

Part 5

You are going to read an article about a wildlife cameraman called Doug Allan. For questions 31–36, choose the answer (A, B, C or D) which you think fits best according to the text.

Mark your answers on the separate answer sheet.

Wildlife cameraman

Doug Allan films wild animals in cold places. If you've ever been amazed by footage of polar bears in a nature documentary, it's probably been filmed by him. His perfect temperature, he says, is -18°C . Allan trained as a marine biologist and commercial diver. Diving was his first passion, where he learned about survival in cold places. His big break came when a TV crew turned up in Antarctica, where Allan was working, to film a wildlife documentary. 'I ended up taking the crew to different places, and after 48 hours I realised that being a wildlife cameraman ticked all the boxes: travel, adventure, underwater.'

He is now a top cameraman and has worked on many major TV wildlife series. 'I came along at a good time. When I started, hardly anyone had been to the Antarctic. You had coral people, elephant people, chimpanzee people. I just became the cold man. It was like all these amazing sequences were just waiting to be captured on film.' The camera and communications technology was very basic when he started 35 years ago. 'It is certainly easier to film today. If you shot something then, you had to remember it. Today, with digital technology, you can shoot a lot and look at it immediately. You used to have to think what shots you needed next, and what you had missed. You shot less. Film was very expensive. Today you can have too much material.'

'My value is field experience in cold conditions. I have a feel for it. I have spent so much time on sea ice it now feels like crossing the street. I do get cold toes but the poles are healthy places. There are no leeches, no diseases or mosquitoes.' Wildlife filming, Allan says, is full of great successes, but also failures and embarrassments. Once, he was in the

Orkneys to film kittiwakes. Unfortunately he could not identify which birds they were.

When Allan recently got permission to film sequences for a major TV series in Kong Karls Land, a group of islands in the Arctic Ocean, he did not expect an easy assignment. It is a world of polar bears and is strictly off limits to all but the most fearless or foolish. Usually -32°C in April, the wind is vicious and hauling cameras in the deep snow is a nightmare. After walking five or more hours a day and watching polar bear dens in the snow slopes for 23 days, however, Allan had seen just one mother bear and her cub. By day 24, though, he says, he was living in bear world, at bear speed, with bear senses.

'We find a new hole and wait. We shuffle, hop, bend, stretch and run to stay warm. Five hours of watching and then with no warning at all I catch a glimpse so brief that I almost miss it. But the camera's locked on the hole on full zoom and my eye's very quickly on the viewfinder. Nothing for a couple of seconds and then an unmistakable black nose. Nose becomes muzzle, grows bigger to become full head and in less than a minute she has her front legs out and is resting on the snow in front of the hole. She's looking at me but she's not bothered. I've just taken a close-up, thinking this can't get much better ... when she sets off on a long slide down the slope. I'd swear it's partly in sheer pleasure,' he recounts, adding that two cubs then appeared at the den entrance. 'Clearly it's their first view of the world ... It's show time on the slopes and we have front-row seats.'

Now Allan would like to make his own film about climate change in the Arctic, talking to the people who live there and experience the impact of it first hand. He says he would be able to make an extraordinary documentary.

line 80

- 31 What do we learn about Allan in the first paragraph?
- A He had to train as a diver in order to become a wildlife cameraman.
 - B Becoming a cameraman suited the interests he already had.
 - C He was given the chance to work as a cameraman by a TV crew he met.
 - D Finding work as a cameraman allowed him to remain in Antarctica.
- 32 What does Allan say about the first documentaries he worked on?
- A He has very clear memories of them.
 - B Most of what he filmed was new to viewers.
 - C They were shorter than those he makes nowadays.
 - D He would have liked to have been able to choose where he worked.
- 33 Why does Allan compare spending time on sea ice to crossing the street?
- A It is an ordinary occurrence for him.
 - B He thinks it presents a similar level of danger.
 - C He has learnt to approach it in the same way.
 - D It requires skills that can be used in winter conditions anywhere.
- 34 When Allan had been on Kong Karls Land for a while, he began to
- A stop worrying about the dangers he was facing.
 - B feel a deep understanding of how polar bears lived.
 - C get used to the terrible conditions for filming.
 - D be more hopeful that one bear would lead him to others.
- 35 What feeling does Allan describe in the fifth paragraph?
- A panic when he nearly fails to film a fantastic sequence
 - B concern that he has disturbed an adult female with her young
 - C amazement at being lucky enough to capture some great shots
 - D delight at being able to move around after waiting quietly for ages
- 36 What does *it* refer to in line 80?
- A Allan's film
 - B climate change
 - C the Arctic
 - D living there

Part 6

You are going to read an article about how the Egyptian pyramids were built. Six sentences have been removed from the article. Choose from the sentences **A–G** the one which fits each gap (37–42). There is one extra sentence which you do not need to use.

Mark your answers on the separate answer sheet.

Has one of the mysteries of the ancient pyramids been solved?

A painting in a 3000-year-old tomb suggests how the Ancient Egyptians may have transported the heavy stones used to build the pyramids.

Ever since the discovery of the first pyramid, scientists have wondered how ancient Egyptians built these monumental structures that are visible even from space.

There are a number of theories about the construction techniques they used. **37** Egyptologists had always wondered how workers were able to move the giant limestone blocks. These weigh as much as 2.5 tons each, and the stone quarries from which they were cut were often located hundreds of kilometres away from the pyramid sites.

Dragging them on basic wooden sledges, similar to those people use to slide down snow-covered slopes in winter, was the obvious answer. **38** It now turns out that the workers probably did have some assistance – from ordinary water! What is even more amazing is that the answer to the Egyptologists' puzzle has been staring them in the face for many years, in a wall painting in the tomb of an ancient Egyptian king, or pharaoh.

The artwork, which depicts a pharaoh being pulled along by a large team of workers, has one significant detail that had so far been misinterpreted – a man pouring water in front of the sledge the pharaoh is being dragged upon. Egyptologists had always thought that the man was performing some kind of religious ritual. However, some scientists now believe that the water was being poured for a totally different reason. **39**

This revelation was made by researchers from the University of Amsterdam and the Foundation for Fundamental Research on Matter. The scientists arrived at this conclusion after conducting extensive testing in their laboratory, by sliding a weighted tray across both dry sand and sand that had been mixed with varying amounts of water. In dry sand, heaps formed in front of the tray as it was dragged along.

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However, as the researchers added water, the sand hardened, which helped reduce both the force needed to pull the tray and the friction against it. That's because the water helps form tiny water bridges, known as capillary bridges, between the sand particles, causing them to stick together. **41** The force required to pull the sledge would have been reduced by as much as 50% as the sand became stiffer, which meant that half as many workers were needed to move the heavy stones.

There was a tipping point, though. After the moisture exceeded a certain amount, the stiffness started to decrease and the capillary bridges melted away, causing the sand to clump up around the tray once again. According to the researchers, the perfect balance appears to be when the volume of the water is between 2 – 5% of the volume of sand.

42 And so another step has been taken towards understanding the incredible feat achieved by these ancient engineers. Now if we could only find a painting that would tell us how the workers erected these impressive structures without access to modern mechanics, that would be amazing!

- A** However, to do so would have required superhuman strength against the friction of the desert sand.
- B** This allowed them to work out exactly how much of it had been used every time.
- C** This slowed it down dramatically.

- D** One question, however, had been left unanswered.
- E** The pyramid builders seem to have realised that this was the correct proportion.
- F** The effect of this turns out to be significant.
- G** It was to help the sledge move more easily across the sand.

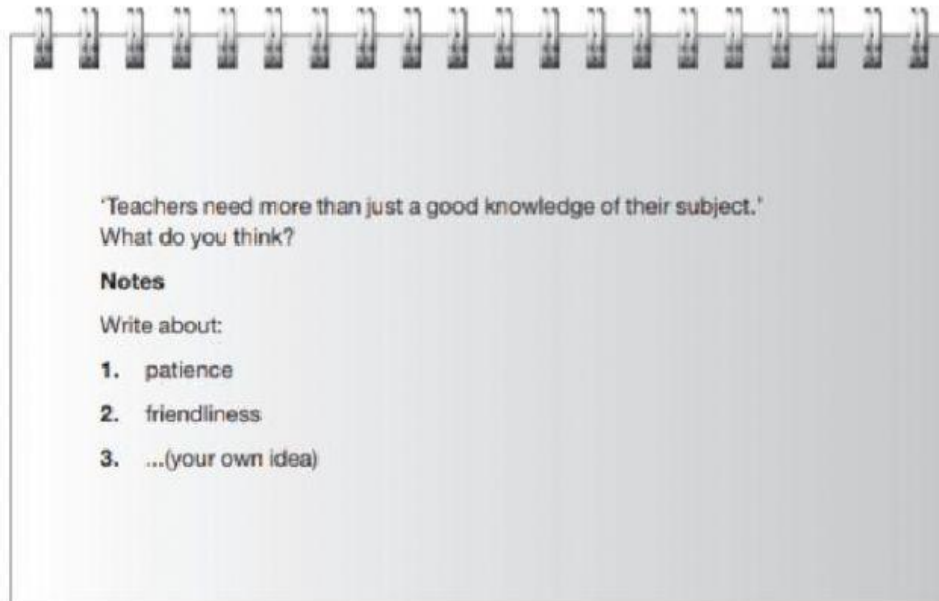
WRITING (1 hour 20 minutes)

Part 1

You **must** answer this question. Write your answer in **140–190** words in an appropriate style **on the separate answer sheet**.

- 1 In your English class you have been talking about education. Now, your English teacher has asked you to write an essay.

Write an essay using **all** the notes and giving reasons for your point of view.



'Teachers need more than just a good knowledge of their subject.'
What do you think?

Notes

Write about:

1. patience
2. friendliness
3. ...(your own idea)

Part 1

You will hear people talking in eight different situations. For questions **1-8**, choose the best answer (**A**, **B** or **C**).

1 You hear a man talking to an optician about his glasses. What does he need the glasses for?

A reading

B driving

C watching TV

2 You hear a tour guide talking to a group of people. Where are they?

A a library

B a historic house

C an art gallery

3 You hear a woman talking to her doctor. What does he think she might need?

A tablets to stay calm

B a heart operation

C new glasses

4 You hear a man talking about healthy eating. What does he suggest?

A eating a large breakfast

B eating a sandwich for lunch

C eating a big meal in the evening

5 You hear a girl talking about a recent holiday. Why did she come back early?

A because she didn't like the hotel

B because something of hers was stolen

C because she was disappointed with the island

6 You hear a weather forecast on the radio. Which part(s) of England will have the heaviest rainfall?

A London and south-east

B northern

C western and central

7 You have lost some money and you telephone the lost property office. You hear a recorded message. What does the message tell you to do?

A to call in at the office between 9 AM and 5 PM

B to contact the police to make a statement

C to contact your bank immediately

8 You hear a man talking about a new photocopier. What is his problem with it?

A Too many people want to use it.

B It is too slow and gets too hot.

C It does not copy colour sheets correctly.

Part 2

You will hear a radio interview with a man called Greg Hunter, who is the editor of a sports magazine. For questions **9-18**, complete the notes below which summarise what the speaker says.

WOMEN'S SPORT IN THE MEDIA

A survey shows that **9** _____ coverage of women's sport makes up only about 4% of stories.

Greg says the media doesn't publish stories about a sport which not many **10** _____ are interested in.

It is claimed that in the UK there are over **11** _____ women who play netball.

Apart from netball, Greg mentions **12** _____ as an example of a sport that many people do but not many want to read about.

Greg's magazine has **13** _____ times as many male readers as female readers.

He thinks the **14** _____ needs a sports magazine especially for female readers.

Greg says top women tennis players aren't able to spend much time with their **15** _____.

As a percentage of total TV sports time, women's sport on television dropped to only **16** _____ last year.

There are about **17** _____ women who are members of the Sports Journalist Association of Great Britain.

The number of TV sports **18** _____ has increased recently, which should improve coverage of women's sport.