Modified Enlarged 18pt

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Wednesday 22 May 2024 – Morning

AS Level Geography

H081/02 Geographical debates

Time allowed: 1 hour 30 minutes
plus your additional time allowance

YOU MUST HAVE:
the OCR 12-page Answer Booklet
the Resource Booklet (with this document)

YOU CAN USE:
a ruler (cm/mm)
a scientific or graphical calculator

READ INSTRUCTIONS OVERLEAF

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INSTRUCTIONS

Use black ink. You can use an HB pencil, but only for graphs and diagrams.

Write your answer to each question in the Answer Booklet. The question numbers must be clearly shown.

Fill in the boxes on the front of the Answer Booklet.

Section A: Choose ONE topic. Answer ALL the parts of the question for the topic.

Section B: Choose ONE topic. Answer ALL the parts of the question for the topic.

Section C: Choose ONE topic. Answer ONE question from the topic.

Use the Resource Booklet to answer the questions in Section B.

INFORMATION

The total mark for this paper is 68.

The marks for each question are shown in brackets [ ].

Quality of extended response will be assessed in questions marked with an asterisk (*).

ADVICE

Try to answer every part of each question you choose.

Read each question carefully before you start your answer.

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SECTION A

Choose ONE topic and answer ALL the parts of the question in your chosen topic.

CLIMATE CHANGE

1

(a) Explain TWO ways in which lake sediments are used to reconstruct past climate. [4]

(b) Examine the role of natural atmospheric greenhouse gases in driving climate change in the geological past. [6]

(c) Study FIG. 1 which shows highest recorded air temperatures in the UK, 2015–2022.

(i) Using the temperature data in FIG. 1, calculate the value of the mean (correct to ONE decimal place) and the range. You must show your working. [4]

(ii) Using evidence from FIG. 1, analyse the variation in air temperatures shown. [6]

(d) 'An effective response to climate change requires policies that extend beyond the vision of international directives.'
Discuss. [12]

FIG. 1 Highest recorded air temperatures in the UK, 2015–2022

Year	Air temperature (°C)
2015	36.7
2016	34.4
2017	34.5
2018	35.3
2019	38.7
2020	37.8
2021	31.1
2022	40.3

DISEASE DILEMMAS

2

(a) Explain how diseases are classified as infectious and non-infectious. [4]

(b) Examine the role of women in combating disease risk. [6]

(c) Study FIG. 2 which shows prevalence of HIV among adults aged 15–49 in sub-Saharan Africa, 2021.

(i) Using the HIV data in FIG. 2, calculate the value of the mean (correct to ONE decimal place) and the range. You must show your working. [4]

(ii) Using evidence from FIG. 2, analyse the variation in prevalence of HIV shown. [6]

(d) 'The use of plants for medicine is not sustainable.' With reference to a CASE STUDY of ONE medicinal plant, to what extent do you agree? [12]

FIG. 2 Prevalence of HIV among adults aged 15–49 in sub-Saharan Africa, 2021

Country	Prevalence of HIV (%)
Eswatini	27.9
Mali	0.8
South Sudan	2.1
Central African Republic	2.7
Lesotho	20.9
Sierra Leone	1.4
South Africa	18.3
Zimbabwe	11.6

3

(a) Explain TWO causes of the accumulation of plastic in oceans. [4]

(b) Examine factors that influence biodiversity in inter-tidal ecosystems. [6]

(c) Study FIG. 3 which shows number of pirate attacks against ships worldwide, 2014–2021.

(i) Using the pirate attacks data in FIG. 3, calculate the value of the mean (correct to ONE decimal place) and the range. You must show your working. [4]

(ii) Using evidence from FIG. 3, analyse the variation in number of pirate attacks shown. [6]

(d) 'The greatest impact of oil spills is on human activity.' With reference to a case study of one oil spill, to what extent do you agree? [12]

FIG. 3 Number of pirate attacks against ships worldwide, 2014–2021

Year	Pirate attacks
2014	245
2015	246
2016	191
2017	180
2018	201
2019	162
2020	195
2021	132

FUTURE OF FOOD

4

(a) Explain TWO ways that deforestation can impact the physical environment in attempts to increase food production. [4]

(b) Examine how globalisation of the food industry creates inequality between transnational corporations (TNCs) and small suppliers. [6]

(c) Study FIG. 4 which shows percentage food security in the total population of selected countries, 2021.

(i) Using the food security data in FIG. 4, calculate the value of the mean (correct to ONE decimal place) and the range. You must show your working. [4]

(ii) Using evidence from FIG. 4, analyse the variation in food security shown. [6]

(d) 'Food production methods used by indigenous people in an extreme environment are influenced more by ecosystems than any other physical condition.'
To what extent do you agree? [12]

FIG. 4 Percentage food security in the total population of selected countries, 2021

Country	Food security (% of total population)
Algeria	81.0
South Sudan	13.6
Japan	96.2
Laos	68.2
Haiti	17.5
Honduras	50.1
Brazil	71.1
UK	96.5

HAZARDOUS EARTH

5

(a) Explain TWO characteristics of shallow-focus earthquakes. [4]

(b) Examine how the theories of continental drift and plate tectonics are supported by evidence for sea-floor spreading. [6]

(c) Study FIG. 5 which shows economic costs of earthquakes, estimated in 2021.

(i) Using the economic costs data in FIG. 5, calculate the value of the mean (correct to ONE decimal place) and the range. You must show your working. [4]

(ii) Using evidence from FIG. 5, analyse the variation in economic costs of earthquakes shown. [6]

(d) 'The impacts people experience as a result of volcanic eruptions are almost entirely negative.' Discuss. [12]

FIG. 5 Economic costs of earthquakes, estimated in 2021

Earthquake (year of event)	Economic costs ($bn)
Northridge, California, USA (1994)	90
Kobe, Japan (1995)	350
Chuetsu, Japan (2004)	40
Sichuan, China (2008)	186
L'Aquila, Italy (2009)	20
Christchurch, NZ (2011)	48
Nepal (2015)	11
Iran/Iraq (2017)	7

SECTION B

Choose ONE topic and answer ALL the parts of the question in your chosen topic.

You must use your knowledge and understanding from across the course of study to answer these questions.

CLIMATE CHANGE

6

(a) With reference to FIG. 6, suggest how the role of the media in shaping the public image of climate change can influence representations of a place. [8]

(b) Examine how the vulnerability of people to the impacts of climate change can influence flows of money and investment. [8]

DISEASE DILEMMAS

7

(a) With reference to FIG. 7, suggest how vectors of disease influenced by physical factors might affect demographic characteristics of places at a local scale. [8]

(b) Examine how national solutions for dealing with incidence of cancers linked to air pollution might be influenced by government spending in key services. [8]

EXPLORING OCEANS

8

(a) With reference to FIG. 8, suggest how the global distribution of warm and cold surface currents can influence human activity in ONE type of landscape system you have studied. [8]

(b) Examine how sea level change due to climate change might influence flows of people. [8]

FUTURE OF FOOD

9

(a) With reference to FIG. 9, suggest how opportunities BETWEEN countries to ensure food security through appropriate aid are influenced by social inequality. [8]

(b) Examine how different food production methods might influence place identity. [8]

HAZARDOUS EARTH

10

(a) With reference to FIG. 10, suggest how lava flows generated by volcanic eruptions influence socio-economic characteristics of places at a local scale. [8]

(b) Examine how the features and processes associated with conservative plate boundaries might influence people's perceptions of place. [8]

SECTION C

Choose ONE topic and answer ONE question in your chosen topic.

CLIMATE CHANGE

11* 'Mitigation of risks of climate change can be effective only if political challenges are overcome.'
To what extent do you agree? [20]

OR

12* Evaluate the contribution of advanced countries (ACs) to anthropogenic greenhouse gas emissions over time. [20]

DISEASE DILEMMAS

13* 'Disease outbreaks influenced by natural hazards have only short-term impacts on resident populations.'
With reference to a CASE STUDY of ONE country, to what extent do you agree? [20]

OR

14* 'The main causes of non-communicable diseases are cultural.'
Discuss. [20]

EXPLORING OCEANS

15* 'Sustainable use of biological resources within oceans depends on the attitudes of stakeholders.' With reference to a CASE STUDY, to what extent do you agree? [20]

OR

16* 'The changing geography of the Arctic region can be managed effectively only through international organisations.' Discuss. [20]

FUTURE OF FOOD

17* 'Food security issues are caused mainly by human factors.' With reference to a CASE STUDY of ONE place, to what extent do you agree? [20]

OR

18* 'The impact of poor food security on the lives of people depends on a place's level of economic development.' Discuss. [20]

HAZARDOUS EARTH

19* 'The risks from tectonic hazards have increased over time.'
Discuss. [20]

OR

20* 'The effectiveness of strategies used to cope with volcanic activity depends on a country's level of economic development.'
To what extent do you agree? [20]

END OF QUESTION PAPER

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