[PDF + Audio] Cambridge IELTS 21 Academic Ebook with Answers

Cambridge IELTS 21 Academic Reading Test 1

PASSAGE 1

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

The Davies Sisters

Between 1908 and 1924, Gwendoline and Margaret Davies amassed one of the largest collections of late-nineteenth and early-twentieth-century French paintings in Britain

Gwendoline (1882-1951) and Margaret (1884-1963) Davies were the granddaughters of David Davies, a Welshman who amassed a fortune in the shipping and mining industries. In 1907, when Gwendoline came into her inheritance (Margaret would follow in 1909), the sisters were said to be the wealthiest unmarried women in Britain. Their religious upbringing in rural Wales gave them a deep sense of social responsibility and they chose to use their inheritance for cultural and philanthropic* purposes.

While there was no real family history of art collecting, the sisters' education was rigorously geared toward such pursuits. Their London school focused on cultural rather than academic study, and they travelled extensively with their governess, Jane Blaker, visiting art galleries and making extensive notes on the collections there.

The sisters began to make regular art purchases from 1908, which roughly coincided with the dates of their inheritance. They took advice from various people, including the art dealer Hugh Blaker (the brother of Jane Blaker) and David Croal Thompson, who was also an art dealer. While it was long assumed that these men were largely responsible for the nature of the sisters' collection, it has recently been accepted that Gwendoline and Margaret retained a far more active role in the process.

The sisters' journals reveal their preference for Old Master** paintings. Yet they initially made very few attempts to secure any such works. While the sisters were wealthy in relative terms, their income was nothing compared to the fortunes of American art collectors of this period, such as J. Pierpont Morgan. Quite simply, high quality Old Master works were, if not beyond their means, then beyond what they were willing to pay for them. Instead, their early purchases were of the fashionable, safe variety, and included, for example, paintings by the French artist Jean-Baptiste-Camille Corot.

However, it was only a few years before their collecting took a new direction and they turned to the work of the French Impressionists***. We know that Hugh Blaker, as a champion of contemporary French art had a hand in the decision, and we know also that they would have seen examples on their various trips to Paris. Whatever the precise reason for this change, their first purchases of Impressionist art, made in October 1912, were scenes of Venice by the French artist Claude Monet. Over the next 12 years, the sisters amassed the bulk of their Impressionist

collection, including six further works by Monet, two more by Manet, and three by Renoir, including his well-known painting La Parisienne.

The First World War (1914-1918) played a part in the development of the sisters' collection. Their initial response to the war effort was to finance the safe passage of artists from occupied Belgium to Wales, as a humanitarian act, but also with the hope of establishing a vibrant artists' community in the area. Later in the conflict, both sisters decided to volunteer at a canteen for troops at Troyes, in northern France; Gwendoline in 1916, followed by Margaret in 1917.

It was tedious and distressing work, which would have a permanent effect on Gwendoline's health. Yet on one of numerous trips to nearby Paris, she visited the Bernheim-Jeune Gallery. Here she acquired two works by Cézanne - Provençal Landscape and The François Zola Dam. The paintings were shipped directly to Bath, England, where they became the first works by Cézanne to go on display in a public gallery in Britain.

Commentators have often described the sisters as unlikely pioneer collectors. Much is made of their isolation in rural Wales and the fact that they didn't make friends with artists or gallery owners. Yet they didn't feel obliged to follow fashionable tastes and were free to pursue their own preferences. Although they relied on a trusted circle of advisers, they made frequent trips to London and Paris, and also regularly had paintings sent to their home for consideration.

By the early 1920s, Gwendoline felt increasingly uncomfortable buying art works when faced with the poverty and social upheaval created by the First World War. Her philanthropic pursuits then became focused almost exclusively on social causes and the development of the sisters' home at Gregynog Hall into a conference center and venue for the Gregynog Festival of Music and Poetry. Gwendoline made her final art purchase in March 1926. Margaret also stopped collecting around this time, but started again in the 1930s acquiring, on a relatively small scale, work by contemporary British artists.

The sisters collected French Impressionist paintings at a time when such art was routinely ignored by individuals and institutions alike. The Gwendoline and Margaret Davies collection, donated in 1951 and 1963 respectively to the National Museum Wales, contains major examples of work by leading French Impressionists. In collecting paintings that they loved, the sisters created a lasting and meaningful cultural legacy for the people of Wales and beyond.

* philanthropic: seeking to promote the welfare of others, often by charitable funding

** Old Master: a highly respected artist of great skill who worked in Europe before about 1800

*** Impressionist: an artist with a style of painting that developed in France in the late 1800s by Renoir, including his well-known painting La Parisienne

PART 1 — QUESTIONS

Questions 1-7

Complete the notes below.

Choose ONE WORD ONLY from the passage for each answer.

Gwendoline and Margaret Davies

Family and early life

- their grandfather's wealth came from [1] _____ and transportation businesses
- their upbringing gave them a sense of social responsibility
- their [2] _____ was designed to give them an interest in activities such as collecting art
- their governess took them on trips to art galleries
- they took lengthy [3] _____ about the things they saw in art galleries

The sisters as art collectors

- their [4] _____ showed they liked Old Master paintings, but they were expensive to buy
- their early purchases were safe, popular paintings
- the first Impressionist paintings they bought showed places in [5] _____

Impact of First World War

- they helped bring artists from Belgium to Wales
- they worked in a [6] _____ for soldiers in France

Opinions about the sisters as art collectors

- were not considered typical collectors - they lived in isolation in the countryside and did not have any [7] _____ who were artists

Questions 8-13

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

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 The Davies sisters' childhood influenced the way they decided to use their wealth.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

9 The Jean-Baptiste-Camille Corot paintings in the Davies sisters' collection were purchased from a gallery in France.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

10 Hugh Blaker opposed the Davies sisters' decision to buy art by French Impressionists.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

11 The exhibition of Cézanne paintings at the Bath gallery was very popular with the public.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

12 The impact of the First World War encouraged Gwendoline to reconsider her interest in collecting art.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

13 The Davies sisters bought French Impressionist art during a period when very few people were doing so.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

PASSAGE 2

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

Why we need silence

A Humans are finely attuned to noise, and for good reason. From an evolutionary perspective, sounds give us vital information, helping us navigate the world and avoid danger. To help ensure loud or unexpected noises get the attention they deserve, our internal chemistry alters in response to them. Our blood pressure goes up, muscles tense and glands release hormones that prepare us for fight or flight. In the short term, this is a good thing. When we are exposed to too much noise over the long term, however, those responses can lead to a multitude of health issues, from sleep disturbance to even cardiovascular disease.

B The World Health Organization has recently designated excessive noise as an 'underestimated threat' to public health, and has said that people living in cities such as Mumbai, Tokyo and Buenos Aires are being exposed to far more than the recommended 40 decibels of noise at night. A report from the European Environment Agency concluded that noise was an ongoing and widespread issue in Europe, with at least 1 in 5 people consistently exposed to levels considered harmful to health. 'There are no "earlids" that can protect your brain from noise,' says Nick Antonio, an acoustic consultant who has contributed to the British and international standards for noise.

C The good news is that several cities have been working to turn the volume down. One of the first to do so was London. 'By providing recommendations for quieter buses, reducing noise from roads and also controlling noise from aircraft, they were able to make the city quieter,' says Antonio. Other cities have introduced noise-reducing road coatings, for instance, alongside greenery that muffles sound. Some solutions are more specific: Washington DC's ban on petrol-powered leaf blowers came into effect recently, while in New York City, legislation has been approved to fine people who modify their vehicles to make them noisier. 'People are seeing the benefits of these more quiet environments in their cities,' Antonio says. 'I expect we will see much more of this in the future.'

D Researchers are also seeking to understand what aspects of silent experiences are most beneficial to our health. One of the best-researched is the flotation tank: a lightproof, soundproof tank of salt water in which a person floats as a form of deep relaxation. While some people experience altered perception in the tanks, involving subtle humming sounds and visual effects, these effects are benign and do not detract from the benefits of the experience, says Justin Feinstein, a clinical neuropsychologist. 'When you don't have external sensory stimuli coming in, the brain tries to fill the void to make sense of this dark and silent world,' he explains. 'In these tanks, some people can even hear the sound of their eyes blinking,' says Feinstein. 'But it is the ability to focus on the breath that helps people reach a relaxed or meditative state.'

E To further explore flotation tanks as a therapeutic tool, Feinstein and his colleagues recruited 50 people with a variety of conditions related to stress and had them answer a questionnaire

prior to and following a flotation session. Participants reported decreases in muscle tension, pain and symptoms of their conditions after a single, 1-hour float, alongside an increase in feelings of relaxation and overall wellbeing.

Less is known about what effects sensory deprivation can have on the brain. To investigate, Feinstein's team had 48 people participate in either three 90-minute float sessions or three 90-minute periods of relaxing on a chair which reclined. Participants had their brains scanned using functional magnetic resonance imaging at the beginning and end of the trial. Float sessions uniquely decreased activity in the default mode network (DMN), a collection of brain regions commonly linked with depression. Feinstein says it is an exciting finding, because flotation tanks seem to offer a way of 'resetting' our nervous system to prevent it from getting out of balance.

F Neurobiologist Tal Dotan Ben-Soussan is also an advocate of silence as a therapy. 'When we find ways to be quiet, we are not only quiet in our environment, but quiet in our inner selves,' she explains. 'This allows us to be more aware of what is happening around us and what the situation may require from us so we can provide [a more] adequate response.'

Not everyone will benefit from silence to the same extent, but Ben-Soussan says one characteristic is key: the person must need to want to engage in the experience. 'We see from animal models and human studies that volition and intentionality is important,' she says. 'When people do not want silence, it can be very distressing.'

G Eric Pfeifer, a psychotherapy researcher, also concedes that some people may not benefit from silence, particularly those who are in a heightened state of stress. 'People in these states may not be able to relax or calm down in a silent condition,' he says. Professional guidance can be useful, he adds, allowing people to approach silence slowly so that they can gradually enjoy the benefits. And Pfeifer is convinced that silence is more attainable in everyday life than people think. First, complete silence isn't necessary. In a recent study, he found that participants reported more relaxation and less boredom when they sat quietly in an outdoor garden compared with a completely silent room. Second, Pfeifer believes we don't need a lot of silence to gain benefits. 'You don't need to spend hours in silence,' he says. 'It is likely better to have more frequency of silence for a few minutes at a time than a longer period of silence only once a week. Just finding those places in your daily life where you can find some silence ... can make a big difference.'

PART 2 — QUESTIONS

Questions 14-17

Reading Passage 2 has seven sections, A-G.

Which section contains the following information?

	A	B	C	D	E	F	G
14 examples of strategies to decrease the noise that the public are exposed to	○	○	○	○	○	○	○
15 data indicating the extent of the problem of excessive noise	○	○	○	○	○	○	○
16 a description of physiological changes in our bodies when we hear sudden noises	○	○	○	○	○	○	○
17 evidence that a relatively quiet environment can be more beneficial than a totally silent one	○	○	○	○	○	○	○

Questions 18-21

Complete the summary below.

Choose ONE WORD ONLY from the passage for each answer.

Flotation Tanks

According to Justin Feinstein, flotation tanks allow people to concentrate on their own **18** _____ , which helps them relax and enables them to meditate.

Feinstein and his colleagues conducted an experiment in which 50 people, who were all suffering from stress and related issues, were given a **19** _____ to complete before and after using a flotation tank. Participants reported a reduction in their symptoms after an hour in the tank, together with signs of relaxation and improved general **20** _____ .

In another experiment, the researchers had 48 people spend periods of 90 minutes either lying back in a chair or floating in a tank. Brain scans then revealed that those people who

had been in a tank had decreased activity in parts of the brain associated with **21** _____ .

Questions 22-26

Look at the following statements and the list of people below.

Match each statement with the correct person, A, B, C or D.

NB You may use any letter more than once.

A. Nick Antonio

B. Justin Feinstein

C. Tal Dotan Ben-Soussan

D. Eric Pfeifer

	A	B	C	D
22 It is unpleasant and upsetting for people to be placed in a silent environment against their will.	○	○	○	○
23 The trend towards creating quieter urban locations is likely to increase in the coming years.	○	○	○	○
24 When our body's senses are completely deprived of input, our minds compensate for this by creating the illusion of images and sounds.	○	○	○	○
25 Even a short amount of silent time can have a positive impact.	○	○	○	○
26 External and internal quietness makes us more conscious of events occurring in our surroundings and helps us react appropriately to these events.	○	○	○	○

PASSAGE 3

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

Book review: The World of Sugar by Ulbe Bosma

Ulbe Bosma's The World of Sugar is a genuinely global history. Bosma discusses all the sugar-growing places of the world, beginning with Cuba and Java, the largest exporters of the early 20th century. But this is a history not just of cane sugar but also of beet sugar, an equally important form of traded sugar over the last hundred years. Beet sugar is grown mainly in Europe and the United States. It has also been massively subsidised and sold at artificially low prices on world markets, threatening the livelihood of producers of cane sugar.

Bosma's discussion of the sugar market in Britain gives a sense of the book's range. The sweet-toothed British first bought cane sugar from their own slavery-dependent colonial plantations. Following the abolition of slavery in the British Empire, cane sugar was imported to Britain from places which retained the practice, such as Cuba and Brazil. Towards the end of the 19th century, the British started to import beet sugar from continental Europe. Only in the 20th century was there a move to develop a national beet sugar industry.

The book provides a global labour history, investigating the wide range of labour regimes associated with growing sugar. Contrary to popular belief, cane sugar production was never just restricted to large, dedicated plantations owned by rich men. For example, in Java, a huge exporter of sugar in the early 20th century, sugar cane was grown together with rice in an extraordinarily labour-intensive way by small farmers.

The World of Sugar is also a story of similarity and continuity in sugar cultivation. For example, imported labour has been used for much large-scale production. German beet fields employed Polish workers; Mexicans and many others, including Sicilians, were vital to US sugar production. Cane cutting, Bosma shows, remains a poorly paid and brutal business to this day in many places in the world. But as well as this, the book is about the continuity of the use of traditional methods on small farms. In the mid 20th-century, this type of sugar production dominated in South Asia and Latin America.

This is also a history of capitalists and sugar dynasties, as well as corporations that in some cases have remained influential over very long periods. Great firms and great interests have had profound influence on the policies of states. In many places - not just the British Caribbean but Cuba and the Philippines too - a powerful sugar bourgeoisie played a major role in politics and their interests were consequently protected by trade barriers and subsidies. In the battle for control of the industry, it was inevitably the poor countries which came off worse. All this is explored by Bosma with wonderful subtlety and control.

But sugar production was never just a matter of agriculture. It also involved the extraction, close to the place of harvest, of sucrose from the sugar plant, a process which required machinery powered by humans, animals, wind or steam. Further processes involved boiling (from the 19th

century, this often involved vacuum systems) and the separation of sugar from other materials in a process known as refinement. From very early on, sugar production was an energy-intensive industrial process, mostly taking place in the countryside and in refineries in centres of consumption, both small and large. The growth of the industry entailed a very rapid diffusion of ideas and techniques from one country to another. Cuba, for example, developed an extraordinarily dense system of railways to transport workers and cane, as well as steam-powered sugar factories. Particular varieties of cane sugar and beet sugar spread very rapidly across the world, in accordance with local needs and demands.

Where once only tiny quantities of sugar could be produced, now new techniques, varieties, fertilisers, irrigation systems and much more have turned gleaming white sugar into a ubiquitous chemical. Over the same time, there has been a massive increase in consumption. Once regarded as a luxury, sugar came to be promoted as a valuable source of energy. But as the consumption of sugar has increased, so has the harm it does, whether to people's teeth or weight. In the face of appalling obstruction from the sugar industry to attempts to reduce consumption, some countries have been forced to tax sugar in order to bring that about. The sugar industry has a history of attacking its critics and, when it comes to obesity, of trying to blame fats, and lack of exercise and self-control. And the recent past has seen worrying new developments in mass sweetening. High-fructose corn syrup made from maize using an enzymatic process invented in Japan in the 1960s has a similar number of calories to table sugar but is far cheaper to produce. It is now widely consumed, having been adopted in the making of soft drinks and a large number of processed foods, and is regarded as a leading cause of obesity.

This is a wonderfully rich book, a model of global history, the history of production and the history of capitalism. Bosma avoids outbursts of emotion, celebratory or critical, even if they might have made his analysis of the multiple tragedies involving sugar all the more powerful. He shows that we could always have done without sugar and that today we have many alternative sources of sweetness. Yet many of the poorest people in the world still depend on it to make a living.

PART 3 — QUESTIONS

Questions 27-30

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

27 What does the reviewer suggest about the cultivation and trading of sugar in the first paragraph?

- **A** ○ Sugar has played a major role in international relations.
- **B** ○ Beet sugar has been made more internationally competitive.
- **C** ○ Cane sugar is thought to be of superior quality to beet sugar.
- **D** ○ New locations for cultivating sugar have increased production.

28 In the second paragraph, when discussing the sugar market in Britain, the reviewer stresses

- **A** ○ how the sources used changed over time.
- **B** ○ how developments in agriculture affected trade.
- **C** ○ the increased demand for sugar over the years.
- **D** ○ the growing support for ethical methods of cultivation.

29 What is the reviewer doing in the third paragraph?

- **A** ○ describing an efficient approach to sugar cultivation
- **B** ○ explaining why the use of sugar plantations declined
- **C** ○ addressing a misconception about the growing of sugar cane
- **D** ○ evaluating different approaches to the cultivation of sugar cane

30 In the final paragraph, what does the reviewer suggest is the overall message of Bosma's book?

- **A** ○ Sugar is a harmful and unnecessary product.
- **B** ○ Economic pressure is needed to control sugar production.

C ○ Conditions for workers in sugar production should be improved.

D ○ Intensive marketing of sugar has had disastrous consequences.

Questions 31-36

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

Sugar cultivation and production

The book The World of Sugar points out the similarities in the way that sugar was cultivated around the world. In the big industries in both Germany and the US, sugar farming depended on **31** _____ . However, in other parts of the world such as South Asia and Latin America, **32** _____ continued.

Sugar production has also involved **33** _____ who were eager to protect their markets. In countries such as Cuba the sugar industry therefore had a major influence on **34** _____ .

To support the interests of sugar producers, **35** _____ were established. As a result of this, **36** _____ were penalised.

A. **national governments** B. **agricultural developments**

C. **less wealthy nations** D. **untrained workers** E. **small-scale cultivation**

F. **outdated methods** G. **financial controls** H. **migrant workers**

I. **powerful individuals and businesses**

Questions 37-40

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

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

37 Sugar has now become available in large quantities due to a range of agricultural developments.

A ○ YES

B ○ NO

C ○ NOT GIVEN

38 Advertisers initially marketed sugar as a luxury product.

A ○ YES

B ○ NO

C ○ NOT GIVEN

39 The invention of high-fructose corn syrup was a positive development.

A ○ YES

B ○ NO

C ○ NOT GIVEN

40 High-fructose corn syrup is an ingredient in many processed foods.

A ○ YES

B ○ NO

C ○ NOT GIVEN

Answer Key

#	Answer	Explanation
1	**mining**	Gwendoline (1882-1951) and Margaret (1884-1963) Davies were the granddaughters of David Davies, a Welshman who amassed a fortune in the shipping and mining industries
2	**education**	While there was no real family history of art collecting, the sisters' education was rigorously geared toward such pursuits
3	**notes**	Their London school focused on cultural rather than academic study, and they travelled extensively with their governess, Jane Blaker, visiting art galleries and making extensive notes on the collections there
4	**journals**	The sisters' journals reveal their preference for Old Master** paintings Quite simply, high quality Old Master works were, if not beyond their means, then beyond what they were willing to pay for them
5	**Venice**	Whatever the precise reason for this change, their first purchases of Impressionist art, made in October 1912, were scenes of Venice by the French artist Claude Monet
6	**canteen**	Later in the conflict, both sisters decided to volunteer at a canteen for troops at Troyes, in northern France; Gwendoline in 1916, followed by Margaret in 1917
7	**friends**	Much is made of their isolation in rural Wales and the fact that they didn't make friends with artists or gallery owners
8	**TRUE**	Their religious upbringing in rural Wales gave them a deep sense of social responsibility and they chose to use their inheritance for cultural and philanthropic* purposes
9	**NOT GIVEN**	Instead, their early purchases were of the fashionable, safe variety, and included, for example, paintings by the French artist Jean-Baptiste-Camille Corot
10	**FALSE**	We know that Hugh Blaker, as a champion of contemporary French art had a hand in the decision, and we know also that they would have seen examples on their various trips to Paris
11	**NOT GIVEN**	The paintings were shipped directly to Bath, England, where they became the first works by Cézanne to go on display in a public gallery in Britain
12	**TRUE**	By the early 1920s, Gwendoline felt increasingly uncomfortable buying art works when faced with the poverty and social upheaval

#	Answer	Explanation
		created by the First World War
13	**TRUE**	The sisters collected French Impressionist paintings at a time when such art was routinely ignored by individuals and institutions alike
14	**C**	'By providing recommendations for quieter buses, reducing noise from roads and also controlling noise from aircraft, they were able to make the city quieter,' says Antonio. Other cities have introduced noise-reducing road coatings, for instance, alongside greenery that muffles sound. Some solutions are more specific: Washington DC's ban on petrol-powered leaf blowers came into effect recently, while in New York City, legislation has been approved to fine people who modify their vehicles to make them noisier
15	**B**	A report from the European Environment Agency concluded that noise was an ongoing and widespread issue in Europe, with at least 1 in 5 people consistently exposed to levels considered harmful to health
16	**A**	To help ensure loud or unexpected noises get the attention they deserve, our internal chemistry alters in response to them. Our blood pressure goes up, muscles tense and glands release hormones that prepare us for fight or flight
17	**G**	In a recent study, he found that participants reported more relaxation and less boredom when they sat quietly in an outdoor garden compared with a completely silent room
18	**breath**	'But it is the ability to focus on the breath that helps people reach a relaxed or meditative state.'
19	**questionnaire**	To further explore flotation tanks as a therapeutic tool, Feinstein and his colleagues recruited 50 people with a variety of conditions related to stress and had them answer a questionnaire prior to and following a flotation session
20	**wellbeing**	Participants reported decreases in muscle tension, pain and symptoms of their conditions after a single, 1-hour float, alongside an increase in feelings of relaxation and overall wellbeing
21	**depression**	Float sessions uniquely decreased activity in the default mode network (DMN), a collection of brain regions commonly linked with depression
22	**C**	'When people do not want silence, it can be very distressing.'
23	**A**	'People are seeing the benefits of these more quiet environments in their cities,' Antonio says. 'I expect we will see much more of

#	Answer	Explanation
		this in the future.'
24	**B**	While some people experience altered perception in the tanks, involving subtle humming sounds and visual effects, these effects are benign and do not detract from the benefits of the experience, says Justin Feinstein, a clinical neuropsychologist. 'When you don't have external sensory stimuli coming in, the brain tries to fill the void to make sense of this dark and silent world,' he explains
25	**D**	Second, Pfeifer believes we don't need a lot of silence to gain benefits. 'You don't need to spend hours in silence,' he says. 'It is likely better to have more frequency of silence for a few minutes at a time than a longer period of silence only once a week
26	**C**	'When we find ways to be quiet, we are not only quiet in our environment, but quiet in our inner selves,' she explains. 'This allows us to be more aware of what is happening around us and what the situation may require from us so we can provide [a more] adequate response.'
27	**B**	It has also been massively subsidised and sold at artificially low prices on world markets, threatening the livelihood of producers of cane sugar
28	**A**	The sweet-toothed British first bought cane sugar from their own slavery-dependent colonial plantations. Following the abolition of slavery in the British Empire, cane sugar was imported to Britain from places which retained the practice, such as Cuba and Brazil. Towards the end of the 19th century, the British started to import beet sugar from continental Europe. Only in the 20th century was there a move to develop a national beet sugar industry
29	**C**	Contrary to popular belief, cane sugar production was never just restricted to large, dedicated plantations owned by rich men
30	**A**	Bosma avoids outbursts of emotion, celebratory or critical, even if they might have made his analysis of the multiple tragedies involving sugar all the more powerful. He shows that we could always have done without sugar and that today we have many alternative sources of sweetness
31	**H**	German beet fields employed Polish workers; Mexicans and many others, including Sicilians, were vital to US sugar production
32	**E**	But as well as this, the book is about the continuity of the use of traditional methods on small farms. In the mid 20th-century, this type of sugar production dominated in South Asia and Latin America

#	Answer	Explanation
33	**I**	This is also a history of capitalists and sugar dynasties, as well as corporations that in some cases have remained influential over very long periods. Great firms and great interests have had profound influence on the policies of states
34	**A**	In many places — not just the British Caribbean but Cuba and the Philippines too — a powerful sugar bourgeoisie played a major role in politics and their interests were consequently protected by trade barriers and subsidies
35	**G**	In many places – not just the British Caribbean but Cuba and the Philippines too – a powerful sugar bourgeoisie played a major role in politics and their interests were consequently protected by trade barriers and subsidies
36	**C**	In the battle for control of the industry, it was inevitably the poor countries which came off worse
37	**YES**	Where once only tiny quantities of sugar could be produced, now new techniques, varieties, fertilisers, irrigation systems and much more have turned gleaming white sugar into a ubiquitous chemical
38	**NOT GIVEN**	Once regarded as a luxury, sugar came to be promoted as a valuable source of energy
39	**NO**	And the recent past has seen worrying new developments in mass sweetening. High-fructose corn syrup made from maize using an enzymatic process invented in Japan in the 1960s has a similar number of calories to table sugar but is far cheaper to produce. It is now widely consumed, having been adopted in the making of soft drinks and a large number of processed foods, and is regarded as a leading cause of obesity
40	**YES**	It is now widely consumed, having been adopted in the making of soft drinks and a large number of processed foods, and is regarded as a leading cause of obesity

Cambridge IELTS 21 Academic Reading Test 2

PASSAGE 1

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

Do animals dream?

Studies using electrodes attached to the heads of sleepers have shown that when we sleep, we do so in two ways that alternate throughout the night. The first is rapid eye movement (REM) or active sleep. During this stage our eyes move, even though our eyelids are closed. Our muscles also twitch slightly, though they are largely paralysed so we don't hurt ourselves. In contrast, we also engage in non-REM sleep, during which we barely move at all. Most dream states, and certainly those with the most vivid dreams, happen during REM sleep.

There's some evidence that other mammals may also dream. For example, researchers compared the brain patterns of rats running through a maze when awake with their brain patterns during REM sleep. They found the patterns were very similar and concluded that the sleeping rats were dreaming about going through the maze.

But finding evidence of dreaming in non-mammals has proved more difficult. Their brains are very different from those of humans, and it can often be difficult to record their activity while they are sleeping. Recently, however, researchers succeeded in recording brain activity in sleeping pigeons. As in mammals, the recordings revealed both REM and non-REM sleep. Intriguingly, REM sleep activity was high in brain regions involved in processing visual information, especially images related to physical activities such as flying, which suggests that this may possibly be what the pigeons were dreaming about.

That said, dreaming and REM sleep are unlikely to be universal in the animal kingdom. For example, sponges don't have brains, so they lack the machinery for dreaming. There are also some animals with unusual sleep patterns. These include whales and dolphins, which do not shut down their entire brain when they sleep, but only half of it, keeping the rest awake. They also show no sign of REM sleep, suggesting that they may only experience non-REM dreams, which are less vivid. This is surprising because we tend to think of whales and dolphins as having complex inner lives. It's thought that they don't experience REM sleep because during REM sleep animals are more vulnerable to extremes of temperature.

Nevertheless, in many cases REM sleep does seem to have benefits. Growing evidence from birds and mammals suggests that REM sleep and dreaming are important for forming memories and learning. It is believed that when events are replayed in dreams, this helps to integrate memories into longer-term storage. As soon as animals evolved moderately complex lifestyles, they would have needed to dream in order to manage these lifestyles.

However, we still don't understand how this outward behaviour relates to internal experience. It seems impossible to know what it is like to be a rat or a pigeon, let alone imagine their

dreamscapes. We are quick to interpret the twitching limbs and quiet barks of sleeping dogs, but the truth is that we don't know if there is an internal experience of chasing rabbits that comes along with that.

Another non-human dreamer offers insight here. In 2019, while making a documentary, David Scheel of Alaska Pacific University in the USA housed an octopus named Heidi in a tank in his living room. At one point, in the middle of the night, Heidi seemed to dream: her limbs and head moved, and her skin rapidly changed colour, as though she was pursuing a crab.

Similarly, a report recently emerged of a sleeping octopus apparently having a nightmare. Costello, as the octopus was called, thrashed around, extended his mantle as if trying to make himself look bigger, and squirted ink as though he were being attacked by a predator. The nightmare study is intriguing, says Scheel, but is only based on one animal. He argues that as well as outward behaviour, brain imaging is needed to show that the octopuses are replaying sequences of activities from their waking lives in dreams.

The trouble is that we will never be able to experience any animal's dreams. That goes for other humans' dreams too. But we can try to imagine what these dreamscapes are like by meeting animals on their own terms. For example, vision is the dominant sense for many humans, and so our dreams are heavily visual too. Dogs primarily navigate the world using smell while spiders rely much more on vibrations.

It is likely that dreaming has served multiple purposes since the first complex animals evolved. And if this is the case, it is possible that better understanding of these purposes might shed light on the true purpose of our own dreams.

PART 1 — QUESTIONS

Questions 1-5

Complete the table below.

Choose ONE WORD ONLY from the passage for each answer.

Research into sleep and dreaming		
	Research findings	**Comment**
Humans	• humans experience REM sleep and non-REM sleep • in REM sleep, the eyes and muscles move	
1 _____	• similar brain patterns were observed when active and sleeping	indicative of dreaming
Pigeons	• when sleeping, pigeons displayed activity in parts of the brain that deal with **2** _____ input	may have been dreaming of flying
Whales and dolphins	• still have **3** _____ their brain awake when they sleep • don't experience REM sleep, as this could affect their sensitivity to **4** _____	their dreams are probably not very **5** _____

Questions 6-13

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

In boxes 6-13 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

6 Dreaming about past experiences helps us to create lasting memories of them.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

7 It is now possible to tell what type of dream a dog is having.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

8 David Scheel's documentary was influential on other research into the sleeping patterns of octopuses.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

9 While it was asleep, the octopus called Costello reacted as if it was hunting.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

10 Scheel believes more research into octopuses' dreams should be carried out.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

11 We may soon be able to share the dreams of other human beings.

- **A** ○ TRUE

B ○ FALSE

C ○ NOT GIVEN

12 Hearing may be an important part of the dreams of some animals.

A ○ TRUE

B ○ FALSE

C ○ NOT GIVEN

13 Interest in the reasons why humans dream has increased greatly in recent times.

A ○ TRUE

B ○ FALSE

C ○ NOT GIVEN

PASSAGE 2

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

Mapungubwe

Located in southern Africa just below the Limpopo River, the kingdom of Mapungubwe, flourished between the 11th and 13th century CE

A Mapungubwe, which was one of the first states in southern Africa, was formed by Bantu-speaking peoples who were farmers. The area controlled by the rulers of Mapungubwe had at its heart a large sandstone plateau, which was easily defended due to its inaccessibility. As with other kingdoms in the region of southern Africa, cattle herding and other types of farming brought plenty of food and a surplus that could be traded for needed goods. Archaeology has revealed extensive layers of bones and manure, which indicate that from the 9th century CE there were large cattle herds, the traditional source of political power in southern African communities. The archaeological record for the 10th century shows a marked increase in the number of domesticated cattle in the area as well as cotton cultivation and weaving, as indicated by abundant finds of spindle whorls.

B The total population of Mapungubwe at its peak in the mid-13th century was around 5,000 people. The chief or king of Mapungubwe was likely the wealthiest individual in the society, and would have owned more cattle and precious materials than anyone else. The king and his advisers dwelt in a stone enclosure composed of stone walls and housing built on the highest level of the community's territory, a natural sandstone hill which is some 30 metres high and 100 metres in length. Occupation on the hill dates from the 11th century and the entire complex was surrounded by a wooden palisade*, as indicated by postholes made in the rock. The rest of the community lived in mud and thatch housing spread out below the hill, although there is one stone structure here. This settlement, known as Babandyanalo, covers around 5 hectares (12.3 acres) and predates the hilltop structures.

C The kings of Mapungubwe were buried at the top of the hill site in a demarcated area away from the dwellings, while other members of the community were buried at the surrounding valley level. A wooden staircase connected the two levels, the sockets for the steps being clearly visible in the sandstone cliff face. There were some grander residences dotted around the outskirts of Babandyanalo, and these probably belonged to male relatives of the king. There are many other smaller but still impressive sites across the Mapungubwe plateau, which are located anywhere from 15 to 100 kilometres from the major hill site. Containing stone residences and walls, they likely belonged to local chiefs who acted as servants to the king.

D The Mapungubwe plateau has a very high number of carnivore animal remains and ivory splinters, suggesting that the skins of these large animals and ivory elephant tusks were accumulated, probably for trade with coastal areas reached by the Limpopo River. The presence of glass beads, almost certainly from India, indicate there was trade of some sort with other states on the coast who, in turn, traded with merchants travelling from India by sea.

Mapungubwe also benefitted from locally-sourced copper and the gold trade as it passed from the kingdom of Great Zimbabwe (12-15th century), situated to the north of Mapungubwe, to the coastal city of Kosala. It is likely that trade links led to a strengthening of political authority in order to control and even monopolise these lucrative interregional connections.

E Archaeological discoveries reveal that pottery was produced on a scale large enough to suggest the presence of professional potters, and is another indicator of the prosperity of Mapungubwe society. Archaeological finds include spherical vessels with short necks, beakers, and bowls, many of which have decorative stamps. There are also ceramic discs, and whistles. In addition, cattle, sheep, and goat figurines, and small figures of highly stylised humans with elongated bodies and short limbs have been found. The figures may have been used in ceremonies as offerings to ancestors, but their precise function is not known. Other discoveries include small jewellery items made from locally sourced copper.

F Beautifully decorated artefacts made of gold have also been found at Mapungubwe. A type of decoration, found nowhere else except Great Zimbabwe, involved the crafting of gold into small rectangular sheets and carving geometrical patterns into it. These sheets were then used to cover wooden objects (which have not survived) using small tacks, also made of gold. One such object that has been discovered may have been a sceptre, while additional evidence of local gold-working is a rhinoceros figurine made from small hammered sheets, and thousands of small gold beads. These objects were all found at the royal burial site and date to c. 1150. They are the first known indicators that gold had an intrinsic value of its own (as opposed to that of a currency) in southern Africa.

G The kingdom of Mapungubwe was already in decline by the late 13th century, probably because overpopulation placed too much stress on local resources, a situation that may have been brought to a crisis point by a series of droughts. Trade routes may also have shifted northwards. Certainly, the areas that now prospered were to the north, such as Great Zimbabwe.

* palisade: typically a row of closely placed, high vertical wooden or iron posts used as a means of defence

PART 2 — QUESTIONS

Questions 14-19

Reading Passage 2 has seven paragraphs, A-G.

Which paragraph contains the following information?

	A	B	C	D	E	F	G
14 a mention of the uncertainty regarding the purpose of certain objects	○	○	○	○	○	○	○
15 the likelihood that a climatic factor increased the problems Mapungubwe faced	○	○	○	○	○	○	○
16 a mention of the location where members of the king's family are thought to have lived	○	○	○	○	○	○	○
17 a reference to people who brought goods by ship	○	○	○	○	○	○	○
18 an estimate of the size to which the Mapungubwe community grew	○	○	○	○	○	○	○
19 a mention of agricultural produce being exchanged for other items	○	○	○	○	○	○	○

Questions 20-21

Choose TWO letters, A-E.

20 **21** The archaeological record reveals information about gold and the kingdom of Mapungubwe. Which TWO pieces of information are mentioned by the writer?

A ☐ Not everyone in Mapungubwe used gold as a form of payment.

B ☐ Items of gold were placed close to where Mapungubwe kings were buried.

C ☐ The most valuable item discovered in Mapungubwe was a sceptre made of gold.

D ☐ The way gold was decorated in Mapungubwe was also practised in another kingdom.

E ☐ Working with gold was a respected occupation in the Mapungubwe community.

Questions 22-26

Complete the summary below.

Choose ONE WORD ONLY from the passage for each answer.

Archaeological discoveries

The Mapungubwe community's **22** _____ is indicated by the amount of professionally made pottery discovered at the site. Many of these objects, such as beakers and bowls, are highly decorated and have been marked with stamps. Other finds include round ceramic objects, **23** _____ and figures of various animals, as well as models of people with stretched **24** _____ . It is possible that these had a role in ceremonies to honour **25** _____ . In addition, pieces of **26** _____ made from a local metal have been found at the site.

PASSAGE 3

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

Artificial Intelligence

In many countries in the West, hysteria about the future of artificial intelligence (AI) is everywhere. There seems to be no shortage of sensationalist news about how AI could cure diseases, accelerate human innovation and improve human creativity. Just looking at the media headlines, you might think that we are already living in a future where AI has infiltrated every aspect of society.

While it is undeniable that AI has opened up a wealth of promising opportunities, it has also led to the emergence of a mindset that can be best described as 'AI solutionism'. This is the philosophy that, given enough data, machine learning algorithms can solve all of humanity's problems. But, in fact, instead of supporting AI progress, this mindset actually jeopardises the value of machine intelligence by disregarding important AI safety principles and setting unrealistic expectations about what AI can really do for humanity.

In only a few years, AI solutionism has made its way from the technology evangelists' mouths in Silicon Valley in California to the minds of government officials and policymakers around the world. The pendulum has swung from the dystopian notion that AI will destroy humanity to the utopian belief that our algorithmic saviour is here.

We are now seeing governments pledge support to national AI initiatives and compete in a technological race to dominate the burgeoning machine-learning sector. While many politicians proclaim the transformative effects of the coming 'AI revolution', they fail to realise the complexity around deploying advanced machine learning systems in the real world.

One of the most promising varieties of AI technologies are neural networks. This form of machine learning is loosely modelled on the neuronal structure of the human brain, but on a much smaller scale. But what many politicians do not understand is that simply adding a neural network to a problem will not automatically mean that you'll find a solution. Similarly, adding a neural network to a system of government does not mean it will be instantaneously more inclusive or fair.

AI systems need a lot of data to function, but the public sector typically does not have the appropriate data infrastructure to support advanced machine learning. Most of the data remains stored in offline archives. The few digitised sources of data that exist tend to be buried in bureaucracy. More often than not, data is spread across different government departments that each require special permissions to be accessed. Above all, the public sector typically lacks the human talent with the right technological capabilities to fully reap the benefits of machine intelligence.

For these reasons, the sensationalism over AI has attracted many critics. Stuart Russell, a professor of computer science at the University of California, Berkeley, has long advocated a

more sensible and realistic approach that focuses on simple everyday applications of AI instead of the hypothetical takeover by super-intelligent robots. Similarly, Rodney Brooks, professor of robotics at Massachusetts Institute of Technology, writes that 'almost all innovations in robotics and AI take far, far, longer to be really widely deployed than people in the field and outside the field imagine'.

One of the many difficulties in deploying machine learning systems is that AI is extremely susceptible to adversarial attacks. This means that a malicious AI can target another AI to make it behave in a certain way, such as forcing it to make wrong predictions. Many researchers have warned against the rolling out of AI without appropriate security standards and defence mechanisms. Still, AI security remains an often overlooked topic when machine learning systems are installed.

If we are to reap the benefits and minimise the potential harms of AI, we must start thinking about how machine learning can be meaningfully applied to specific areas of government, business and society. This means we need to have a discussion about AI ethics and the distrust that many people have towards machine learning.

Most importantly, we need to be aware of the limitations of AI and where people still need to take the lead. Instead of painting an unrealistic picture of the power of AI, it is important to take a step back and separate the actual technological capabilities of AI from fantasy.

The medical profession has also recognised the drawbacks to AI. The IBM Watson for Oncology programme was a piece of AI that was meant to help doctors treat cancer. Even though it was developed to deliver the best recommendations, human experts found it hard to trust the machine. As a result, the AI programme was abandoned in most hospitals where it was trialled.

Similar difficulties arose in the legal domain when algorithms were used in courts in the US to sentence criminals. An algorithm calculated risk assessment scores and advised judges on the sentencing. The system was found to amplify structural racial discrimination and was later abandoned.

There are some crucial lessons here for everyone aiming to boost investments in national AI programmes. These examples demonstrate that there is no AI solution for everything. Using AI simply for the sake of AI may not always be productive or useful, and not every issue is best addressed by applying machine intelligence to it. All solutions come with a cost and not everything that can be automated should be.

PART 3 — QUESTIONS

Questions 27-29

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

27 What is the writer doing in the first paragraph?

- **A** ○ predicting the future impact of AI
- **B** ○ describing a public perception of AI
- **C** ○ outlining some possible benefits of AI
- **D** ○ highlighting the breadth of the influence of AI

28 When discussing AI solutionism in the second paragraph, the writer

- **A** ○ points out a risk involved.
- **B** ○ specifies its probable origins.
- **C** ○ mentions its chief supporters.
- **D** ○ weighs up some pros and cons.

29 In the fourth paragraph, the writer suggests that many politicians may

- **A** ○ have failed to appreciate the true potential of AI initiatives.
- **B** ○ have misunderstood the function of the machine-learning sector.
- **C** ○ be unaware of the challenges of implementing national AI initiatives.
- **D** ○ be too keen to enter the race to dominate the machine-learning sector.

Questions 30-35

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

AI in government, medicine and the law

Neural networks are a promising area of AI technology for governments. However, many politicians overestimate their capabilities, believing that the mere addition of a neural

network will produce solutions and promote **30** _____ .

Most public sector organisations have not set up the necessary **31** _____ to manage the huge amount of data required to enable AI to function. Complex bureaucracy is another issue, as each person involved needs **32** _____ to access the relevant data, which is often spread across different departments. But the main problem is that few public sector employees have the **33** _____ to take full advantage of machine intelligence.

The medical profession experimented with an AI programme, but their experts had little faith in its **34** _____ , and the programme was abandoned. US courts also abandoned the use of algorithms when it was found that these reflected and magnified the existing **35** _____ within the legal profession.

A. **reliability** B. **funding** C. **skills** D. **prejudices** E. **computers**

F. **equality** G. **framework** H. **confidentiality** I. **approval**

Questions 36-39

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

In boxes 36-39 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

36 Stuart Russell's proposals regarding the use of AI are impractical.

A ○ YES

B ○ NO

C ○ NOT GIVEN

37 Rodney Brooks' view has attracted unfair criticism from supporters of AI.

A ○ YES

B ○ NO

C ○ NOT GIVEN

38 Nowadays, the need to protect AI systems is always taken into account when they are set up.

A ○ YES

B ○ NO

C ○ NOT GIVEN

39 In order to benefit from AI and minimise the harms, we have to explore people's concerns about its use.

A ○ YES

B ○ NO

C ○ NOT GIVEN

Questions 40-40

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

40 What would be a suitable subtitle for Reading Passage 3?

A ○ How to make the most of what AI has to offer

B ○ Why AI may not be the answer to our problems

C ○ Why governments should not invest in AI systems

D ○ How AI could improve the efficiency of the public sector

Answer Key

#	Answer	Explanation
1	**rats**	For example, researchers compared the brain patterns of rats running through a maze when awake with their brain patterns during REM sleep. They found the patterns were very similar and concluded that the sleeping rats were dreaming about going through the maze
2	**visual**	Intriguingly, REM sleep activity was high in brain regions involved in processing visual information, especially images related to physical activities such as flying, which suggests that this may possibly be what the pigeons were dreaming about
3	**half**	These include whales and dolphins, which do not shut down their entire brain when they sleep, but only half of it, keeping the rest awake
4	**temperature**	It's thought that they don't experience REM sleep because during REM sleep animals are more vulnerable to extremes of temperature
5	**vivid**	They also show no sign of REM sleep, suggesting that they may only experience non-REM dreams, which are less vivid
6	**TRUE**	It is believed that when events are replayed in dreams, this helps to integrate memories into longer-term storage
7	**FALSE**	We are quick to interpret the twitching limbs and quiet barks of sleeping dogs, but the truth is that we don't know if there is an internal experience of chasing rabbits that comes along with that
8	**NOT GIVEN**	In 2019, while making a documentary, David Scheel of Alaska Pacific University in the USA housed an octopus named Heidi in a tank in his living room
9	**FALSE**	Costello, as the octopus was called, thrashed around, extended his mantle as if trying to make himself look bigger, and squirted ink as though he were being attacked by a predator
10	**TRUE**	The nightmare study is intriguing, says Scheel, but is only based on one animal. He argues that as well as outward behaviour, brain imaging is needed to show that the octopuses are replaying sequences of activities from their waking lives in dreams
11	**FALSE**	The trouble is that we will never be able to experience any animal's dreams. That goes for other humans' dreams too

#	Answer	Explanation
12	**NOT GIVEN**	For example, vision is the dominant sense for many humans, and so our dreams are heavily visual too. Dogs primarily navigate the world using smell while spiders rely much more on vibrations
13	**NOT GIVEN**	And if this is the case, it is possible that better understanding of these purposes might shed light on the true purpose of our own dreams
14	**E**	The figures may have been used in ceremonies as offerings to ancestors, but their precise function is not known
15	**G**	The kingdom of Mapungubwe was already in decline by the late 13th century, probably because overpopulation placed too much stress on local resources, a situation that may have been brought to a crisis point by a series of droughts
16	**C**	There were some grander residences dotted around the outskirts of Babandyanalo, and these probably belonged to male relatives of the king
17	**D**	The presence of glass beads, almost certainly from India, indicate there was trade of some sort with other states on the coast who, in turn, traded with merchants travelling from India by sea
18	**B**	The total population of Mapungubwe at its peak in the mid-13th century was around 5,000 people
19	**A**	cattle herding and other types of farming brought plenty of food and a surplus that could be traded for needed goods
20	**B / D**	A type of decoration, found nowhere else except Great Zimbabwe, involved the crafting of gold into small rectangular sheets and carving geometrical patterns into it These objects were all found at the royal burial site and date to c. 1150
21	**B / D**	A type of decoration, found nowhere else except Great Zimbabwe, involved the crafting of gold into small rectangular sheets and carving geometrical patterns into it These objects were all found at the royal burial site and date to c. 1150
22	**prosperity**	Archaeological discoveries reveal that pottery was produced on a scale large enough to suggest the presence of professional potters, and is another indicator of the prosperity of Mapungubwe society
23	**whistles**	There are also ceramic discs, and whistles
24	**bodies**	In addition, cattle, sheep, and goat figurines, and small figures of highly stylised humans with elongated bodies and short limbs have been found

#	Answer	Explanation
25	**ancestors**	In addition, cattle, sheep, and goat figurines, and small figures of highly stylised humans with elongated bodies and short limbs have been found. The figures may have been used in ceremonies as offerings to ancestors, but their precise function is not known
26	**jewellery / jewelry**	Other discoveries include small jewellery items made from locally sourced copper
27	**B**	In many countries in the West, hysteria about the future of artificial intelligence (AI) is everywhere. There seems to be no shortage of sensationalist news about how AI could cure diseases, accelerate human innovation and improve human creativity. Just looking at the media headlines, you might think that we are already living in a future where AI has infiltrated every aspect of society
28	**A**	But, in fact, instead of supporting AI progress, this mindset actually jeopardises the value of machine intelligence by disregarding important AI safety principles and setting unrealistic expectations about what AI can really do for humanity
29	**C**	While many politicians proclaim the transformative effects of the coming 'AI revolution', they fail to realise the complexity around deploying advanced machine learning systems in the real world
30	**F**	Similarly, adding a neural network to a system of government does not mean it will be instantaneously more inclusive or fair
31	**G**	AI systems need a lot of data to function, but the public sector typically does not have the appropriate data infrastructure to support advanced machine learning
32	**I**	More often than not, data is spread across different government departments that each require special permissions to be accessed
33	**C**	Above all, the public sector typically lacks the human talent with the right technological capabilities to fully reap the benefits of machine intelligence
34	**A**	The IBM Watson for Oncology programme was a piece of AI that was meant to help doctors treat cancer. Even though it was developed to deliver the best recommendations, human experts found it hard to trust the machine. As a result, the AI programme was abandoned in most hospitals where it was trialled
35	**D**	The system was found to amplify structural racial discrimination and was later abandoned
36	**NO**	Stuart Russell, a professor of computer science at the University of California, Berkeley, has long advocated a more sensible and

#	Answer	Explanation
		realistic approach that focuses on simple everyday applications of AI instead of the hypothetical takeover by super-intelligent robots
37	**NOT GIVEN**	Similarly, Rodney Brooks, professor of robotics at Massachusetts Institute of Technology, writes that 'almost all innovations in robotics and AI take far, far, longer to be really widely deployed than people in the field and outside the field imagine'
38	**NO**	Still, AI security remains an often overlooked topic when machine learning systems are installed
39	**YES**	If we are to reap the benefits and minimise the potential harms of AI, we must start thinking about how machine learning can be meaningfully applied to specific areas of government, business and society. This means we need to have a discussion about AI ethics and the distrust that many people have towards machine learning
40	**B**	These examples demonstrate that there is no AI solution for everything. Using AI simply for the sake of AI may not always be productive or useful, and not every issue is best addressed by applying machine intelligence to it

Cambridge IELTS 21 Academic Reading Test 3

PASSAGE 1

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

Saving the saiga

The saiga, a species of antelope native to Central Asia, once roamed the vast grasslands of this region in enormous herds, many millions strong. Regrettably, such spectacular sights are a thing of the past. Today, the saiga is largely confined to a single country: Kazakhstan. This country is estimated to be home to well over 90% of the global saiga population, with Russia, Mongolia and Uzbekistan accounting for the rest.

The saiga is perfectly adapted to the tough conditions of the remote wilderness of the steppes of Central Asia. One such adaptation is its bizarre bulbous nose, which enables the animal to survive the extreme seasonal temperature swings of the region. The swollen nostrils of the nose serve several purposes: they filter out dust and cool the blood during hot, dry summers, and they warm the cold air before it enters the saiga's lungs in winter. Other seasonal adaptations include a heavy winter coat that the saiga sheds when the weather warms up.

Despite these superb adaptations to harsh conditions, the saiga has no defence against the threats posed by humans. It was almost driven to extinction by hunters in the 19th century. Legal protection ensured its survival for a while, and numbers steadily recovered throughout most of the 20th century. But the respite was only temporary. In the ten years following the break-up of the former Soviet Union in 1991, over 95% of the global population was lost - one of the fastest examples of species loss ever recorded for a mammal.

The dramatic decline during this decade was due to illegal poaching on an industrial scale. Male saiga are a particular target, because their horns are highly prized by traditional medicine practitioners. Poaching reached epidemic levels after misguided conservationists tried to relieve the pressure on threatened African rhinos by actively encouraging the use of saiga horns in traditional medicine as an alternative to those of rhinos. Male saiga were almost wiped out, leading to a population crash from which the species has been struggling to recover ever since.

Another threat to the survival of the saiga is loss of habitat, as a result of agricultural expansion and human settlement. Physical barriers such as railways, pipelines and fences can block the seasonal migration routes of this transboundary species. In the worst cases, herds may starve to death after being trapped.

Then there is the risk of disease. In 2015, an outbreak of haemorrhagic septicaemia, caused by the normally harmless bacterium *Pasteurella multocida*, killed over 75% of the global adult saiga population in just three weeks. In 2017, 60% of the Mongolian saiga population - a subspecies found nowhere else in the world - was killed by a virus that spilled over from livestock. These so-called mass mortality events represent an unpredictable and serious threat to the species.

Climate change poses a further threat. Although well adapted to cold winters and hot summers, saiga struggle to cope with temperature extremes and unpredictable fluctuations in climate. Experts believe that unusually warm weather may have triggered the 2015 mass mortality event. The steppe region has also become increasingly arid in recent years, and many of the smaller streams that the species normally depended on have dried up and vanished.

Recent efforts to save the saiga have been spearheaded by the Altyn Dala Conservation Initiative, a project led by the Association for the Conservation of Biodiversity of Kazakhstan, working in partnership with the Kazakh government's Committee for Forestry and Wildlife, Frankfurt Zoological Society and Fauna and Flora, an international conservation charity. Its purpose is to protect and restore Kazakhstan's steppe, semi-desert and desert ecosystems and the many species they support, including the critically endangered saiga. In 2022 the United Nations recognised the initiative as a World Restoration Flagship project, an accolade reserved for the ten best examples of large-scale ecosystem restoration around the globe.

So, how many saiga are there now? By 2000, the global saiga population had hit an all-time low of just 21,000 individuals. There was some recovery in the first decade of the new millennium but this was then crushed by devastating mass mortality events that saw the loss of hundreds of thousands of the species. But thanks to the intervention of the Altyn Dala Conservation Initiative, the most recent episodes in the ongoing story of the saiga have been relatively uplifting. Three years ago, the Ustyurt Plateau population in Kazakhstan experienced its largest mass birth of saiga calves in many years. An aerial census two years ago recorded an estimated 842,000 saiga across Kazakhstan as a whole, and according to an aerial survey earlier this year, the saiga population in Kazakhstan now exceeds 1.9 million. The world's strangest-looking antelope remains critically endangered, but the direction of travel is positive.

PART 1 — QUESTIONS

Questions 1-7

Complete the notes below.

Choose ONE WORD ONLY from the passage for each answer.

The saiga

Adaptations

- has a large bulbous nose with swollen nostrils that

  - keep [1] _____ out

  - lower the temperature of its [2] _____ in summer

  - warm the air entering its lungs in winter

- grows a thick [3] _____ in winter, which it loses in spring

Reasons for population decline

- poaching, especially for the [4] _____ of male saiga
- expansion of farms and settlements, causing

  - reduction in the size of the saiga's [5] _____.

  - loss of access to the [6] _____ which they use for migration

- various forms of disease, leading to mass mortality events
- climate change, causing the disappearance of [7] _____ which the saiga relied on

Questions 8-13

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

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 Today, numbers of saiga are distributed evenly across four nations in Central Asia: Kazakhstan, Russia, Mongolia and Uzbekistan.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

9 For most of the 20th century, the population of saiga were falling.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

10 Efforts to protect rhinos in Africa had a significant effect on saiga populations.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

11 Unpredictable fluctuations in climate are threatening the wildlife of Central Asia more than in other parts of the world.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

12 The Altyn Dala Conservation Initiative was formed for the benefit of a number of different animals.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

13 The Altyn Dala Conservation Initiative's recognition as a World Restoration Flagship project attracted additional international funding for the scheme.

A ○ TRUE

B ○ FALSE

C ○ NOT GIVEN

PASSAGE 2

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

The problems of getting around the city of Dar es Salaam

Dar es Salaam in Tanzania is one of the fastest growing cities in Africa. Its population has increased eightfold since 1980 and swells by half a million people every year. United Nations projections anticipate it will become a megacity within seven years as its population passes 10 million, reaching 13.4 million by 2035. Daniel Hoornweg for the Global Cities Institute forecasts the city could be home to an incredible 73.7 million people by 2100.

Today, four out of five of its people live in single-storey informal settlements on the spreading edges of the city, where the journey to and from the centre regularly takes over two hours. It can be longer if rain turns the dirt roads to mud.

Even in the middle of the day, traffic frequently slows to a stop without warning. It is not unusual for cars and minibuses to queue for 20 minutes at a key intersection. A single suburban rail line serves residents in a few areas to the south but is tiny in the context of the wider city. Outside the centre many rely on boda boda (motorbike taxis) to navigate the narrow side streets and potholed mud roads that make up much of the metropolis. Their safety record is scandalous.

Dar es Salaam's reliance on four arterial roads into the city is a legacy of the colonial government that planned the city at the start of the 20th century to cater for a population of 35,000. Most of the current growth is made up of young people arriving from the countryside to find work, and as the population has exploded, Dar es Salaam has grown around those four highways. Nearly all the expansion is happening on the periphery, and nearly all takes place informally without any agreed strategy.

But Dar es Salaam is pinning its hopes on a solution that could offer a different model for Africa's megacities, giving them an alternative to a future controlled by the private car. Unlike many cities on the continent, Dar es Salaam isn't trying to build a metro. It has chosen a less exciting but cheaper and more achievable method: the bus.

The DART bus rapid transit (BRT) system runs on bus lanes separated from other traffic, mostly in the middle of the road to reduce stoppages. Ticket purchase and control takes place at stations prior to boarding and the buses are step-free, which means the entire route is accessible to people using wheelchairs or who are travelling with baby buggies.

'The new buses are much, much better,' says Paulas George, a young IT worker. He takes the bus every day and it has cut his journey time by two-thirds. He says it is not perfect, though, complaining that drivers often refuse to turn on the air conditioning to save fuel.

That is not the only problem. A shortage of buses after a serious flood at the main depot during the rainy season means the system is carrying 200,000 people a day - half the expected capacity. Smartcards can't be used as the mechanical readers aren't working either, forcing

passengers to buy individual paper tickets for every journey. Each is printed with a scannable QR code, but there are no scanners. Staff stand by the gates and tear tickets as people enter. As a result, queues are considerable at peak times.

Morogoro Road to the north-west of the city was phase I of the BRT project. Phases II and III will install bus lanes along Nyerere Road to the south-west and Kilwa Road to the south. Construction on both routes is due to start imminently. Phase IV, towards Bagamoyo in the north, is in the preliminary design stage. 'Much of the city will have access to a world-class transport system within the space of a few years,' says Chris Kost, the Africa director of ITDP (the Institute for Transportation and Development Policy). All phases are being planned to high standards and, once complete, a third of city residents will be within a short walk of the BRT network.

The ITDP regrets Africa's obsession with metros. 'With a metro, an international firm will often just parachute in its own system,' says Kost. 'Bus rapid transit allows existing stakeholders to get involved. That's what we did in Dar es Salaam and what we're planning in Nairobi, where the bus bodies will be built in the city and local operators will look after tickets, fare collection and IT ...Bus rapid transit has been transformational for Dar es Salaam. For millions of people in African cities, this is their best hope of ever being connected.'

PART 2 — QUESTIONS

Questions 14-18

Do the following statements agree with the information given in Reading Passage 2?

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

14 The population of Dar es Salaam is rising more rapidly than was previously predicted.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

15 Most of the residents of Dar es Salaam live in high-rise blocks on the edge of the city.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

16 Residents have been consulted about their views on the suburban rail line in Dar es Salaam.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

17 The majority of the present residential development in Dar es Salaam is unplanned.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

18 Dar es Salaam's authorities have decided to follow the public transport plan adopted by a large number of African cities.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

Questions 19-26

Complete the notes below.

Choose ONE WORD ONLY from the passage for each answer.

Dar es Salaam's DART Bus Rapid Transit system

Features

- the buses use designated **19** _____ to cut down on delays
- passengers pay fares before **20** _____
- passengers in **21** _____ can use every part of the system

Problems

- the temperature control is sometimes not activated in order to reduce **22** _____ use
- insufficient number of vehicles are available due to the effects of a severe **23** _____
- passengers are unable to use **24** _____ because some equipment is out of action
- tickets have to be checked manually at station **25** _____
- **26** _____ frequently build up during rush hours

PASSAGE 3

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

Rethinking the Past

It is by now a truism that the story of human evolution is being rethought. Discoveries have come thick and fast over the last decade or so, and these have forced us to rethink many crucial points, such as how old our species is - about 300,000 years old as opposed to 200,000 - and what extinct hominins, such as our cousins the Neanderthals, were really like. But because there are so many species and eras involved, it's hard to discern the common threads linking them.

However, I do think it's possible to draw out some overall messages from the blizzard of archaeological finds in recent years. Two things stand out to me. One is the growing evidence that many supposedly 'advanced' behaviours, such as architecture and art, can be traced much further back in time than we thought, often to hominin species that existed before modern humans. And the other is that we have badly misunderstood gender roles in prehistoric societies, imposing patriarchal values onto cultures that had very different ideas about how women should behave.

Let's start with architecture. At Kalambo Falls in Zambia, researchers found buried logs that had been shaped with stone tools so that they interlocked. They seem to have once been part of a larger structure, perhaps a building. This would be unsurprising if they weren't 476,000 years old. That's almost 200,000 years before our species, *Homo sapiens*, evolved. Extinct hominins also managed to settle in extreme places. For instance, we now know that extinct hominins such as the Denisovans lived on the frozen heights of high-altitude regions 200,000 years ago - upending the old notion that such environments were only settled by modern humans around 3,600 years ago.

Art also seems to have been invented by older hominins. We have had evidence for a long time now that Neanderthals painted on cave walls. Even earlier species, such as *Homo erectus*, may also have made art, for example by engraving patterns on shells. By far the most contentious claim in this area is that *Homo naledi* made art. *H. naledi* lived around 250,000 years ago, making it a contemporary of our species. However, it had quite a small brain, typical of older hominins - and was therefore, according to palaeoanthropological dogma, incapable of complex behaviours. Nevertheless, in the Rising Star cave system in South Africa where the *H. naledi* remains were found, researchers have found what seem to be etchings - resembling rudimentary artwork - on the cave walls, though these have yet to be firmly dated.

To say these claims about *H. naledi* are controversial is to understate the situation. Many experts say the evidence presented so far is completely inadequate to support them. The dispute has only been heightened by the way the results were released, in a non-traditional journal that publishes peer reviews publicly alongside the paper. My views on the *H. naledi* controversy are complicated. I do think more evidence is needed: in particular with regard to

the dating of the etchings. At the same time, I think the species' small brains are a distraction. Palaeoanthropologists got fixated on brain size because it was what they could see: if what you have is skeletons, then all you know about brains are their shapes and sizes. But other properties, such as the brain's internal wiring, are surely equally important and may explain how a species like *H. naledi* might have been capable of complex behaviours, despite their small brains.

In a sense, we shouldn't be surprised that so many of these behaviours had their origins in older, extinct hominins. Evolution usually works by incremental steps and so does technology. The first birds weren't great at flying, and the first mobile phones weren't great at, well, anything really. The idea that there was a sudden explosion of intelligence and creativity at some point in our evolution isn't inherently ridiculous: sometimes a system hits a tipping point and undergoes runaway change. But there was never that much evidence that human evolution worked this way. Instead, it seems the Neanderthals and many others all walked so we could run.

One way or another, the *H. naledi* story is going to be an example of letting our preconceptions get in the way of the evidence. The same is true for our ideas about gender in prehistory. Archaeology was invented by individuals with now unfashionably patriarchal views about gender, and those notions fed into their research. Today's researchers are trying to unpick this stuff, and there have been some significant steps in recent years.

Perhaps the most dramatic was the demolition of 'Man the Hunter'. This was the idea, promoted for decades, that in most prehistoric societies the men went out to hunt and the women looked after the home. However, a meta-analysis published in June 2023 compiled data on several dozen foraging societies and found women hunted in 80 per cent of them. In line with this, it emerged that an ancient spear-throwing tool called an atlatl enables women to launch projectiles at the same speed as men. We have also seen growing evidence of women occupying positions of authority in ancient societies. The Viking queen Thyra may have helped unify Denmark in the 900s. Going further back, an Iberian leader from around 4000 years ago turned out to be female, not male as many had assumed, when proteins in her teeth were analysed.

It seems that the more we find out about past societies, the more our preconceptions about the ways society 'has to be' turn out to be wrong. Inequality, authoritarianism and patriarchy aren't inevitable. They're choices, and prehistory shows us that we can choose differently.

PART 3 — QUESTIONS

Questions 27-30

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

27 What is the writer doing in the second paragraph?

- **A** ○ pinpointing some key changes in our understanding of prehistory
- **B** ○ outlining some aspects of prehistory which are still poorly understood
- **C** ○ summarising some attitudes towards recent archaeological revelations
- **D** ○ giving an overview of some current disagreements among archaeologists

28 In the sixth paragraph, the writer mentions mobile phones to make the point that

- **A** ○ most developments happen in a gradual way.
- **B** ○ innovation can come from a variety of sources.
- **C** ○ not all technological advancements are positive.
- **D** ○ the path of evolution can often be unpredictable.

29 In the seventh paragraph, the phrase 'unpick this stuff' refers to the task of

- **A** ○ assessing the impact of certain recent research findings.
- **B** ○ questioning the authenticity of evidence used in earlier research.
- **C** ○ conducting research into how prehistoric societies were organised.
- **D** ○ reevaluating research influenced by outdated beliefs about society.

30 What does the writer suggest in the final paragraph?

- **A** ○ Studying past societies could help us create a fairer society today.
- **B** ○ We should not judge past societies by the standards of modern society.
- **C** ○ We still have much to learn about how societies have evolved over history.

D ○ There is more than one way to interpret evidence about societies in prehistoric times.

Questions 31-34

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

• The findings at Kalambo Falls revealed that **31** _____

• Evidence from high-altitude regions suggests that **32** _____

• An academic publication from June 2023 shows that **33** _____

• Analysis of a 4000-year-old Iberian leader indicates that **34** _____

A. **Homo sapiens emerged at an earlier point in time than experts previously believed.**

B. **previous assumptions about who had power in the prehistoric world were inaccurate.**

C. **gender roles in extinct hominin species were different from those in Homo sapiens societies.**

D. **experts may have been mistaken about who looked for food in early human communities.**

E. **Homo sapiens was probably not the only species capable of sophisticated workmanship.**

F. **other species managed to survive in harsh environments before the arrival of Homo sapiens.**

Questions 35-40

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

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 It seems likely that the Neanderthals' cave paintings were the first examples of artwork ever created.

A ○ YES

B ○ NO

C ○ NOT GIVEN

36 It is very rare to find prehistoric artwork carved onto shells.

A ○ YES

B ○ NO

C ○ NOT GIVEN

37 The methods which the researchers used to examine the Rising Star cave system were rather unconventional.

A ○ YES

B ○ NO

C ○ NOT GIVEN

38 It is unclear how old the etchings in the Rising Star cave system are.

A ○ YES

B ○ NO

C ○ NOT GIVEN

39 The means used to publicise the findings from the Rising Star cave system added to the controversy that surrounds them.

A ○ YES

B ○ NO

C ○ NOT GIVEN

40 The size of H. naledi brains is a key factor in the question of whether these hominins were able to produce art.

A ○ YES

B ○ NO

C ○ NOT GIVEN

Answer Key

#	Answer	Explanation
1	**dust**	The swollen nostrils of the nose serve several purposes: they filter out dust and cool the blood during hot, dry summers, and they warm the cold air before it enters the saiga's lungs in winter
2	**blood**	The swollen nostrils of the nose serve several purposes: they filter out dust and cool the blood during hot, dry summers, and they warm the cold air before it enters the saiga's lungs in winter
3	**coat**	Other seasonal adaptations include a heavy winter coat that the saiga sheds when the weather warms up
4	**horns**	Male saiga are a particular target, because their horns are highly prized by traditional medicine practitioners
5	**habitat**	Another threat to the survival of the saiga is loss of habitat, as a result of agricultural expansion and human settlement
6	**routes**	Physical barriers such as railways, pipelines and fences can block the seasonal migration routes of this transboundary species
7	**streams**	The steppe region has also become increasingly arid in recent years, and many of the smaller streams that the species normally depended on have dried up and vanished
8	**FALSE**	This country is estimated to be home to well over 90% of the global saiga population, with Russia, Mongolia and Uzbekistan accounting for the rest
9	**FALSE**	Legal protection ensured its survival for a while, and numbers steadily recovered throughout most of the 20th century
10	**TRUE**	Poaching reached epidemic levels after misguided conservationists tried to relieve the pressure on threatened African rhinos by actively encouraging the use of saiga horns in traditional medicine as an alternative to those of rhinos. Male saiga were almost wiped out, leading to a population crash from which the species has been struggling to recover ever since
11	**NOT GIVEN**	Climate change poses a further threat. Although well adapted to cold winters and hot summers, saiga struggle to cope with temperature extremes and unpredictable fluctuations in climate
12	**TRUE**	Its purpose is to protect and restore Kazakhstan's steppe, semi-desert and desert ecosystems and the many species they support, including the critically endangered saiga

#	Answer	Explanation
13	**NOT GIVEN**	In 2022 the United Nations recognised the initiative as a World Restoration Flagship project, an accolade reserved for the ten best examples of large-scale ecosystem restoration around the globe
14	**NOT GIVEN**	United Nations projections anticipate it will become a megacity within seven years as its population passes 10 million, reaching 13.4 million by 2035. Daniel Hoornweg for the Global Cities Institute forecasts the city could be home to an incredible 73.7 million people by 2100
15	**FALSE**	Today, four out of five of its people live in single-storey informal settlements on the spreading edges of the city
16	**NOT GIVEN**	A single suburban rail line serves residents in a few areas to the south but is tiny in the context of the wider city
17	**TRUE**	Nearly all the expansion is happening on the periphery, and nearly all takes place informally without any agreed strategy
18	**FALSE**	Unlike many cities on the continent, Dar es Salaam isn't trying to build a metro. It has chosen a less exciting but cheaper and more achievable method: the bus
19	**lanes**	The DART bus rapid transit (BRT) system runs on bus lanes separated from other traffic, mostly in the middle of the road to reduce stoppages
20	**boarding**	Ticket purchase and control takes place at stations prior to boarding and the buses are step-free, which means the entire route is accessible to people using wheelchairs or who are travelling with baby buggies
21	**wheelchairs**	Ticket purchase and control takes place at stations prior to boarding and the buses are step-free, which means the entire route is accessible to people using wheelchairs or who are travelling with baby buggies
22	**fuel**	He says it is not perfect, though, complaining that drivers often refuse to turn on the air conditioning to save fuel
23	**flood**	A shortage of buses after a serious flood at the main depot during the rainy season means the system is carrying 200,000 people a day – half the expected capacity
24	**smartcards**	Smartcards can't be used as the mechanical readers aren't working either, forcing passengers to buy individual paper tickets for every journey
25	**gates**	Staff stand by the gates and tear tickets as people enter

#	Answer	Explanation
26	**queues**	As a result, queues are considerable at peak times
27	**A**	Two things stand out to me. One is the growing evidence that many supposedly ‘advanced’ behaviours, such as architecture and art, can be traced much further back in time than we thought, often to hominin species that existed before modern humans. And the other is that we have badly misunderstood gender roles in prehistoric societies, imposing patriarchal values onto cultures that had very different ideas about how women should behave
28	**A**	Evolution usually works by incremental steps and so does technology. The first birds weren’t great at flying, and the first mobile phones weren’t great at, well, anything really
29	**D**	Archaeology was invented by individuals with now unfashionably patriarchal views about gender, and those notions fed into their research. Today’s researchers are trying to unpick this stuff, and there have been some significant steps in recent years
30	**A**	Inequality, authoritarianism and patriarchy aren’t inevitable. They’re choices, and prehistory shows us that we can choose differently
31	**E**	At Kalambo Falls in Zambia, researchers found buried logs that had been shaped with stone tools so that they interlocked. They seem to have once been part of a larger structure, perhaps a building. This would be unsurprising if they weren’t 476,000 years old. That’s almost 200,000 years before our species, Homo sapiens, evolved
32	**F**	For instance, we now know that extinct hominins such as the Denisovans lived on the frozen heights of high-altitude regions 200,000 years ago – upending the old notion that such environments were only settled by modern humans around 3,600 years ago
33	**D**	This was the idea, promoted for decades, that in most prehistoric societies the men went out to hunt and the women looked after the home. However, a meta-analysis published in June 2023 compiled data on several dozen foraging societies and found women hunted in 80 per cent of them
34	**B**	Going further back, an Iberian leader from around 4000 years ago turned out to be female, not male as many had assumed, when proteins in her teeth were analysed
35	**NO**	Even earlier species, such as Homo erectus, may also have made art, for example by engraving patterns on shells

#	Answer	Explanation
36	**NOT GIVEN**	Even earlier species, such as Homo erectus, may also have made art, for example by engraving patterns on shells
37	**NOT GIVEN**	The dispute has only been heightened by the way the results were released, in a non-traditional journal that publishes peer reviews publicly alongside the paper
38	**YES**	Nevertheless, in the Rising Star cave system in South Africa where the H. naledi remains were found, researchers have found what seem to be etchings – resembling rudimentary artwork – on the cave walls, though these have yet to be firmly dated
39	**YES**	The dispute has only been heightened by the way the results were released, in a non-traditional journal that publishes peer reviews publicly alongside the paper
40	**NO**	At the same time, I think the species' small brains are a distraction

Cambridge IELTS 21 Academic Reading Test 4

PASSAGE 1

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

The problems and benefits created by the spread of the water hyacinth in Kenya

Water hyacinth (Eichhornia crassipes), an aquatic plant native to South America, first appeared in countries in Africa in the early 1900s. Scientists there called it the 'world's worst aquatic weed', after it spread from the southernmost tip of Africa in the early 1900s and started obstructing major dams and rivers.

In east Africa the plant arrived with Belgian colonists in Rwanda, who liked the look of its glossy leaves and delicate purple flowers floating in their ponds. But by the 1980s, it had 'escaped' out of the country via the Kagera river and made its way downstream to Lake Victoria. There, with no natural predators and perfect temperature conditions, the plant began spreading in the open water, blocking fishing routes and providing a new habitat for disease-carrying mosquitoes.

For the women who smoke fish from the lake to sell it has meant declining income, as the boats that once brought the fish to shore by the hundreds struggle to navigate through the mass of plants. But water hyacinth isn't their only headache. In order to smoke the fish that they buy, they must gather huge quantities of firewood, sometimes walking as far as 10km each way to collect enough to complete their work. And each day as they cook, they breathe in the thick, grey smoke. About three out of four families in Kenya depend on wood or charcoal to cook their daily meals, and the rate is even higher in rural areas, Kenya's latest demographic and health survey shows. Using solid fuels like these for cooking increases indoor pollution. The World Health Organization estimates that about 14,300 Kenyans die annually as a result of indoor air pollution - most of which is caused by cooking and heating sources.

Some years ago, on the shores of Lake Victoria, huge piles of water hyacinth that villagers had taken out of the water in an attempt to clear it were a common sight. But buried in those decaying waxy leaves was a renewable energy gold mine. It turns out the floating plant isn't just good at spreading - its foliage also contains a high ratio of carbon to nitrogen. It's a magic combination that has captivated researchers' imaginations since as early as the 1980s when, across the world, they began to explore its potential as a biofuel. Just about 4kg of the dried plant would be enough to cater for a large family's daily energy needs, early research predicted.

In 2014, Nigerian academics announced they had got better yields of biofuel gas when they mixed the plant with chicken manure. A few years later, Kenyan scientists confirmed what their Nigerian peers and others had already found: manure worked to improve the process of converting the weed into gas.

In 2018, the technology came to a village on the shore of Lake Victoria, called Dunga. The project promised a two-for-one solution to the dual menaces of the water hyacinth and dependence on firewood. The community received a pair of donated biogas digesters - machines that would transform a mix of water hyacinth and cow dung into biogas for cooking.

The digesters work a bit like a stomach. The mixture goes in one end - think of it as a mouth - and over the next 20 to 30 days, it goes through a fermentation process and breaks down, giving off gas that comes out the other end. From there, the clean-burning gas is passed through pipes to the point of use, just like traditional domestic gas. In Dunga, the machines produce enough gas to serve about 60% of the village's population. It is used in domestic stoves and for other household tasks such as purifying water and incubating chicks.

The project is testing whether biogas can provide an effective alternative to firewood and charcoal in rural Kenyan communities. Results indicate that the programme seems to be working. The women who smoke the lake fish are already getting sick less often. Besides, they don't have to devote a lot of time every day to gathering firewood, which is a great relief. As a result, they're able to make more money for their families from other enterprises.

Kanyiva Muindi is an epidemiologist and air pollution research fellow at the African Population and Health Research Centre in Nairobi. She says families who switch to the smokeless cooking method could expect fewer respiratory diseases. Women, young girls and children are particularly vulnerable because they are the ones who cook in the kitchen or outside over fires.

How much better the biogas stoves will be for the community's health still needs more research, says Dominic Kahumbu Wanjihia, Biogas International's chief executive. But unless the price of the machines drops, it's pretty clear that most communities will never be able to afford any, since they sell for about $750.

Kanyiva says affordability is a challenge worth addressing, given the huge health and environmental dangers posed by 'dirty' fuels such as wood, charcoal and kerosene. If biogas could become affordable on a large scale, she says it 'would be life-changing for millions on the African continent and beyond'.

PART 1 — QUESTIONS

Questions 1-7

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

1 Water hyacinth was introduced as a decorative plant in east Africa.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

2 Fishermen took some water hyacinth plants to Lake Victoria.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

3 It is now difficult to force boats through the thick water hyacinth on Lake Victoria.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

4 Chemicals produced by the water hyacinth plants are affecting the numbers of fish in Lake Victoria.

- **A** ○ TRUE
- **B** ○ FALSE
- **C** ○ NOT GIVEN

5 Cooking with charcoal has been proved to be even worse for people's health than cooking with wood.

- **A** ○ TRUE
- **B** ○ FALSE

C ○ NOT GIVEN

6 People found it impossible to remove much water hyacinth from Lake Victoria.

A ○ TRUE

B ○ FALSE

C ○ NOT GIVEN

7 Scientists started investigating the possibility of using water hyacinth to generate biogas in the last century.

A ○ TRUE

B ○ FALSE

C ○ NOT GIVEN

Questions 8-10

Complete the flow-chart below.

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

Generating biogas for domestic use in Dunga

First, place water hyacinth together with some 8 _____ into a digester

↓

Leave the mixture until the 9 _____ is completed

↓

Capture the gas emitted by the digester and use 10 _____ to transport it to individual homes

↓

Then use the gas for cooking as well as making water fit for human consumption

Questions 11-13

Complete the notes below.

Choose ONE WORD ONLY from the passage for each answer.

Cooking with biogas in Dunga

Benefits for the women in the village of cooking with biogas

- no need for them to spend so much **11** _____ collecting fuel
- they can focus on different tasks that bring in **12** _____
- they are less likely to experience certain diseases connected to burning wood

Drawbacks of changing to biogas

- the **13** _____ of the digesters is beyond the reach of most villages

PASSAGE 2

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

How could multilingualism benefit India's poorest schoolchildren?

The crowded and bustling streets of Delhi teem with life. Stop to listen and, above the din of rickshaws and buses, you'll hear a multitude of languages, as more than 20 million people go about their daily lives. Many were born and raised here, and many millions more have recently made India's capital their home, having moved from surrounding neighbourhoods, cities and states or across the country, often in the hope of gaining better jobs and a better life. Some arrive speaking fluent Hindi, the dominant language in Delhi (and the official language of government), but many arrive speaking any number of India's 22 officially recognised languages, let alone the hundreds of regional languages in a country of more than 1.3 billion people.

A team of researchers led by Professor Ianthi Tsimpli of Cambridge University is currently working on a project collecting data on 1,000 primary-age children in Delhi and the cities of Hyderabad and Bihar. The overriding aim of the four-year project, called 'Multilingualism and Multiliteracy', is to find out why in a country where multilingualism is so common (more than 255 million people in India speak at least two languages, and nearly 90 million speak three or more languages), the many benefits of speaking more than one language, observed in schools in Europe for instance, do not apply to many of India's schoolchildren.

'Each year across India, 600,000 children are tested, and year after year over 50% of children in Standard 5 [ten-year-olds] cannot read a Standard 2 [seven-year-olds] task fluently, and just under 50% of them cannot solve a Standard 2 subtraction task,' says Tsimpli. She explains that low educational achievement can lead to many of these students dropping out of school - a problem disproportionately affecting female students.

Tsimpli and her colleagues are investigating whether these low learning outcomes could be caused by an Indian school system where the language that children are taught in often differs from the language used at home. The research project, which focuses on 8 to 11-year-old schoolchildren in rural and urban areas, collects data on whether the schoolchildren live in slum* or non-slum areas. Many of the children have moved from remote, rural areas to urban areas. They are so poor they have to live in slums and, as a result of migration, they may speak languages that are different from the regional language.

Having already tested 1,000 children, the researchers will now embark on retesting them. They intend to look not only at test results, but also at variables such as the standard of schooling, the environment and the teaching practices themselves. It's possible that one of the causes of low performance is the lack of pupil-centred teaching methods; in many Indian primary schools the teacher dominates and there is little room for independent learning.

Although the findings are at a preliminary stage, Tsimpli and her team have found that the medium of instruction used in schools, especially English, may hold back those children who have little familiarity with, or exposure to, the language before starting school and outside of school life. According to Tsimpli, most of the evidence from this and other projects shows that English instruction for children from low socio-economic areas might not be the best way for them to learn, at least in the first three years of primary education.

'What we would recommend for everyone, not just low socio-economic status children, would be to start learning in the language they feel comfortable learning in ... English can still be used, but perhaps not as the medium of instruction in primary schools. It could, for example, be one of the subjects that are being taught alongside other subjects. We are not suggesting that English be withdrawn - that ship has sailed - but we perhaps have to think more about learner needs. There is perhaps too much uniformity in teaching and less tailoring to the children's language abilities and needs,' says Tsimpli.

While the preliminary results show there is no difference in general intelligence among boys and girls from slum areas versus those from urban poor backgrounds, an unanticipated finding has been that children from slum backgrounds do not seem to lag behind children from other urban poor backgrounds - and in some cases outperform them (e.g. in numeracy and literacy tasks). According to the researchers, this unexpected finding may be down to the life experiences of children growing up in slums. They are likely to mature faster and come into closer contact with the numeracy skills essential for day-to-day survival.

The project has already caught the attention of government ministers, who are keen to use the findings of the study to inform and adjust school policy in Delhi and the wider state. 'They are as keen as us to understand how the challenging context of deprivation can be attenuated when focusing on the languages children learn and use while at school. Our findings don't mean you're doomed if you're poor. It may be that these low learning outcomes are because of the way education is provided in India, with a huge focus on Hindi and English as the mediums of instruction, to the potential detriment of children unfamiliar with those languages,' explains Tsimpli.

'Language is central to the way knowledge is transferred - so the medium of instruction is obviously hugely influential. We hope to ... show that problem solving, numeracy and literacy can and do improve in children who are educated in a language of instruction they know. The trick may be to bridge school skills with life skills and make use of the richness of a child's life experience to help them learn in the most effective ways possible,' says Tsimpli.

** slum: a very densely populated area in which the infrastructure is incomplete and services inadequate or non-existent*

PART 2 — QUESTIONS

Questions 14-19

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

Multilingualism in Delhi

The city of Delhi has a **14** _____ and as you walk through its streets you hear people speaking a variety of languages. Some of them have spent their entire life in Delhi, while others are **15** _____. Whether they have come from a **16** _____ or have travelled from the other side of India, they have all come in search of things such as improved **17** _____.

A team of researchers led by Professor Ianthi Tsimpli of Cambridge University is collecting data on primary-age schoolchildren in Delhi and other Indian cities. The **18** _____ of the research is to discover why multilingual Indian schoolchildren do not experience **19** _____ to those that multilingual schoolchildren in Europe experience.

A. **basic outlook** B. **employment opportunities** C. **wealthy visitors**

D. **distant country** E. **primary objective** F. **similar advantages**

G. **thriving economy** H. **nearby district** I. **dense population**

J. **new immigrants**

Questions 20-23

Do the following statements agree with the claims of the writer in Reading Passage 2?

20 Ten-year-old Indian schoolchildren tend to perform better in literacy tests than in numeracy tests.

A ○ YES

B ○ NO

C ○ NOT GIVEN

21 Tsimpli had problems convincing some female students to take part in the study.

- **A** ○ YES
- **B** ○ NO
- **C** ○ NOT GIVEN

22 Tsimpli and her team wanted to know if there is a connection between poor academic performance and being taught in an unfamiliar language.

- **A** ○ YES
- **B** ○ NO
- **C** ○ NOT GIVEN

23 The researchers have decided against investigating the impact teaching methodology may have on learning outcomes.

- **A** ○ YES
- **B** ○ NO
- **C** ○ NOT GIVEN

Questions 24-26

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

24 What point does the writer make about primary schools in India in the sixth paragraph?

- **A** ○ Exposure to English outside of school is of limited benefit.
- **B** ○ Children learn English more easily when they are well motivated.
- **C** ○ Poor children may be disadvantaged further by being instructed in English.
- **D** ○ There is little consistency across schools with regard to instruction in English.

25 What is Tsimpli suggesting when she uses the phrase 'that ship has sailed'?

- **A** ○ The findings of the report may be of little help to some Indian schoolchildren.
- **B** ○ Instruction in English could be better adapted to the needs of schoolchildren.

C ○ Schools have had limited success in teaching English as a separate subject.

D ○ It is too late to remove English completely as a language of instruction in schools.

26 In the eighth paragraph, what do we learn has surprised researchers?

A ○ Boys and girls from low socio-economic groups have similar general intelligence levels.

B ○ The age at which children move into a slum does not affect their academic performance.

C ○ Slum children and children from other urban poor backgrounds have similar life experiences.

D ○ The literacy and numeracy skills of slum children are not lower than those of children from other urban poor backgrounds.

PASSAGE 3

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

The Globemakers: The Curious Story of an Ancient Craft

A review of Peter Bellerby's book The Globemakers

In 2008, Peter Bellerby, who lived in London, wanted to give his father a model globe for his eightieth birthday. What seemed simple enough to start with triggered an almost obsessive, decade-long journey, marked by a series of obstacles that would have deterred anyone less determined. It ended with his establishing the world's only bespoke globemaking company.

The first surprise in The Globemakers, Bellerby's account of this impulsive enterprise, is that obtaining such a globe was not simply a matter of a quick online order and a repressed sigh at the shipping costs. After all, contrary to stubbornly held popular views of our ancestors' geographical ignorance, we have known that the world is spherical since at least the 6th century BCE. The ancient Greek philosopher Plato in his work Phaedo likened it to a leather ball, while the accolade of producing the first recorded globe goes to the ancient Greek philosopher Crates of Mallus, who is said to have made one in around 150 BCE. Surely, Bellerby reasoned, a good-quality globe wouldn't be difficult to find.

Nearly two millennia later, however, it seemed that the art of globemaking had been largely forgotten. Bellerby came across shoddy commercial versions designed for school classrooms and genuine antiques in auction houses that would have bust his budget. Even his trips to Morocco and India, where surely the knowledge of artisan cartographers* had been preserved, drew a blank.

Not one to be easily thwarted, Bellerby decided to make his own good-quality globe. In the process, almost everything that could possibly go wrong did so. Even the shape of the Earth posed a problem, as it is not quite a perfect sphere, but oblate (slightly flattened at the poles). Having decided to compromise and opt for two half-spherical pieces that could be fitted together, he was unable to discover anyone capable of casting moulds with sufficient accuracy to ensure that he would not be left with two half-spheres that were not quite the same circumference. Even after he eventually resolved this issue, extracting these from the moulds resulted in piles of cracked plaster of Paris** and clouds of choking dust in the workshop he had set up at the rear of his house.

This series of abortive experiments taught Bellerby a lot about the challenges of making globes, which he communicates here to the reader. Finding just the right way to prise the globes from the mould - a high-end air compressor finally did the trick - and locating the right paper and inks with which to make the gores (the sections of flat sheet mapping that are pasted onto the spherical globe) without the ink seeping out to create a mushy, unreadable mess took months and an alarming chunk out of his bank balance. Bellerby's frustration at the painstaking process of attaching the gores to the globe surface - after having found a glue with precisely the right

adhesive qualities - is palpable. Right at the end of the process, he learnt that the paper had stretched slightly and so the final one overlapped the first by a centimetre (which may not seem a great deal, but when that represents 2 per cent of the Earth's diameter, it's equivalent to obliterating the Himalayas or wiping out Chile).

Bellerby's account of the technical challenges of globe production is interspersed with a series of interludes on great globemakers of the past and cartographic history in general. Purists might wish for more map-making details, but Bellerby clearly found a kindred spirit in Martin Behaim. He was the Nuremberg entrepreneur who in 1492 created the Erdapfel, the world's oldest surviving globe, beautifully finished by a workshop of painters and other craftsmen, only to find that the explorer Christopher Columbus had stumbled upon the Americas the very same year, rendering his masterpiece instantly out of date. Something of Bellerby's unflinching ambition is reflected in the even more heroic efforts of the Italian cartographer Vincenzo Coronelli, who, in the seventeenth century, created two globes for Louis XIV of France. It took him twenty years to complete the monstrous pair, whose vast bulk - each with a diameter of around four metres - can still be admired in the National Library of France in Paris.

Although a celebration of the revival of an ancient craft, Bellerby's book is also a lament for the fading away of centuries-old traditions. When he embarked on his globemaking odyssey, he struggled to find artisans with the skills to make the right moulds for the globes or foundries that could shape the meridians (the metal frames which girdle globes) in just the right way. Although he finally located the right craftsmen, some simply dropping in, serendipitously, to his workshop (by now in more suitable premises than his back room), many of these have now retired or passed away.

Bellerby's father finally did receive his eightieth birthday present, albeit two years late. Bellerby went on to found a company which now turns out over six hundred globes a year for customers who can have their own tiny village marked or more unusual requests fulfilled. His book, beautifully illustrated with photographs of the various stages of his venture and a few illustrations of historic globes and maps, is hardly a blueprint for commercial success. But it is more than enough to stir up admiration for the craftsmanship of the great mapmakers of the past and the obsessive determination of a modern successor who revived their almost moribund art.

** cartographer: someone involved in the science or practice of drawing maps*

*** plaster of Paris: a quick-setting plaster consisting of a fine white powder that hardens when moistened and allowed to dry*

PART 3 — QUESTIONS

Questions 27-32

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

A birthday gift

Peter Bellerby's plan to give his father a globe for his birthday was an unexpectedly **27** _____ for which he had to overcome **28** _____ .

He soon learnt that a straightforward **29** _____ would not be possible. Some **30** _____ that had been intended for **31** _____ were available, as were some expensive antique globes, but these were beyond his budget. He even travelled to places where people might still have the **32** _____ , but Bellerby could not find what he wanted.

A. **educational use** B. **rare materials** C. **inferior makes**

D. **product exchange markets** E. **necessary skills** F. **international**

G. **challenging task** H. **memorable object** I. **internet purchase**

J. **numerous problems**

Questions 33-36

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

33 The assumption today that people in the past knew very little about geography is correct.

A ○ YES

B ○ NO

C ○ NOT GIVEN

34 Plato was criticised for saying the world was shaped like a leather ball.

A ○ YES

B ○ NO

C ○ NOT GIVEN

35 The globe made by Crates of Mallus was an accurate representation of the known world.

A ○ YES

B ○ NO

C ○ NOT GIVEN

36 Bellerby assumed he would have few problems locating a well-made globe.

A ○ YES

B ○ NO

C ○ NOT GIVEN

Questions 37-40

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

37 When Bellerby had to attach the gores to the globe surface,

A ○ he decided it was best to work quickly.

B ○ he became aware of an unexpected issue.

C ○ he was worried about the quality of his materials.

D ○ he nearly gave up the whole project.

38 The reviewer mentions other globe makers of the past because

A ○ Bellerby was particularly inspired by them.

B ○ their achievements are not widely known.

C ○ Bellerby had something in common with each of them.

D ○ their difficulties could have been avoided.

39 What point is made about Bellerby in the seventh paragraph?

A ○ He had long working relationships with numerous craftsmen.

B ○ He understands the lack of interest in traditional crafts.

C ○ He appreciates the importance of careful planning.

D ○ He regrets the loss of many globe-making skills.

40 What does the reviewer say about Bellerby's book in the final paragraph?

A ○ It does not tell you how to create a profitable business.

B ○ It overlooks some important mapmakers.

C ○ It fails to discuss the future of globe-making.

D ○ It does not give enough details about individual customers.

Answer Key

#	Answer	Explanation
1	**TRUE**	In east Africa the plant arrived with Belgian colonists in Rwanda, who liked the look of its glossy leaves and delicate purple flowers floating in their ponds
2	**FALSE**	it had ‘escaped’ out of the country via the Kagera river and made its way downstream to Lake Victoria
3	**TRUE**	as the boats that once brought the fish to shore by the hundreds struggle to navigate through the mass of plants
4	**NOT GIVEN**	There, with no natural predators and perfect temperature conditions, the plant began spreading in the open water, blocking fishing routes and providing a new habitat for disease-carrying mosquitoes
5	**NOT GIVEN**	About three out of four families in Kenya depend on wood or charcoal to cook their daily meals, and the rate is even higher in rural areas, Kenya’s latest demographic and health survey shows. Using solid fuels like these for cooking increases indoor pollution
6	**FALSE**	Some years ago, on the shores of Lake Victoria, huge piles of water hyacinth that villagers had taken out of the water in an attempt to clear it were a common sight
7	**TRUE**	It’s a magic combination that has captivated researchers’ imaginations since as early as the 1980s when, across the world, they began to explore its potential as a biofuel
8	**cow dung**	The community received a pair of donated biogas digesters – machines that would transform a mix of water hyacinth and cow dung into biogas for cooking
9	**fermentation (process)**	The mixture goes in one end – think of it as a mouth – and over the next 20 to 30 days, it goes through a fermentation process and breaks down, giving off gas that comes out the other end
10	**pipes**	From there, the clean-burning gas is passed through pipes to the point of use, just like traditional domestic gas
11	**time**	Besides, they don’t have to devote a lot of time every day to gathering firewood, which is a great relief
12	**money**	As a result, they’re able to make more money for their families from other enterprises

#	Answer	Explanation
13	**price**	But unless the price of the machines drops, it’s pretty clear that most communities will never be able to afford any, since they sell for about $750
14	**I**	The crowded and bustling streets of Delhi teem with life. Stop to listen and, above the din of rickshaws and buses, you’ll hear a multitude of languages, as more than 20 million people go about their daily lives
15	**J**	Many were born and raised here, and many millions more have recently made India’s capital their home, having moved from surrounding neighbourhoods, cities and states or across the country, often in the hope of gaining better jobs and a better life
16	**H**	Many were born and raised here, and many millions more have recently made India’s capital their home, having moved from surrounding neighbourhoods, cities and states or across the country, often in the hope of gaining better jobs and a better life
17	**B**	Many were born and raised here, and many millions more have recently made India’s capital their home, having moved from surrounding neighbourhoods, cities and states or across the country, often in the hope of gaining better jobs and a better life
18	**E**	The overriding aim of the four-year project, called ‘Multilingualism and Multiliteracy’, is to find out why in a country where multilingualism is so common (more than 255 million people in India speak at least two languages, and nearly 90 million speak three or more languages), the many benefits of speaking more than one language, observed in schools in Europe for instance, do not apply to many of India’s schoolchildren
19	**F**	The overriding aim of the four-year project, called 'Multilingualism and Multiliteracy', is to find out why in a country where multilingualism is so common (more than 255 million people in India speak at least two languages, and nearly 90 million speak three or more languages), the many benefits of speaking more than one language, observed in schools in Europe for instance, do not apply to many of India's schoolchildren
20	**NO**	‘Each year across India, 600,000 children are tested, and year after year over 50% of children in Standard 5 [ten-year-olds] cannot read a Standard 2 [seven-year-olds] task fluently, and just under 50% of them cannot solve a Standard 2 subtraction task,’ says Tsimpli
21	**NOT GIVEN**	She explains that low educational achievement can lead to many of these students dropping out of school – a problem disproportionately affecting female students

#	Answer	Explanation
22	**YES**	Tsimpli and her colleagues are investigating whether these low learning outcomes could be caused by an Indian school system where the language that children are taught in often differs from the language used at home
23	**NO**	They intend to look not only at test results, but also at variables such as the standard of schooling, the environment and the teaching practices themselves
24	**C**	According to Tsimpli, most of the evidence from this and other projects shows that English instruction for children from low socio-economic areas might not be the best way for them to learn, at least in the first three years of primary education
25	**D**	We are not suggesting that English be withdrawn – that ship has sailed – but we perhaps have to think more about learner needs
26	**D**	an unanticipated finding has been that children from slum backgrounds do not seem to lag behind children from other urban poor backgrounds – and in some cases outperform them (e.g. in numeracy and literacy tasks)
27	**G**	What seemed simple enough to start with triggered an almost obsessive, decade-long journey, marked by a series of obstacles that would have deterred anyone less determined
28	**J**	In the process, almost everything that could possibly go wrong did so
29	**I**	The first surprise in The Globemakers, Bellerby's account of this impulsive enterprise, is that obtaining such a globe was not simply a matter of a quick online order and a repressed sigh at the shipping costs
30	**C**	Bellerby came across shoddy commercial versions designed for school classrooms
31	**A**	Bellerby came across shoddy commercial versions designed for school classrooms
32	**E**	Even his trips to Morocco and India, where surely the knowledge of artisan cartographers* had been preserved, drew a blank
33	**NO**	After all, contrary to stubbornly held popular views of our ancestors' geographical ignorance, we have known that the world is spherical since at least the 6th century BCE
34	**NOT GIVEN**	The ancient Greek philosopher Plato in his work Phaedo likened it to a leather ball
35	**NOT GIVEN**	the accolade of producing the first recorded globe goes to the ancient Greek philosopher Crates of Mallus, who is said to have

#	Answer	Explanation
		made one in around 150 BCE
36	**YES**	Surely, Bellerby reasoned, a good-quality globe wouldn't be difficult to find
37	**B**	Bellerby's frustration at the painstaking process of attaching the gores to the globe surface – after having found a glue with precisely the right adhesive qualities – is palpable. Right at the end of the process, he learnt that the paper had stretched slightly and so the final one overlapped the first by a centimetre
38	**C**	Bellerby clearly found a kindred spirit in Martin Behaim Something of Bellerby's unflinching ambition is reflected in the even more heroic efforts of the Italian cartographer Vincenzo Coronelli
39	**D**	Although a celebration of the revival of an ancient craft, Bellerby's book is also a lament for the fading away of centuries-old traditions
40	**A**	His book, beautifully illustrated with photographs of the various stages of his venture and a few illustrations of historic globes and maps, is hardly a blueprint for commercial success

Cambridge IELTS 21 Academic Listening Test 1

PART 1 — QUESTIONS

Part 1 Audio: https://ielts-listening-audio.engnovatemedia.com/3178700-cambridge-ielts-21-academic-listening-test-1-1.mp3

Questions 1-6

Complete the table below.

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

Name of course	What you learn	Cost	Other information
Taster day	introduction to sailing	£120 if booking one place	small groups (max [1] _____ people)
Level 1	basic theory e.g. understanding the [2] _____ and tides basic sailing skills including [3] _____ information	£200 [4] _____ available for club members all inclusive (plus a useful [5] _____)	a [6] _____ at the end of the course for all participants

Questions 7-10

Complete the notes below.

Write ONE WORD ONLY for each answer.

General information

- Participants must be able to swim.
- Bring suitable clothing, a [7] _____ and toiletries (e.g. shampoo).
- There is a [8] _____ at the club.
- Online training [9] _____ are recommended.

- **10** _____ are available for course participants.

PART 2 — QUESTIONS

Part 2 Audio: https://ielts-listening-audio.engnovatemedia.com/3178722-cambridge-ielts-21-academic-listening-test-1-2.mp3

Questions 11-16

Choose the correct letter, A, B or C.

11 What should trainees always expect to get when working on low budget short films?

- **A** ○ travel expenses
- **B** ○ a minimum wage
- **C** ○ meals

12 According to the speaker, on big budget films trainees may get experience of

- **A** ○ makeup for special effects.
- **B** ○ working with different ethnicities.
- **C** ○ creating a variety of hair styles.

13 The speaker says a problem for makeup artists is

- **A** ○ dealing with difficult directors.
- **B** ○ being shouted at by their supervisor.
- **C** ○ waiting around for hours doing nothing.

14 How did the speaker feel when she met famous actors for the first time?

- **A** ○ very shy
- **B** ○ very proud
- **C** ○ very disappointed

15 What advice does the speaker give about makeup kits?

- **A** ○ Always carry a basic kit with you.
- **B** ○ Only buy the best products for a makeup kit.
- **C** ○ Ask other makeup artists to check your kit.

16 What advice does the speaker give about creating a portfolio?

- **A** ○ Keep print and digital photos.
- **B** ○ Only include a small selection of photos.
- **C** ○ Get permission to use photos.

Questions 17-20

What ability is required for each of the following duties?

Write the correct letter, A, B, or C, next to Questions 17-20.

A. being well-organised

B. being flexible

C. working quickly

17 Prepping an actor _____

18 Continuity _____

19 General _____

20 Applying makeup _____

PART 3 — QUESTIONS

Part 3 Audio: https://ielts-listening-audio.engnovatemedia.com/3178721-cambridge-ielts-21-academic-listening-test-1-3.mp3

Questions 21-22

Choose TWO letters, A-E.

21 22 Which TWO features of the lecture on ocean biodiversity had the greatest impact on the students?

- **A** ☐ the references to local problems
- **B** ☐ the broad focus of the examples
- **C** ☐ the practical suggestions for solutions
- **D** ☐ the type of issues discussed
- **E** ☐ the implications for government policy

Questions 23-24

Choose TWO letters, A-E.

23 24 Which TWO details about the research project particularly impressed the students?

- **A** ☐ the team's previous successes
- **B** ☐ its wide geographical scale
- **C** ☐ the use of new technology
- **D** ☐ the extensive statistical evidence
- **E** ☐ the large range of specialists involved

Questions 25-30

What is the students' opinion of each of the following resources related to ocean biodiversity?

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

A. This is aimed at a very specialist audience.

B. This is now rather outdated.

C. This was an effective description of a new danger.

D. This suggests possible ways to improve the situation.

E. This does not give a balanced account.

F. This is too predictable to be useful.

G. This gives insufficient evidence for its claims.

H. This gives a clear explanation of the problems.

25 Article on invasive lionfish _____

26 Documentary on microplastics _____

27 Podcast on ocean pollution _____

28 Book on coastal ecosystems _____

29 Article on metal toxicity _____

30 Podcast on floating marine cities _____

PART 4 — QUESTIONS

Part 4 Audio: https://ielts-listening-audio.engnovatemedia.com/3178719-cambridge-ielts-21-academic-listening-test-1-4.mp3

Questions 31-40

Complete the notes below.

Write ONE WORD ONLY for each answer.

Sources of rubber

Three resources which are essential for industrial civilisation

- **31** _____
- fossil fuels
- rubber

Natural rubber

This mainly comes from the Pará rubber tree, now cultivated in South-East Asia. The supply is limited because

- the growth of the tree is **32** _____ .
- production cannot easily be adjusted because of increasing or decreasing **33** _____ .
- the tree only grows near the **34** _____ .
- extracting the latex (rubber) is labour-intensive
- it is very difficult to **35** _____ rubber after production.

New threats include

- lack of genetic diversity, leading to danger of disease caused by a **36** _____ .
- a shift to the cultivation of palm oil
- extreme **37** _____ events.

Synthetic rubber

- may be used for engine parts and cooking utensils
- is less **38** _____ than natural rubber
- is unsuitable for many purposes e.g. the tyres of aircraft.

An alternative source of natural rubber

- A wild flower (a type of dandelion) has rubber in its **39** _____ .
- It can be grown in many locations and does not require good **40** _____ .

Transcripts

Part 1

WOMAN: Hello, Oyster Bay Sailing Club. How can I help you?

MAN: Oh hi. I'd like to find out about sailing courses for beginners.

WOMAN: No problem. Is it for yourself?

MAN: Yes. I had a look online but I'm not sure which course would be best.

WOMAN: OK. Well you might be interested in our Taster Days?

MAN: Possibly.

WOMAN: So these are for people who've never sailed before - it's basically an introduction to sailing to find out whether you enjoy it and want to carry on with it.

MAN: And how much is that?

WOMAN: It's £120 for the day - but it's reduced to £110 each if there are two of you.

MAN: No, it would just be me.

WOMAN: Oh that's fine. You'd be in a small group, usually about eight people but no more than ten - and everyone's always very friendly.

MAN: Uh huh. And are there any other suitable courses?

WOMAN: The other option is the Level 1 course. These are two-day weekend courses and we run those all year round.

MAN: OK. And what do you learn on that course?

WOMAN: This is a mix of theory and practical skills. So you learn about things like the weather, which is obviously really important and also the tides, as well as learning basic sailing skills. You go out into the harbour in special training dinghies for beginners, two people in each dinghy and an instructor. He or she will make sure you understand everything you need to know about safety.

MAN: It sounds like hard work!

WOMAN: Yes, but you'll have a lot of fun too.

MAN: And the cost of that one is ... ?

WOMAN: £200. But it's a bit cheaper if you decide to join the club. There's a discount for members.

MAN: Well, I'm not sure about that yet.

WOMAN: You've got plenty of time to decide.

MAN: And does the cost include everything?

WOMAN: Yes, everything's included and you also get a really good dictionary explaining all the sailing terminology. A lot of people struggle with this at first. It's got lots of pictures, so I'm sure you'd find it really helpful. And on completion of the course you get a certificate. Then you're ready to move on to the Level 2 course.

MAN: Sounds good.

WOMAN: I think that's all the info you need for now. Just a couple of general things. For example, it's really important that you know how to swim.

MAN: Yes, I'm pretty confident in the water.

WOMAN: Great. The other thing I should tell you is that we provide wetsuits and life jackets but you need to bring swimming trunks and some old trainers.

MAN: And a towel?

WOMAN: Yes definitely. And you might want to bring your own toiletries, things like shampoo.

MAN: OK. What about food and drink? Do I need to bring that or is there a café at the club?

WOMAN: Yes, you can get sandwiches, cakes and snacks there. The food's pretty reasonable.

MAN: OK good. Well I think I'm interested in the Level 1 course. But I know absolutely nothing about sailing so is there anything I can do to prepare myself a bit?

WOMAN: I recommend you watch some videos we use for training. They're available online. I can send you the link. They'll give you an idea of what to expect.

MAN: Perfect, thanks. That would be very helpful. Oh and just one other thing - I'll be cycling to the club and will need somewhere to put valuables. I'm just wondering if there are lockers for people to use?

WOMAN: Yes, there are plenty in the changing rooms.

MAN: Great. OK well could you book me onto...

Part 2

MAN: Hello and welcome to the film making podcast. In this week's episode, Claire Lemarre talks to us about how to become a makeup artist. Claire's been working as a makeup artist in the film industry for over 20 years and has lots of useful advice about how to get started.

WOMAN: Thanks Ian. Well, before you can become a makeup artist on films you have to spend about 2 years working as a makeup trainee.

A good place to get your first job would be on a low budget short film. Of course, this means that you'll be working for free. But it's often worth it for the experience. Make sure your transport costs are covered - and remember, there's very unlikely to be any catering provided, so bring plenty of food.

If you're lucky, you might start out on a big budget film where you'll get the most useful experience. On productions like this, makeup and hair styling are separate departments - so you won't need to bring your curling tongs! But you're likely to get the opportunity to work with a range of age groups, as well as different ethnicities. Doing makeup for special effects is highly specialised, so don't expect to be offered any practical experience in that.

One problem with working in the makeup department is that it's a high-pressure environment. There are very few times when you'll be bored or have nothing to do. It can be stressful but you'll see that the top makeup artists are very professional - even when they're having to work with directors who are impatient, or unhappy with the makeup artist's work. Follow your supervisor's lead and try to remain calm at all times.

I've worked with many very famous actors over the years. At first, I found it overwhelming and could hardly speak. I was so in awe. That's preferable, by the way, to becoming too excited and asking for selfies. Now meeting the talent is just a normal part of the job and to be honest most actors don't look that special without all the makeup!

Every makeup trainee will need a makeup kit, which they'll be expected to have with them at all times. Just the essentials will do for the kinds of tasks you'll be given - it won't be anything complicated. It's worth looking at what the other makeup artists have in their kits - but whatever you do, don't borrow anything without asking first.

It's very important to build your portfolio. You should take photos of all the work you do and ideally show the different stages of makeup application if you can. But remember you'll need to get approval from the makeup designer in charge of the department. As you'll be sending your portfolio digitally, you won't need to get photos printed.

So what does a makeup trainee actually do? You need to think about whether you're the right kind of person to do the job and whether you'd enjoy it. So, to give you some idea, here are some of the things you might be required to do.

You may be asked to help prep an actor ready for makeup. Some actors will arrive having already cleansed and moisturized their skin. But sometimes you'll need to step in and get this done without wasting any time, otherwise the makeup artist will get behind schedule.

Trainees play a useful role in continuity. It will be your responsibility to take photos, log them digitally and print out a hard copy to put in each actor's file. This information needs to be kept in good order as a reshoot can mean replicating makeup months later.

General duties mean doing anything from getting the teas and coffees to putting on a wash. Having a positive attitude and being willing to do whatever is asked of you will help you get your next film job.

You won't be asked to apply makeup to any of the principal cast, only the extras. If there are dozens of extras involved you'll need to keep up a swift pace and not spend too long on each person. It takes quite a lot of confidence to be able to do this well.

OK now about terms and conditions....

Part 3

PHIL: That lecture from the visiting speaker yesterday was good, wasn't it?

LUCY: Yeah. I learned a lot from her about ocean biodiversity. I've already done some reading on it, and I did an assignment on some of the problems associated with it last year, but I especially liked the way her lecture focused on more long-term issues.

PHIL: Yes, things that aren't currently receiving widespread attention but are likely to be important in the future. That impressed me too. It wasn't exactly a feel-good conclusion because it's hard to see any real solution for a lot of the problems.

LUCY: No, though she did point to where policy changes could be made to protect our marine and coastal environments.

PHIL: Mm. But that's just at a national level. The examples she gave were at a more global level, and they really made it clear to me just how wide-ranging the threats to ocean biodiversity are.

LUCY: Yes, me too.

PHIL: The research project she described was impressive, wasn't it? I'd have thought it was quite unusual to have so many experts working together.

LUCY: Yeah, and from such different backgrounds. Must have been a really exciting team to work with. I'd heard of a couple of them before - they were involved in research way back in 2009 warning about the dangers of ocean pollution.

PHIL: But now people are much more aware of that, aren't they?

LUCY: I suppose so.

PHIL: Another thing about the research is that the team members came from all round the world. Though I suppose that's not unusual nowadays, now everyone can work remotely.

LUCY: Right. I liked the way she didn't bombard us with figures - I mean, they were available, but she focused more on the general points they indicated.

PHIL: Mm. And the description of improvements in systems used for tracking marine animals and things like robots were really interesting.

LUCY: Yes, and her description of how robotics can be used to investigate threats to biodiversity.

PHIL: Absolutely.

PHIL: While you're here, can we talk about the list of resources we have to evaluate for the seminar tomorrow. I've had a look at them all, but it's been a bit of a rush.

LUCY: Yeah. What did you think of that article on invasive lionfish? The one claiming they were expanding their habitat throughout the Mediterranean Sea.

PHIL: Well, the writer went on about how dangerous they were in environmental terms, which is probably true, but he didn't really provide much information to explain why.

LUCY: I know what you mean.

PHIL: I watched the documentary on microplastics, at least I started to, but then I found it was made ten years ago so I gave up.

LUCY: I watched to the end but you're right, it was showing its age. People had hardly heard of microplastics then, whereas now everyone knows about them and how dangerous they are.

PHIL: Yeah. Did you listen to the podcast on ocean pollution?

LUCY: Mm. I didn't get anything out of it though. Most of it was stating the obvious.

PHIL: Yes, it mentioned pesticides and plastic and things, and it clearly made the point that they were a bad thing, but everybody knows that anyway. Did you read that book on coastal ecosystems?

LUCY: The one by John Harper? Yes, I found it hard going at first, it went into a lot of detail about things like the effects of offshore windfarms and fish farms, but actually I ended up with a much better understanding of the issues.

PHIL: Yes, I agree and I thought it was a well-written summary of those. And the diagrams helped a lot too.

LUCY: The article on metal toxicity was way above my head, I didn't know anything about how metals from industrial emissions react in the ocean... and I still don't understand it.

PHIL: I gave up reading after the first chapter - I just couldn't follow it.

LUCY: That podcast on floating marine cities was interesting, though it presented a rather one-sided picture, I thought.

PHIL: Yes, it focused on how this would benefit people and ignored the effects on the environment.

LUCY: But anyway, shall we ...

Part 4

Much of the world now lives in an industrial civilisation. But this has only become possible because we have the necessary natural resources. There are three types of natural resource without which industry could not exist. One of these is metal - without that we'd have no machines and no transportation. Another is fossil fuels, which we need to power those machines. But there's a third resource that's essential to connect the different parts of a machine together with belts and pipes and shock absorbers, and that is rubber. It's now used in over 40,000 products, from waterproof footwear to surgical gloves.

At present, we have two types of rubber in common use. One is natural rubber, which nearly all comes from the Pará rubber tree. This was originally native to Brazil, but is now cultivated on plantations in South-East Asia. Recently, however, concern's been growing that supplies may soon be insufficient for the world's needs. So what exactly is limiting the supply of natural rubber?

Well, for one thing, rubber trees don't just spring up overnight. It can take eight to ten years for a tree to start producing rubber, so cultivating them's a slow process. And this leads to another problem. With

most crops, farmers don't have to think very far ahead, so they can easily change what crop they produce, or how much of a crop they produce, if they find the demand for that crop is rising or falling. But if you have to plant eight or ten years ahead, that's much harder. And also the rubber tree's very choosy about where it grows. It needs the right temperature, the right amount of rainfall, and the right altitude - not too high and not too low. The result is that it can't be grown in the northern or southern parts of the globe, only around the equator. Another problem is that the rubber is basically extracted in the same way as it's been done for hundreds of years, and that's by hand, by making small cuts in the trunk of the tree, and putting a little cup there to catch the latex, as the rubber is called. It's very labour-intensive. And it's not just the initial production that's limiting supplies. With other resources such as water and glass, when we've finished using them we can recycle them, but although this is also possible with rubber, it's very difficult, so that also reduces the amount we have available.

And in the last few years, there have been new threats to the supply of natural rubber. One problem is linked to the fact that nearly all the rubber trees in South-East Asia are descended from just a small number of seeds brought from Brazil in the nineteenth century. This means that there's very little genetic diversity among the trees, which in turn makes them very vulnerable to disease. The most dangerous threat is a fungus, which destroyed large numbers of rubber trees in Brazil, and which could cause devastation to plantations worldwide. Another problem is that farmers in South-East Asia are increasingly turning to the cultivation of palm oil, which is easier and more profitable for them. And finally, in recent years South-East Asia, like other parts of the world, has been repeatedly hit by extreme types of weather, and this looks likely to continue in the future.

However, as well as using natural rubber, it's also possible to make rubber synthetically. This works very well for some purposes, for example, making engine parts, or silicone pots and pans used for cooking. But compared with natural rubber, it's not anything like as strong, and this means it can't replace natural rubber in other products. For example, while a mixture of natural rubber and synthetic rubber works well in car tyres, only natural rubber can stand up to the extreme speeds of aircraft tyres during take-off and landing.

So for some time, scientists have been looking for alternative sources of natural rubber. One that's been known about for some time seems initially to be a rather unlikely source. It's a wild plant with yellow flowers that we normally regard as a weed when we see it in our gardens. But when it's pulled up and its roots cut open, they're found to contain rubber.

Now, compared to the rubber tree, dandelions produce relatively small amounts of rubber, but unlike rubber trees, they're very adaptable. They'll grow in all sorts of places, and they don't need rich soil. So at present there are several projects underway investigating the possibility of using dandelions as a source of rubber.

Another possibility is a desert shrub grown in Mexico and Texas ...

Answer Key

#	Answer	Explanation
1	**10/ten**	You'd be in a small group, usually about eight people but no more than ten – and everyone's always very friendly
2	**weather**	So you learn about things like the weather, which is obviously really important and also the tides, as well as learning basic sailing skills
3	**safety**	He or she will make sure you understand everything you need to know about safety
4	**discount**	£200. But it's a bit cheaper if you decide to join the club. There's a discount for members
5	**dictionary**	Yes, everything's included and you also get a really good dictionary explaining all the sailing terminology
6	**certificate**	And on completion of the course you get a certificate
7	**towel**	MAN: And a towel? WOMAN: Yes definitely
8	**café / cafe**	MAN: OK. What about food and drink? Do I need to bring that or is there a café at the club? WOMAN: Yes, you can get sandwiches, cakes and snacks there
9	**videos**	I recommend you watch some videos we use for training. They're available online. I can send you the link. They'll give you an idea of what to expect
10	**Lockers**	I'm just wondering if there are lockers for people to use? WOMAN: Yes, there are plenty in the changing rooms
11	**A**	Make sure your transport costs are covered – and remember, there's very unlikely to be any catering provided, so bring plenty of food
12	**B**	But you're likely to get the opportunity to work with a range of age groups, as well as different ethnicities
13	**A**	It can be stressful but you'll see that the top makeup artists are very professional – even when they're having to work with directors who are impatient, or unhappy with the makeup artist's work
14	**A**	At first, I found it overwhelming and could hardly speak. I was so in awe

#	Answer	Explanation
15	**A**	Every makeup trainee will need a makeup kit, which they'll be expected to have with them at all times. Just the essentials will do for the kinds of tasks you'll be given – it won't be anything complicated
16	**C**	But remember you'll need to get approval from the makeup designer in charge of the department
17	**C**	But sometimes you'll need to step in and get this done without wasting any time, otherwise the makeup artist will get behind schedule
18	**A**	Trainees play a useful role in continuity. It will be your responsibility to take photos, log them digitally and print out a hard copy to put in each actor's file. This information needs to be kept in good order as a reshoot can mean replicating makeup months later
19	**B**	General duties mean doing anything from getting the teas and coffees to putting on a wash. Having a positive attitude and being willing to do whatever is asked of you will help you get your next film job
20	**C**	If there are dozens of extras involved you'll need to keep up a swift pace and not spend too long on each person
21	**B / D**	LUCY: Yeah. I learned a lot from her about ocean biodiversity. I've already done some reading on it, and I did an assignment on some of the problems associated with it last year, but I especially liked the way her lecture focused on more long-term issues. PHIL: Yes, things that aren't currently receiving widespread attention but are likely to be important in the future. That impressed me too PHIL: Mm. But that's just at a national level. The examples she gave were at a more global level, and they really made it clear to me just how wide-ranging the threats to ocean biodiversity are. LUCY: Yes, me too
22	**B / D**	LUCY: Yeah. I learned a lot from her about ocean biodiversity. I've already done some reading on it, and I did an assignment on some of the problems associated with it last year, but I especially liked the way her lecture focused on more long-term issues. PHIL: Yes, things that aren't currently receiving widespread attention but are likely to be important in the future. That impressed me too PHIL: Mm. But that's just at a national level. The examples she gave were at a more global level, and they really made it clear to me just how wide-ranging the threats to ocean biodiversity are. LUCY: Yes, me too

#	Answer	Explanation
23	**C / E**	PHIL: The research project she described was impressive, wasn't it? I'd have thought it was quite unusual to have so many experts working together. LUCY: Yeah, and from such different backgrounds PHIL: Mm. And the description of improvements in systems used for tracking marine animals and things like robots were really interesting. LUCY: Yes, and her description of how robotics can be used to investigate threats to biodiversity
24	**C / E**	PHIL: The research project she described was impressive, wasn't it? I'd have thought it was quite unusual to have so many experts working together. LUCY: Yeah, and from such different backgrounds PHIL: Mm. And the description of improvements in systems used for tracking marine animals and things like robots were really interesting. LUCY: Yes, and her description of how robotics can be used to investigate threats to biodiversity
25	**G**	Well, the writer went on about how dangerous they were in environmental terms, which is probably true, but he didn't really provide much information to explain why
26	**B**	PHIL: I watched the documentary on microplastics, at least I started to, but then I found it was made ten years ago so I gave up. LUCY: I watched to the end but you're right, it was showing its age
27	**F**	LUCY: Mm. I didn't get anything out of it though. Most of it was stating the obvious. PHIL: Yes, it mentioned pesticides and plastic and things, and it clearly made the point that they were a bad thing, but everybody knows that anyway
28	**H**	LUCY: The one by John Harper? Yes, I found it hard going at first, it went into a lot of detail about things like the effects of offshore windfarms and fish farms, but actually I ended up with a much better understanding of the issues. PHIL: Yes, I agree and I thought it was a well-written summary of those. And the diagrams helped a lot too
29	**A**	LUCY: The article on metal toxicity was way above my head, I didn't know anything about how metals from industrial emissions react in the ocean and I still don't understand it. PHIL: I gave up reading after the first chapter – I just couldn't follow it
30	**E**	That podcast on floating marine cities was interesting, though it presented a rather one-sided picture, I thought. PHIL: Yes, it focused on how this would benefit people and ignored the effects on the environment

#	Answer	Explanation
31	**metal(s)**	There are three types of natural resource without which industry could not exist. One of these is metal – without that we'd have no machines and no transportation. Another is fossil fuels, which we need to power those machines. But there's a third resource that's essential to connect the different parts of a machine together with belts and pipes and shock absorbers, and that is rubber
32	**slow**	It can take eight to ten years for a tree to start producing rubber, so cultivating them's a slow process
33	**demand**	With most crops, farmers don't have to think very far ahead, so they can easily change what crop they produce, or how much of a crop they produce, if they find the demand for that crop is rising or falling
34	**equator**	The result is that it can't be grown in the northern or southern parts of the globe, only around the equator
35	**recycle**	With other resources such as water and glass, when we've finished using them we can recycle them, but although this is also possible with rubber, it's very difficult, so that also reduces the amount we have available
36	**fungus**	The most dangerous threat is a fungus, which destroyed large numbers of rubber trees in Brazil, and which could cause devastation to plantations worldwide
37	**weather**	And finally, in recent years South-East Asia, like other parts of the world, has been repeatedly hit by extreme types of weather, and this looks likely to continue in the future
38	**strong**	But compared with natural rubber, it's not anything like as strong, and this means it can't replace natural rubber in other products
39	**roots**	But when it's pulled up and its roots cut open, they're found to contain rubber
40	**soil**	They'll grow in all sorts of places, and they don't need rich soil

Cambridge IELTS 21 Academic Listening Test 2

PART 1 — QUESTIONS

Part 1 Audio: https://ielts-listening-audio.engnovatemedia.com/3178718-cambridge-ielts-21-academic-listening-test-2-1.mp3

Questions 1-10

Complete the table below.

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

Course	Date	Cost	Notes
Vietnamese food	**1** _____	£59	It provides information on the use of herbs. There are no places at present.
Bread making	20 March	£ **2** _____	There is also an extra charge for ingredients. Participants make white bread, sourdough and **3** _____.
Face massage	23 February	£35	The teacher trained in **4** _____. Bring a **5** _____.
Candle making	**6** _____	£52	Only **7** _____ ingredients are used. The candles can be used as presents.
Silk painting	18 May	£ **8** _____	Bring an apron or old **9** _____.
DIY for beginners	24 February	£125	Learn how to

			• use a drill, saw and **10** _____ • put up a shelf.

PART 2 — QUESTIONS

Part 2 Audio: https://ielts-listening-audio.engnovatemedia.com/3178717-cambridge-ielts-21-academic-listening-test-2-2.mp3

Questions 11-12

Choose TWO letters, A-E.

11 **12** Which TWO pieces of advice are given about the Marsden Coastal Walk?

- **A** ☐ Stop for lunch in an ancient town.
- **B** ☐ Don't miss the ruins of a certain building.
- **C** ☐ Catch a boat to the start of this walk.
- **D** ☐ Be careful of the steep and rocky paths.
- **E** ☐ Don't worry about getting lost.

Questions 13-14

Choose TWO letters, A-E.

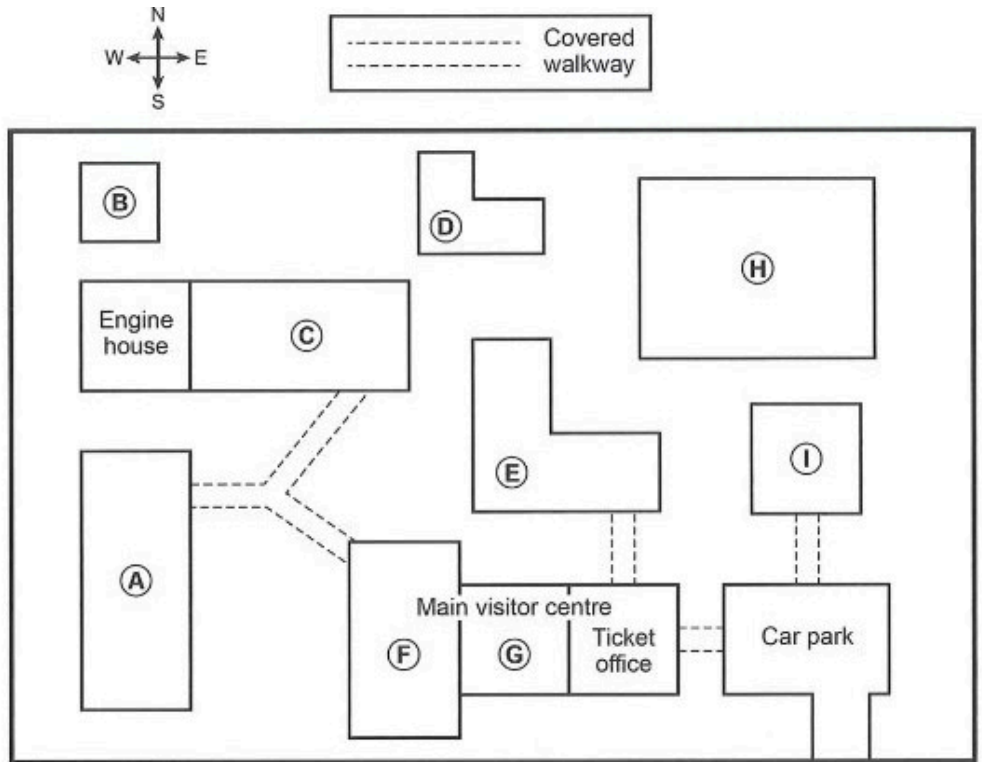
13 **14** Which TWO things are said about the Melby Heritage Walk?

- **A** ☐ This walk is mostly downhill.
- **B** ☐ The paths can get busy during the day.
- **C** ☐ This is a circular walk.
- **D** ☐ A tower stands on the site of an older structure.
- **E** ☐ There are far-reaching views the whole way.

Questions 15-20

Label the map below.

Write the correct letter, A-I, next to Questions 15-20.



	A	B	C	D	E	F	G	H	I
15 Exhibition	○	○	○	○	○	○	○	○	○
16 Baths	○	○	○	○	○	○	○	○	○
17 Tools	○	○	○	○	○	○	○	○	○
18 Vehicles	○	○	○	○	○	○	○	○	○
19 Ponies	○	○	○	○	○	○	○	○	○
20 Education centre	○	○	○	○	○	○	○	○	○

PART 3 — QUESTIONS

Part 3 Audio: https://ielts-listening-audio.engnovatemedia.com/3178716-cambridge-ielts-21-academic-listening-test-2-3.mp3

Questions 21-22

Choose TWO letters, A-E.

21 **22** Which TWO facts in the sessions on food safety were new information for Nadia and Fergus?

- **A** ☐ the amount of plastic in the ocean
- **B** ☐ the number of diseases caused by contaminated food
- **C** ☐ the amount of food that is wasted
- **D** ☐ the number of people who are obese
- **E** ☐ the result of treating animals with antibiotics

Questions 23-24

Choose TWO letters, A-E.

23 **24** Which TWO features of a project aiming to prevent food fraud impressed Fergus?

- **A** ☐ the new technology it used
- **B** ☐ the publicity it received
- **C** ☐ the use of multiple tests on food items
- **D** ☐ the variety of dietary requirements included
- **E** ☐ the way information was made widely accessible

Questions 25-26

Choose TWO letters, A-E.

25 **26** Which TWO topics do both students recommend should be included in the course?

- **A** ☐ sustainable fishing
- **B** ☐ targeted nutrition
- **C** ☐ global differences in consumption
- **D** ☐ sustainable agriculture
- **E** ☐ digital technology and food

Questions 27-30

Complete the flow-chart below.

Choose FOUR answers from the box and write the correct letter, A-F, next to Questions 27-30.

A. This was challenging but enjoyable. | B. This led to some disagreement. | C. This was easy to decide on.

D. This was helped by the guidelines provided. | E. This seemed like an unnecessary stage. | F. This involved selecting a new ingredient.

Student project: developing a new food product

Initial aim

27 _____

Literature review

28 _____

Product development

29 _____

Product production

30 _____

PART 4 — QUESTIONS

Part 4 Audio: https://ielts-listening-audio.engnovatemedia.com/3178715-cambridge-ielts-21-academic-listening-test-2-4.mp3

Questions 31-40

Complete the notes below.

Write ONE WORD ONLY for each answer.

Challenges facing the cruise ship industry

Problems with overtourism

• **31** _____ is one of the worst problems.

• A tourist **32** _____ is being introduced in some cities to reduce numbers, e.g. Barcelona.

• Bruges: action was taken to limit day trips from the nearby port because the city was becoming a 'theme park' (e.g. many shops were only stocking **33** _____ and souvenirs).

• Dubrovnik: limits the number of tourists by managing the **34** _____ of cruise ship arrivals.

Problems of perception

• Cruises are generally associated with the elderly.

• There is an assumption about the **35** _____ of cruises.

• People think there may be too many **36** _____.

Solutions

Cruise lines are attracting younger customers by:

• becoming more sustainable e.g. using hybrid engines.

• having a wide range of activities e.g. boxing, **37** _____ and well-being programmes.

• offering a diverse selection of food including **38** _____ options.

- providing reliable **39** _____.
- improving marketing on social media with high quality **40** _____.

Transcripts

Part 1

MAN: Hello, Steynford College external course registration, can I help you?

WOMAN: Yeah, I'm ringing to find out about one-day classes next year. I got a leaflet about them in the post but I lost it, and I understand some of the classes are filling up fast, so I might need to book quite soon if I want to go ahead.

MAN: Sure. Can you remember which one you were considering?

WOMAN: There were a few actually. I remember there was one on how to make Vietnamese food that sounded good. I think that was on the 13th of January. It cost about 60 pounds.

MAN: Yes, you're right about the date, but it's 59 pounds actually. It's a very popular class, and among other things the teacher explains how Vietnamese food includes lots of different herbs. I'm afraid that all the places are taken at present, but I can put you on the waiting list if you want?

WOMAN: No, that's OK. I'm quite interested in the bread making class. That's in March sometime, isn't it?

MAN: Yeah, the 20th of March. Would you like to register for that?

WOMAN: I'm not sure. How much is it?

MAN: The actual cost is £48 but then there's an extra charge as well as that for the ingredients - I'm not sure how much that is, no more than twenty pounds I think.

WOMAN: So what sorts of things do they make in the class?

MAN: Oh, various types of bread; I think they make white bread and then they make sourdough, that seems to be very fashionable at present, and they learn how to make pizza, which is apparently really good.

WOMAN: Well I'd definitely be interested in that, but there were also a few other classes that sounded interesting. I think there was one on face massage? I'd love to learn how to do that.

MAN: Yeah, that's on the 23rd of February and it costs just £35 for the day. The teacher's great, the type of massage done is a traditional technique used in India and she actually did her training there. The massage is meant to relax you and get rid of lines and wrinkles. You practise it on yourself so you have to take a mirror to the class, so you can see what you're doing.

WOMAN: OK.

WOMAN: And I think there was a class in candle making?

MAN: Yes that's sometime in April, I think. Let me check ... yes, it's on the 6th. It was on the 23rd of January but they had to change the date. It's just £52. That's a popular course too. I think one reason

why people like it is because the candles are all made out of natural products. It's filling up fast but there's still a few places left.

WOMAN: Yes one of my friends did that class. She said the candles make really good presents. In fact she gave me one.

MAN: By the way, have you heard about the class on silk painting? That's being held on the 18th of May. You learn how to create designs on silk fabric and colour them using special dyes. Apparently people can produce beautiful artworks that way, either to put on the wall as a picture or to use for something like a scarf. It's £67.50, which is really good value I think - there's a similar class I've seen that was £110.

WOMAN: That sounds interesting. Would I need to bring the silk?

MAN: No, the only thing is everyone has to bring something to protect their clothing, like an apron if you've got one, or a shirt that you don't use any more, because the dye can really stain your clothes.

WOMAN: Right. Then the last class I was considering was a bit different, that was on DIY for beginners. I'd like to learn how to do household repairs. Are there any places left on that?

MAN: That's on the 24th of February - yes, there are a few places. It's a bit more expensive - it's £125 - but it's a very popular class. You learn how to use an electric drill and a saw.

WOMAN: Yeah, that would be really useful, and I even need to learn how to use a hammer because I always end up hitting my fingers.

MAN: Yes, you'll do that too. And when you've learned how to use the basic tools, you do a practical job which is fixing a shelf to a wall.

WOMAN: Great. Just what I need to know. Right, well I'd like to enrol for that and also for ...

Part 2

Here is some information about history and nature walks in the region. They can be completed in less than a day and also be combined with a visit to Melby, a former coal mine now open to the public.

The Marsden Coastal Walk is suitable for all the family as there are no strenuous climbs. The route begins at Marsden harbour, where there are hourly ferries to and from the beautiful Hooker Island, a great place for fishing. The walk covers part of the coastal path trail. As there are clear signposts all along the way, you don't even need to take a map with you. At one point, the route goes inland slightly and passes a castle built in the 1400s near to a now-vanished market town. The castle's now just a pile of stones but it's a great place to take photos, and fascinating information boards show what it once looked like. If you set off early, you can be back in time for midday.

The Melby Heritage Walk is a great place to take photos, especially of the night sky. At certain times of the year, people come here from far and wide. They climb to the top of the valley and take pictures of the stars. In the daytime, it's completely different. As you hike through the dense woods in the valley bottom, the only things you'll hear are the sound of your own footsteps. At the highest point, you can stop to take in the views, and those with lots of energy can climb the tower that's situated where there was once a seventeenth century hunting lodge. The route continues along the tops of the hills and brings you back down to the starting point - the car park at Melby Coal Mine.

Melby Coal Mine has been open to the public for twenty years and has won awards for its visitor experience. Many of the buildings around the mine are still standing and have been converted into display areas.

Firstly, there's an exhibition showing the history of the mine, with many original black and white photos. To see that, you go from the car park, via a covered walkway to the Main Visitor Centre. Go through the ticket office to an area where there are lockers to leave heavy bags in, and where you can borrow raincoats. Beyond that room is the exhibition.

There's a small bathhouse where miners used to wash after their shift underground. You can see that in the building directly to the north of the engine house. The boiler has gone from there now, but there are lines of tin baths on the stone floor.

There's a display of early mining tools from the days before mechanisation. You can find that in a small L-shaped building in the middle of the northern boundary of the site. It's incredible to think how miners were able to use hand implements to cut through rock.

The vehicle shed, where you can find wagons of different sizes, along with some of the hi-tech cutting machines that were in use until the mine closed, is in the southwest corner of the site, and can be accessed via a covered walkway.

There is a field with ponies, which are always popular with children, on the north-eastern boundary of the site, not approached via a covered walkway.

The other building to mention is the education centre. This is where school groups go when they visit the mine, but it's also accessible to the public as it contains a library and small gift shop. The centre is connected to the ticket office via a short section of covered walkway.

Part 3

TUTOR: Thanks for coming along, Nadia and Fergus. So this is a chance for you to give us some feedback about different aspects of your course. What would you like to begin with?

NADIA: I've enjoyed the sessions on food safety. There was some information there that I found really surprising, although some was stuff I knew already, like the rise in rates of obesity.

FERGUS: Yeah, that's been in the news a lot. But I hadn't realised that unsafe food causes more than 200 different diseases.

NADIA: No, I'd no idea it was that many. And speaking of diseases, I knew resistance to antibiotics is on the increase, but I didn't know why ...

FERGUS: ...that it's partly because when animals are treated with antibiotics then consumed by humans, the antibiotics get into the food chain. I had no idea about that either.

NADIA: Then the sessions provided a lot of information about plastic pollution from food packaging in the ocean, but I think that most of us were already aware of that.

FERGUS: Yeah. But I thought we could have done more on how much food is thrown away unnecessarily through fear of it being out of date, that was only mentioned in passing.

TUTOR: OK, I'll bear that in mind. What did you think about the sessions from visiting lecturers, Fergus?

FERGUS: For me the most interesting one was about that project to prevent companies giving incorrect information to consumers about food.

TUTOR: Ah, food fraud, yes.

FERGUS: I thought it was really good to address a problem that's faced by so many different groups - people with special religious rules, as well as vegetarians and vegans.

NADIA: And those with allergies.

FERGUS: Yeah. And another thing, we've had effective ways of analysing DNA for some time now and these can easily be applied to analysing food. But what the researchers succeeded in doing was to ensure that these tests were carried out at different stages in the food's journey from the producer to the consumer. So they knew that the food actually came from the place it was supposed to, and had the ingredients it was meant to.

NADIA: Exactly. So customers can be confident about what they buy.

FERGUS: And the researchers had a good system for publicising their findings too.

NADIA: Well, I thought there were some problems with that, actually.

TUTOR: OK. And do you have any recommendations for new topics that we could include in the course?

NADIA: Well, I'm interested in how crop yields can be increased without damaging the environment.

FERGUS: But we've already done quite a bit on that - but not so much on the seafood industry, where stocks are in danger of being overexploited as a food source unless we can find ways of keeping stocks up.

NADIA: Yes, that'd be a good topic. And I'm interested in the idea of a personalised approach to diet, now we have the technology to analyse exactly what individuals need.

FERGUS: That sounds more like a medical topic than food science.

NADIA: OK. What about sessions on the variety of food and eating habits around the world? That's very relevant nowadays.

FERGUS: Yes, I think the whole class would be interested in that.

NADIA: Then there's technological stuff, things like 3D printing of food and smart packaging.

FERGUS: Mmm - maybe too specialist.

TUTOR: Now, I'm particularly interested in your project - the one where you developed a new food product. So talk me through the stages... first you had to decide on your initial aim.

FERGUS: We decided we wanted to create something people could eat on the go rather than in a restaurant.

NADIA: Yeah so we chose falafel, which was originally a Middle Eastern snack.

FERGUS: We made up our minds about that pretty quickly. I know some students found it a lot harder to choose, and wasted a lot of time.

NADIA: Then we had to do the literature review. We hadn't done one of these before so, the handout with advice for the project was very useful here.

FERGUS: Yes, especially the advice on how to present the information. Then product development, actually deciding what we'd use to make the falafel, and for me the interesting thing about that was that we wanted it to be something a bit different from an ordinary falafel.

NADIA: We really made the right choice when we finally decided to use jackfruit, even though it wasn't something that either of us had ever tasted before.

FERGUS: Yeah, like the name tells you, it's a fruit but actually it's really good in savoury dishes. The product production, working out how to make the falafel, was harder than I expected because I'd never made them before.

NADIA: It was mostly trial and error. We started off with the basic recipe and then experimented and when it went wrong...

FERGUS: ...which it did a lot of the time...

NADIA: ...we just moved on and kept adapting it and in the end it turned out fine and we had a lot of fun.

FERGUS: We did!

TUTOR: Thank you. Well, your project was a very good ....

Part 4

For my presentation today I'm going to talk about some of the issues facing the cruise ship industry and then some ways these can be addressed. The cruise ship industry has partly been responsible for the effects of overtourism in recent decades. Overtourism occurs in places where excessive numbers of tourists cause significant problems. Pollution, for example, is among the greatest threats to many popular tourist destinations.

Of course, for many places it's a difficult balance to achieve. They want to promote their city or island as a desirable tourist destination, but at the same time, are unable to cope with thousands of cruise ship passengers on a daily basis. The trouble is, excessive tourism is destroying the beauty spots and places of interest that people come to visit. Several cities, such as Barcelona, have responded by imposing a tax which all visitors to the city from cruise ships have to pay. But as it's only a couple of euros, many green campaigners think it won't deter enough people to make any difference.

Bruges is another city which became impossible to navigate at times because of the huge numbers of cruise passengers arriving on day trips from the port of Zeebrugge. The city was becoming like a 'theme park', with shops only catering for tourists, selling chocolate, which Belgium is famous for, and other souvenirs. The local council took action to limit cruise passengers to a more manageable level.

Dubrovnik had to limit the numbers of cruise ships after it became extremely popular as a cruise ship destination when it featured in a hugely successful TV series. What it does now is control the timing of

all cruise ship entries to the city's port. However, many people feel this measure does not go far enough.

Cruise ships may be unpopular in some of their destinations but they also have an image problem. They've always been perceived as a safe holiday for the elderly, with not much on offer for families or young couples. A recent survey showed that cost is also a major factor in putting younger groups off going on a cruise. But what they don't realise is that compared to other types of package holidays, cruises can actually be good value, as all activities and drinks are often included. And another perception is that cruises have lots of rules about what to wear and how to behave. But these days, most cruises are no longer very formal and behind the times.

So what solutions are there for cruise lines to overcome some of these problems? How can they appeal to younger customers? Well one selling point is that cruise ships are becoming more sustainable. New ships are built with hybrid engines with large batteries which means ships do not have to keep their engines running while docked.

Cruise lines are also designing ships specially for those in the age range of 21 to 45. The décor in these feels contemporary and there are a range of activities on board that you wouldn't find on a more traditional cruise. There's even a boxing ring on one ship, and most offer diving expeditions. But there's also a huge focus on well-being with a variety of sessions of different kinds.

Food is always a very important part of any cruise and cruise ships have had to radically update their menus to suit the tastes of their younger customers. Vegan dishes are standard, for example. The restaurants on board have also gone paperless with menus available on screen.

Unlike older generations who went on cruises largely to get away from everything, younger people expect to be able to keep in touch with friends and family. Many people going on longer cruises also spend time working, so companies have to guarantee wifi that can be relied upon at all times.

My grandparents used to love looking through cruise brochures, even when they weren't planning on going on a cruise. Until very recently TV ads for cruises always felt dated and aimed at retirees. Cruise lines have been slow to adopt the power of social media but that's all changing. Leading cruise lines now employ top agencies to produce first rate videos for social media channels.

It will be interesting to see whether ...

Answer Key

#	Answer	Explanation
1	**13(th) January / January 13(th) / 13.01 / 13.1**	I remember there was one on how to make Vietnamese food that sounded good. I think that was on the 13th of January. It cost about 60 pounds Yes, you're right about the date, but it's 59 pounds actually
2	**48**	The actual cost is £48 but then there's an extra charge as well as that for the ingredients – I'm not sure how much that is, no more than twenty pounds I think
3	**pizza**	Oh, various types of bread; I think they make white bread and then they make sourdough, that seems to be very fashionable at present, and they learn how to make pizza, which is apparently really good
4	**India**	The teacher's great, the type of massage done is a traditional technique used in India and she actually did her training there
5	**mirror**	You practise it on yourself so you have to take a mirror to the class, so you can see what you're doing
6	**6(th) April / April 6(th) / 06.04 / 6.4**	Yes that's sometime in April, I think. Let me check yes, it's on the 6th. It was on the 23rd of January but they had to change the date
7	**natural**	I think one reason why people like it is because the candles are all made out of natural products
8	**67.50**	By the way, have you heard about the class on silk painting? That's being held on the 18th of May. You learn how to create designs on silk fabric and colour them using special dyes. Apparently people can produce beautiful artworks that way, either to put on the wall as a picture or to use for something like a scarf. It's £67.50, which is really good value I think – there's a similar class I've seen that was £110
9	**shirt**	MAN: No, the only thing is everyone has to bring something to protect their clothing, like an apron if you've got one, or a shirt that you don't use any more, because the dye can really stain your clothes

#	Answer	Explanation
10	**hammer**	MAN: That's on the 24th of February – yes, there are a few places. It's a bit more expensive – it's £125 – but it's a very popular class. You learn how to use an electric drill and a saw. WOMAN: Yeah, that would be really useful, and I even need to learn how to use a hammer because I always end up hitting my fingers. MAN: Yes, you'll do that too
11	**B / E**	As there are clear signposts all along the way, you don't even need to take a map with you. At one point, the route goes inland slightly and passes a castle built in the 1400s near to a now-vanished market town. The castle's now just a pile of stones but it's a great place to take photos, and fascinating information boards show what it once looked like
12	**B / E**	As there are clear signposts all along the way, you don't even need to take a map with you. At one point, the route goes inland slightly and passes a castle built in the 1400s near to a now-vanished market town. The castle's now just a pile of stones but it's a great place to take photos, and fascinating information boards show what it once looked like
13	**C / D**	At the highest point, you can stop to take in the views, and those with lots of energy can climb the tower that's situated where there was once a seventeenth century hunting lodge. The route continues along the tops of the hills and brings you back down to the starting point – the car park at Melby Coal Mine
14	**C / D**	At the highest point, you can stop to take in the views, and those with lots of energy can climb the tower that's situated where there was once a seventeenth century hunting lodge. The route continues along the tops of the hills and brings you back down to the starting point – the car park at Melby Coal Mine
15	**F**	Go through the ticket office to an area where there are lockers to leave heavy bags in, and where you can borrow raincoats. Beyond that room is the exhibition
16	**B**	There's a small bathhouse where miners used to wash after their shift underground. You can see that in the building directly to the north of the engine house. The boiler has gone from there now, but there are lines of tin baths on the stone floor
17	**D**	There's a display of early mining tools from the days before mechanisation. You can find that in a small L-shaped building in the middle of the northern boundary of the site
18	**A**	The vehicle shed, where you can find wagons of different sizes, along with some of the hi-tech cutting machines that were in use until the mine closed, is in the southwest corner of the site, and can be accessed via a covered walkway

#	Answer	Explanation
19	**H**	There is a field with ponies, which are always popular with children, on the north-eastern boundary of the site, not approached via a covered walkway
20	**E**	The centre is connected to the ticket office via a short section of covered walkway
21	**B / E**	FERGUS: Yeah, that's been in the news a lot. But I hadn't realised that unsafe food causes more than 200 different diseases. NADIA: No, I'd no idea it was that many. And speaking of diseases, I knew resistance to antibiotics is on the increase, but I didn't know why FERGUS that it's partly because when animals are treated with antibiotics then consumed by humans, the antibiotics get into the food chain. I had no idea about that either
22	**B / E**	FERGUS: Yeah, that's been in the news a lot. But I hadn't realised that unsafe food causes more than 200 different diseases. NADIA: No, I'd no idea it was that many. And speaking of diseases, I knew resistance to antibiotics is on the increase, but I didn't know why FERGUS that it's partly because when animals are treated with antibiotics then consumed by humans, the antibiotics get into the food chain. I had no idea about that either
23	**C / D**	I thought it was really good to address a problem that's faced by so many different groups – people with special religious rules, as well as vegetarians and vegans But what the researchers succeeded in doing was to ensure that these tests were carried out at different stages in the food's journey from the producer to the consumer
24	**C / D**	I thought it was really good to address a problem that's faced by so many different groups – people with special religious rules, as well as vegetarians and vegans But what the researchers succeeded in doing was to ensure that these tests were carried out at different stages in the food's journey from the producer to the consumer
25	**A / C**	FERGUS: But we've already done quite a bit on that – but not so much on the seafood industry, where stocks are in danger of being overexploited as a food source unless we can find ways of keeping stocks up. NADIA: Yes, that'd be a good topic NADIA: OK. What about sessions on the variety of food and eating habits around the world? That's very relevant nowadays. FERGUS: Yes, I think the whole class would be interested in that

#	Answer	Explanation
26	**A / C**	FERGUS: But we've already done quite a bit on that – but not so much on the seafood industry, where stocks are in danger of being overexploited as a food source unless we can find ways of keeping stocks up. NADIA: Yes, that'd be a good topic NADIA: OK. What about sessions on the variety of food and eating habits around the world? That's very relevant nowadays. FERGUS: Yes, I think the whole class would be interested in that
27	**C**	We made up our minds about that pretty quickly. I know some students found it a lot harder to choose, and wasted a lot of time
28	**D**	NADIA: Then we had to do the literature review. We hadn't done one of these before so, the handout with advice for the project was very useful here. FERGUS: Yes, especially the advice on how to present the information
29	**F**	Then product development, actually deciding what we'd use to make the falafel, and for me the interesting thing about that was that we wanted it to be something a bit different from an ordinary falafel. NADIA: We really made the right choice when we finally decided to use jackfruit, even though it wasn't something that either of us had ever tasted before
30	**A**	The product production, working out how to make the falafel, was harder than I expected because I'd never made them before we just moved on and kept adapting it and in the end it turned out fine and we had a lot of fun
31	**Pollution**	Pollution, for example, is among the greatest threats to many popular tourist destinations
32	**tax**	Several cities, such as Barcelona, have responded by imposing a tax which all visitors to the city from cruise ships have to pay
33	**chocolate**	The city was becoming like a 'theme park', with shops only catering for tourists, selling chocolate, which Belgium is famous for, and other souvenirs
34	**timing**	What it does now is control the timing of all cruise ship entries to the city's port
35	**cost**	A recent survey showed that cost is also a major factor in putting younger groups off going on a cruise
36	**rules**	And another perception is that cruises have lots of rules about what to wear and how to behave
37	**diving**	There's even a boxing ring on one ship, and most offer diving expeditions. But there's also a huge focus on well-being with a variety of sessions of different kinds

#	Answer	Explanation
38	**vegan**	Food is always a very important part of any cruise and cruise ships have had to radically update their menus to suit the tastes of their younger customers. Vegan dishes are standard, for example
39	**wifi / wi-fi**	Many people going on longer cruises also spend time working, so companies have to guarantee wifi that can be relied upon at all times
40	**videos**	Leading cruise lines now employ top agencies to produce first rate videos for social media channels

Cambridge IELTS 21 Academic Listening Test 3

PART 1 — QUESTIONS

Part 1 Audio: https://ielts-listening-audio.engnovatemedia.com/3178711-cambridge-ielts-21-academic-listening-test-3-1.mp3

Questions 1-10

Complete the notes below.

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

Ferry to Shetland Islands

- Name of ferry company: **1** _____ Ferries
- Ferries depart seven times per **2** _____ in summer
- Cost for four people with car: a little less than £ **3** _____
- Cancellation policy: receive a **4** _____

  (if cancelled a month in advance)

Advice

- Cabins:

  - book one with a **5** _____

  - luxury cabins have a TV

- Bring snacks and **6** _____ for the children
- A **7** _____ is required for the dog kennels
- Try to see **8** _____ in the morning
- If time, visit **9** _____ Castle
- The **10** _____ restaurant in a nearby village is recommended

PART 2 — QUESTIONS

Part 2 Audio: https://ielts-listening-audio.engnovatemedia.com/3178710-cambridge-ielts-21-academic-listening-test-3-2.mp3

Questions 11-12

Choose TWO letters, A-E.

11 **12** Which TWO explanations for the popularity of street food are given?

- **A** ☐ low price
- **B** ☐ locally sourced
- **C** ☐ freshly made
- **D** ☐ convenience
- **E** ☐ unusual food

Questions 13-14

Choose TWO letters, A-E.

13 **14** Which TWO places are recommended for new street food businesses?

- **A** ☐ music festivals
- **B** ☐ food markets
- **C** ☐ weddings
- **D** ☐ parties
- **E** ☐ parks

Questions 15-16

Choose the correct letter, A, B or C.

15 What does the speaker say about getting equipment for a street food business?

- **A** ○ High quality equipment is a good investment.
- **B** ○ It's best to buy second-hand equipment.
- **C** ○ Renting equipment can be cheap.

16 What advice is given about creating a product for a street food business?

- **A** ○ Provide information about the ingredients.
- **B** ○ It is important to have an original product.
- **C** ○ The presentation is an important factor.

Questions 17-20

What problem did the owners of each of the following street food businesses experience?

Choose FOUR answers from the box and write the correct letter, A-F.

A. Some ingredients were too expensive.

B. The meals took a long time to prepare.

C. They had no money for marketing.

D. It was difficult to get a permit to sell food.

E. A competitor was selling similar food in their area.

F. They worked very long hours.

17 Thai Basil _____

18 Basque _____

19 Lou's kitchen _____

20 Chip Chop _____

PART 3 — QUESTIONS

Part 3 Audio: https://ielts-listening-audio.engnovatemedia.com/3178709-cambridge-ielts-21-academic-listening-test-3-3.mp3

Questions 21-22

Choose TWO letters, A-E.

21 22 Which TWO points do the speakers make about the terms 'ethical' and 'sustainable' fashion?

- **A** ☐ Their definitions keep changing.
- **B** ☐ People think they mean the same thing.
- **C** ☐ The term 'eco-friendly' is preferable.
- **D** ☐ They are often used imprecisely.
- **E** ☐ Companies should avoid using them on clothing labels.

Questions 23-24

Choose TWO letters, A-E.

23 24 Which TWO claims about wool production do the speakers disagree with?

- **A** ☐ Sheep are generally well-treated.
- **B** ☐ Wool is easy to recycle.
- **C** ☐ Wool is a long-lasting fabric.
- **D** ☐ Wool production involves few chemicals.
- **E** ☐ Sheep do less environmental damage than other livestock.

Questions 25-30

What comment do the speakers make about each of the following semi-synthetic fabrics?

Choose SIX answers from the box and write the correct letter, A-H.

A. The production process is fuel efficient.

B. It is the least sustainable of alternative fabrics.

C. Production costs are high.

D. It provides additional health benefits.

E. It is not durable in the long-term.

F. It needs to be produced in a certain way to be sustainable.

G. Chemicals required for production can be reused.

H. This is from a wholly sustainable source.

25 Lyocell _____

26 Cupro _____

27 Bamboo _____

28 EcoVero _____

29 Cork _____

30 Hemp _____

PART 4 — QUESTIONS

Part 4 Audio: https://ielts-listening-audio.engnovatemedia.com/3178708-cambridge-ielts-21-academic-listening-test-3-4.mp3

Questions 31-40

Complete the notes below.

Write ONE WORD ONLY for each answer.

Invasive species

Definition: an animal or plant that causes harm to an environment after being introduced by humans

An invasive species can be a problem when it:

- eats native species.
- introduces a new **31** _____.
- takes food from native species.
- threatens an entire **32** _____.

How invasive species spread

- accidentally e.g. via people returning from their **33** _____ or on cargo ships
- intentionally e.g. for pest control, or as **34** _____.

Examples of invasive species

- *Rhinella marina* (toads)
  - were introduced to Australia from Hawaii in 1935 to eat a type of insect that was damaging the **35** _____ plantations.
  - failed to solve the problem and became widespread in the north of Australia.
  - are poisonous for any species that eats them and reduce the food available for native frogs.
- Japanese knotweed plants were popular among 19th-century gardeners in the UK.
- Rhododendron plants prevent **36** _____ from reaching native plants.
- Grey squirrels from N. America reduce sources of food for the UK's native red squirrels and spread a **37** _____ that kills red squirrels.

Tackling invasive species

- Monitoring helps us to understand the **38** _____ of invasive species and the impact they have.
- Setting up a national **39** _____ makes it easier to track them.
- Asking the public to **40** _____ and report them helps with monitoring.

Transcripts

Part 1

TAMMY: You know when you went to the Shetland Islands last year, Paul? Did you go by ferry or did you fly?

PAUL: We went by ferry, Tammy. I prefer driving to flying – the journey feels like part of the holiday.

TAMMY: Mmm. Which ferry company did you use?

PAUL: There's only one – it's called Northern Ferries. The ferries all leave from Aberdeen.

TAMMY: How frequent are they?

PAUL: The service is pretty limited – there's only one ferry leaving every evening in summer anyway, seven days a week – I'm not sure about the winter months. They may only run on four or five days then.

TAMMY: OK. So it's an overnight trip. I quite like that idea. Leaving at night and waking up as you arrive on the island. Can you remember how much you paid for your tickets?

PAUL: They were really cheap and four people and a car worked out at just under £250.

TAMMY: Really? I was expecting it to be more like £400 during the peak season.

PAUL: So was I. It's great value. It's a good idea to book in advance because I think they get booked up quite quickly – especially during the school holidays.

TAMMY: Yes, I suppose so. I'm just not 100% sure of our plans yet. What if I had to cancel?

PAUL: That could be a problem. I don't think it's their policy to give refunds – just a voucher – which you can use at a later date. But you have to cancel a month in advance to get that.

TAMMY: Right. Well we need to make up our minds quickly then.

PAUL: You'd want to book a cabin too. We booked too late to get a cabin with a window. They're more expensive but much nicer than the inner cabins. You don't have to book a cabin at all but I think it's worth paying for. They also have luxury cabins, which are only for two people and have a TV – but I wouldn't bother with those.

TAMMY: No, I agree.

PAUL: The only other thing I can think of is to make sure you bring snacks for the kids. The selection on board is quite limited and not that healthy either.

TAMMY: Mmm. What about wifi on board? Is that any good?

PAUL: Not really. So it's best to bring some books for them.

TAMMY: OK. We may need to bring the dog if I can't get anyone to look after him.

PAUL: We brought ours and it was fine. The kennels on board are OK – they're quite big – you just need to provide a blanket.

TAMMY: Uhuh. Sounds good.

PAUL: It was all very easy really – and it was quite an adventure for the kids. They loved being on the sea at night and in the morning keeping a lookout for dolphins – we saw loads.

TAMMY: Oh, the kids would love that!

PAUL: One other thing. We arrived in Aberdeen hours before the ferry was due to leave so we decided to go somewhere else rather than hang around at the port for so long.

TAMMY: Where did you go?

PAUL: Drum Castle.

TAMMY: I've never heard of it. Is that spelt like the instrument?

PAUL: Yeah. It's really worth visiting. It's got an impressive tower and beautiful gardens and ancient woodland.

TAMMY: Sounds lovely. Does it have a restaurant?

PAUL: It's only got a coffee shop – no restaurant. We looked up restaurants in the area and found an Italian one in a village nearby. I can check the name of it for you if you're interested.

TAMMY: Oh thanks Paul that would be ....

Part 2

Good evening everyone. My name's Jon and I run Veg Out, a street food business selling vegan food. Since 2012 I've been travelling all around the country cooking vegan food in my converted van and selling it at all kinds of outdoor events. I'm here to give you some advice based on my experience.

The good news is that there's never been a better time to start your own street food business. Street food continues to grow in popularity. I think there are a couple of reasons for this. The first is that street food is a reaction against fast food. Street food ranges from high quality burgers to vegan curries and everything in between. But while fast food is cheap and easy to find, it's not particularly good for you. It's also the same everywhere. What you get with street food on the other hand is something different. People like the idea of trying something they can't get anywhere else. They also like seeing food prepared in front of them and which hasn't come straight out of a freezer.

You need to think about the best place to sell your street food. People always think music festivals are an obvious place to start but the cost of renting a space can be huge. And there's always a lot of competition. Food markets, on the other hand, are great because customers are always really interested in food and give great feedback. And if you can get a spot in your local park – fantastic. Usually very relaxed but with lots of customers passing by. Once you get established you'll start getting asked to do parties – which can be really challenging but lots of fun. Having street food at weddings has become quite fashionable too – but you need to really know what you're doing as everything needs to be perfect.

Setting up a street food business costs a lot less than opening a restaurant or café but you'll have to buy some basic equipment. I'd try to get things like hobs and fridges second hand if you can. You can replace them with better quality stuff if your business takes off. Renting is another option but you'll end up spending more money rather than saving it.

You've probably got a good idea about the food you're planning to sell. I expect you've done some research to find out if anyone else is selling a similar product. And you'll have thought about any possible allergies to nuts or eggs etc. But there's one thing people don't always think about and that's how you're going to serve it. On a plate? In a bag? Will you provide a fork? Will it all be easily recyclable or reusable? It's got to be easy to eat and look attractive or customers won't come back.

Once you get started, you should be prepared for things to go wrong. Every business faces problems and here are a few examples from street food businesses that I know.

My friends who run Thai Basil started by juggling their street food business with their day jobs in a restaurant. Their work-life balance was non-existent as they were working til midnight in the restaurant all week and then took their food truck to markets on their days off.

The owners of Basque found it was hard to make a profit because the price of fish – essential for some of their dishes – was so high. And it was hard to charge customers a lot more for those dishes. So they had to stop focussing on fish dishes and include more vegetarian food.

The owners of Lou's kitchen were making salads to order from their van and some of their dishes were quite complicated. At one of their first events they ended up with people standing in a long queue for more than 15 minutes – and many of them lost patience. So make sure whatever you offer can be served quickly and efficiently.

The owners of Chip Chop had found a perfect venue near a beach where there weren't any other street food trucks. But what they hadn't realised was that they'd need a special licence – which individual businesses don't need at markets or festivals. It was a complicated process and in the end they gave up.

So I hope that's given you a flavour of ....

Part 3

MADDY: Shall we go through our research for our sustainable fashion project?

RYAN: Good idea. I think I've done enough reading now.

MADDY: Me too. I've learnt such a lot about what sustainability actually means.

RYAN: Mmm, same for me with ethical fashion. I didn't really appreciate the difference between that and sustainable fashion before doing this research.

MADDY: I know – most people use these terms interchangeably – but in fact the difference is quite distinct when you think about it. Sustainable relates to the environment and ethical relates more to the way workers or animals are treated.

RYAN: I totally understand why people get confused, though. There are so many other terms used – like 'eco-friendly', which is actually quite meaningless.

MADDY: And the way companies use these terms when describing their products doesn't help. They're often deliberately vague, I think, and don't provide enough information about how their products are made.

RYAN: Yes.

MADDY: It was interesting to read about the debates surrounding wool production and how ethical and sustainable that is. It's generally considered to be sustainable because it's a natural product.

RYAN: And it also lasts a long time and can be recycled. All very positive. But I wasn't convinced by the argument that wool production is sustainable because it doesn't use many chemicals – what about all the fungicides and insecticides used in sheep farming?

MADDY: Good point. And I couldn't find any evidence for the claim about sheep farming being better for the environment than cattle farming.

RYAN: No – they're both really bad. I read different reports about how unethical it is to even shear sheep. Some people say it's cruel but as long as the sheep are kept in good condition I can't see anything wrong with it.

MADDY: Me neither.

RYAN: Shall we talk about some of the semi-synthetic new fabrics now?

MADDY: OK, let's do that.

RYAN: Let's start with Lyocell, I've been reading about that.

MADDY: Yeah, that's the one produced from the pulp of eucalyptus trees, isn't it?

RYAN: Yes, and what happens with that is really impressive. Over 99% of dissolving agents used in the manufacturing process are used again.

MADDY: Yeah. Now, there are a few semi-synthetic fabrics that I'd never heard of. Like Cupro, for example.

RYAN: Made from byproducts of the cotton industry to create a kind of vegan silk. But I'm not sure how sustainable this really is as there are so many reports of pollution caused by the manufacturing process.

MADDY: Mmm. It doesn't compare favourably with all the other sustainable fabrics we've looked at, no.

RYAN: Bamboo is one fabric we're all familiar with. But I didn't know that it was only organic bamboo that's truly sustainable.

MADDY: Me neither. Apparently, the manufacturing process for a significant proportion of bamboo is chemically quite intensive – which obviously can be quite damaging.

RYAN: EcoVero is an example of a semi-synthetic fabric which is becoming really popular.

MADDY: Probably because manufacturing causes 50 percent fewer emissions and takes up half as much energy as conventional fabrics. That saves production costs as well as being better for the environment.

RYAN: That's true. I think demand for cork will continue to grow. It works really well in vegan shoes and bags.

MADDY: Mmm and it's the only fabric that's fundamentally sustainable – the cork trees it comes from are renewable and the product itself is both recyclable and biodegradable – which is unique.

RYAN: And the harvesting process is actually good for the trees. There are no downsides to using this source at all.

MADDY: Hemp is another really good sustainable fabric from a natural source.

RYAN: Yes. Did you know that clothes made from hemp protect the wearer from the sun and it's also antibacterial?

MADDY: No, I didn't. But I did read that it's quite hard to grow, so perhaps that's why it's not as common as you'd think.

RYAN: I'm sure that'll change.

Part 4

Today I'm going to talk about invasive species. Let me start by saying what an invasive species is and what it's not. Invasive species are any animal or plant that is introduced into an environment by humans, and which is then harmful to that environment. It's important to be clear that not all introduced species are invasive. Many introduced – or non-native – species thrive in new areas without posing any threat.

In some cases, invasive species have changed the natural world beyond recognition, so let's look at the different ways they can be problematic. First of all, invasive species may eat native species, or sometimes they may bring a disease with them, which native species have never faced before and therefore have no defences against. Often the invasive species breed very quickly – which further adds to the problem of native species losing their sources of food. Species invasions are one of the biggest causes of damage in an ecosystem, actually putting its survival at risk.

So, how do invasive species spread? Without a doubt, the biggest cause is human activity. This could be intentional, or it could be accidental, such as when people who've been on holiday in another country come back with, say, the seeds of plants on their clothes or shoes. Plants and animals, especially insects, arrive in or on the cargo of ships, and then escape into their new 'home'. But sometimes humans deliberately move animals and plants around the world, for example to use them to control pests on farms, or to be pets. This can go very wrong if those animals and plants move into wild settings and start breeding or begin growing in ways that weren't predicted.

Let's now look at an example of an invasive species here in Australia: Rhinella marina is a species of toad that was deliberately introduced from Hawaii in 1935 as a form of biological control. It was hoped that the toads would eat the grey-backed beetles responsible for destroying crops of sugar on many of the plantations. At first, just a handful of toads were released by scientists into Queensland, but this number soon grew as other states followed suit. Within two years, 62,000 young toads had been

released into the wild. The toads did nothing to protect the plantations, but they did reproduce rapidly and could soon be found all over the northern half of the country. The toads are poisonous at every stage of their life cycle, and anything that eats them will die.

My second example regarding invasive species is the United Kingdom. Actually, there are more than three-thousand invasive species there, including some that are extremely common. Some invasive plants, such as Japanese knotweed, have had a devastating impact on parts of the UK. Gardeners in the nineteenth century considered it a beautiful ornamental plant – which it is, when it's kept under control – but it soon spread into the countryside and remains a problem even to this day as it's so hard to eradicate. Another invasive plant is rhododendrons, which can be found in UK parks and woodlands. Their introduction dates back to 1763, but they're now seen as harmful because they block out so much light that native wild flowers can't grow beneath them.

And then there are grey squirrels, which are one invasive species almost everyone in the UK will have come across. They were brought to the UK from North America and introduced to private estates around the 1870s but are now found everywhere, from forests to city squares. Grey squirrels have outcompeted the smaller, native red squirrels. They both eat the same food, and the grey squirrels carry a type of virus that is deadly to the red squirrels. Red squirrel populations have collapsed, and there are only a handful of sites left in the UK where they're found.

An important question for ecologists worldwide is, what can we do to tackle the problem of invasive species? The first step in controlling invasive species is learning about the behaviour of new species coming into the country. Monitoring is an important part of this, so that we can know if the new species begins to have a negative impact in its new environment. One effective way to keep track of invasive species is to create a database for the whole country. That way, all relevant authorities and agencies can share important information and take whatever action's needed. But the public also have a vital role to play in this process. They should be encouraged to photograph harmful species – because this helps with identification – and then to report when and where these were observed. But it's important to tell people not to destroy or even touch what they've found.

Now, I'm going to move on to ...

Answer Key

#	Answer	Explanation
1	**Northern**	There's only one – it's called Northern Ferries
2	**week**	The service is pretty limited – there's only one ferry leaving every evening in summer anyway, seven days a week – I'm not sure about the winter months
3	**250**	They were really cheap and four people and a car worked out at just under £250
4	**voucher**	That could be a problem. I don't think it's their policy to give refunds – just a voucher – which you can use at a later date. But you have to cancel a month in advance to get that
5	**window**	We booked too late to get a cabin with a window
6	**books**	PAUL: Not really. So it's best to bring some books for them
7	**blanket**	The kennels on board are OK – they're quite big – you just need to provide a blanket
8	**dolphins**	They loved being on the sea at night and in the morning keeping a lookout for dolphins – we saw loads
9	**Drum**	PAUL: Drum Castle
10	**Italian**	We looked up restaurants in the area and found an Italian one in a village nearby
11	**C / E**	People like the idea of trying something they can't get anywhere else. They also like seeing food prepared in front of them and which hasn't come straight out of a freezer
12	**C / E**	People like the idea of trying something they can't get anywhere else. They also like seeing food prepared in front of them and which hasn't come straight out of a freezer
13	**B / E**	Food markets, on the other hand, are great because customers are always really interested in food and give great feedback. And if you can get a spot in your local park – fantastic. Usually very relaxed but with lots of customers passing by
14	**B / E**	Food markets, on the other hand, are great because customers are always really interested in food and give great feedback. And if you can get a spot in your local park – fantastic. Usually very relaxed but with lots of customers passing by

#	Answer	Explanation
15	**B**	I'd try to get things like hobs and fridges second hand if you can
16	**C**	But there's one thing people don't always think about and that's how you're going to serve it. On a plate? In a bag? Will you provide a fork? Will it all be easily recyclable or reusable? It's got to be easy to eat and look attractive or customers won't come back
17	**F**	My friends who run Thai Basil started by juggling their street food business with their day jobs in a restaurant. Their work-life balance was non-existent as they were working til midnight in the restaurant all week and then took their food truck to markets on their days off
18	**A**	The owners of Basque found it was hard to make a profit because the price of fish – essential for some of their dishes – was so high
19	**B**	The owners of Lou's kitchen were making salads to order from their van and some of their dishes were quite complicated. At one of their first events they ended up with people standing in a long queue for more than 15 minutes – and many of them lost patience. So make sure whatever you offer can be served quickly and efficiently
20	**D**	The owners of Chip Chop had found a perfect venue near a beach where there weren't any other street food trucks. But what they hadn't realised was that they'd need a special licence – which individual businesses don't need at markets or festivals. It was a complicated process and in the end they gave up
21	**B / D**	most people use these terms interchangeably They're often deliberately vague, I think, and don't provide enough information about how their products are made
22	**B / D**	most people use these terms interchangeably They're often deliberately vague, I think, and don't provide enough information about how their products are made
23	**D / E**	RYAN: And it also lasts a long time and can be recycled. All very positive. But I wasn't convinced by the argument that wool production is sustainable because it doesn't use many chemicals – what about all the fungicides and insecticides used in sheep farming? MADDY: Good point. And I couldn't find any evidence for the claim about sheep farming being better for the environment than cattle farming. RYAN: No – they're both really bad

#	Answer	Explanation
24	**D / E**	RYAN: And it also lasts a long time and can be recycled. All very positive. But I wasn't convinced by the argument that wool production is sustainable because it doesn't use many chemicals – what about all the fungicides and insecticides used in sheep farming? MADDY: Good point. And I couldn't find any evidence for the claim about sheep farming being better for the environment than cattle farming. RYAN: No – they're both really bad
25	**G**	Over 99% of dissolving agents used in the manufacturing process are used again
26	**B**	RYAN: Made from byproducts of the cotton industry to create a kind of vegan silk. But I'm not sure how sustainable this really is as there are so many reports of pollution caused by the manufacturing process.MADDY: Mmm. It doesn't compare favourably with all the other sustainable fabrics we've looked at, no
27	**F**	RYAN: Bamboo is one fabric we're all familiar with. But I didn't know that it was only organic bamboo that's truly sustainable
28	**A**	Probably because manufacturing causes 50 percent fewer emissions and takes up half as much energy as conventional fabrics
29	**H**	MADDY: Mmm and it's the only fabric that's fundamentally sustainable – the cork trees it comes from are renewable and the product itself is both recyclable and biodegradable – which is unique.RYAN: And the harvesting process is actually good for the trees. There are no downsides to using this source at all
30	**D**	RYAN: Yes. Did you know that clothes made from hemp protect the wearer from the sun and it's also antibacterial
31	**disease**	First of all, invasive species may eat native species, or sometimes they may bring a disease with them, which native species have never faced before and therefore have no defences against
32	**ecosystem**	Species invasions are one of the biggest causes of damage in an ecosystem, actually putting its survival at risk
33	**holiday(s)**	This could be intentional, or it could be accidental, such as when people who've been on holiday in another country come back with, say, the seeds of plants on their clothes or shoes
34	**pets**	But sometimes humans deliberately move animals and plants around the world, for example to use them to control pests on farms, or to be pets

#	Answer	Explanation
35	**sugar**	It was hoped that the toads would eat the grey-backed beetles responsible for destroying crops of sugar on many of the plantations
36	**light**	Another invasive plant is rhododendrons, which can be found in UK parks and woodlands. Their introduction dates back to 1763, but they're now seen as harmful because they block out so much light that native wild flowers can't grow beneath them
37	**virus**	Grey squirrels have outcompeted the smaller, native red squirrels. They both eat the same food, and the grey squirrels carry a type of virus that is deadly to the red squirrels
38	**behaviour / behavior**	The first step in controlling invasive species is learning about the behaviour of new species coming into the country. Monitoring is an important part of this, so that we can know if the new species begins to have a negative impact in its new environment
39	**database**	One effective way to keep track of invasive species is to create a database for the whole country
40	**photograph**	They should be encouraged to photograph harmful species – because this helps with identification – and then to report when and where these were observed

Cambridge IELTS 21 Academic Listening Test 4

PART 1 — QUESTIONS

Part 1 Audio: https://ielts-listening-audio.engnovatemedia.com/3178707-cambridge-ielts-21-academic-listening-test-4-1.mp3

Questions 1-10

Complete the form below.

Write ONE WORD ONLY for each answer.

Survey about shopping in Broadbeach

Name:	Martyn **1** _____
Today's journey to Broadbeach town centre:	used his **2** _____
Purpose of today's trip:	has visited the **3** _____ looking for a new **4** _____ collecting **5** _____ (after repair)
Preferred day for shopping:	**6** _____

Opinions about shopping in the town centre

Finds the service in shops is excellent

Thinks there are too many places selling **7** _____

Would like more places to buy **8** _____

Opinions about new out-of-town Shopping Centre

Likes the **9** _____ best

Believes the **10** _____ is unnecessary

PART 2 — QUESTIONS

Part 2 Audio: https://ielts-listening-audio.engnovatemedia.com/3178704-cambridge-ielts-21-academic-listening-test-4-2.mp3

Questions 11-12

Choose TWO letters, A-E.

11 **12** In which TWO areas of the business exhibition did James Craig promote his company last year?

- **A** ☐ the Digital Marketing Centre
- **B** ☐ the TalkCon Zone
- **C** ☐ the Breakout area
- **D** ☐ the Business Village
- **E** ☐ the Business Connections Zone

Questions 13-14

Choose TWO letters, A-E.

13 **14** Which TWO facts are given about discounts on popular brands available to exhibitors?

- **A** ☐ They are available to all members of exhibiting companies.
- **B** ☐ They can be used for both food and clothing.
- **C** ☐ They only apply if people spend at least £400.
- **D** ☐ They can be used by family members.
- **E** ☐ The percentage saved is always the same.

Questions 15-20

Which topic will each of the following speakers focus on?

Choose SIX answers from the box and write the correct letter, A-G.

A. Supporting job seekers

B. Dealing with personal problems

C. Effects of an unexpectedly rapid expansion

D. A global range of business experiences

E. Coping with financial set-backs

F. Developing a company in response to changing markets

G. Combining business success with contributions to charities

15 Jim Clowrie _____

16 David France _____

17 Oliver Stanton _____

18 Francesca Heptonstall _____

19 Salman Khan _____

20 Annie Craven _____

PART 3 — QUESTIONS

Part 3 Audio: https://ielts-listening-audio.engnovatemedia.com/3178703-cambridge-ielts-21-academic-listening-test-4-3.mp3

Questions 21-23

Choose the correct letter, A, B or C.

Presentation on houses of the future

21 Which aspect of their presentation are Mia and Leo both concerned about?

- **A** ○ meeting the deadline
- **B** ○ finding suitable examples
- **C** ○ including original ideas

22 The students decide to focus their assignment on housing for

- **A** ○ family groups.
- **B** ○ old people.
- **C** ○ single people.

23 The students agree that demand for accommodation in urban areas should be met by

- **A** ○ repurposing offices and factories.
- **B** ○ constructing tall buildings.
- **C** ○ developing creative ideas for smaller homes.

Questions 24-30

What opinion is given about each of the following developments?

Choose SEVEN answers from the box and write the correct letter, A-I.

A. This could cause unnecessary anxiety.

B. This would be especially beneficial for city residents.

C. This would be challenging for young people.

D. This would have environmental benefits.

E. This could encourage creativity.

F. This could lead to social problems.

G. This could enable retired people to share a project.

H. This would help some people but cause problems for others.

I. This would suit both existing and new members of a household.

24 use of roof space for gardens _____

25 shared working spaces _____

26 moveable internal walls _____

27 smart mirrors in bathrooms _____

28 bike sheds with charging points _____

29 restriction of cars to certain areas _____

30 communal vegetable plots _____

PART 4 — QUESTIONS

Part 4 Audio: https://ielts-listening-audio.engnovatemedia.com/3178702-cambridge-ielts-21-academic-listening-test-4-4.mp3

Questions 31-40

Complete the notes below.

Write ONE WORD ONLY for each answer.

Music therapy for surgical patients

Background

- Surgery impacts patients because they may experience discomfort or unwelcome changes to their **31** _____.
- Current post-surgical strategies focus mainly on pain relief.

Recent research

- A study reviewed data from about 100 **32** _____ and found that listening to music

  - improved hospital patients' sense of wellbeing.

  - reduced the length of their stay.

- The patients in the study all listened to music with a **33** _____ effect.
- The music was mostly played through music **34** _____.
- Patients reported an absence or low levels of **35** _____.
- Medical records confirmed that patients who were played music in hospital needed less **36** _____ than those who weren't played music.
- The best results were achieved when patients were played music while they were **37** _____.
- The study concluded that playing music was effective because it served as a **38** _____.
- The researchers recommend playing either music or sounds from **39** _____ to all surgical patients.
- A future study will investigate the best **40** _____ for the music.

Transcripts

Part 1

WOMAN: Good morning. I'm doing a survey of shoppers in Broadbeach. Would you have a few minutes to spare to answer some questions?

MAN: Oh...erm...yes, I guess that would be ok.

WOMAN: Thank you very much. Everybody seems so busy today.

MAN: Well actually I don't have loads of time, so...

WOMAN: Oh yes, of course. It really won't take long. Could I start by taking your name please?

MAN: Martyn Leigh. Martyn's with a Y.

WOMAN: And is your family name spelt L-double-E?

MAN: It's L-E-I-G-H.

WOMAN: Thank you. We don't actually publish your name or details. It just makes it easier for me to identify people when I look at all the results at the end.

MAN: I see.

WOMAN: And can I ask, how did you get into town today?

MAN: Well, normally I catch the bus, but I'm on my motorbike today because I'm going to work later.

WOMAN: And could you tell me what you're doing this morning, I mean, the reason for your trip into town?

MAN: I've just been to the hairdresser. You see, I have a job interview at the council in a few days.

WOMAN: Oh really! Well, good luck with that.

MAN: Thanks a lot. And now I'm on my way to buy a suit that I can wear to the interview. I don't actually own one at the moment!

WOMAN: OK. Is that everything you're planning to do in town?

MAN: Yeah. Well, I've got to go and pick up my laptop. It broke a couple of days ago so I took it to the shop to get it fixed. They had to order a spare part, but apparently it's ready for collection now. I can't wait to get it back.

WOMAN: I'm sure. I hate it when my technology breaks down. ...One more thing, it's Saturday today - is that when you like to do your shopping?

MAN: Well it's more a question of when I'm free. If I'm free on a Monday, that's when I choose to come into town. The shops are less busy then, which I always prefer.

WOMAN: So, I'd like to ask you a few more questions to get your views about shopping in Broadbeach, if that's ok.

MAN: Sure. What would you like to know specifically?

WOMAN: What would you say you like best about the shops here?

MAN: I'd probably say it's the service you get wherever you go.

WOMAN: OK. And what do you think about the range of shops in Broadbeach?

MAN: Oh you can get almost anything you want here.

WOMAN: And what about recent changes? What do you like and dislike about them? For example, there are a lot of new coffee shops now, are you enjoying them?

MAN: No, there are too many of them. It's a shame as those places could be occupied by other kinds of shops.

WOMAN: What would you like to see instead?

MAN: Well, I think we have enough clothing shops. But there's only one place that sells books at the moment. It'd be nice to have a choice, you know.

WOMAN: Right. And have you been to the new shopping centre outside Broadbeach yet, Martyn?

MAN: Yes, once or twice. It's not that far from where I live.

WOMAN: It's a very modern-looking building, isn't it?

MAN: Yes, and it's lovely. The glass roof is certainly impressive. But my favourite thing is the plants they've put around the building. They're amazing, and so big already.

WOMAN: And what about the entertainment facilities? Have you used any of them yet? Like the new cinema?

MAN: Nah, not yet. I can't see any advantage in having it there because the one in town is actually bigger.

WOMAN: OK, well thank you so much for...

Part 2

Hello and welcome to this podcast telling you about our annual business exhibition. This year, as always, it will be full of the very best speakers, features and innovations.

Let me start by reading some feedback from James Craig, who's exhibited with us for the past two years. James says, 'I'm director of a company called TalkCon, which is an office phone system. The first year we exhibited, we had a stand in the Business Village, where we made a lot of useful contacts. We

also used the Breakout area where people could sit down and relax, and try out our products, and due to popular request we used that again last year. Last year we also sponsored the innovative Business Connections Zone where people could leave their contact details on a board to contact other companies, and that also effectively raised our corporate profile. We're hoping that in the coming exhibition we'll also have a presence in the Digital Marketing centre, which is clearly a key area for our company. And also maybe have our own Talkcon Zone, at some stage.'

The exhibition's open from 8am to 11 pm and there's a range of special events for you to enjoy in the evening.

As well as a unique chance to publicise your company, businesses who exhibit with us can claim discounts on a number of popular brands, including major high street fashion and jewellery outlets, as well as grocery chains. Discounts available range from 3.5% up to an amazing 15%, so you can save a lot of money. In fact, the average saving made by each exhibitor came to over £400! The scheme is available to every member of your organisation so this is a benefit that really does have something for you all.

Now let me tell you about some of our keynote speakers for this year's exhibition.

Jim Clowrie started off selling vegetables from a small plot, then opened a small café. Rather to his surprise this became a bit of a sensation, and in a remarkably short time he had opened an amazing 76 restaurants worldwide. He'll be telling you how it all happened, and how it changed his life.

David France will be giving an inspirational talk about how as a business-minded teenager he managed to set up his own company, and even to be the first person under 18 to get a business bank account. David's company has gone from strength to strength but he isn't just interested in making money - he also makes regular donations to organisations helping those in need both in the UK and elsewhere in the world.

Oliver Stanton was born and educated in the UK, and then went to Malaysia where he set up a rubber-wood furniture business. He then built log houses in the mountains in Japan before moving to Hong Kong to set up a digital marketing business. After that he moved back to the UK with his wife Saiphin, and together they opened a Thai café. He'll be telling you about what he discovered during his travels around the world about business practices in different cultures.

Francesca Heptonstall is a broadcaster and businesswoman who's known for her down-to-earth attitude. After winning a top job in a TV contest, she launched a number of online deal sites. Her main business interest is in technology, but she's also passionate about helping people gain employment and organises an annual jobs fair, so she'll be concentrating on this in her talk.

Salman Khan is the Chief Executive of QBF Enterprises, and has turned around this business from a major publishing business to one of the UK's largest digital marketing service providers. He'll be talking about the need for flexibility to cope with new directions in today's business world.

Finally, Annie Craven is a consultant and coach who works with people to create lasting changes in their business and life. Her session will offer an interactive look at different obstacles in people's own lives, not just in business. She also looks at how you can overcome them, whether you're starting out in business or at the top of your game.

Now let me ...

Part 3

MIA: You know that joint presentation we've got to do this semester, Leo?

LEO: On houses of the future?

MIA: That's right. I'm a bit concerned - are we meant to come up with creative new suggestions for these houses?

LEO: I don't think so. It's more a matter of reporting and evaluating possible developments. But we mustn't be too general, we've got to support our points by referring to specific cases. So that'll need a lot of work.

MIA: I'm afraid so. When's it got to be done by?

LEO: In about 6 weeks, so that's not too much of a rush.

MIA: Good. We'd better decide now what type of housing we're going to focus on. How about housing for different generations living together?

LEO: We could do. Or accommodation for one person?

MIA: I think someone else is doing that. I was wondering about housing for the elderly? That's likely to become more important.

LEO: Yeah that's true. But I think your suggestion about intergenerational living might be more interesting - let's go with that.

MIA: OK. Now I think the future demand is mainly going to be for accommodation in urban areas. So one way of meeting that demand might be to use existing commercial buildings and adapt them to form accommodation...

LEO: ... or come up with original ways of organising space so that people can live in smaller homes. But I think the solution is to design multi-storey apartment blocks.

MIA: Building up rather than out, yes.

LEO: Let's think of some specific developments for houses of the future.

MIA: OK. How about increased use of roof space on high-rise buildings for gardens.

LEO: Yes. In fact it doesn't have to be high-rise, you can do it on a one-storey building in a suburb, but it would greatly improve how you feel if you live in an urban high-rise.

MIA: Especially if you don't have a balcony.

LEO: Yes. I think homes of the future will all need access to a shared working space, somewhere in the same building or group of houses, where people can go and work instead of just having a laptop on the kitchen table.

MIA: Yes, so they aren't having to travel to an office but can still interact with others. That's often how new ideas get generated - by chatting to someone from a different profession.

LEO: Yeah. I read about a type of design where the internal walls of an apartment are moveable, so the space can be adapted over time as people's needs change. Like when children leave school and start working but still continue to live with their parents for many years? Or when an elderly relative moves in with the family... it would mean they could still have their own space, specially designed for their needs.

MIA: Yes. Have you heard about those smart bathroom mirrors which can monitor people's health? They recognise signs of illness and contact a doctor automatically?

LEO: Hmm, not so sure they're a good idea.

MIA: Nor am I. People might worry about conditions which aren't serious at all.

LEO: What about transport? Wouldn't it be good if there were bike sheds with charging points, so people could store their electric bikes securely and charge them up at the same time.

MIA: Yes. That would encourage more people to cycle, instead of using their car. Much better for the planet.

LEO: I read about one housing development where cars had to be left just outside it, so the centre was all a pedestrianised area. Great for families with children.

MIA: Maybe. But what if you're disabled or elderly, and can't walk far? It wouldn't be so good for people like that.

LEO: No.

MIA: I saw a scheme for communal vegetable plots, where neighbours could decide what to grow together. That'd be a great way for older people to get to know one another, especially if they're no longer going out to work.

LEO: Yes, doing something together's always more enjoyable, isn't it? Do you think...

Part 4

Today's lecture is about studies that look at how music therapy can be used to help patients who undergo surgery. Now, most people undergo a surgical procedure at some point in their lives. And more than fifty-one million operations are performed annually in the USA. But there's no escaping the fact that most patients feel uncomfortable following surgery. They may have difficulty mobilising, and even sitting up in bed can feel too much. They may also be negatively affected by having their routine disturbed, you know, like if they can't do the things they normally do, or have to devote a lot of time to appointments such as physiotherapy, to aid their recovery.

Currently, the main strategy for improving recovery is medication to control pain, and this can be administered to patients in the short, medium or longer term, depending on the extent of their surgery. But music is still not an everyday part of the post-surgical phase, despite a wealth of relevant studies supporting its potential in recovery.

Earlier this year, a research team set out to assess all the available evidence so that they could highlight the potential for music in surgical recovery. They identified nearly a hundred trials involving a total of seven thousand patients who were played recorded music as part of their post-operative care. The

researchers then looked at what impact the music had on the patients. They discovered that patients who had been played music reported feeling happier and more satisfied in the post-operative phase, and the length of their stay was shorter than for patients who had not listened to any music.

The researchers also explored the patients' choice of music, and their findings showed that a wide variety of music styles was evident. However, a common factor was that the chosen music had a calming quality. Some of the patients listened to music with headphones, but it was quiet enough not to prevent them from being able to communicate with nurses and other staff. More often though, the mode of delivery was by what are known as music pillows. These broadcast sound that is only audible to the person lying on them. The research involved testing music before, during or after operations or a combination. Some patients listened to the music just once a day, while others had several episodes a day.

When asked to report their experience of listening to music, surgical patients said that either they had no feelings of anxiety at any point, or those feelings were only slight. Patients who hadn't listened to music, on the other hand, reported higher levels of dissatisfaction. This feedback from all of the patients was then cross-checked against their medical notes. And in every case, those who were given music to listen to didn't need as much medication to ease their pain as those patients who weren't played music. The type of music, patient choice and timing, before, during or after the surgery didn't make much difference. And it even worked when patients were played music under general anaesthetic, although the positive effects were greater when patients were awake.

All the evidence suggests that music has a positive effect on post-operative patients, but it's not entirely clear how or why this is the case. A lot of people listen to music in daily life as a way to relax and forget their problems, but the researchers came to the conclusion that it worked on patients by distraction. I suppose it was something familiar and gave them something they could control.

The researchers say there is now sufficient research to demonstrate that music should be available to all patients undergoing operations. They say patients should be able to choose what they'd like to listen to, and if they prefer, recordings taken from nature can be just as good as music. Surgical teams may prefer patients to listen to music before the procedure or as soon as they arrive back onto the ward. Clearly, there's more to learn about this area, and the team now plan to focus their next research on the most appropriate volume to play the music at. And I look forward to reading the results of their study.

It will be interesting to see ...

Answer Key

#	Answer	Explanation
1	**Leigh**	MAN: Martyn Leigh. Martyn's with a Y. WOMAN: And is your family name spelt L-double-E? MAN: It's L-E-I-G-H
2	**motorbike**	Well, normally I catch the bus, but I'm on my motorbike today because I'm going to work later
3	**hairdresser**	I've just been to the hairdresser. You see, I have a job interview at the council in a few days
4	**suit**	And now I'm on my way to buy a suit that I can wear to the interview
5	**laptop**	Well, I've got to go and pick up my laptop. It broke a couple of days ago so I took it to the shop to get it fixed. They had to order a spare part, but apparently it's ready for collection now
6	**Monday**	Well it's more a question of when I'm free. If I'm free on a Monday, that's when I choose to come into town. The shops are less busy then, which I always prefer
7	**coffee**	WOMAN: And what about recent changes? What do you like and dislike about them? For example, there are a lot of new coffee shops now, are you enjoying them? MAN: No, there are too many of them. It's a shame as those places could be occupied by other kinds of shops
8	**books**	Well, I think we have enough clothing shops. But there's only one place that sells books at the moment. It'd be nice to have a choice, you know
9	**plants**	But my favourite thing is the plants they've put around the building
10	**cinema**	Like the new cinema? MAN: Nah, not yet. I can't see any advantage in having it there because the one in town is actually bigger
11	**C / E**	We also used the Breakout area where people could sit down and relax, and try out our products, and due to popular request we used that again last year. Last year we also sponsored the innovative Business Connections Zone where people could leave their contact details on a board to contact other companies, and that also effectively raised our corporate profile

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12	**C / E**	We also used the Breakout area where people could sit down and relax, and try out our products, and due to popular request we used that again last year. Last year we also sponsored the innovative Business Connections Zone where people could leave their contact details on a board to contact other companies, and that also effectively raised our corporate profile
13	**A / B**	As well as a unique chance to publicise your company, businesses who exhibit with us can claim discounts on a number of popular brands, including major high street fashion and jewellery outlets, as well as grocery chains. Discounts available range from 3.5% up to an amazing 15%, so you can save a lot of money. In fact, the average saving made by each exhibitor came to over £400! The scheme is available to every member of your organisation so this is a benefit that really does have something for you all
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15	**C**	Jim Clowrie started off selling vegetables from a small plot, then opened a small café. Rather to his surprise this became a bit of a sensation, and in a remarkably short time he had opened an amazing 76 restaurants worldwide
16	**G**	David France will be giving an inspirational talk about how as a business-minded teenager he managed to set up his own company, and even to be the first person under 18 to get a business bank account. David's company has gone from strength to strength but he isn't just interested in making money – he also makes regular donations to organisations helping those in need both in the UK and elsewhere in the world
17	**D**	Oliver Stanton was born and educated in the UK, and then went to Malaysia where he set up a rubber-wood furniture business. He then built log houses in the mountains in Japan before moving to Hong Kong to set up a digital marketing business. After that he moved back to the UK with his wife Saiphin, and together they opened a Thai café. He'll be telling you about what he discovered during his travels around the world about business practices in different cultures

#	Answer	Explanation
18	**A**	Her main business interest is in technology, but she's also passionate about helping people gain employment and organises an annual jobs fair, so she'll be concentrating on this in her talk
19	**F**	Salman Khan is the Chief Executive of QBF Enterprises, and has turned around this business from a major publishing business to one of the UK's largest digital marketing service providers. He'll be talking about the need for flexibility to cope with new directions in today's business world
20	**B**	Her session will offer an interactive look at different obstacles in people's own lives, not just in business. She also looks at how you can overcome them, whether you're starting out in business or at the top of your game
21	**B**	But we mustn't be too general, we've got to support our points by referring to specific cases. So that'll need a lot of work. MIA: I'm afraid so
22	**A**	MIA: Good. We'd better decide now what type of housing we're going to focus on. How about housing for different generations living together? LEO: We could do. Or accommodation for one person? MIA: I think someone else is doing that. I was wondering about housing for the elderly? That's likely to become more important. LEO: Yeah that's true. But I think your suggestion about intergenerational living might be more interesting – let's go with that
23	**B**	But I think the solution is to design multi-storey apartment blocks. MIA: Building up rather than out, yes
24	**B**	In fact it doesn't have to be high-rise, you can do it on a one-storey building in a suburb, but it would greatly improve how you feel if you live in an urban high-rise
25	**E**	Yes, so they aren't having to travel to an office but can still interact with others. That's often how new ideas get generated – by chatting to someone from a different profession
26	**I**	I read about a type of design where the internal walls of an apartment are moveable, so the space can be adapted over time as people's needs change. Like when children leave school and start working but still continue to live with their parents for many years? Or when an elderly relative moves in with the family it would mean they could still have their own space, specially designed for their needs
27	**A**	Nor am I. People might worry about conditions which aren't serious at all

#	Answer	Explanation
28	**D**	Yes. That would encourage more people to cycle, instead of using their car. Much better for the planet
29	**H**	LEO: I read about one housing development where cars had to be left just outside it, so the centre was all a pedestrianised area. Great for families with children. MIA: Maybe. But what if you're disabled or elderly, and can't walk far? It wouldn't be so good for people like that
30	**G**	I saw a scheme for communal vegetable plots, where neighbours could decide what to grow together. That'd be a great way for older people to get to know one another, especially if they're no longer going out to work
31	**routine**	They may also be negatively affected by having their routine disturbed, you know, like if they can't do the things they normally do, or have to devote a lot of time to appointments such as physiotherapy, to aid their recovery
32	**trials**	They identified nearly a hundred trials involving a total of seven thousand patients who were played recorded music as part of their post-operative care
33	**calming**	However, a common factor was that the chosen music had a calming quality
34	**pillows**	More often though, the mode of delivery was by what are known as music pillows
35	**anxiety**	When asked to report their experience of listening to music, surgical patients said that either they had no feelings of anxiety at any point, or those feelings were only slight
36	**medication**	And in every case, those who were given music to listen to didn't need as much medication to ease their pain as those patients who weren't played music
37	**awake**	And it even worked when patients were played music under general anaesthetic, although the positive effects were greater when patients were awake
38	**distraction**	A lot of people listen to music in daily life as a way to relax and forget their problems, but the researchers came to the conclusion that it worked on patients by distraction
39	**nature**	They say patients should be able to choose what they'd like to listen to, and if they prefer, recordings taken from nature can be just as good as music

#	Answer	Explanation
40	**volume**	Clearly, there’s more to learn about this area, and the team now plan to focus their next research on the most appropriate volume to play the music at

Cambridge IELTS 21 Academic Writing Test 1

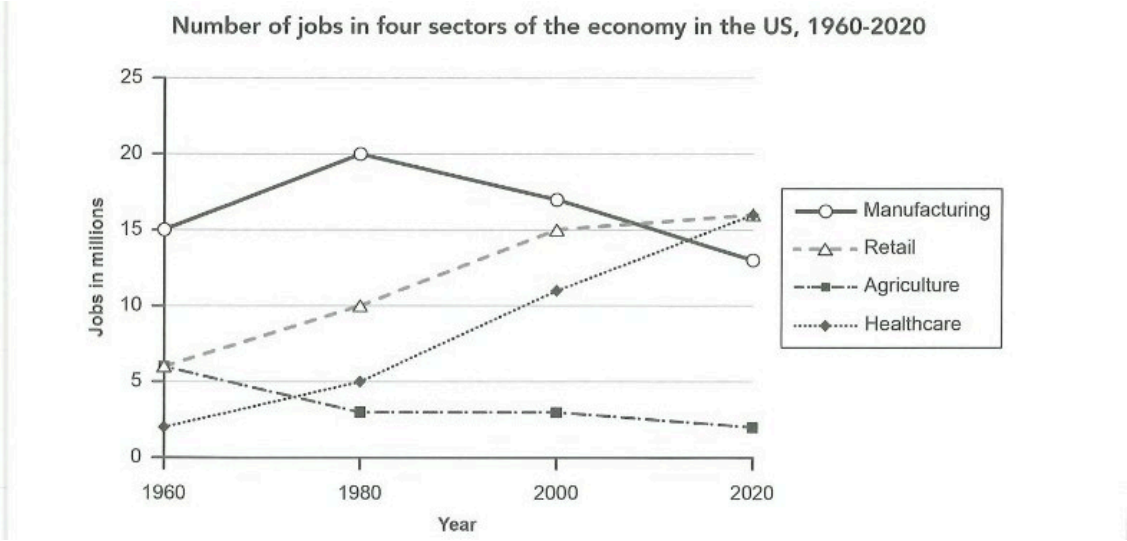
Part 1

You should spend about 20 minutes on this task.

The graph below gives information about the number of jobs in four sectors of the economy in the US between 1960 and 2020.

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

Write at least 150 words.



Part 2

You should spend about 40 minutes on this task.

Write about the following topic:

The best way to provide enough homes in large cities is to build tall apartment blocks.

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.

Cambridge IELTS 21 Academic Writing Test 2

Part 1

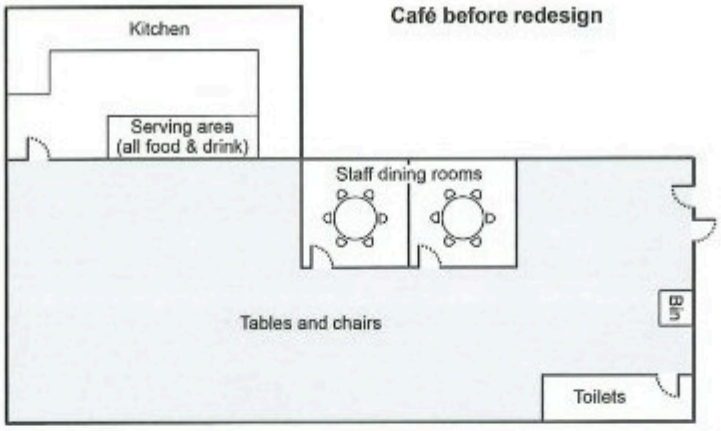
WRITING TASK 1

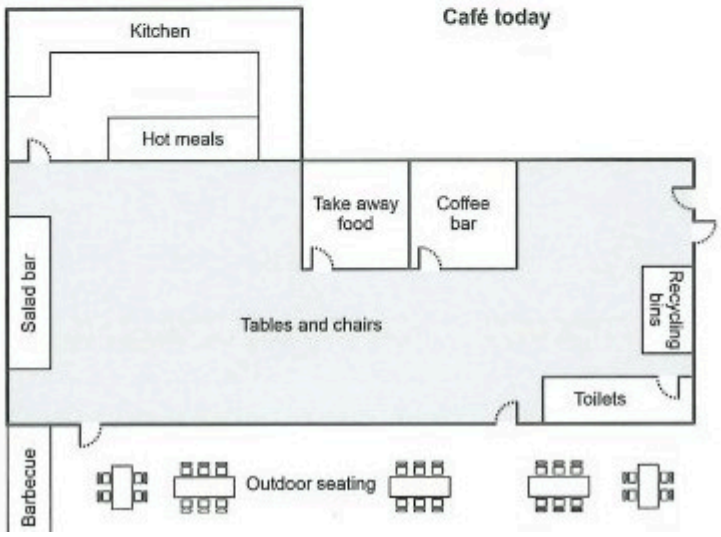
You should spend about 20 minutes on this task.

The plans below show a college café before it was redesigned and how it looks now.

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

Write at least 150 words.





Part 2

WRITING TASK 2

You should spend about 40 minutes on this task.

Write about the following topic:

Some people say that in the digital age, theatres and cinemas are no longer important as people can watch all the entertainment they want online. Others argue that theatres and cinemas are still important both economically and culturally.

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.

Cambridge IELTS 21 Academic Writing Test 3

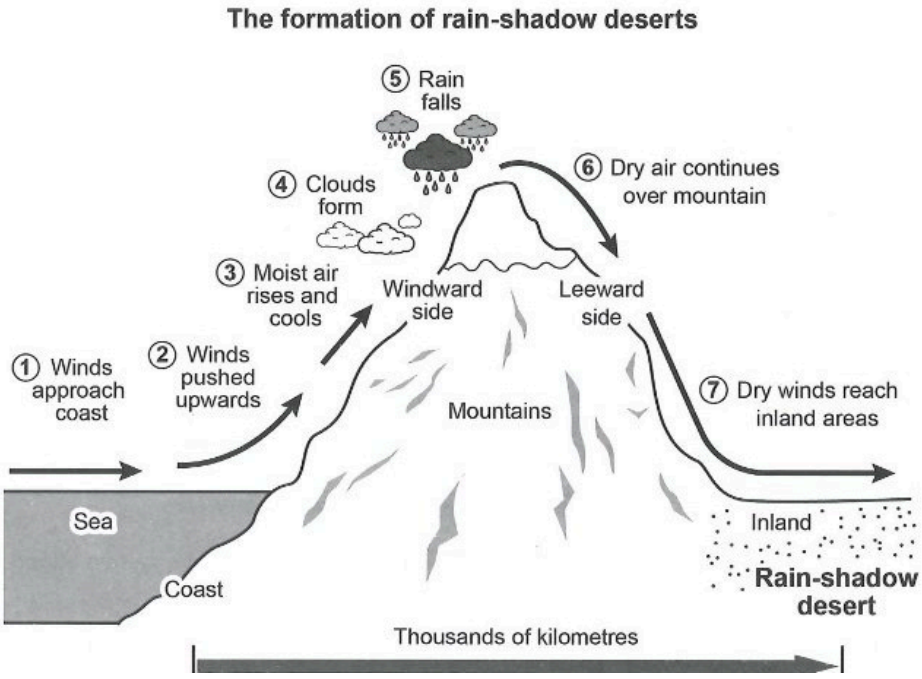
Part 1

You should spend about 20 minutes on this task.

The diagram below shows how one type of desert, known as a rain-shadow desert, is formed.

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

Write at least 150 words.



Part 2

You should spend about 40 minutes on this task.

Write about the following topic:

All university undergraduate courses should include a period of time spent studying abroad or doing a work placement.

Do you think the advantages of this would outweigh the disadvantages?

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

Write at least 250 words.

Cambridge IELTS 21 Academic Writing Test 4

Part 1

WRITING TASK 1

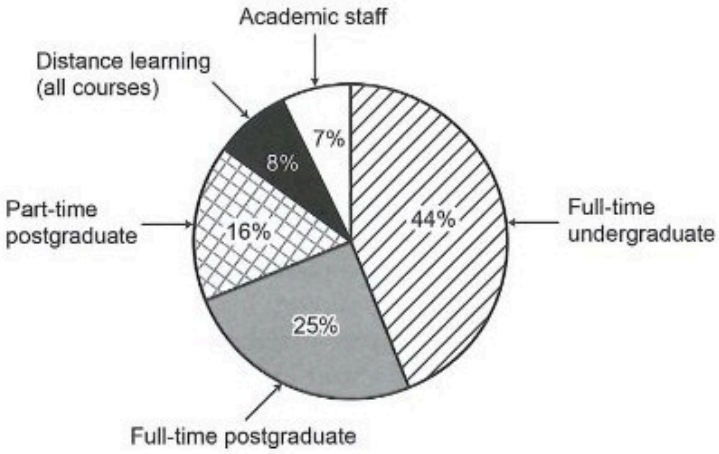
You should spend about 20 minutes on this task.

The chart and table below show the results of a survey of library users at a university.

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

Write at least 150 words.

Categories of library users



Library user satisfaction (%)

	Very satisfied	Fairly satisfied	Not satisfied
Library opening hours	65	35	0
Helpfulness of staff	95	5	0
Availability of books	50	40	10
Availability of journals	45	35	20
Reliability of wi-fi	48	33	19

Part 2

WRITING TASK 2

You should spend about 40 minutes on this task.

Write about the following topic:

Some people argue that primary schools focus too much on formal learning.

To what extent do you agree with this opinion?

How important do you think it is for children to play as well as learn in the primary school classroom?

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

Write at least 250 words.

Cambridge IELTS 21 Academic Speaking Test 1

Part 1

Question 1

Where do you go to get a haircut?

Question 2

Have you changed your hairstyle recently?

Question 3

Would you ever change the colour of your hair?

Question 4

Do you enjoy going to the hairdresser/barber?

Part 2

Question 5

Describe a time when you used information for tourists, for example from a guidebook or online.

You should say:

where you got this information

what place this information was about

what information you got

and explain whether this information was very helpful for you.

Part 3

Question 6

What are the most popular kinds of holidays for people from your country to go on?

Question 7

Do you think most people prefer to have a holiday abroad rather than in their own country?

Question 8

Why do some people want to do absolutely nothing when they go away on holiday?

Question 9

What are the kinds of tourist attraction that visitors to your country like to see?

Question 10

Do you think tourist attractions such as museums should be free for local people to visit?

Question 11

What can make a tourist attraction disappointing for visitors?

Cambridge IELTS 21 Academic Speaking Test 2

Part 1

Question 1

How well do you know the capital city of your country?

Question 2

Do you think cities are exciting places to live?

Question 3

Why do some people dislike living in a city?

Question 4

If you could visit any city in the world, where would you go?

Part 2

Question 5

Describe a time when you read or heard something that you thought was not true.

You should say:

where you read/heard this

what you read/heard

why you thought it was not true

and explain how you felt about reading/hearing this thing that you thought was not true.

Part 3

Question 6

Do you think children are more honest than adults?

Question 7

Why do adults tell children it's important to be honest?

Question 8

Do you think there are sometimes good reasons for adults not to tell children the truth?

Question 9

Are there any claims in advertisements that are sometimes not true?

Question 10

Why do people still buy things even when they know advertisements aren't completely accurate?

Question 11

Do you think advertisements that are dishonest should be banned?

Cambridge IELTS 21 Academic Speaking Test 3

Part 1

Question 1

When you go shopping, do you usually pay for things by cash or by card?

Question 2

Are you generally careful about how much money you spend?

Question 3

Have you ever spent money on something you didn't need?

Question 4

How important is it to you to save money for the future?

Part 2

Question 5

Describe an interesting garden or park you have seen.

You should say:

where this garden or park is

how big it is

what you saw in this garden/park

and explain why you think this garden/park is interesting.

Part 3

Question 6

What are the advantages of having a home with a garden?

Question 7

How could people living in apartment blocks grow plants and vegetables?

Question 8

How interested are people in your country in TV shows and magazines about gardens?

Question 9

Do you think that gardening is a hobby mainly for older people?

Question 10

What are the benefits for people of gardening as a hobby?

Question 11

Will gardening be a more popular hobby in the future?

Cambridge IELTS 21 Academic Speaking Test 4

Part 1

Question 1

When do you usually eat bread?

Question 2

How important is bread in your culture?

Question 3

Have you tried any kinds of bread from other countries?

Question 4

Would you be interested in learning how to make bread?

Part 2

Question 5

Describe a person you know who is very competitive.

You should say:

who this person is

what this person is competitive about

how successful this person is

and explain why you think this person is so competitive.

Part 3

Question 6

What kinds of competitions do people like to enter in your country?

Question 7

What do you think is the best kind of prize to win in a competition?

Question 8

Why do people like watching quiz shows and other competitions on TV?

Question 9

How important is it to be very competitive at sport?

Question 10

Do you think sportspeople perform better when they play against competitors who are stronger than they are?

Question 11

Why do some people think that taking part in sport is more important than winning?