Test 5
Lighting a town

The Norwegian town of Rjukan lies along the floor of a narrow valley, (0) .......... by sheer mountains. Because of its location, the town, with its 3,400 (1) .........., has in the past lived in shadow for half the year. During the day, from late September to mid-March, the town gets no direct natural sunlight at all. Its residents all agreed this (2) .......... that the town was incredibly depressing during the winter months.

However, that all changed in 2013 with the (3) .......... of a system of mirrors whose design Martin Anderson, an artist, had first (4) .......... up with some 12 years earlier. With financial (5) .......... from the local government and from several prominent business people, Anderson’s idea became a (6) .......... . Today, high on the mountain opposite the town, (7) .......... three large solar-powered, computer-controlled mirrors (8) .......... the precise movement of the sun across the winter sky, reflecting its rays onto the town’s market square and flooding it in bright sunlight.
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Test 5

Part 2

For questions 9–16, read the text below and think of the word which best fits each gap. Use only one word in each gap. There is an example at the beginning (0).

Write your answers in capital letters on the separate answer sheet.

Example: 0 T O

The homing instinct

The homing instinct is what makes certain animals, birds and fish return to the place they consider home. Cats often have this instinct. It was particularly strong in an American cat called Ninja, which disappeared shortly after its owners had taken it to their new home; a year later the cat turned up at its old home even though this was 1,360 kilometres away from where its owners were now living. Other cats may not travel so far but many like Pilsbury, an English cat, made a 13-kilometre journey back to its former home 40 times in spite of having to cross several busy roads to do so.

Pigeons also have the homing instinct and, ever since ancient times, human beings have used them to carry messages back home. However, cat owners, who have to keep returning to their old address in order to bring their cat home, tend to find the homing instinct simply irritating rather than useful or interesting!
For questions 17–24, read the text below. Use the word given in capitals at the end of some of the lines to form a word that fits in the gap in the same line. There is an example at the beginning (0).

Write your answers IN CAPITAL LETTERS on the separate answer sheet.

Example:  0  F A N T A S T I C

The oldest house in Britain

It was warm, round, had a (0) ........ view of a lake and appears to have been occupied for several hundred years. Welcome to the oldest house in the UK, which was found with other fascinating relics (17) ........ at a site in North Yorkshire. These remains are transforming our (18) ........ of how Britain’s earliest inhabitants lived.

The structure was 3.5 metres in (19) ........ and was supported by a circle of wooden posts. Dark, decayed matter at the centre of the ruin suggests the possibility of a roof entirely made of grasses. (20) ........ of the remains by scientists revealed that the building stood in 8,500 BC. It was (21) ........ thought that people living in Britain at this time were nomadic with no fixed homes. But the (22) ........ of the oldest known house provides clear (23) ........ that some of these people built large permanent structures. Researchers of the site, however, are (24) ........ about how long the house will remain the ‘oldest’ in the UK, because new finds are being made all the time.
Part 4

For questions 25–30, complete the second sentence so that it has a similar meaning to the first sentence, using the word given. Do not change the word given. You must use between two and five words, including the word given. Here is an example (0).

Example:

0 A very friendly taxi driver drove us into town.

DRIVEN

We ........................................... a very friendly taxi driver.

The gap can be filled by the words ‘were driven into town by’, so you write:

Example: 0 WERE DRIVEN INTO TOWN BY

Write only the missing words IN CAPITAL LETTERS on the separate answer sheet.

25 I haven’t decided what sort of job I’d like to do when I leave college.

MIND

I haven’t made ........................................ the sort of job I’d like to do when I leave college.

26 Tony never took any notice of the advice people gave him.

ATTENTION

Tony never ........................................ the advice people gave him.

27 Mary didn’t ring us last night because she knew we were going out.

WOULD

Mary ........................................... us last night if she hadn’t known we were going out.
I am planning to go to the football match, unless they cancel it because of the weather.

DUE
If the football match ............................................. the weather, I am planning to go to it.

Louise didn't really feel like going out for a meal.

MOOD
Louise wasn't really ........................................... going out for a meal.

The man said that .................................................. an old friend on the train unexpectedly last week.
Test 5

Part 5

You are going to read an article about a flight in a very fast aeroplane. 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.

My fastest ever plane ride

Reporter Matt Rudd goes on an extraordinary plane ride

In The Red Bull Air Race, twelve pilots take it in turns to race through a series of pylons between 15 and 25 metres high, negotiating sharp turns, barrel rolls and loops on the way, all at speeds of up to 370 km per hour. I was invited to find out what it feels like to take part.

An hour before the flight, I had to sign two forms. The first confirmed that I was in good health, the second that I would empty all my pockets, because tiny objects can become very dangerous during the flight. I also learnt that I would have to try to stay orientated throughout. ‘The horizon is your best friend,’ I was told, ‘the pilot will explain in which direction you have to look.’ I was also asked to promise that when I was lying upside down, I would ‘completely relax. Try and enjoy the view.’ Half an hour before the flight, I had a safety briefing in which I was told not, under any circumstances, to touch anything.

By the time we were taxiing down the runway, my legs up in front of me, feet trying not to touch the incredibly important steering pedals, hands trying not to rest on any of the many important switches within reach, my mind had made itself up. Ignoring all instructions received, I would not relax and enjoy the flight. This is the cruel paradox of high-speed acrobatic flying. In order to survive it without passing out, you have to keep calm and focused. You have to tense up at the right time and you have to relax at the right time. Panicking is a bad idea. None of this was of particular comfort as we began accelerating down the runway.

Dario, the pilot, and I reached the end of the runway. There we were in the Zivko Edge 540, upsettingly one of the world’s fastest acrobatic planes, ready to go. The plane took off and two seconds later we banked sharply to the right. It was an instant, violent manoeuvre and I felt the air squeeze out of my lungs. I looked up at the horizon, tensed everything and emitted short gasps as I sank down into the seat. For a split second I weighed 6.2 times my normal weight. And then we levelled out. We turned another sharp left and dived, leaving my stomach at 2,000 metres and my lungs scrunched up on the roof of the plane. Seconds later, we were 10 metres off the ground, aiming for the alarmingly small space between two pylons. They passed at 400 km per hour but my whoop of momentary excitement was stolen by a sharp right turn. We hadn’t even done any acrobatics yet.

For two minutes, I was allowed to fly the plane, my hand shaking so much the plane shook too… it’s that responsive. And then after that Dario said something. And I said, ‘Can you repeat that?’ But instead of replying, he did a barrel roll, a full lateral 360° turn.

‘Are you okay?’

‘Yup.’

‘Have you had enough?’

‘No,’ I lied.

Then he did a loop, lying the plane up and over, turning a full circle in the air. Now, I am aware that many people would find this exciting. The sort of people who enjoy rollercoasters. However, I just thought it was a bit much. At the top of the loop, as we were lying upside down, I heard a small voice shouting, ‘Relax, relax, look up.’ Then I looked up and saw some fields.

The flight was over in 10 minutes. It had been ‘soft’ compared to what the pilots endure when they race. As if to illustrate the point, Dario got out some sandwiches the minute we landed and merrily tucked in. I didn’t eat for hours and that night I did the loop the loop over and over again in my sleep.
Reading and Use of English

31 How did Matt feel as the plane started moving along the runway?
   A annoyed that there were so many rules to follow
   B surprised that he had to sit in a rather awkward position
   C convinced that he was going to be unable to behave as required
   D anxious that he had not been adequately prepared for the experience

32 Why does Matt say We hadn’t even done any acrobatics yet in lines 55 and 56?
   A to justify his impatience
   B to express his disappointment
   C to explain why he felt so relieved
   D to emphasise how apprehensive he felt

33 What does responsive mean in line 59?
   A eager
   B sensitive
   C active
   D helpful

34 In the fifth paragraph, Matt wants the pilot to think that
   A he understands the technical terms.
   B he needs a break.
   C he is feeling fine.
   D he had expected to roll.

35 What does it refer to in line 71?
   A turning a full circle
   B being aware
   C finding this exciting
   D enjoying rollercoasters

36 What is implied about the pilot in the final paragraph?
   A He finds Matt’s reaction amusing.
   B He wants to demonstrate that he is tougher than Matt.
   C He feels unusually hungry after the flight.
   D He is completely unaffected by their experience.
Test 5

Part 6

You are going to read an article about sleep and learning. 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.

College students need their sleep!

Research into the connection between sleep and learning suggests that sleep is even more important than previously thought.

Inadequate sleep negatively affects our learning processes. It is simply more difficult to concentrate when we are sleep deprived; this affects our ability to focus on and gather information presented to us, and our ability to remember even those things we know we have learned in the past. That is, the effect that many sleep researchers think it has on memory consolidation, the process by which connections in the brain strengthen and form into something more permanent.

A number of studies have shown that poor quality sleep can negatively impact on a person’s ability to turn factual information or processes they’ve just learned into long-term memories. And if this opportunity is missed – such as when a student stays awake all night – it generally can’t be made up. Even if sleep is ‘recovered’ on subsequent nights, the brain will be less able to retain and make use of information gathered on the day before. These findings shed new light on the importance of making time for sleep, not only for college students like Liz, but for anyone who wants to continue to learn.

Early in her first semester at Harvard, Liz feels like she is maintaining a healthy balance, but only just. Trying hard to get the most out of her time in college, she admits it’s sometimes hard to see sleep as an important part of her athletic and scholastic objectives. Rather than thinking of sleep as wasted time or even time off, we should, they say, instead view it as the time when our brain is doing some of its most important work.

Only a month and a half into her first semester at college, Liz, a student at Harvard University, already wishes she had more time for sleep. Several mornings each week, Liz rises before six to join her teammates for rowing practice. On days like these she seldom sleeps more than seven hours per night, but it’s not as if she doesn’t try. She often misses opportunities to socialize in order to get her coursework done and still get to bed at a reasonable time. Even without knowing just how important sleep is to learning, she tries to make time for it.

This is not always easy, however. The many demands on her time include her chosen sport, as well as activities like studying optional extra subjects. She and other students who think the same way as her sacrifice sleep to fit everything in. It isn’t surprising to learn, therefore, that students represent one of the most sleep-deprived segments of the population. Coursework, sports and new-found independence all contribute to the problem.

Studies have found that only eleven percent of college students sleep well consistently, while seventy-three percent experience at least occasional sleep issues, as Liz does. Forty percent of students felt well-rested no more than two days per week. Poor sleep is no longer considered a harmless aspect of college. The results of this show that it has significant impact on memory and learning.
A Although it may seem unnecessary to do these, Liz views them as essential.

B It also has a less obvious but possibly even more profound impact.

C Liz knows that she must nevertheless do her best to avoid it.

D Research suggests that the most critical period of sleep for this to happen in is the one on the same day.

E In fact, Liz’s behaviour is not at all like that of other college students her age.

F But that’s exactly what many researchers say it is.

G Quite the opposite, actually, as research into its effects progresses.