



SUGGESTED ANSWERS

THE FRONTIERS ISSUE

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PERFECTING

Grammar Editing: The Future of Travel

Here are suggested answers to our grammar exercise:

<p>Engineers working for Virgin Hyperloop One are testing a radically different type of mass transit — one that aim to transport people via hovering pods at high speeds. Being two to three times faster than a conventional bullet train, the Hyperloop is on their way to replace traditional rail technologies. It works by propel pods through magnetic levitation in a low-pressure tube. These minimises vehicular friction and air resistance and the Hyperloop’s smooth commuting experience are said to be similar to that of riding a magic carpet. Furthermore, because the pods travel on a tube, they are not subject to shutdowns due to harsh weather, like snow or rain storms. Not only would commute be able to get from place to place faster, people will also be able to access more distant locations. This offers access to educational, cultural and health services that would otherwise be out of reach. Most passenger operation will begin by the middle of the next decade, cutting travel time between cities to 30 minutes, which is one-fifth the current duration.</p>	<ol style="list-style-type: none"> 1. aims 2. its 3. propelling 4. This 5. is 6. in 7. commuters 8. ✓ 9. ✓ 10. operations
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Nature of errors:

1. subject verb agreement, singular to correspond with singular article “one”
2. singular possessive determiner “its” is used to assign ownership to the Hyperloop, an inanimate item
3. verb form, “by” is a preposition here and should be accompanied by a progressive verb tense
4. singular demonstrative determiner to refer to magnetic levitation technology
5. subject verb agreement, singular to correspond with singular subject “experience”
6. preposition “in” to show the relationship between the pod and the tube within which it travels
7. word class to change the verb to a noun form to align with the subject
8. ✓
9. ✓
10. plural noun to correspond with plural adjective of quantity “most”



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Visual Comprehension: Hyper-personalisation: Creepy or Cool?

Here are suggested answers to our visual comprehension exercise:

1. (i) Which group of people is the whole poster targeted at?
(ii) Why is it important to the poster's target audience to know what technology is considered 'creepy'?

(i) It is targeted at creators of technology / business owners.
(ii) By creating technology that is not considered creepy by consumers, business owners will be able to attract more people to use their technology / earn a profit. / 'Creepy' technology violates the privacy of shoppers and negatively affects businesses.

Note: If the answer to (i) is wrong, no marks will be awarded for (ii)

2. How does the poster layout help to bring across its message?

By organising the creepy and cool technologies into two separate columns, the poster can clearly show that there is a difference between being creepy and cool technologies.

Note: Describe the poster layout before explaining its function

3. What is the intended effect of having the 'creepy' column in red?

It indicates that technologies considered 'creepy' should be avoided as red signifies something that is alarming / dangerous / advised against.

4. Refer to the sentence at the bottom of the poster. What is **one** of the ways the poster's target audience can "make the switch"?

They can provide clear information on when and how their data and AI is used. / They can allow customers control over whether to share their data, and how it is used. / They can provide explanations for how they use data and AI.



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Listening Comprehension: Nothing Short of 'Perfect'

Here are answers for our listening comprehension exercise:

You will hear three short recordings. In each recording, a speaker talks about his or her view on the use of an injectable drug used to treat achondroplasia, the most common form of dwarfism.

1. Speaker 1

D. Scientists have developed a drug that aids bone growth for children with achondroplasia.

2. Speaker 2

A. Achondroplasia does not need to be treated.

3. Speaker 3

B. The accompanying pains of dwarfism may be eased through the medical injections.



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Text Comprehension: The Power of AI: How Much is Too Much?

Here are suggested answers to our text comprehension exercise:

1. What does the word 'recklessly' in Paragraph 1 suggest about the writer's attitude towards people's reliance on AI?

The writer is critical of / disappointed in the people. [1]

2. From Paragraph 2, identify **two** ways we use AI in our personal lives. **Use your own words as far as possible.**

We depend on AI to cater to our shopping preferences when purchasing items digitally [1], use gadgets that can be donned to keep track of our physical health [1], OR make our homes automated [1].

Select two points from passage to paraphrase "we heavily rely on algorithms to introduce us to new products to buy and content to consume." / "We monitor our physical health with wearable digital devices" / "live in homes equipped with "smart" technologies."

3. i) From Paragraph 3, what are **two** differences between the decisions made by humans and those made by algorithm systems?

One difference is that humans use both reason and other intangible characteristics that are unique to humans, while algorithms only make use of logic. [1]
Another difference is that humans consider the moral implications of their decisions, but algorithms do not. (inferred) [1]

Question does not require paraphrasing so students can lift "capacity for imagination, reflection, valuation and empathy" directly from the passage, or use sense-for-sense paraphrasing as shown in the answer above. As the question asks for differences, it is a comparison question, so comparison words like "while" or "but" are required.

3. ii) Which phrase in Paragraph 3 indicates that a comparison is being made?

The phrase is "in contrast". [1]

4. Why does the writer make use of parentheses in "We see(k) in AI's confident answers" (Line 35)?

It indicates that the word used is both 'see' or 'seek' (function) [1], conveying that people find the assurance and simplicity that they are looking for through AI (definition) [1], whether or not these answers provide the truth.



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5. i) What is an example, from the passage, of the "ethically problematic" decisions Gail mentions?

The example is of how over 20,000 families in the Netherlands were inaccurately identified as frauds taking advantage of the tax-relief programme by a defective AI system. [1] / The example is of how LAWS might shoot children if allowed to act according to its algorithm. [1]

5. ii) From Paragraph 5, what could make AI desirable in the defence industry, as Yu Xuan claims?

The speed at which AI can pinpoint targets to shoot is useful for military purposes.

6. Using your own words as far as possible, summarise the ways in which AI is limited and the dangers of excessively relying on it.

Use only information from Paragraphs 3 to 5.

Your summary must be in continuous writing (not point form). It must not be longer than 80 words (not counting the words given to help you begin).

Artificial intelligence is limited because it... [15]

	Text from passage	Paraphrased
1	AI functions are based on pre-set algorithms with a rigid rationality	[limits] makes judgements by analysing data using strict logic,
2	we rely not only on reason, but also on our capacity for imagination, reflection, examination, valuation and empathy	[limits] (infer point) but not intangible characteristics unique to humans.
3	Their decisions do not consider the <u>potentially</u> harmful and ethically problematic consequences	[limits] Its judgements do not contemplate their <u>possibly</u> injurious and improper implications.
4	The limitation of AI lies in its <u>complete</u> dependence on pre-defined models of the world that are selective and are often even <u>misrepresentative</u> .	[limits] AI systems are too <u>reliant</u> on pre-determined reflections of the world that are incomplete, and furthermore <u>inaccurate</u> .
5	we are subjected to the logic of these flawed representations	[dangers] We are at the mercy of these inaccurate reflections
6	Still, we see(k) in AI's confident answers the kind of certainty and simplicity	[dangers] as we religiously believe the affirmation that AI grants us.
7	Yet we are already racing ahead to give it the ability to mete out death sentences.	[dangers] Despite its limits, we are rushing to entrust AI with decisions on lives
8	LAWS are not bound by moral codes	[limits] though it has no ethical obligations.
9	without a human to intervene, its cold, hard logic may even take aim at children.	[dangers] Its unfeeling, stiff reason could lead it to target children too, without human involvement,
10	LAWS will eventually become as affordable and common as regular drones are today.	[dangers] And in time it will in time be easily accessible.



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Accept any 8 points for 1 mark each.

Total: 15 marks

- Content: 8 marks
- Language: 7 marks (grammar, spelling, punctuation, vocabulary)