

TASK 1. (4 points)

You are going to hear three people talking about the influence of advanced technologies on our life. For questions 1.1.–1.4., choose the right speaker (A–C) and put a cross (X) in the appropriate column in the table. One speaker must be chosen twice. You will hear the recording twice.

	Which speaker	A	B	C
1.1.	questions the validity of a commonly held belief?			
1.2.	provides an example of how computers have made his/her own work more efficient?			
1.3.	mentions a technology which tracks employees' activity?			
1.4.	refers to one specific area where computer programmes are not good enough just yet?			

TASK 2. (6 points)

You are going to hear two texts. For questions 2.1.–2.6., choose the answer which best matches what you have heard by circling the appropriate letter (A, B, C or D). Questions 2.1.–2.4. are for text 1, questions 2.5.–2.6. are for text 2. You will hear the recording twice.

Text 1**2.1. In his reply to the first question, Larry**

- A. mentions his initial scepticism about communities owning land.
- B. praises the hierarchical structure of communities.
- C. expresses enthusiasm about the future of communities.
- D. declares willingness to spread the idea of communities.

2.2. Why did Larry join an intentional community?

- A. He was inspired by some ideas expressed in a book.
- B. He wished to take part in the Walden experiment.
- C. He realised he would not be able to cope on his own.
- D. He hoped the experience would be different from dormitory life at college.

2.3. Which sentence reflects Larry's opinion on joining a community?

- A. Personal contact with community members should be the first step.
- B. It's enough to read a few books to learn what life in a community is like.
- C. Gaining insight into community life often leads to a revision of priorities.
- D. Before joining a community you have to renounce consumerist values.

2.4. When answering the last question, Larry points out that the intentional community movement

- A. mainly relies on new notions and ideas.
- B. has changed as a result of a growth in population.
- C. has lost its appeal for people in their 20s and 30s.
- D. attracts a larger number of older people than before.

Text 2

2.5. Which of the following is stated in the text as a fact, not somebody's belief or opinion?

- A. The Chinese used fireworks exclusively in religious rituals.
- B. Fireworks became known in Europe thanks to Marco Polo.
- C. English settlers brought fireworks to America.
- D. Fireworks were invented in the Arab world.

2.6. The speaker mentions that

- A. monarchs used fireworks to mark happy occasions.
- B. fireworks were a major part of celebrations in the 15th century.
- C. elaborate plaster figures were used in firework displays in Italy.
- D. the fireworks manufactured in Europe were sent to the Far East.

TASK 3. (5 points)

You are going to hear someone talking about their first experience of bookcrossing. Based on what you hear, answer questions 3.1.–3.5. in the spaces provided. You'll hear the recording twice.

3.1. What are "random acts of literary kindness" according to the speaker?

3.2 What **two** pieces of information did the speaker provide while registering the book, apart from its title?

3.3. Why did the speaker feel apprehensive about discarding the book at the post office?

3.4. In what way does bookcrossing contradict the traditional approach to possessing things?

3.5. Why was the speaker's book picked up so quickly?

TRANSFER YOUR ANSWERS TO TASKS 1 AND 2 TO THE ANSWER SHEET!

TASK 4. (7 points)

You are going to read two texts about robots. For questions 4.1.–4.7., choose the answer that best matches the text and circle the appropriate letter (A, B, C or D).

Text 1**DO ROBOTS HAVE FEELINGS?**

Last month, Gecko Systems announced that it had been running trials of its “fully autonomous personal companion home-care robot, designed to help elderly or disabled people to live independently.” Robots already perform many functions, from making cars to defusing bombs – or, more menacingly, firing missiles. Children and adults play with toy robots, while vacuum-cleaning robots are sucking up dirt in a growing number of homes. Will we soon get used to having humanoid robots around the home? Noel Sharkey, professor of artificial intelligence and robotics, has predicted that busy parents will start employing robots as babysitters. What will it do to a child, he asks, to spend a lot of time with a machine that cannot express genuine empathy, understanding or compassion? **1**

A more ominous question is familiar from novels and movies: will we have to defend our civilisation against intelligent machines of our own creation? Some consider the development of superhuman artificial intelligence inevitable, and expect it to happen no later than 2070. **2** They refer to this moment as ‘the singularity,’ and see it as a world-changing event. Eliezer Yudkowsky, one of the founders of the Singularity Institute for Artificial Intelligence, believes that singularity will lead to an ‘intelligence explosion’ as super-intelligent machines design even more intelligent machines, with each generation repeating this process.

The Association for the Advancement of Artificial Intelligence has set up a special panel to study what it calls ‘the potential for loss of human control over computer-based intelligences.’ If that happens, the crucial question for the future of civilisation is: will the super-intelligent computers be friendly? Is it time to start thinking about what steps to take to prevent our own creations from becoming hostile to us? **3** At present, robots are mere items of property. But what if they become sufficiently complex to have feelings? If machines can and do become conscious, will we take their feelings into account? The history of our relations with the only nonhuman sentient beings – animals – gives no ground for confidence that we would recognise sentient robots as beings with moral standing and interests that deserve consideration.

The hard question is how we would be able to tell that a robot really was conscious, and not just designed to mimic consciousness. **4** Would the designers write the code to provide only the appearance of consciousness? If so, we would have no reason to believe that the robot was conscious. But if the robot was designed to have human-like capacities that might incidentally give rise to consciousness, we would have a good reason to think that it really was conscious. At that point, the movement for robot rights would begin.

abridged from www.guardian.co.uk

4.1. Look at the squares marked 1–4 in the text and decide where the following sentence fits best in the passage.

For the moment, however, a more realistic concern is not that robots will harm us, but that we will harm them.

- A. In the space marked **1** .
- B. In the space marked **2** .
- C. In the space marked **3** .
- D. In the space marked **4** .

4.2. In the opening paragraph, the author

- A. questions Noel Sharkey's research findings.
- B. presents robots as having numerous practical applications.
- C. suggests that robots are ideal companions for interaction with people.
- D. gives his personal opinion on using robots as babysitters and caretakers.

4.3. In paragraphs 3 and 4, the author suggests that

- A. robots should be granted rights so as to prevent a robot rights movement.
- B. there is no chance that robots will ever be something more than items of property.
- C. there are important ethical concerns about human-robot relations to deliberate on.
- D. human relations with robots will develop in a different way to those with animals.

4.4. Based on the whole text, which sentence best describes the attitude of the author towards advances in robotics?

- A. He praises scientists who have made robotic intelligence possible.
- B. He takes a firm stand against treating robots as humans.
- C. He is cautious and wonders what the future will bring.
- D. He advocates strict control over artificial intelligence.

Text 2

CUTIE UNCONVINCED

Robots are, of course, manufactured on Earth, but their shipment through space is much simpler if it can be done in parts to be put together at their place of use. It also, incidentally, eliminates the possibility of completely assembled robots wandering off while still on Earth and thus breaching the strict laws against robots on Earth. So, it placed upon men such as Powell and Donovan the necessity of assembling one complete robot after another – always a grievous and complicated task. Powell and Donovan were never so aware of that fact as upon that particular day when, in the space station assembly room, they undertook to create a robot under the watchful eyes of QT-1 or Cutie as they used to call it to make the robot symbol sound more human.

The robot being assembled, a simple MC model, lay upon the table, almost complete. Three hours' work left only the head undone, and Powell paused to swab his forehead and glanced uncertainly at Cutie. The glance was not a reassuring one. For three hours, Cutie had sat, speechless and motionless, and his face, inexpressive at all times, was now absolutely unreadable. Powell groaned. "Let's get the brain in now, Mike!"

Donovan uncapped the tightly sealed container and from the oil bath within he withdrew a second cube. Opening this in turn, he removed a globe from its sponge-rubber casing. He handled it gingerly, for it was the most complicated mechanism ever created by man. Inside the thin platinum plated 'skin' of the globe was a positronic brain, in whose delicately unstable structure were enforced calculated neuron paths, which imbued each robot with what amounted to a pre-natal education. It fitted snugly into the cavity in the skull of the robot on the table. Blue metal closed over it and was welded tightly by the tiny atomic flare. Photoelectric eyes were attached carefully, screwed tightly into place and covered by thin, transparent sheets of steel-hard plastic. The robot awaited only the vitalizing flash of high-voltage electricity, and Powell paused with his hand on the switch.

"Now watch this, Cutie. Watch this carefully." The switch rammed home and there was a crackling hum. The two Earthmen bent anxiously over their creation. There was vague motion only at the outset – a twitching of the joints. The head lifted, elbows propped it up, and the MC model swung clumsily off the table. It wobbled shakily. Abortive grating sounds were all it could do in the direction of speech. Finally, its voice, uncertain and hesitant, took form. "I would like to start work. Where must I go?" Donovan sprang to the door. "Down these stairs," he said. "You will be told what to do."

The MC model was gone and the two Earthmen were alone with the still unmoving Cutie. "Well," said Powell, grinning, "now do you believe that we made you?" Cutie's answer was curt and final. "No!" he said. Powell's grin froze and then relaxed slowly. Donovan's mouth dropped open and remained so.

adapted from I, Robot by Isaac Asimov

4.5. Which of the following is stated in the opening paragraph?

- A. Despite strict laws, the two engineers decided to assemble a robot on Earth.
- B. Powell and Donovan's work on the robot was suddenly interrupted.
- C. There is a likelihood that robots might rebel if assembled on Earth.
- D. Powell and Donovan were being observed by a robot.

4.6. Which statement does NOT match the writer's description in paragraph 2?

- A. Donovan inserted neuron paths into the brain to equip it with basic knowledge.
- B. Inserting the brain was a process which needed human intervention.
- C. The brain was a device stored in a few layers of protective material.
- D. Pre-programming the brain had been done prior to assembling the robot.

4.7. Which sentence best describes what happened when the work on the MC model had been finished?

- A. Once it stood up, the MC model managed to walk out of the room on its own.
- B. The MC model made futile efforts to initiate its vocal function.
- C. The expression on Cutie's face changed dramatically.
- D. Cutie ignored Powell's tactless remark.

TRANSFER YOUR ANSWERS TO THE ANSWER SHEET!

TASK 5. (4 points)

Read the article. Four fragments have been removed from the text. Complete each gap (5.1.–5.4.) with the fragment which fits best and put the appropriate letter (A–E) in the gap. There is one fragment which you do not need to use.

RABBIT HUTCH BRITAIN

Families are living in ‘rabbit hutch Britain’, with new homes offering the smallest rooms in Europe, a report warns. It found that newly built properties are so cramped that they do not provide enough space to cook, have visitors or simply relax. **5.1.** _____ Here’s some harshly relevant data to exemplify this. The average number of people in a family has fallen from 3.1 in 1961 to 2.4 last year. The average number of people per household is even lower, at 1.9. A hundred years ago, an average of eight family members lived under one roof, with richer households also boasting several servants.

However, the Commission for Architecture and the Built Environment said smaller households are no justification for falling room sizes. **5.2.** _____ Almost half claimed they did not have enough room for their furniture, while more than a third said there was not enough space in the kitchen for appliances. The study also warned that the implications of living in such small spaces were ‘wide-reaching’, and could impact on health and well-being. **5.3.** _____ The majority of householders said they did not have enough storage space, while 72 per cent said they did not have enough space for bins required for proper recycling.

The report also found that, compared with other EU states, the UK has both the smallest newly built houses on average and smallest average room size. In France, the average size of a room in a newly built home is 26.9 square metres, compared with the UK’s 15.8 square metres.

“The findings raise the question of whether new homes are fit for their purpose, and whether they meet the needs of the people living in them,” the report said. **5.4.** _____ Asked about such regulations a spokesman for the Home Builders Federation said, “We have to establish criteria which will allow for a balance of sufficient space provision and affordability, taking into account the British context.”

adapted from www.dailymail.co.uk

- A. For example, there may be too little room for daily family dinners which encourage good eating habits and stronger relationships, the report said. Even finding room for cutlery, household appliances and foodstuffs to organise dining might pose a problem, it said.
- B. The study carried out by the Government's design watchdog reveals that both the average room size and overall new-home size are getting smaller. One possible reason might be decreasing family sizes.
- C. They quoted an example of the smallest homes on the market, ‘Manhattan pods’ in Essex, with 34 square metres of space overall, and a living room measuring only 3 by 3.6 metres.
- D. Unlike in many other countries, there are no national minimum space standards, for instance a planning system specifying minimum floor space for privately developed homes in England.
- E. Neither should they be an excuse for private homes being ‘too small for everyday life’. In a survey of 2,249 homeowners, 44 per cent revealed they did not have enough space for children to play safely while food is prepared.

TRANSFER YOUR ANSWERS TO THE ANSWER SHEET!

TASK 6. (4 points)

Read the text. For questions 6.1.–6.4., choose the appropriate paragraph and write the corresponding letter (A–E) in the table. One paragraph does not match any of the statements.

In which paragraph does the author		Answer
6.1.	suggest an alternative solution for viewers who can't see the uncensored version of the film on TV?	
6.2.	mention a questionable justification of a decision?	
6.3.	list alarming consequences of an ongoing process?	
6.4.	refer to somebody's decision taken in order to maintain an unblemished professional profile?	

FROZEN PLANET ON THIN ICE

- A.** It was for his joyous curiosity about the natural world that British television viewers took David Attenborough to their hearts in the 1970s and kept him there. Attenborough's life's work has been to show people what's most beautiful and interesting about our planet. *Frozen Planet*, the latest BBC production, is mostly more of the same. But as Attenborough said, it isn't possible to spend four years filming in the Arctic and Antarctic without worrying about what's going on. Glaciers are retreating, oceans are getting warmer and polar bears are finding it harder to survive. So in the final programme in the series, *On Thin Ice*, David Attenborough explains in some detail how we know this and what it might mean.
- B.** The programme has caused controversy after it was revealed that the BBC offered broadcasters in some countries, for instance the US, the option of buying the series without the 'climate change episode' at the end. It seems ludicrous that audiences invited to sit through five hours of groundbreaking natural history – including the first footage of killer whales tipping seals off ice floes, and a hibernating polar bear nursing her cubs while half-asleep – could be sent away none the wiser as to the existential threat facing many of these species.
- C.** Asked why it decided to sell episode seven as an optional add-on, the BBC sounded defensive. They feared that a hugely expensive series could turn into a PR headache if newspapers convinced people the BBC had censored content for commercial gain. An annoyed BBC Worldwide director responded – less than convincingly – that the reason *On Thin Ice* was treated differently from the rest of the series was because it is 'presenter-led' and thus requires dubbing rather than the voiceover used in episodes when Attenborough is not in shot. But the US is an English-speaking country so neither dubbing nor voiceover is needed.
- D.** It seems obvious that *On Thin Ice* was made for a British audience. Several times Attenborough refers to previous journeys, using personal experience to force home the point that nature is adapting to climate change. British people believe what he tells them. That is why he so often turns down companies asking him to appear in their adverts. It's to his credit that Attenborough wants to spend some of the capital he has accrued over decades by telling people some bad news about the environment. This clearly wouldn't work in the same way for foreign audiences who don't know him.

- E. If viewers in the US or anywhere else see all the action, the hunts and fights and chases, the polar bear cubs slipping and sliding on the ice, but miss out on the analysis underpinning it because the commentary, in whatever language, is not adjusted to incorporate some of these crucial facts, their broadcasters will have failed them. The good news is, however, that soon the *Frozen Planet* DVD will be available overseas – including the US – containing all seven episodes as broadcast in the UK.

abridged from www.guardian.co.uk

TRANSFER YOUR ANSWERS TO THE ANSWER SHEET!

TASK 7. (5 points)

Read the text. For questions (7.1.–7.5.) choose the word that fits best in each gap. Circle the appropriate letter (A, B, C or D).

MY LOVE FOR SCIENCE

When I was in high school I viewed science as a puzzle to be solved; my teacher would present me **7.1.** _____ a handful of variables and I was expected to find some missing quantity. I loved rearranging the numbers and chugging through the equations. And I always felt a smug sense of satisfaction **7.2.** _____ the path to the correct answer. But I never really understood the concepts, the actual science, behind what I was doing. And **7.3.** _____ I eventually decided to pursue science in college, it was not because of any high-minded ideals – I liked the idea of feeling smart and making a lot of money.

Somewhere along the way, however, I realized that all those equations actually mean something. This was such a powerful realization that I changed my **7.4.** _____ of study. I wanted everyone to see what I had finally come to see, that there is a beautiful elegance to the physical **7.5.** _____ that construct and connect our world. More than just an appreciation, there is a certain joy in really understanding how the world operates and a raw excitement in the act of making an opaque world just that much clearer.

abridged from www.blogs.smithsonianmag.com

7.1.

- A. to
- B. for
- C. with
- D. about

7.4.

- A. section
- B. division
- C. grade
- D. course

7.2.

- A. by figuring out
- B. to have been figured out
- C. at having figured out
- D. on being figured out

7.5.

- A. rights
- B. laws
- C. orders
- D. regulations

7.3.

- A. although
- B. nonetheless
- C. despite
- D. yet

TRANSFER YOUR ANSWERS TO THE ANSWER SHEET!

TASK 8. (5 points)

For questions 8.1.–8.5., think of one word only which can be used to complete all three sentences. Write the missing word in the space provided.

8.1. _____

- The boy memorized the poem so well that he was able to recite it without a single
- I wrote his number down on a little ... of paper which I then promptly lost. I should have used my calendar.
- Watch out, the floor is wet - one ... and you'll sprain your ankle.

8.2. _____

- The conductor ... his baton to begin the concert.
- The money we ... at the concert will be donated to UNICEF.
- The government ... prices instead of cutting costs.

8.3. _____

- Before being transferred to the secret service, my boss ... in the army for a few years.
- Tom's ability to speak four languages ... him well in his career.
- When Jim was renting a room, the sofa in his room ... as a bed as well.

8.4. _____

- He was so absent-minded that he ... with a hammer his thumb instead of the nail.
- More than a thousand people died in an earthquake which ... Chile.
- Car sales ... record levels last month and still continue to soar.

8.5. _____

- There was an ... number of people in the group so when we were divided into pairs one person didn't have a partner to work with.
- He had done a lot of ... jobs for years before he finally found his calling and became a dog trainer.
- You don't like Sundays? What an ... thing to say! Most people love them.

TASK 9. (5 points)

For questions 9.1.–9.5., complete the second sentence so that it is as similar in meaning as possible to the first sentence and it is correct in both grammar and spelling. Use the word given. Do not change the word given.

9.1. The winner of the competition didn't want newspapers to publish his name.

OBJECTED

The winner of the competition _____
published in newspapers.

9.2. Jane considers anybody who hasn't graduated from university inferior.

DOWN

Jane _____ anybody who
hasn't graduated from university.

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NOTES (*will not be assessed*)