

# OCR

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## AS Level Geography H081/02 Geographical debates Sample Question Paper

### Date – Morning/Afternoon

Time allowed: 1 hour 30 minutes



**You must have:**

- the Resource Booklet
- the OCR 12-page Answer Booklet  
(OCR 12 sent with general stationery)

**You may use:**

- a ruler (cm/mm)
- a piece of string
- a scientific or graphical calculator



### INSTRUCTIONS

- Use black ink. You may use an HB pencil for graphs and diagrams.
- Section A: Choose **one** topic and answer **all** parts of the question in the topic.
- Section B – Synoptic questions: Choose **one** topic and answer **all** parts of the question in the topic. You must use your knowledge and understanding from across the course of study to answer these questions.
- Section C: Choose **one** topic and answer **one** question in the topic.
- Write your answer to each question in the Answer Booklet.
- Additional paper may be used if required but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.
- The separate Resource Booklet will be found inside this document.

### INFORMATION

- The total mark for this paper is **68**.
- The marks for each question are shown in brackets [ ].
- Quality of extended responses will be assessed in questions marked with an asterisk (\*).
- This document consists of **12** pages.

2  
Section A

Choose **one** topic and answer **all** parts of the question in the topic.

**Topic 2.1 Climate Change**

1 (a) Explain how ice cores are used to reconstruct past climate.

[4]

(b) Suggest why **one** EDC's greenhouse gas emissions have changed over time.

[6]

(c) Study **Table 1**, which shows carbon dioxide emissions from fossil fuels by country (2013).

Country	Brazil	China	Chile	India	Iran	Germany	Japan	Russian Federation	South Africa	United Kingdom	USA
Emissions*	482	9977	89	2407	611	759	1246	1812	448	462	5233

\*Carbon dioxide emissions in metric tonnes (MtCO<sub>2</sub>)

**Table 1 Carbon dioxide emissions from fossil fuels by country (2013)**

(i) Using the carbon dioxide emissions data above, calculate the interquartile range. You must show your working.

[4]

(ii) Using evidence from the table above, analyse the contrasts in carbon dioxide emissions from fossil fuels.

[6]

(d) 'Oceans are the best indicator of a warming world.' How far do you agree with this statement?

[12]

**Topic 2.2 Disease Dilemmas**

2 (a) Explain disease diffusion using the Hågerstrand model.

[4]

(b) Suggest why **one** country experiencing air pollution has seen incidences of cancer change over time.

[6]

(c) Study **Table 2**, which shows tuberculosis incidence for 2015 (in thousands).

Country	Bangladesh	Brazil	China	India	Kenya	South Africa	Thailand	Uganda	Tanzania	Vietnam	Zimbabwe
Incidence	360	90	930	2200	110	450	120	61	170	130	42

(WHO dataset 2015)

**Table 2 Tuberculosis incidence for 2015 (in thousands)**

(i) Using the tuberculosis incidence data above, calculate the interquartile range. You must show your working.

[4]

(ii) Using evidence from the table above, analyse the contrasts in tuberculosis incidence.

[6]

(d) 'Affluence is one of the main causes of noncommunicable disease.' How far do you agree with this statement?

[12]

**Topic 2.3 Exploring Oceans**

3 (a) Explain the vertical variations in ocean water salinity.

[4]

(b) Suggest why the management of **one** oil spill can be environmentally challenging.

[6]

(c) Study **Table 3**, which shows weight (lbs) of plastic collected during the 2013 ocean clean up

Country	Argentina	Australia	Bangladesh	Brazil	Canada	Egypt	Germany	India	Japan	Kuwait	Malaysia
Weight of plastic	8,018	242	2,311	70,036	199,557	368	1,344	233,648	65,315	44	8,142

\*Pounds (lbs) of plastic collected

**Table 3 Weight (lbs) of plastic collected during the 2013 ocean clean up**

(i) Using the weight of plastic data above, calculate the interquartile range. You must show your working.

[4]

(ii) Using evidence from the table above, analyse the contrasts in weight of plastic collected.

[6]

(d) 'Oceans present hazardous obstacles to human activities.' How far do you agree with this statement?

[12]

**Topic 2.4 Future of Food**

4 (a) Explain the physical conditions required for growing food.

[4]

(b) Suggest why **one** indigenous group's food security can change over time.

[6]

(c) Study **Table 4**, which shows Global Food Security Index (GFSI) scores for 2015.

Country	Botswana	Brazil	Canada	Chad	China	Ghana	Kenya	Peru	Philippines	Singapore	United Kingdom
<b>GFSI * (2015)</b>	63.1	67.4	84.2	27.9	64.2	46.1	41.2	58.6	49.4	88.2	81.6

*\*(Score 0-100 with 100 as the most favourable)*

**Table 4 Global Food Security Index (GFSI) scores for 2015.**

(i) Using the Global Food Security Index data above, calculate the interquartile range. You must show your working.

[4]

(ii) Using evidence from the table above, analyse the contrasts in the Global Food Security Index.

[6]

(d) 'Physical factors create the greatest risks to food security.' How far do you agree with this statement?

[12]

**Topic 2.5 Hazardous Earth**

- 5 (a) Explain how fossil records can be used as evidence of continental drift and plate tectonics theory.

[4]

- (b) Suggest why people experience varying impacts resulting from **one** volcanic eruption.

[6]

- (c) Study **Table 5**, which shows sulphur dioxide gas emission rates for Kilauea volcano (East Rift Zone), Hawaii.

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Gas emission rate *	1570	1580	1380	1420	1230	2240	2010	1660	2219	1131	504

*\*Daily average gas emission in metric tonne (1000kg)/year, USGS*

**Table 5 Sulphur dioxide gas emission rates for Kilauea volcano (East Rift Zone), Hawaii.**

- (i) Using the sulphur dioxide gas emissions data above, calculate the interquartile range. You must show your working.

[4]

- (ii) Using evidence from the table above, analyse the contrasts in the sulphur dioxide gas emission rates.

[6]

- (d) 'People have to live in tectonically active locations.' How far do you agree with this statement?

[12]

## Section B – Synoptic questions

Choose **one** topic and answer **all** parts of the question in the topic. You must use your knowledge and understanding from across the course of study to answer these questions.

### Topic 2.1 Climate Change

- 6 (a) With reference to **Fig. 1**, suggest how climate change influences geomorphic processes in landscape systems. [8]
- (b) Examine how climate change impacts human use of landscape systems. [8]

### Topic 2.2 Disease Dilemmas

- 7 (a) With reference to **Fig. 2**, suggest how responses to disease are influenced by landscape systems. [8]
- (b) Examine how far the same physical factors influence disease outbreaks and landscape systems. [8]

### Topic 2.3 Exploring Oceans

- 8 (a) With reference to **Fig. 3**, suggest how clean ocean waters influence a sense of place identity. [8]
- (b) Examine how living in an island community affects people's perception of place. [8]

### Topic 2.4 Future of Food

- 9 (a) With reference to **Fig. 4**, suggest how the globalisation of the food industry influences place identity. [8]
- (b) Examine how food security can impact social inequality. [8]

### Topic 2.5 Hazardous Earth

- 10 (a) With reference to **Fig. 5**, suggest how living in tectonically active areas influences place profiles. [8]
- (b) Examine how volcanic eruptions can influence people's emotional attachment to a place. [8]

8  
Section C

Choose **one** topic and answer **one** question in the topic.

**Topic 2.1 Climate Change**

11\* 'There is considerable doubt that the world has warmed steadily since the late nineteenth century.'  
How far do you agree with this statement?

[20]

Or

12\* Examine how **successful** international organisations have been in dealing with climate change.

[20]

**Topic 2.2 Disease Dilemmas**

13\* Examine the view that communicable diseases are dealt with more successfully than noncommunicable diseases.

[20]

Or

14\* Examine the extent to which technology can reduce threats from disease.

[20]

**Topic 2.3 Exploring Oceans**

15\* Examine the extent to which oceanic waters are being altered by human activity.

[20]

Or

16\* Assess the effectiveness of various stakeholders in the management of an oceanic resource.

[20]

**Topic 2.4 Future of Food**

**17\*** Examine the extent to which food security can impact on people's lives.

**[20]**

**Or**

**18\*** 'Globalisation of the food industry creates more opportunities than issues.' How far do you agree with this statement?

**[20]**

**Topic 2.5 Hazardous Earth**

**19\*** 'Environmental impacts of tectonic hazards are more significant than economic impacts.' How far do you agree with this statement?

**[20]**

**Or**

**20\*** 'Managing hazards in Advanced Countries (ACs) is more successful than any other area of the world.' How far do you agree with this statement?

**[20]**

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