



Advanced English Language Skills / English Language Framework Level 5

Sample

Written Examination

This paper contains sections on Language in Use, Reading and Writing.

You may complete the sections in any order.

Time: 2 hours 15 minutes

The maximum mark for this paper is 100.

Any reference material brought into the examination room must be handed to the invigilator before the start of the examination.

All answers must be written in the answer booklet provided. Do NOT write on this paper.

Section A – Language in Use

Answer ALL questions

Marks

Question 1

Grammar – avoiding repetition

Complete the sentences below by adding ONE (1) suitable word to each gap.

Example:

“Don’t forget to buy some bread.” “Don’t worry. I already _____.”

“Don’t forget to buy some bread.” “Don’t worry. I already have.”

- a) “Drive carefully on your way home.” “Yes, we _____.” **1**
- b) “John, shouldn’t you be doing your homework now.” “Don’t worry, mum. I _____.
I started an hour ago.” **1**
- c) “Jessica and Michael have split up.” “They _____! I can’t believe it.” **1**
- d) “I don’t really like rock music.” “_____ do I.” **1**
- e) “We should go for a meal sometime.” “Yes, I’d love _____.” **1**
- f) “I passed my exam!” “Really? I didn’t think you _____.” **1**

Total 6 Marks

Question 2
Vocabulary – countries and nationalities

Complete the sentences by adding an adjective related to a country, or a language, to each gap.

Example:

I've been to Belgium. I especially loved _____ chocolate.

*I've been to **Belgium**. I especially loved **Belgian** chocolate.*

- | | |
|---|---|
| a) I enjoyed my trip to Switzerland. _____ people are very polite. | 1 |
| b) My main problem in France was that I couldn't speak _____. | 1 |
| c) We went to Turkey because we love _____ food. | 1 |
| d) _____ history really fascinates me, which is why I want to go to Peru. | 1 |
| e) I am learning _____ before I visit Iceland. | 1 |
| f) On my trip to the Netherlands, I found the _____ people very friendly. | 1 |

Total 6 Marks

Question 3
Grammar – phrasal verbs

In each sentence, there is **ONE (1) unnecessary word**. Write that word.

Example:

Don't forget to wake me up in at seven o'clock.

in

- | | |
|--|---|
| a) The café has just put up down its prices so I can't afford to eat there any more. | 1 |
| b) I've worked up out an appetite after so much exercise in the gym. | 1 |
| c) Can you just hurry up and get on up with it? | 1 |
| d) His last film went in down badly with the critics. | 1 |
| e) I don't go about in for this kind of celebration very much. | 1 |
| f) I keep coughing. I think I must be coming down it with something. | 1 |

Total 6 Marks

Question 4
Vocabulary – spelling

Write ONE (1) letter in each gap to make two words. There may be more than one possible answer.

Example:

sever__vade

e (*this makes two words – ‘severe’ and ‘evade’*)

- | | |
|---------------|---|
| a) brav__pen | 1 |
| b) buil__ove | 1 |
| c) swa__acht | 1 |
| d) bat__ate | 1 |
| e) shee__able | 1 |
| f) gaz__quip | 1 |

Total 6 Marks

Question 5
Grammar – perfect and simple forms

Complete the sentences by filling each gap with a perfect or simple form of the verb in brackets.

Example:

I _____ (be) awake all day. I'm tired now.

I've been awake all day. I'm tired now.

- | | |
|---|---|
| a) They _____ (be) married for ten years. It's their anniversary next week. | 1 |
| b) They _____ (be) married for two years and then they got a divorce. | 1 |
| c) I _____ (come) from Spain. That's why my English is not very good. | 1 |
| d) I _____ (come) from Spain. It was a long flight and I am tired. | 1 |
| e) I wish I _____ (know) that the party was cancelled before we set off. | 1 |
| f) I wish I _____ (know) how to get there. We'll have to stop and ask someone on the way. | 1 |

Total 6 Marks

Question 6
Vocabulary – antonyms

Complete the sentences by putting an antonym (opposite) of the underlined words or phrases in each gap.

Example:

She praised his first album but _____ his second.

She praised his first album but criticised his second.

- a) He told me that the watch was genuine so I bought it and it turned out to be a _____ 1
- b) The judge said he was guilty but it was later found that he was totally _____. 1
- c) Many people _____ at business before they succeed. 1
- d) One man admitted committing the crime, but the other _____ it. 1
- e) The first game was riveting but the second was _____. 1
- f) It's good to have a relaxing holiday after a _____ time at work. 1

Total 6 Marks

Question 7
Grammar – passive constructions

Complete the gaps in the second sentence of each pair, so that the second sentence means the same as the first. The second sentence must also include the underlined words from the first. You can also include other words from the first sentence.

Example:

It seems the weather is changing.

The weather _____.

The weather seems to be changing.

- | | |
|--|---|
| a) It <u>appears</u> he is <u>worried about losing his job</u> .
He _____. | 1 |
| b) He is <u>said</u> to be <u>working with an international company</u> .
It _____. | 1 |
| c) The president is <u>reported</u> to be <u>thinking about resigning</u> .
It _____. | 1 |
| d) It is <u>alleged</u> that he is <u>involved in criminal activity</u> .
He _____. | 1 |
| e) It is <u>thought</u> that all the prisoners have <u>escaped</u> .
All the prisoners _____. | 1 |
| f) It seems that the government has <u>lost the election</u> .
The government seem _____. | 1 |

Total 6 Marks

Question 9
Grammar – verb patterns

In each sentence there are a pair of verb phrases which are underlined. Write the verb phrase which is correct.

Example:

He persuaded me into giving / to give him the money.
to give

- | | |
|--|---|
| a) The teacher agreed <u>to allow</u> / <u>upon allowing</u> us to have more time to finish our project. | 1 |
| b) My sisters <u>always make me</u> / <u>didn't feel like</u> laugh. | 1 |
| c) Do you promise <u>not to go out</u> / <u>staying in</u> tonight. | 1 |
| d) He apologised <u>that the broke</u> / <u>for breaking</u> the window. | 1 |
| e) Our teacher advised us <u>working very hard</u> / <u>to study very hard</u> . | 1 |
| f) I <u>am looking forward to</u> / <u>can't wait to</u> meet her. | 1 |

Total 6 Marks

Question 10
Vocabulary – parts of the body

Complete the sentences by filling each gap with ONE (1) word. The words should be parts of the body used as verbs.

Example:

He jumped up and _____ the ball into the goal.
He jumped up and headed the ball into the goal.

- | | |
|--|---|
| a) You should _____ facts that you will not pass your exam. | 1 |
| b) It's time you started to _____ more responsibility in this company. | 1 |
| c) There were no taxis or busses so we just decided to _____ a lift. | 1 |
| d) Before we start the class, I am going to _____ out these books to everyone. | 1 |
| e) A conference is a good idea, but who is going to _____ the bill. | 1 |
| f) You need to _____ down and work hard. | 1 |

Total 6 Marks

Section B – Reading
Answer ALL questions

Case Study 1

Waving goodbye?

Read the text and answer the questions below.

1

The idea of extracting energy from ocean waves and turning it into electricity is an alluring one. The first serious attempt to do so dates back to 1974, when Stephen Salter of Edinburgh University came up with the idea of ‘ducks’: house-sized buoys tethered to the sea floor that would convert the swell into rotational motion to drive generators. It failed, as have many subsequent efforts to perform the trick. But the idea of wave power will not go away, and the latest attempt—the brainchild of researchers at Oscilla Power, a firm based in Seattle—is trying to address head-on the reason why previous efforts have foundered. This reason, according to Rahul Shendure, the firm’s boss, is that those efforts took technologies developed for land use (often as components of wind turbines) and tried to modify them for marine use. The consequence was kit which was too complicated and sensitive for the rough-and-tumble of life on the ocean waves, and also too vulnerable to corrosion. Better, he reckons, to start from scratch.

2

Instead of generators with lots of moving parts, Oscilla is developing ones that barely move at all. These employ a little-explored phenomenon called magnetostriction, in which ferromagnetic materials (things like iron that can be magnetised strongly) change their shape slightly in the presence of a magnetic field. Like many physical processes, this also works in reverse. Apply stresses or strains to such a material and its magnetic characteristics alter. Do this in the presence of permanent magnets and a coil of wire, such as are found in conventional generators, and it will generate electricity.

3

The core of Oscilla’s design is a bar made from an alloy of iron and aluminium, a mixture that is strongly ferromagnetic. Such bars need be compressed by only one part in 10,000 to have the desired effect. This means, to all intents and purposes, that the generator has no internal moving parts that can go wrong. But compressing a solid metal bar by even this tiny amount requires the application of a huge force. Fortunately, ocean waves are powerful enough to generate this force. Oscilla’s design, as the firm’s name suggests, does it by oscillation.

4

Its oscillating generators consist of two large objects connected by cables. At one end of these cables, floating on the surface, is a buoy that contains the generating apparatus of alloy bars, magnets and coils, together with sets of hydraulic rams which can squeeze the bars as desired. At the cables’ other ends hangs a structure called a heave plate, which is kept stationary by a combination of inertia and the drag of the surrounding water. This arrangement means that, as the buoy rises and falls with the waves at the surface while

Marks

the heave plate stays more or less put, the tension on the cables increases and decreases. That changing tension drives the rams. The whole system is kept in place by a second set of cables that moor it to the seabed.

5

A full-scale device, which Oscilla hopes to build by 2018, will be a foam-filled steel buoy 27 metres in diameter, six metres high and weighing 1,000 tonnes, tethered to a toroidal concrete heave plate 70 metres below the surface. It will carry 12 magnetostrictive generators within. Mr Shendure says that a single such buoy, placed a few kilometres offshore, should deliver an average of 600 kilowatts—about the same as an onshore wind turbine. A prototype, four metres in diameter, underwent a brief but successful open-ocean trial off the Atlantic coast of America last year.

6

Oscilla's generators will, Dr Shendure acknowledges, be expensive to build and install. But their simple design, he says, should allow them to operate for decades with no more maintenance than an occasional scrub to remove accumulated barnacles. He calculates that the cost of producing electricity from them will be around ten cents a kilowatt hour. That compares with 16 cents a kilowatt hour for offshore wind farms and six cents for the onshore variety. A grid-connected fossil-fuel power station would be cheaper still—five cents or less. But ten cents represents a decent start for such a novel way of generating electricity.

(Adapted from The Economist, 7 November 2015)

Question 1

Match the numbers of paragraphs 1 to 6 with the headings (a) to (h) below. You will **not** need TWO (2) headings.

- a) Pressure provided by nature
- b) Many unsuccessful attempts
- c) The decline of the wind farm
- d) Cheap and easy to run
- e) A seldom understood occurrence
- f) A huge machine
- g) Choppy waters
- h) How the apparatus works

Total 6 Marks

Question 2

Read the following sentences and write **true** if the view is expressed in the text, **false** if the opposite view is expressed in the text and **not given** if the information is not given in the text.

- a) Stephen Salter used live animals in his device. 1
- b) Oscilla's device uses the pressure of water to create electricity. 1
- c) The iron bars in the full-size Oscilla device will be four metres long. 1
- d) Oscilla tested its device in the Pacific Ocean. 1
- e) Oscilla's device will require constant care. 1

Total 5 Marks

Case Study 2

Drones in space

Read the text and answer the question below.

It is not just on Earth that drones have uses. Three experimental ones, 22cm across and known as Synchronised Position Hold, Engage, Reorient, Experimental Satellites, or SPHERES, have been buzzing around the International Space Station since 2006. Now, a new and more advanced version, the Astrobee, is being designed at the Ames Research Centre, a NASA laboratory in Mountain View, California.

The Astrobee, which is scheduled for deployment in 2017, is a simple 30cm cube. But it is otherwise a more complex beast than its predecessors. SPHERES can be used only in a designated area of the station, and they rely on beacons to know where they are. The Astrobee, by contrast, will use computer vision to orient itself and to navigate around.

It will be powered differently, too. A space drone does not need to work to keep itself airborne. Like the rest of the space station it is in free-fall and thus appears to float with respect to the station's walls. But it does need motors of some sort to move itself around.

SPHERES use jets of carbon dioxide to propel themselves, and the canisters that this gas is stored in must be shipped to the station, changed by the astronauts and returned to Earth for refilling. The Astrobee, by contrast, will compress air on board, using battery power, and employ that for propulsion. To top up its batteries for this and other purposes, it will also be able to steer itself to one of several recharging docks.

Nor is the Astrobee intended to be a toy. Astronauts are busy people and the idea is that the new drone will be able to relieve them of several routine tasks, and also serve as a set of virtual eyes for ground controllers to see better what is going on in the station. Chris Provencher, the Astrobee's project manager, observes, for instance, that astronauts must regularly check sound levels in various parts of the station, as it produces noise 'like a factory'. Too much of this noise can damage the crew's hearing. A full sound check takes a human being two hours to carry out, but is a task that could easily be automated.

The Astrobee could also help keep the station neat and tidy, by tracking down things that have floated away from their proper places. The station's managers are planning to put radio-frequency identification (RFID) tags on every item on board, so that they can be found if they go missing, as thousands already have. The pressurised portion of the station, into which they vanish, is about the size of the interior of a Boeing 747. That means looking for missing items, even RFID-tagged ones, is time-consuming. The Astrobee should be able to lift this burden from the crew.

The new drone might also make videos. At the moment, flight controllers rely on camcorders held on fixed arms to see what is going on in the station. Sometimes these cameras need to be relocated—yet another tedious task for a busy crew. The Astrobee, though, will have its own high-definition camera that controllers can position at will, if they want to scrutinise something beyond the range of the fixed cameras.

(Adapted from The Economist, 26 September 2015)

Question

Complete the sentences below by filling each gap with **no more than THREE (3) words** from the text.

- a) Drones known as SPHERES serve the _____ . **1**
- b) The Astrobees will employ _____ to get its bearings. **1**
- c) High _____ can damage an astronaut's hearing, so the Astrobees will check these. **1**
- d) The Astrobees will find items which are not in their _____. **1**
- e) The _____ on the Astrobees will help astronauts get a good look at awkward-to-reach parts of the station. **1**

Total 5 Marks

Case Study 3

Snake charm

Read the text and answer the question below.

The *fer-de-lance* (spearhead) pit viper snake is not an animal you would want to meet unexpectedly. It is aggressive, unpredictable and fond of getting the drop on its prey: literally, from the branches of trees. Its bite, which turns blood into something with the consistency of jam, is fatal if not treated immediately. Terrible as its venom is, though, it may have a use. Jeffrey Hartgerink, a chemist at Rice University, in Houston, Texas, thinks it could be just the thing to stop post-operative bleeding.

Loss of blood is an inevitable consequence of surgery. At the moment it is dealt with by a combination of the body's natural clotting mechanisms and a variety of physical barriers designed to stanch blood flow and give those clotting mechanisms time to act. These barriers include the simple application of pressure to a wound, various foams and adhesives that create a more permanent seal, and experimental treatments using substances called hydrogels which consist of fragments of protein laced together to trap water molecules, and which are reckoned to be particularly effective at blocking wounds up.

For many people, these are enough. But some—especially those on anti-clotting medication, which is prescribed to prevent heart attacks, strokes and pulmonary thromboses—are at particular risk. If such a patient needs surgery in a hurry, and cannot be taken off the medication sufficiently in advance of going under the knife, then the patient may be in danger of bleeding to death.

On the face of things, and particularly for these people, a substance that triggers clotting should be better than mere physical barriers. The problem has always been to keep the clotting agent only where it is needed, and prevent it spreading through the rest of the body, where it could do serious and possibly lethal harm. Dr Hartgerink thinks that he may have worked out how to do this.

He started with a hydrogel. If such a substance traps water, he reasoned, it should also trap batroxobin, *fer-de-lance* venom's active ingredient. So it proved. He then had to determine whether, if the gel were applied to a wound, the batroxobin would leak out of it at the appropriate rate—i.e. fast enough to seal the wound, but not so fast as to escape into the bloodstream and cause systemic problems.

Experiments on rats suggest it does. Dr Hartgerink and his colleagues tested their batroxobin-laced hydrogel on a group of the rodents. Half of these had been given heparin, a powerful anticoagulant; the other half had not. The researchers then operated on the rats' livers, making incisions in those organs and thus inducing bleeding, after which they applied various haemorrhage-stanching methods.

Batroxobin-laden hydrogel stopped the flow in 5-6 seconds, regardless of whether a rat had been given heparin. The hydrogel by itself was also quite effective in heparin-free rats (it stanching bleeding in 11 seconds), but took two minutes if a rat had been heparinised. GelFoam, a commercially available wound-barrier made from purified pig skin, also struggled when used on heparinised animals. It failed to stop blood flow within two minutes. Puramatrix, a proprietary hydrogel being tested for clinical use, did better—but

still took 19 seconds. Batroxobin-impregnated hydrogel thus looks as if it might make a useful addition to the surgeon's armoury.

(Adapted from The Economist, 21 November 2015)

Question

Read the following sentences and write **true** if the sentence is true and **false** if the sentence is false.

- a) The bite of a *fer-de-lance* snake will thicken blood. 1
- b) Patients on anti-clotting medication face extra danger during surgery. 1
- c) Hydrogel stops water from passing through it. 1
- d) Hydrogel containing Batroxobin stops blood flow more slowly than Batroxobin-free hydrogel. 1

Total 4 Marks

Section C – Writing

You must answer this question

Read the question below and write an answer of between 300 and 350 words.

Traffic is becoming a major problem in many large cities. Why? What can be done to solve this problem?

Total 20 Marks

End of paper