Cambridge IGCSE

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

9966987273 2

ENGLISH AS A SECOND LANGUAGE **0510/12**

Paper 1 Reading and Writing (Core) **February/March 2017**

1 hour 30 minutes

Candidates answer on the Question Paper.

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen.
Do not use staples, paper clips, glue or correction fluid.
DO **NOT** WRITE IN ANY BARCODES.

Answer **all** questions.
Dictionaries are **not** allowed.

At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **13** printed pages and **3** blank pages.

CAMBRIDGE International Examinations

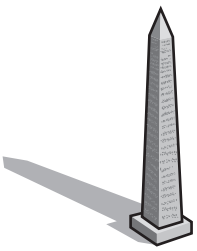
Exercise 1

Read the article about the development of clocks, and then answer the following questions.

Measuring Time

Throughout history, people have estimated the approximate time of day based on the amount of light or position of the sun. Needing to know the exact time, however, is a relatively recent development. It is thought that between 5000 and 6000 years ago, people in the Middle East and North Africa began to design clocks to organise their time more precisely.

Sun Clocks



Around 4000 years ago, Egyptian sun clocks used the movement of the sun to divide and calculate time. Tall monuments known as obelisks made shadows on the ground. As the sun moved, these shadows changed position, which marked the divisions of the day. The Egyptians could calculate the height of the sun by checking the length of the shadow at midday.

Water Clocks

Water clocks did not depend on the movement of the sun. They were in the shape of a bowl, and were often constructed of stone. The bowl was filled with water, which dripped at a steady rate from a small hole in the bottom. As the water emptied, lines on the inside of the bowl measured the passing of time. Another type of water clock used the opposite method. A metal bowl with a hole in the bottom was placed in a larger container of water. As the bowl filled with water, it gradually sank, and this measured how much time had passed.

Candle Clocks

The earliest-known candle clocks were designed to burn six identical candles one after the other, which lasted for twenty-four hours. Individual candles were marked into twelve equal parts, which people used to calculate how much time had passed. In order to stop the candles from blowing out, they were placed in a wooden box, and they burned for what we now know to be four hours. Unlike the water clock, the box containing the candle clock could easily be carried from place to place.

Sand Clocks

Sand clocks are made from two ball-shaped pieces of glass, one on top of the other, joined by a narrow neck. A fine material, often sand, falls from the top to the bottom. The total length of time that a clock can measure depends on the amount of sand in the clock. However, that is not the only important factor – the width of the neck controls how quickly the sand falls through, and therefore the amount of time that can be measured. Nowadays, sand clocks are used as egg timers, and are sometimes found in board games, in which they help create a sense of urgency, as players literally see time ‘running out’.

(a) When did ancient people start to measure time using clocks?

.....[1]

(b) What information was provided by measuring the shadow in the middle of the day?

.....[1]

(c) What material was used to make water clocks?

.....[1]

(d) How many sections were there on each candle in a candle clock?

.....[1]

(e) What affects the measurement of time in a sand clock? Give **two** details.

.....

.....[2]

(f) How do people use sand clocks today?

.....[1]

[Total: 7]

[Turn over

Exercise 2

Read the article about a swimming holiday in Croatia, and then answer the following questions.

In at the deep end

Here, journalist Peter Taylor writes about a new and different holiday experience.

"I had never heard of open-water swimming in seas, lakes and rivers, until a friend told me about his holiday with a company called VacationSwim. The company provides guided swimming trips in Europe and surfing holidays in Australia. Listening to my friend persuaded me that I should try something new and exciting.

So here I was in Croatia. I had decided that three days would be too short, so I chose to spend seven days swimming between some small islands around the coast. The clear Adriatic Sea surrounding the tiny island of Prvic, which was the base for the holiday, looked beautiful. However, the huge expanse of blue sea was worrying me, and made me question my decision to choose this holiday.

I had failed to complete the recommended six-week training plan, so I realised that I wasn't as fit as I could be. However, when I spoke to my fellow swimmers and we compared our fitness levels, I felt better. Our group included people of all nationalities and ages, but everyone was looking for adventure. We had individual requirements too – some wanted to explore a new area, and others wanted professional swimming tips.

On the first morning, our guides Maria and Robbie greeted us, and gave us swimming hats and goggles. They asked us to swim around the harbour so that they could observe our technique and divide us into ability groups. Then we were ready to go. The swimming hats helped keep us warm, and when we got in the water, it was easy to see the logic of choosing such brightly-coloured hats – it was much easier for our guides to keep an eye on us from the safety boat.

After 10 minutes of splashing around, I started to get used to the new environment. I had previously swum in a pool of course, but the combination of waves, salt and depth was a new and unfamiliar experience. However, I soon settled into a regular rhythm, and having people in the water near me was comforting. I could see the beach where we were heading in the distance, and the guides kept watch from the safety boat.

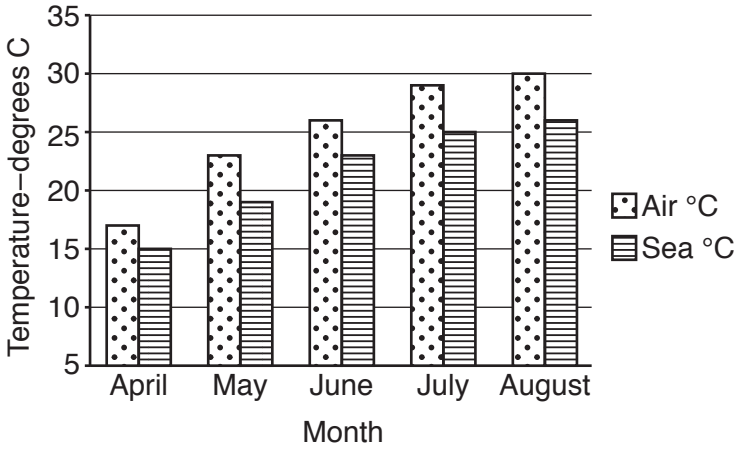
When we got tired, we stopped swimming. We hung onto the side of the boat and had some high-calorie sports drinks so that we could get our strength back. Then we were off again, and I focused on staying with my group. Before long, we reached the beach on the island of Tijat, and looked back in delight at the impressive distance that we had swum.

The weather during our stay played an important part in the experience. Fortunately, the lack of wind meant that the sea wasn't rough – big waves can cause problems for swimmers. I would recommend anyone to check the sea temperature before booking, because it can vary throughout the year.

My confidence grew daily. I managed the longest single swim of 3 kilometres with no problem, and although a few people swam more than 30 kilometres, I was thrilled to have covered a total of 20 kilometres. I never completely lost my childhood fear of the creatures that could be swimming below me, but it didn't hold me back. The guides encouraged us and were very supportive throughout. We were even filmed underwater, and our movements were examined in slow motion, which taught us how to swim more efficiently.

When I described the trip to some of my friends, they said, "It doesn't sound like much of a holiday!" I loved it though, and now I'm saving for another trip!"

Average summer temperatures in Croatia



(a) Where does VacationSwim organise swimming trips?

.....[1]

(b) How long did Peter's holiday last?

.....[1]

(c) Why did Peter feel happier after talking to the other swimmers?

.....[1]

(d) Why did the swimmers wear the hats provided? Give **two** details.

.....

.....[2]

(e) How did the swimmers replace energy they had used in the water?

.....[1]

(f) What effect did the weather have on the swimming conditions?

.....[1]

(g) What advice does Peter give to people who are planning a similar holiday?

.....[1]

(h) According to the chart, what is the average sea temperature in April **and** the average air temperature in August?

Sea temperature: .....

Air temperature: ..... [1]

(i) How far did Peter swim during his whole holiday?

.....[1]

(j) How was technology used to help swimmers improve their performance?

.....[1]

[Total: 11]

[Turn over

Exercise 3

Miriam Travis is interested in nature and she enjoys spending time outdoors. She is seventeen and lives in Bedminster, a part of the city of Bristol. There is a river close to her house where she can see various types of local wildlife. Although the water in the river is generally quite clean, Miriam had noticed an increasing amount of rubbish being left along the river, and she was worried about the effect on the wildlife.

As a result, she decided to do something about it. She found a leaflet in Morley Road Library for a local environmental group called Natural Bristol, who were looking for volunteers. She contacted them by email, at information@natbris.co.uk and gave them her email address, miritra@mail.com, which she prefers to use, although she also has a mobile number, 07869465736.

Miriam was told that there were sessions for volunteers between June and September, with projects in four different areas of the city – Sandford, Bedminster, Earlsworth and Westborough. She chose to volunteer for a project in July, because this involved work to clear the section of river where she lived, and which she was particularly concerned about. Miriam's group had enough people to finish the work in only two days, although the organisers had originally thought it would take four days.

Miriam really enjoyed the experience and she was pleased to share her knowledge of the local wildlife with some of the other volunteers. They were surprised by how much wildlife there was to see in such an urban environment. She also got some new ideas from the organisers on recycling some of the larger items of rubbish that the volunteers removed from the river banks.

Miriam met some interesting people during her time with the group. One of these was a boy who had previously volunteered in the Sandford district of the city. He had created some colourful posters with information on local plants and animals. The boy was very positive about his session, which made Miriam interested in doing something similar at another time – she had already designed leaflets at college.

At the end of their session, the volunteers were given a feedback form to complete and return to Natural Bristol. This helps the group to get more people involved in projects in their local area.

Imagine you are Miriam. Fill in the form, using the information above.

NATURAL BRISTOL
Feedback Form

Section A: Personal details

Full name: .....

Age: .....

Preferred contact details: .....

Section B: Your experience

Where did you find details of our organisation? .....

Which project did you take part in? (please tick ✓)

giving out information leaflets ☐ tidying the river area ☐ producing posters ☐ identifying local wildlife ☐

Where was your session? (please circle)

Earlsworth Sandford Bedminster Westborough

When did you volunteer? .....

How long did your session last? .....

Would you like to volunteer again? (please delete) YES / NO

Please give brief details of any useful previous experience:

.....

Section C:

In the space below, write **one** sentence about why you chose to become a volunteer and **one** sentence describing something you learned from the experience.

[Total: 14]

[Turn over

Exercise 4

Read the article about bees, and then complete the notes on the following page.

The world needs bees

If there were no bees, our world today would be a very different place – and our lives would be very different too. These hard-working insects have existed for around 125 million years and although numbers of bees are sadly declining, the survivors continue to be hugely important for our planet.

Many nutritious fruit and vegetable crops depend on bees for pollination. This is when bees transfer pollen from the flowers of one plant to another in order to fertilise them. This process is affected by the decline in bees and other insects. Without them, about one third of the crops that we consume would have to be pollinated in other ways, or crop production would be significantly less. Not only are bees essential in the pollination of crops, they also help 90% of the world's wild plants with seed production and survival.

In modern farming practices, certain chemicals are used to increase crop production and prevent disease. It is perhaps surprising to discover that these chemicals are also responsible for the decline of bees. They have been found to attack the bees' nervous system, quickly killing them. In a number of countries, farmers are trying to address this problem by producing food organically. This is when crops are grown without the use of any chemicals. Although this is an expensive method of farming, it is one that many people are choosing to support.

As well as pollinating crops, bees are famous for producing honey, which both people and animals enjoy. Bears are well known for their love of honey, and creatures such as birds, bats and other insects will take advantage of an open beehive. Often, both the honey and the protein-rich young bees are eaten, providing an important energy source for many animals.

There is a tendency nowadays for farmers to concentrate on producing a single crop. Bees need food from a range of sources, so even though they are surrounded by huge areas of farmland, it is sometimes difficult for them to find adequate food. An increase in the variety of plants grown in the fields could improve their chances of survival. If farmers created semi-wild areas around their fields, this farmland could support more bees, which would lead to increased pollination of crops.

Bee populations can also be reduced by climate change. Increasing temperatures, changes in rainfall patterns and extreme weather all have a damaging effect. One result of rising temperatures is that bees are leaving their beehives earlier in the year, and the concern is that they are searching for pollen before the flowers are available. There have been projects in some areas to promote the growing of bee-friendly plants, which produce pollen earlier. These provide bees with food at times when they need it most.

The steady decline in the bee population clearly results from changes in our environment. Bees need our help, and it is time for us to respond.

You are going to give a talk to your class about bees. Prepare some notes to use as the basis for your talk.

Make short notes under each heading.

Why bees are important

- .....
- .....

The problems that bees face

- .....
- .....
- .....

Some solutions to these problems

- .....
- .....

[Total: 7]

Exercise 5

Imagine that you have given your talk to your class. Now your teacher wants you to write a summary for homework.

Look at your notes in Exercise 4. Using the ideas in your notes, write a summary about bees.

Your summary should be about 70 words long (and no more than 80 words long). You should use your own words as far as possible.

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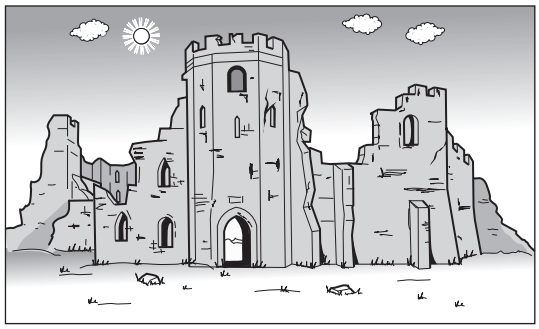
[Total: 5]

Exercise 6



Your friend is doing a project about places of interest in your country, and has asked you for some help.

Write an email to your friend, giving some information.

In your email, you should:

- describe a visit you made to an interesting place in your country
- suggest reasons why people enjoy visiting different places of interest in your country
- explain how you can help more with your friend's project.

The pictures above may give you some ideas, and you should try to use some ideas of your own.

Your email should be between 100 and 150 words long.

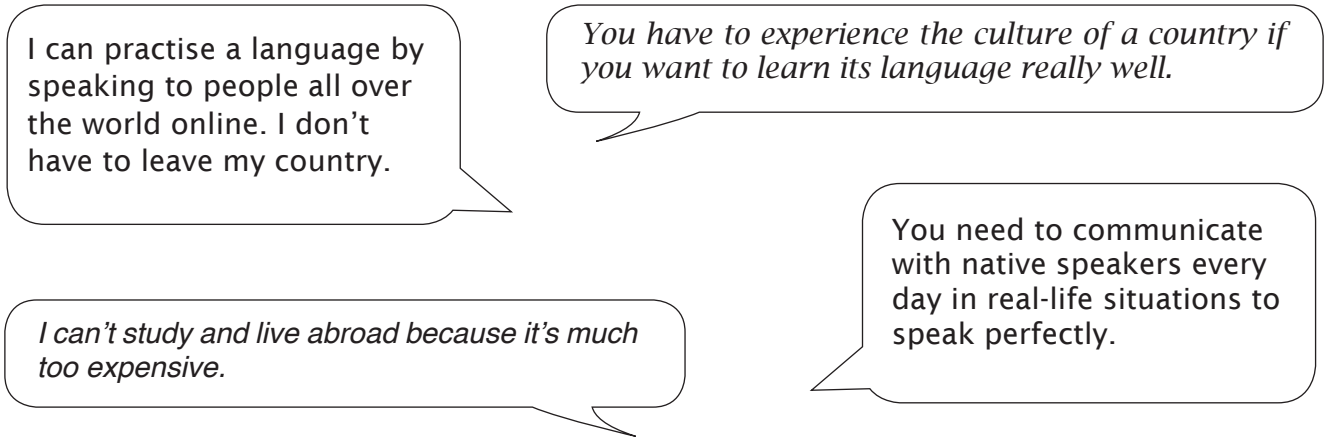
You will receive up to 7 marks for the content of your email, and up to 6 marks for the style and accuracy of your language.

[Total: 13]

Exercise 7

Some people think you can only learn another language well if you go and live in the country where it is spoken.

Here are some comments from young people on the topic:



Write an article for your school magazine, giving your views.

The comments above may give you some ideas, and you should try to use some ideas of your own.

Your article should be between 100 and 150 words long.

You will receive up to 7 marks for the content of your article, and up to 6 marks for the style and accuracy of your language.

[Total: 13]

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