

READING AND USE OF ENGLISH

Part 1

For questions 1–8, read the text below and decide which answer (A, B, C or D) best fits each gap. There is an example at the beginning (0).

Mark your answers **on the separate answer sheet**.

Example:

0 A defensive B disapproving C resistant D rebellious

0	A	B	C	D
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Is all change good?

It is a commonly held belief that as people get older, they become (0).....to change. Their complaints that things used to be better in the past or that some new development is no good can be (1).....as the inevitable thoughts of people who simply don't like change and are therefore unable to (2).....the benefits of progress.

But is this automatically true? Are the views of an older person on a new development always to be (3).....? This would suggest that every new development must be a good one and surely that cannot logically be the (4).....

Take architecture for example. In the 1950s and 1960s, many older British people were (5).....critical of the new concrete housing blocks that suddenly (6).....up in cities, saying that they were ugly and depressing places to live in. They were told that they were simply being old-fashioned and that they were (7).....of appreciating the advantages of these new buildings, which had replaced the streets of small houses that they were familiar with. (8).....decades later, these very same blocks were being demolished, as new generations decided they were both ugly and bad for society.

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|-------------------|-------------|--------------|----------------|
| 1 A discriminated | B dismissed | C disposed | D declined |
| 2 A see | B follow | C catch | D credit |
| 3 A omitted | B refused | C eliminated | D disregarded |
| 4 A fact | B matter | C point | D case |
| 5 A highly | B vastly | C truly | D fully |
| 6 A burst | B sprang | C jumped | D leapt |
| 7 A imperfect | B unfit | C incapable | D disqualified |
| 8 A Whereas | B Despite | C Yet | D While |

Part 3

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 A R R I V A L

The music industry and the Internet

Among all the professions and industries most significantly affected by the (0) of the Internet, the music industry must be at or near the top of the list. The main result of the Internet has been to (17) reduce income from music for many people involved.

ARRIVE

SIGNIFY

The music industry was once led by record companies, whose revenue came chiefly from sales of recorded music. When the Internet came into (18)....., the possibility of piracy in the form of illegal copying came with it, and the established set-up of the industry became (19).....: This was difficult enough, but there then followed sites such as *Spotify*, (20).....people to access most recorded music at little or no cost. In a very short time the public became (21)..... to obtaining music more or less free of charge. Many record companies have either gone out of business or become what are (22)..... marketing organisations. For artists, sales of their work are most likely to occur only at live shows, where fans can be (23).....to buy because of feeling a personal (24).....with that artist.

BE

THREAT

ABLE

CUSTOM

ESSENCE

MOTIVE

CONNECT

Part 7

You are going to read a newspaper article about a gallery in a museum. Six paragraphs have been removed from the article. Choose from the paragraphs **A–G** the one which fits each gap (**41–46**). There is one extra paragraph which you do not need to use.

Mark your answers **on the separate answer sheet**.

A space where mathematical ideas burst into life

Lessons in quadratic equations, long division and trigonometry have left generations of schoolchildren asking ‘when will I use this in real life?’, while others carry a fear of the subject as adults. The Science Museum in London is hoping to change that, with a new permanent gallery dedicated to the subject. It was set up by curator Dr David Rooney.

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According to Dr Rooney, too often maths is seen as an internal subject, with little connection to everyday life. But this couldn’t be further from the truth. ‘Recently I think it has been very clear from teachers and parents, government and industry, that an awareness of mathematics is really significant to future prosperity,’ he says. ‘There is this real appetite for a new cultural discourse about mathematics.’

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The push seems to be paying off. A major international study recently revealed that England’s score in maths for both 9 to 10-year-olds and 13 to 14-year-olds was at its highest point in 20 years. While it may not have reached the dizzying heights of Singapore or Shanghai – so frequently lauded for their maths mastery – it seems that the subject is finally getting the attention it deserves in UK schools.

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Mathematical practice has shaped – and been shaped by – ‘fundamental human concerns’, says

Dr Rooney, ‘from life and death, war and peace, to money, trade and travel’. Among a set of more traditional exhibits, including hand-held instruments, the gallery will include significant objects such as Charles Babbage’s Analytical Engine, ‘a 19th-century computer’, he explains.

44 _____

Water indicates the flow of money and essentially, it solves equations in front of you. You can turn a tap for the interest rate and see what happens across the whole of the system.

45 _____

The gallery will centre on a Handley Page ‘Gugnunc’, an experimental aeroplane built in 1929 to compete in Daniel Guggenheim’s Safe Aircraft Competition. Designed by Zaha Hadid Architects, the firm behind the London Olympics’ Aquatics Centre, the gallery was created using mathematical principles with the Handley Page aircraft at its centre.

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The gallery aims to appeal to all ages. And it’s not aiming to spoon-feed visitors exact mathematical principles. Instead, its purpose is to introduce ideas. ‘We’re not trying to teach mathematics, because why would we want to do that in a history museum full of historical artefacts?’ says Dr Rooney. ‘It’s much more than that: it’s about telling inspiring stories about how mathematics has shaped our world.’

READING AND USE OF ENGLISH

- A** Following the UK's less-than-impressive results in the OECD's 2012 Programme for International Student Assessment (PISA), the Government set to work establishing 35 specialist maths hubs across England to improve the country's standing internationally. A new, more rigorous, maths GCSE was introduced in 2015, while a £67 million investment was announced in an attempt to recruit top maths and physics graduates into teaching.
- B** Bidisha Sinha worked on the project. 'The entire gallery is a consequence of the movements that might have happened around it,' she says. 'So the plan, the layout, everything, is driven by how the objects are flowing around this main one in the gallery space.'
- C** Another key attraction is MONIAC (Monetary National Income Analogue Computer), a 1952 model built to demonstrate how the economy works. Standing two metres tall and designed by Bill Phillips – an economist from New Zealand – the machine used hydraulics to model the workings of the British economy.
- D** Nevertheless, risk, as Rooney argues, 'is a mathematical concept', one which we go through our lives assessing, 'whether we are aware of it or not'. In fact, Rooney says the whole gallery will inspire both children and adults to think differently about maths.
- E** Designed to inspire and inform the next generation of mathematicians, 'Mathematics: The Winton Gallery' explains why maths is at the heart of everything we care about. The space – two years in the making – spans 400 years, and includes 100 objects; each with an important role in bringing maths to life.
- F** 'It was the most staggeringly important object for expressing a mathematical world view to undergraduate students from the 1950s,' says Dr Rooney. 'We've been working on a touchscreen simulation so that people can have a go at operating it.'
- G** But, according to Rooney, museums also have a role in helping this change to continue. 'Museums are profoundly important in the learning landscape,' he says. 'What we hear loud and clear from maths educators is that there are real barriers to the continued study of mathematics. Pupils can't see a wide range of potential career options open to them. The maths gallery shows that you could work anywhere with a maths education – aerospace, finance, architecture, engineering.'

GRAMMAR

1. Complete sentences 1–12 by choosing the correct option A, B or C.

- 1 I accepted the job offer after I ___ to my cousin.
A had spoken B have been speaking
C have spoken
- 2 We ___ for well over an hour before they finally arrived at 8 pm.
A have been waiting B had been waiting
C have waited
- 3 Oh no! I ___ Joanne's birthday again.
A 've forgotten B 'd forgotten
C 've been forgetting
- 4 I ___ rather anxious, but I calmed down when I met the interviewer.
A have been feeling B have felt
C had been feeling
- 5 I went to the café, just as he ___ me to, but he wasn't there.
A 's asked B 'd asked
C 'd been asking
- 6 She _____ five exams already and still has more to do.
A had taken B had been taking
C has taken
- 7 Everyone agreed that it was his fault before he _____ a chance to fully explain.
A had had B have had
C had been having
- 8 I _____ to tell you about it since I last saw you.
A have meant B had meant
C have been meaning
- 9 We ___ the room for some time before I found it.
A had been tidying B have tidied
C have been tidying
- 10 They ___ anyone they know at the conference yet.
A haven't seen B hadn't seen
C hadn't been seeing
- 11 He ___ for hours so I've told him to take a break.
A has practised B had practised
C has been practising
- 12 He for hours so I've told him to take a break.
A has practised B had practised C has been practising

2. Rearrange the words to make sentences with inversion. The first word you need to use is underlined.

1 so / since / teenager / have / I / a / slept / not / much / was / I

2 did / agreed / on / little / had / what / take / he / to / he / actually / realise

3 accept / no / under / his / currently / can / circumstances / we / offer

4 about / sooner / have / I / had / helped / problem / told / could / been / I / the

5 his / off / meat / he / bite / scarcely / first / when / was / had / realised / the / taken / he

6 understand / winning / had / only / she / did / later / close / she / been / how / to

MODALS

Complete sentences 1–10 using a verb from the box.

wouldn't / might (x2) / don't have to / couldn't (x2) / must (x2) / need / may / should

1 She really _____ like working there, as she's been offered better jobs.

2 You _____ be right, applying for an internship could help. But I'm not so sure.

3 The coffee in the office is free. You _____ pay for it.

4 Remember that you _____ to sign that form so I can go on the trip.

5 I really think you _____ be more polite to customers.

6 Try as he _____, he couldn't find a job working with animals.

7 That was a lovely meal but I _____ manage another thing.

8 I love seeing the lemurs at the zoo. Without them the place _____ be the same.

9 My boss just tried to call me. There _____ be a problem at work.

10 You _____ as well apply for the job – there's no harm in trying.

VOCABULARY

Inspiration and success

Choose the correct option in each sentence.

- 1 She's an exceptionally *gifted/adequate* musician. They've invited her to join the orchestra.
- 2 He's a highly *accepted/acclaimed* novelist who has won a number of literary awards.
- 3 The children are all very *conscientious/conscious* – they always do their homework on time.
- 4 Following a number of successful product launches, they gained international *prestige/privilege*.
- 5 I've definitely got a *flaw/flair* for languages – I speak several fluently.
- 6 Before going into higher education it's necessary to *attain/restrain* some qualifications.
- 7 I often feel that I've been held *back/off* by my lack of confidence.
- 8 I've heard that Alan is quite a *prominent/promising* young footballer. He's just signed a youth deal with his local team.

Relationships

1 Match each sentence beginning 1–8 with an appropriate ending a–h.

- 1 Unfortunately they had a terrible row and fell
 - 2 I'd arranged to meet him after work, but I've been stood
 - 3 For most of his childhood he was brought
 - 4 He asked me if I wanted to move in with him, but I turned him
 - 5 My parents got into some pointless dispute
 - 6 We were really close as teenagers, but drifted
 - 7 Although we are good friends now, I didn't immediately take
 - 8 We both studied at Bologna University, but we didn't move
- a down. He'd be hard to live with.
 - b apart from when I went to university.
 - c to Claire. I suppose it's because we are both quite opinionated!
 - d out with each other. I hope they make up soon.
 - e in the same circles. I couldn't put up with a lot of her friends.
 - f up in a city, but had a love of the natural world.
 - g with our neighbours about the noise levels at a party.
 - h up. He could have at least called me.

LISTENING

You will hear part of a talk about a college debating society – a club where people meet to discuss issues. For questions 7–14, complete the sentences with a word or short phrase.

DEBATING SOCIETY PROGRAMME

The society has made the decision to focus less on (7).....and more on current affairs.

The guest speaker in January will be a (8).....who studied a relevant subject.

The debate in February will be on the subject of (9).....in various nations.

The guest speaker will be an expert on (10).....:

In March, the debate will consider the subject of (11).....:

The guest speaker will be a (12).....with recent experience of that issue.

The main focus of the debate in April will be the recent (13).....:

It is recommended that students submit their ideas for future debates via (14).....:

SPEAKING

Here are some skills that might be considered important for young people to have before they leave home and a question for you to discuss. First you have some time to look at the task. Now, talk to each other about how important it is for young people to learn each of these skills before leaving home.

Candidates A and B discuss this together for about 3 minutes.



