

#### © International Baccalaureate Organization 2022

All rights reserved. No part of this product may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without the prior written permission from the IB. Additionally, the license tied with this product prohibits use of any selected files or extracts from this product. Use by third parties, including but not limited to publishers, private teachers, tutoring or study services, preparatory schools, vendors operating curriculum mapping services or teacher resource digital platforms and app developers, whether fee-covered or not, is prohibited and is a criminal offense.

More information on how to request written permission in the form of a license can be obtained from https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/.

#### © Organisation du Baccalauréat International 2022

Tous droits réservés. Aucune partie de ce produit ne peut être reproduite sous quelque forme ni par quelque moyen que ce soit, électronique ou mécanique, y compris des systèmes de stockage et de récupération d'informations, sans l'autorisation écrite préalable de l'IB. De plus, la licence associée à ce produit interdit toute utilisation de tout fichier ou extrait sélectionné dans ce produit. L'utilisation par des tiers, y compris, sans toutefois s'y limiter, des éditeurs, des professeurs particuliers, des services de tutorat ou d'aide aux études, des établissements de préparation à l'enseignement supérieur, des fournisseurs de services de planification des programmes d'études, des gestionnaires de plateformes pédagogiques en ligne, et des développeurs d'applications, moyennant paiement ou non, est interdite et constitue une infraction pénale.

Pour plus d'informations sur la procédure à suivre pour obtenir une autorisation écrite sous la forme d'une licence, rendez-vous à l'adresse https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/.

#### © Organización del Bachillerato Internacional, 2022

Todos los derechos reservados. No se podrá reproducir ninguna parte de este producto de ninguna forma ni por ningún medio electrónico o mecánico, incluidos los sistemas de almacenamiento y recuperación de información, sin la previa autorización por escrito del IB. Además, la licencia vinculada a este producto prohíbe el uso de todo archivo o fragmento seleccionado de este producto. El uso por parte de terceros —lo que incluye, a título enunciativo, editoriales, profesores particulares, servicios de apoyo académico o ayuda para el estudio, colegios preparatorios, desarrolladores de aplicaciones y entidades que presten servicios de planificación curricular u ofrezcan recursos para docentes mediante plataformas digitales—, ya sea incluido en tasas o no, está prohibido y constituye un delito.

En este enlace encontrará más información sobre cómo solicitar una autorización por escrito en forma de licencia: https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/.





## Geography Higher level and standard level Paper 2

| Monday | 16 | Mav | 2022 | (morning | a) |
|--------|----|-----|------|----------|----|
|        |    |     |      | (        | יכ |

| ·    | ` |  | Car | ıdida | te se | ssior | nun | nber |  |
|------|---|--|-----|-------|-------|-------|-----|------|--|
| hour |   |  |     |       |       |       |     |      |  |

#### Instructions to candidates

- Write your session number in the boxes above.
- Do not open this examination paper until instructed to do so.
- Section A: answer all questions.
- Section B: answer the question.
- · Answers must be written within the answer boxes provided.
- The accompanying **geography resource booklet** is required for this examination paper.
- The maximum mark for this examination paper is [40 marks].

125001



**-2-** 2222-5204

#### **Section A**

Answer all questions.

Answers must be written within the answer boxes provided.

When relevant, answers should refer to case studies or examples, and where appropriate include well-drawn maps or diagrams.

#### 1. Changing population

Refer to the map on pages 2–3 of the accompanying resource booklet.

The map shows the distribution of population in Venezuela.

| (a | <ul> <li>Outline the distribution of the Venezuelan states with population densities of above<br/>100 persons per km<sup>2</sup>.</li> </ul> | [2]  |
|----|--|------|
|    |  |      |
|    |  |      |
|    |  |      |
| •  |  |      |
| (b | Explain <b>two</b> physical reasons why some areas have a low population density. [2   | + 2] |
| R  | leason 1:  |      |
|    |  |      |
|    |  |      |
|    |  |      |
| R  | leason 2:  |      |
|    |  |      |
|    |  |      |
|    |  |      |



Explain one cultural reason and one economic reason why fertility rates are

# (Question 1 continued)

| decreasing.      | [2 + 2] |
|------------------|---------|
| Cultural reason: | <br>    |
|                  | <br>    |
|                  | <br>    |
|                  | <br>    |
| Economic reason: | <br>    |
|                  | <br>    |



Turn over

| Gioi | oal climate – vulnerability and resilience               |   |
|------|--|---|
| (a)  | Outline what is meant by terrestrial albedo.             | [2]   |
|      |  |   |
|      |  |   |
|      |  |   |
|      |  |   |
| (b)  | Suggest how climate change may cause spatial changes in: |   |
|      | (i) biomes;  | [2]   |
|      |  |   |
|      |  |   |
|      |  |   |
|      |  |   |
|      | (ii) animal migration patterns.                          | [2]   |
|      |  |   |
|      |  |   |
|      |  |   |
|      |  |   |
|      | (a)  | (b) Suggest how climate change may cause spatial changes in:  (i) biomes; |



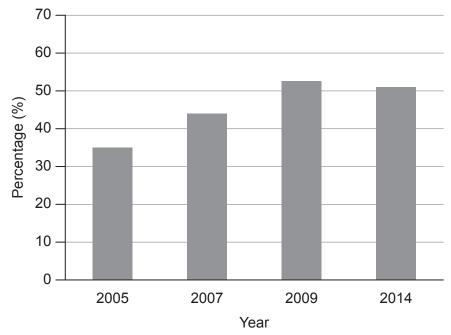
# (Question 2 continued)

| (c) | Explain two ways in which higher temperatures could increase the incidence of health |         |
|-----|--|---------|
|     | hazards on people.   | [2 + 2] |

| Way | 1: |  |  | ٠ | <br>- | ٠ |       |  | • |  | <br>• | • |   | <br>٠ |  | ٠ | - | <br>٠ | <br>• | - | <br>٠ | - | <br>• |  | ٠ |  |  |            | ٠ | - |      | ٠ | • | <br>- |  |
|-----|----|--|--|---|-------|---|-------|--|---|--|-------|---|---|-------|--|---|---|-------|-------|---|-------|---|-------|--|---|--|--|------------|---|---|------|---|---|-------|--|
|     |    |  |  |   |       |   | <br>- |  |   |  |       |   | - |       |  |   |   |       |       |   |       |   |       |  |   |  |  |            |   |   | <br> |   |   | <br>  |  |
|     |    |  |  |   |       |   | <br>- |  |   |  |       |   |   |       |  |   |   |       |       |   |       |   |       |  |   |  |  | . <b>.</b> |   |   | <br> |   |   |       |  |
|     |    |  |  |   |       |   |       |  |   |  |       |   |   |       |  |   |   |       |       |   |       |   |       |  |   |  |  |            |   |   | <br> |   |   |       |  |
| Way | 2: |  |  |   |       |   |       |  |   |  |       |   |   |       |  |   |   |       |       |   |       | - |       |  |   |  |  |            |   |   | <br> |   |   |       |  |
|     |    |  |  |   |       |   | <br>- |  |   |  |       |   | - |       |  |   |   |       |       |   |       | - |       |  |   |  |  |            |   | - |      |   |   | <br>  |  |
|     |    |  |  |   |       |   |       |  |   |  |       |   |   |       |  |   |   |       |       |   |       |   |       |  |   |  |  |            |   |   |      |   |   |       |  |
|     |    |  |  |   |       |   |       |  |   |  |       |   |   |       |  |   |   |       |       |   |       |   |       |  |   |  |  |            |   |   | <br> |   |   |       |  |

### 3. Global resource consumption and security

The graph shows changes in the percentage of the population of Lesotho living in slums.



[Source: UN Habitat, 2016. Slum Alamnac 2015–2016: Tracking Improvement in the Lives of Slum Dwellers. [pdf online]
Nairobi: UNON Publishing Service Station. Available at: https://unhabitat.org/sites/default/files/download-managerfiles/Slum%20
Almanac%202015-2016\_PSUP.pdf [Accessed 4 June 2020]. Source adapted.]

| ( | a) |   |   | ט | C: | SC | 11 | Dŧ | <b>=</b> 1 | יו וו | C | u | CI | IC | 15 | 5 | 111 | U۱ | <b>/V</b> I | 11 | 1111 | · | 110 | <del>-</del> | 5 | ıu | 111 | ı | JC | γþ | ıu | Id | LIC | ΟI | 15 | , ( | וכ | _ | C | <b>S</b> C | νu | IC | ) L | JE | ιv | ve | == | 11 | _ | ·U | Ut | , ( | <b>a</b> 1 | IU | _ | .0 | 14 | +. | L | ۷. |
|---|----|---|---|---|----|----|----|----|------------|-------|---|---|----|----|----|---|-----|----|-------------|----|------|---|-----|--------------|---|----|-----|---|----|----|----|----|-----|----|----|-----|----|---|---|------------|----|----|-----|----|----|----|----|----|---|----|----|-----|------------|----|---|----|----|----|---|----|
|   |    |   |   |   |    |    |    |    |            |       |   |   |    |    |    |   |     |    |             |    |      |   |     |              |   |    |     |   |    |    |    |    |     |    |    |     |    |   |   |            |    |    |     |    |    |    |    |    |   |    |    |     |            |    |   |    |    |    |   |    |
| • | •  | • |   |   | •  | •  |    | •  | •          | ٠.    | • | • |    | •  | •  | • |     |    | •           | •  |      |   | •   | •            | • |    |     | ٠ | •  | •  | -  |    | ٠   | •  | •  |     | ٠  | • |   |            | ٠  | •  | -   |    | •  | •  |    | ٠  | • |    |    | ٠   | -          |    | ٠ | •  |    | •  |   |    |
|   |    |   |   |   |    |    |    |    |            |       |   |   |    |    |    |   |     |    |             |    |      |   |     |              |   |    |     |   |    |    |    |    |     |    |    |     |    |   |   |            |    |    | -   |    |    |    |    |    |   |    |    |     | -          |    |   |    |    |    |   |    |
|   |    |   |   |   |    |    |    |    |            |       |   |   |    |    |    |   |     |    |             |    |      |   |     |              |   |    |     |   |    |    |    |    |     |    |    |     |    |   |   |            |    |    |     |    |    |    |    |    |   |    |    |     |            |    |   |    |    |    |   |    |
|   |    |   |   |   |    |    |    |    |            |       |   |   |    |    |    |   |     |    |             |    |      |   |     |              |   |    |     |   |    |    |    |    |     |    |    |     |    |   |   |            |    |    |     |    |    |    |    |    |   |    |    |     |            |    |   |    |    |    |   |    |
| • | •  | • | • |   | •  |    |    | -  |            |       |   | • |    |    |    |   |     |    | •           |    | -    |   | •   | •            | • | -  |     | Ī | •  | •  |    |    |     |    | •  |     | •  | • | - |            | Ī  |    | -   |    | •  | •  |    | Ī  |   |    |    | •   | -          |    |   |    |    |    |   |    |
|   |    |   |   |   |    |    |    |    |            |       |   |   |    |    |    |   |     |    |             |    |      |   |     |              |   |    |     |   |    |    |    |    |     |    |    |     |    |   |   |            |    |    |     |    |    |    |    |    |   |    |    |     |            |    |   |    | _  | _  | _ | _  |

(b) Suggest **two** reasons why progress towards access to safe water has been slow in some regions. [2+2]

| Reason 1: | <br> | <br> |
|-----------|------|------|
|           | <br> | <br> |
|           | <br> | <br> |
|           | <br> | <br> |
| Reason 2: | <br> | <br> |
|           | <br> | <br> |
|           | <br> | <br> |
|           | <br> | <br> |



# (Question 3 continued)

| (c) | Explain <b>one</b> economic advantage <b>and one</b> environmental advantage of the circular economy. | [2 + 2] |
|-----|---|---------|
| Eco | nomic advantage:  |         |
|     |   |         |
|     |   |         |
|     |   |         |
| Env | ironmental advantage:   |         |
|     |   |         |
|     |   |         |
|     |   |         |



-8-

# Section B

Answer the following question.

| 4. | Refe | r to th | e infographic on pages 4–5 of the accompanying resource booklet.                        |     |
|----|------|---------|---|-----|
|    | The  | infogr  | aphic shows aspects of global e-waste.  |     |
|    | (a)  | (i)     | State the range for e-waste generated (in kg per person) for the countries shown.       | [1] |
|    |      |         |   |     |
|    |      |         |   |     |
|    |      | (ii)    | Identify which raw material is produced in the largest amount when e-waste is recycled. | [1] |
|    |      |         |   |     |
|    | (b)  |         | cribe the relationship between GNI per person and average growth rate of consumption.   | [2] |
|    |      |         |   |     |
|    |      |         |   |     |
|    |      |         |   |     |
|    |      |         |   |     |
|    |      |         |   |     |



# (Question 4 continued)

| (0) | global problem? | [6] |
|-----|-----------------|-----|
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |
|     |                 |     |



# References: UN Habitat, 2016. Slum Alamnac 2015–2016: Tracking Improvement in the Lives of Slum Dwellers. [pdf online] 3. Nairobi: UNON Publishing Service Station. Available at: https://unhabitat.org/sites/default/files/downloadmanagerfiles/Slum%20Almanac%202015-2016\_PSUP.pdf [Accessed 4 June 2020]. Source adapted. All other texts, graphics and illustrations © International Baccalaureate Organization 2022

Please do not write on this page.

Answers written on this page will not be marked.



Please do not write on this page.

Answers written on this page will not be marked.



12FP12