybody has to make own choices and to consider what is really essential for him or herself.

In any age taking a moment to f reflect on your life and looking back at the ~~choices you~~ things you have already done is always a good thing to do.

If you know yourself well and ~~all~~ about all the things that really make you happy you will be able to make the right decisions in financial issues as well as ~~life~~ other areas in life.

In what way money plays an important role will be easy to be found out then. Perhaps you need less than you first thought years ago.

Here is the examiner's comment:

> This is a strong response to the task. In the first paragraph, the candidate makes their view clear, agreeing with the statement that saving money for the future is a good idea. In the next two paragraphs, they present ideas on how saving money is actually quite challenging: young people can [*tend to live in the present*], so [*don't always plan ahead*], the cost of housing, starting families and health care can be high, and [*unforeseen expenses cannot be avoided*]. The rest of the response is about how people can decide how much to spend and how much to save. The last line [*Perhaps you need less than you first thought years ago*] suggests that saving is not the answer for everyone. The ending gives advice to the reader, rather than summarising the main ideas.

Ideas are easy to follow and logically organised. Linking expressions are well integrated [*Whether* | *Sometimes* | *Perhaps*] and generally accurate, and cohesive devices are used well [*Many tend to* | *everybody who*] with some errors [*own choices* / their own choices]. Paragraphing at the start is appropriate, but the last four sentences are set out separately and inappropriately, which affects the score.

There is some higher-level vocabulary, with effective collocation [*full of enthusiasm* | *tend to live in the present* | *settle down* | *unforeseen expenses*]. The candidate uses a variety of structures, including comparative forms [*rather than* | *do you prefer*], conditionals [*If*] and a range of multi-clause sentences. Errors remain, with some missing punctuation and incorrect tenses [*be found out* / find out] and prepositions [*In any age* / At any age], but this does not affect the reader's understanding.

To achieve a higher score, the candidate should ensure that the conclusion summarises the main ideas, and use effective paragraphing, especially in the second half of the response.

TEST 4, WRITING TASK 1

This is an answer written by a candidate who achieved a **Band 5.0** score.

The table and chart provide information about the location and different types of dance class undertaken by young people in Australia.

The chart says In Private Studios 48% young people are taking dance classes.

And in community halls and other 18% folks are taking dance classes And other location. After school classes 24% people are taking classes and other last one location college based studios these are 10% percent people Taking classes. The table reveal in Ballet type dance 600 students under age of 11 learning. And 300 age of 11-16 are learning. And 420 students age of 11-16 learning and last type of Dance Modern these are 515 students are learning who are under age of 11 and 300 other students who are age of 11-16.

To conclusion in Private Studio the numbers of people much higher than other locations. And type of ballet dance classes number of student Much higher in under age of 11 than other type of dance classes.

Here is the examiner's comment:

> This candidate has worked hard to report all data contained in the graphs. The key areas are covered, but the overall effect is rather mechanical, as each point is presented in a linear sequence.
>
> The ideas are set out in the correct order, following the order of the graphs in the question, but linking between and within the sentences is not strong. The format is quite repetitive [*taking classes* | *learning*] because of the lack of linking devices.
>
> Similarly, vocabulary is limited and a wider range would be needed for a higher score. Grammatical range is also minimal. There is a noticeable level of error, but the reader is still able to understand the message.
>
> To improve the score, this candidate should use a wider range of linking devices and take a less mechanical approach. A stronger and wider range of vocabulary and grammar would also be beneficial.

TEST 4, WRITING TASK 2

This is an answer written by a candidate who achieved a **Band 6.0** score.

Today there are a lot of different shops Where we can buy all kind of stuff produced all over the world. Is it right to buy food produced in other countries? Is this idea useful for people nowadays?

I suppose this to be a good idea. When supermarkets and even small shops provide people food from abroad then there are much more possibilities for us to choose something. When shops have only food and things produced in our country, it is really hard to make a good choise. Sometimes people want to try something new and interesting maybe even something extraordinary which they never buy before. In this cases food which is produced in other countries will help them to be satisfied with their demands. When supermarkets have a good suply of different food produced anywhere than people can find delicious things depending on their tastes. For example, people who like French products can buy some kinds of french cheese or wine not only in France.

Food from other countries is also very good when you want to buy some fresh vegetables and fruits in winter. It is really useful thing because some people are vegetarians and they need vegetables and fruits during the whole year.

The only disadvantage of food which is produced in other countries is the way how it has been delivered. in some cases products can be not so fresh especialy in summer, when it is very hot outside.

To sum it up, I can surely say that buying products from other countries is a good thing to become more closer to other culturies. You can certainly cook something unusial at home and it will taste like in very good expensive restaurant somewhere abroad.

Here is the examiner's comment:

> This is a good response to the task. The candidate clearly agrees with the idea that people should be able to buy international food in supermarkets. The main reason given is that people want to try something [*new and interesting*] and different. Examples are given of French products and seasonal produce for vegetarians. One disadvantage is given, related to the impact of hot weather on transportation. The conclusion includes bringing cultures together through food but does not summarise the points made in the full answer. A more relevant conclusion would help the candidate achieve a higher score, as well as further extending the ideas.
>
> Generally, the candidate organises the ideas well, and we can follow them clearly. Some good linking devices are used [*where* | *maybe even* | *which* | *who*], but some errors remain [*this cases* / these cases | *than* / then]. The response is set out across five paragraphs, but three of them have only two sentences. These are short paragraphs and could be extended to illustrate the central topic in more detail.

Again, vocabulary is generally appropriate for the question, with some strong examples [*extraordinary* | *depending on their tastes*], but there is a lack of precision [*stuff*] and frequent minor spelling errors [*choise* | *suply* | *especialy* | *culturies* | *unusial*]. However, we can still understand what is meant.

There are attempts at a wider range of structures and a number of multi-clause sentences. However, the level of error [*which they never buy before* / which they have never bought before | *the way how it has been delivered* / the way it has been delivered] detracts from the score.

Overall, a more comprehensive conclusion, longer paragraphs, a wider range of vocabulary and fewer grammatical slips would improve the response and achieve a higher score.

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Key: L = Listening; R = Reading.

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