



CANDIDATE
NAME

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CENTRE
NUMBER

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CANDIDATE
NUMBER

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0510/13

October/November 2021

1 hour 30 minutes

No additional materials are needed.

- Answer **all** questions.
- Use a black or dark blue pen.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- Dictionaries are **not** allowed.

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [].

This document has **16** pages. Any blank pages are indicated.

Exercise 1

Read the article about Parkrun, an organisation that arranges running events in parks, and then answer the following questions.

Parkrun

Parkrun organises free, timed five-kilometre runs in parks every weekend around the world. People can run, jog or even walk the route – the events aren't really about competing against others. For most people, speed is less important than taking part. While these runs clearly give people health benefits, building strong local communities is the top priority of the organisation.

It all began when 13 friends in London decided to do a timed run together on 2nd October 2004. They took a stopwatch and a piece of paper to record their times. They enjoyed it so much – not just the physical exercise but the sense of doing an activity together – that it quickly became a weekly event and Parkrun, the organisation, was established. By 2006, the idea had spread to other towns and cities. In 2007, the number of runs reached nearly 25 000, and Parkrun organised its first international event in Zimbabwe. There have now been over 30 million runs to date in over 1000 parks around the globe.

Parkrun's simple registration process, which just involves completing a short online form, is one of the reasons the organisation has been able to grow so rapidly. Advance registration is essential if you want to get your official time after each run. You only need to do this once, then you can turn up to any run without ever needing to register again. You'll also be emailed Parkrun's weekly newsletter. You can even set up an event yourself – simply go to the Parkrun website and submit a proposal. You will then be sent a step-by-step guide with more details.

Parkrun events are great for families. Children of all ages can take part and some are even carried all the way round by their parents. If children aged 4 and over want to have their time logged on the website, they must do the whole route on their own two feet. There are two-kilometre junior Parkrun events, designed specifically for children aged between 4 and 14. Children who complete this run are awarded a colourful wristband. Junior runners can run unaccompanied at these two-kilometre events, but unless they are at least 11 years old, children can only enter the main five-kilometre events if they are accompanied throughout by an adult.

People who have never done a Parkrun event before might expect that they have to attach a number to their running clothes or bring special equipment. This isn't the case. Whether you're planning to walk, jog or run, just remember to have some water with you. There are no strict rules – all you need to do is show the organisers the personal barcode you received when you registered online. Then, you can just turn up ready to run at any event – the organisers will take care of the rest.

Parkrun events wouldn't be possible without the help of volunteers. They do everything: organising the local routes, recording the runners' times and posting the results online. The person who can give you more information about becoming a volunteer is your local Parkrun representative. To encourage more people to get involved, anyone who volunteers at 25 different events can receive a free gift and may even appear in the Parkrun newsletter.

It's not only the volunteers' efforts that are recognised. Runners are given automatic membership to special clubs, for example the '10 club', on completion of 10 five-kilometre runs. Juniors are rewarded with a certificate after completing 11 two-kilometre runs. For the most devoted runners around the world who've managed to complete over 50 runs, there are limited-edition t-shirts available.

- 1 What is the main aim of the Parkrun organisation?
..... [1]
- 2 Where did the first Parkrun event take place?
..... [1]
- 3 When did the organisation start operating in more than one country?
..... [1]
- 4 What do people have to send to the organisation in order to arrange their own Parkrun event?
..... [1]
- 5 How must children complete a Parkrun event for their time to be officially recorded?
..... [1]
- 6 What is the minimum age for children to take part in a five-kilometre run on their own?
..... [1]
- 7 What do people need to take on the day of their run? Give **two** details.
.....
..... [2]
- 8 Who should people contact if they are interested in volunteering at a Parkrun event?
..... [1]

[Total: 9]

Exercise 2

Read the reviews (A–C) written by three people about a book called *Stone City*. Then answer Question 9 (a)–(h).

***Stone City* by Max Kelly**

Three young people review this action adventure novel

A Danoush Abdullahi

Stone City doesn't follow the usual rules of superhero stories. Instead, it invites you into a darker world where the bad guys are already in control and no one is willing to challenge them. That is, until a group of ordinary people, who call themselves *The Champions*, decide that enough is enough. They find the bad guys' weakness and use it to try and destroy them. Harry is a clever and educated member of *The Champions* who wants to change the world. He's witty and charming, unlike Asha. She's aggressive at the beginning of the book but softens as the story goes on. The writer spends as much time describing the people and their relationships as he does on the action. As a result, this makes the book appealing to all sorts of readers. If a story is rushed, readers might get confused; if it's too slow, then they may feel bored. *Stone City* avoids falling into either of these traps.

B Emily Calthorpe

I'd heard some of my mates saying great things about Max Kelly's books, so decided to give *Stone City* a try. I'm not sure I'll listen to their ideas about literature quite so closely in the future, though. Kelly starts by setting the opening scene very well. It's dramatic and we get a feel for what motivates Harry. As the story goes on, though, it lacks originality. In my opinion, there is nothing you can get from this book that you can't get from better ones about superheroes and supervillains. I much prefer reading about interesting characters and following a fast-moving and unpredictable plot. It might sound old-fashioned, but I personally feel that it's aimed at teenage boys, rather than girls who might not like reading about car chases. All I can say is that *Stone City* failed to live up to my expectations. Maybe this book just isn't for me.

C Afua Magoro

The plot is hardly new: Harry and his fellow good guys, *The Champions*, against the *Stone City* bad guy and his followers. However, the action scenes are vivid and full of surprising developments. Parents need to know that *Stone City* contains some scenes that might not be appropriate for younger children. Author Max Kelly's action adventure novel has great potential, and kept me turning the pages more enthusiastically than I'd expected. Although this book reaches a satisfying conclusion, readers are sure to meet Harry and Asha again in forthcoming titles in the same series. The pace in some chapters of *Stone City* was a little slow, although I can see that the author was trying to develop the lead character and analyse his motives. If there is a follow-up, it would be good to see more of a focus on Asha though. She could have played a much bigger part in this story.

9 For each question, write the correct letter A, B or C on the line.

Which person...

- (a) feels that not enough attention is given to the lead female character? [1]
- (b) states that *Stone City* is different from most novels of this type? [1]
- (c) thinks the beginning of the book was more enjoyable than the rest of it? [1]
- (d) mentions the kind of person this book will appeal to? [1]
- (e) thinks the plot develops at about the right speed? [1]
- (f) disagrees with their friends' opinions of the book? [1]
- (g) gives a warning that the content of the book may be unsuitable for some readers? [1]
- (h) mentions that the personality of one of the characters changes throughout the book? [1]

[Total: 8]

Exercise 3



Read the article about a new way of growing plants in underwater structures called biospheres, and then complete the notes.

Growing plants in underwater biospheres

Under the sea off the coast of Italy, scientists are investigating a new way of growing plants. They are growing them in air-filled structures called biospheres, which look like large balloons attached to the seabed by ropes. They have been designed by a diving company called Ocean Reef Group, which has combined its knowledge of the sea with an interest in technology, to research a new method of producing food.

The biospheres contain plants, such as lettuce, beans and strawberries, which are produced using a method called 'hydroponics'. This means growing plants in water, not soil. A fresh water supply is essential for these plants as they cannot grow in seawater. A natural process known as desalination is used therefore to remove the salt from the seawater, in order to provide the fresh water required by the plants. As a result of this process, the biospheres are able to benefit from a continuous supply of fresh water, something which plants grown on land cannot count on.

Plants in biospheres are no different from plants on land, in that they need a combination of water and sunlight to grow. Unlike crops grown on land, however, these underwater plants are not harmed by insects. In order for the plants to receive the light they need, the biospheres are kept close to the surface of the sea. They are therefore fixed in place with ropes that ensure they are kept at a depth of between five and eight metres below the surface. Ocean Reef Group has a number of biospheres, each with space for around 22 plants inside. Although the project is currently small, the plan is to research the possibility of large-scale production. Biospheres require expensive equipment, however, so the company has been keen to attract investment from the public.

While evidence has shown that biosphere plants grow faster than plants grown on land, the people working on the project have discovered that for some plants, conditions can be too damp. A constant temperature is vital for all plants to grow effectively and this cannot be guaranteed for plants grown on land. Structures such as glass greenhouses, for example, are directly affected by the weather conditions outside. However, as the biospheres are under water, the temperature inside does not vary. Although the biospheres in the project have occasionally flooded, the plants inside are not exposed to extreme weather such as strong winds – unlike those grown on land.

There has been international interest in the biosphere project for a number of reasons, including the fact that the plants inside are protected from diseases carried by the wind. However, not everyone is convinced by the overall advantages of the method. For example, some opponents have pointed out that the structures could get in the way of fishing equipment. Despite the challenge of finding suitably qualified divers to maintain the biospheres, researchers are optimistic that underwater farming can be a success on a large scale.

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

Make short notes under each heading.

10 Reasons why it's better to grow plants in underwater biospheres:

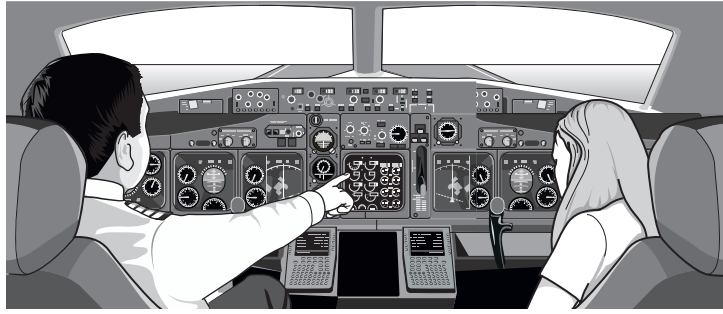
-
-
-
- [4]

11 Difficulties of growing plants in underwater biospheres:

-
-
- [3]

[Total: 7]

Exercise 4



- 12** Read the article about a girl called Ana who spent a day in a flight machine that pilots use to practise flying.

Write a summary about what Ana enjoyed about the day.

Your summary should be about 80 words long (and no more than 90 words long). You should use your own words as far as possible.

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

My day in a flight machine

My dad's a pilot, and last weekend his airline organised a Pilot Experience Day for friends and family of staff members. My dad asked if I wanted to go and I said yes straightaway! The day involved sitting inside the flight machine that pilots use to practise flying. It's not a real plane of course, but my dad says that it's designed to make you feel like you're flying one when you sit inside.

The first thing we did was watch a video showing how the flight machine works. I tried to concentrate, but I was really excited and it was impossible to remember the instructions. This was OK though: all the instructors are trained to help beginners like me, and learning about the machine was really good fun.

After the video, it was time to get inside the machine. I'd been inside a plane before with my dad, but I'd never had the chance to actually sit in the pilot's seat, so this was pretty cool. The fact that we could choose our own flight destination was one of the best things about the day, so I decided to 'fly to' Hawaii first, and then Iceland! Looking down on the different landscapes was amazing. What a shame I wasn't flying for real!

I'd expected it to be hard to know what all the different switches did, and I was right. There were so many! But with my instructor explaining what to do, I managed to get the machine to 'take off' successfully, which was fantastic. I tried turning the 'plane' to the left, but that was quite scary. I think I'll leave that to the real pilots!

In spite of the challenges, I had a great Pilot Experience Day, and would definitely recommend it. I loved the fact that the machine was so realistic and there were opportunities to take some great selfies. One of the highlights of the whole day though was the chance to actually experience what my dad does every day. Who knows, I may even consider the same career myself.

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[Total: 12]

Exercise 5



13 Your family recently moved to a new town to live.

Write an email to a friend telling them about your new town.

In your email, you should:

- compare the new town to the place where you lived before
- describe your new school
- suggest how you and your friend could spend the day together in your new town.

The pictures above may give you some ideas, and you can also use some ideas of your own.

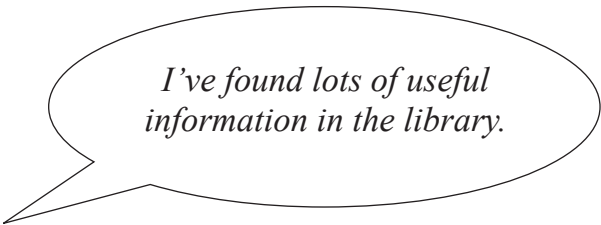
Your email should be between 100 and 150 words long.

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

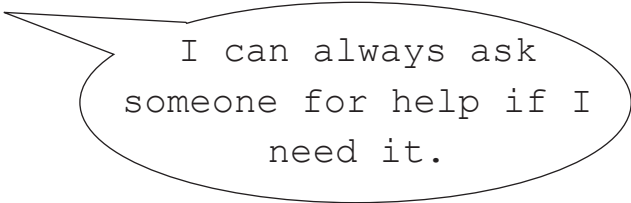
Exercise 6

- 14** Your school has recently received some money to improve the library. Your teacher has asked you to write a report. In your report, describe what students use the school library for **and** suggest how the school library could be improved.

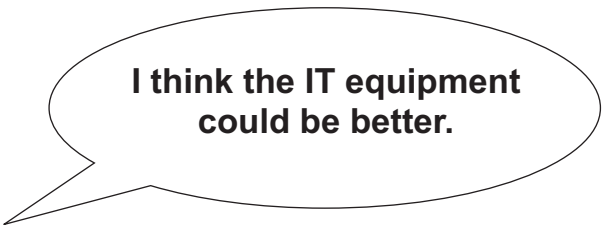
Here are some comments from students who use the school library:



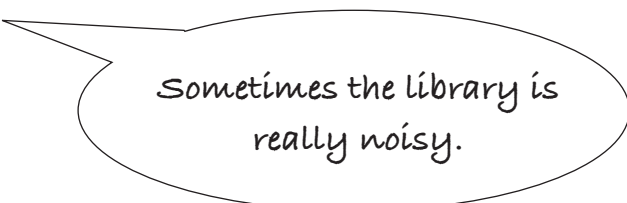
I've found lots of useful information in the library.



I can always ask someone for help if I need it.



I think the IT equipment could be better.



Sometimes the library is really noisy.

Write a report for your teacher.

The comments above may give you some ideas, and you can also use some ideas of your own.

Your report should be between 100 and 150 words long.

You will receive up to 6 marks for the content of your report, and up to 6 marks for the language used.

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