



CANDIDATE
NAME

--

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--

8021/23

May/June 2023

1 hour 45 minutes

You will need: Insert (enclosed)

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- Dictionaries are **not** allowed.

- The total mark for this paper is 50.
- The number of marks for each question or part question is shown in brackets [].
- The insert contains all the resources referred to in the questions.

This document has 8 pages.

Section A

Read the material for Section A in the insert before answering the questions in Section A.

- 1 (a)** Considering **only** the advantages, explain why Nicoletta is **more** likely to favour Footpath Focus.

You must **not** refer to Total Tartaruga.

Answer in continuous prose.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

[8]

- (b) Explain **two** disadvantages for Jamil if the three friends choose Footpath Focus.

Do **not** refer to Total Tartaruga.

reason 1

.....

.....

.....

reason 2

.....

.....

.....

[4]

- (c) Explain **two** disadvantages for Jamil if the three friends choose Total Tartaruga.

Do **not** refer to Footpath Focus.

reason 1

.....

.....

.....

reason 2

.....

.....

.....

[4]

- (d) Explain **two** reasons why Simon would prefer Total Tartaruga.

Do **not** refer to Footpath Focus.

reason 1.....

.....

.....

.....

reason 2.....

.....

.....

.....

[4]

- (e) Using evidence from the extract from the conversation **only**, suggest why the reader might think that Nicoletta is bossy.

.....

.....

.....

.....

.....

.....

[3]

- (f) Using your own knowledge, state another example of voluntary work which might be worthwhile.

Justify your response.

Do **not** repeat any material from **Section A**.

.....

.....

.....

.....

[2]

[Total: 25]

Section B

Read the material for Section B in the insert before answering the questions in Section B.

2 (a) From the material identify the **exact** word or phrase that means:

(i) regular sequence (lines 1 to 10)

.....
 [1]

(ii) established a base (lines 1 to 10)

.....
 [1]

(iii) absorbs (lines 26 to 34)

.....
 [1]

(iv) (to) take apart (lines 58 to 68)

.....
 [1]

(b) Suggest

(i) the wider consequences for Earth of astronaut Tim Peake's observations from the International Space Station.

.....

 [2]

(ii) why scientists insist that the domestic details of space station life are important (lines 13 to 17).

Answer in about 10 words.

.....
 [1]

- (c) Explain how the break-up of the former Soviet Union offered an opportunity to NASA (lines 18 to 31).

Answer **in about 40 words**.

.....

.....

.....

.....

.....

.....

.....

.....

[4]

(d) Explain why

- (i) Professor Ian Crawford believes the high expenditure on the ISS was worth it (lines 36 to 38).

Answer **using your own words** as far as possible.

.....

.....

.....

.....

.....

.....

[3]

- (ii) Professor Lord Martin Rees takes the opposite view (lines 39 to 44).

Answer **using your own words** as far as possible.

.....

.....

.....

.....

[2]

- (iii) Professor Anu Ojha, despite his initial doubts, is convinced of the success of the ISS (lines 47 to 48).

Answer **using your own words** as far as possible.

.....

.....

.....

.....

[2]

(e) Explain

- (i) what has been learned about the impacts of prolonged periods of zero gravity on the human body (lines 50 to 53).

Answer in about 20 words.

.....

.....

..... [2]

- (ii) why this knowledge will be significant for NASA's future cutting-edge space missions.

.....

.....

.....

..... [2]

- (f) In your opinion, from the three examples of 'private enterprise' interested in taking over the ISS, which **one** is **most** likely to be successful?

Justify your response.

Do **not** refer to the other two examples.

.....

.....

.....

.....

.....

..... [3]

[Total: 25]

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.