

# **Cambridge O Level**

## GEOGRAPHY

Paper 1 Geographical Themes

2230/01

October/November 2022

2 hours

You must answer on the enclosed answer booklet.

Ν	
4	
U	
ω	
N	
00	
U	
n	
0	
ω	
-	

You will need: Answer booklet (enclosed) Ruler Insert (enclosed) Calculator

## INSTRUCTIONS

- Answer **three** questions in total, **each** from a different theme.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

#### INFORMATION

- The total mark for this paper is 75.
- The number of marks for each question or part question is shown in brackets [].
- The insert contains additional resources referred to in the questions.

#### 2

#### Theme 1: Population and settlement

Answer **one** question from this theme.

### EITHER

- **1** (a) (i) Define the site of a settlement and the situation of a settlement.
  - (ii) Study Fig. 1.1, which shows factors which are taken into consideration when building settlements.

[2]

[2]

relief	links to other settlements
water supply	soil
communications	rivers

#### Fig. 1.1

From Fig. 1.1, identify the **two** economic factors.

- (iii) Explain the advantages and disadvantages of building close to a river when developing early settlements. [4]
- (b) Study Fig. 1.2 (Insert), a photograph which shows the city of Rio de Janeiro, Brazil, an MIC (middle income country).

Compare the housing in Zone A and Zone B and explain how it shows differences in wealth in the city. [6]

(c) (i) Study Fig. 1.3, which shows the percentage of population in urban areas, by continent, in 1950, 2007 and projected for 2030.

Percentage of population in urban areas, by continent, 1950, 2007 and 2030 (projected)

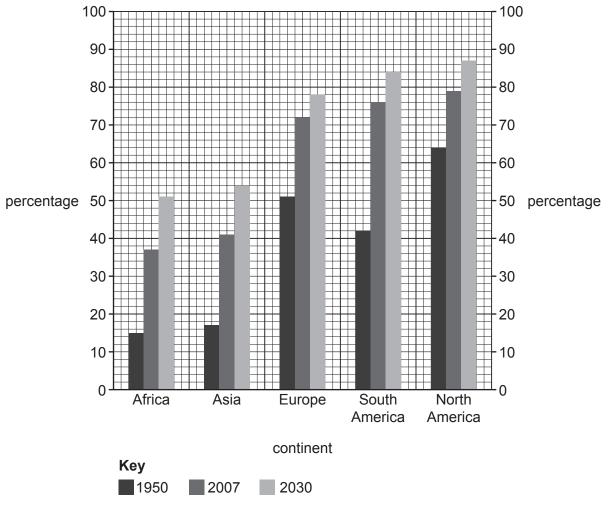


Fig. 1.3

Name the continent which is expected to have the greatest increase in the percentage of population in urban areas between 1950 and 2030. [1]

- (ii) State the percentage increase for the continent you named in (i). [1]
- (d) (i) Define the term *counter-urbanisation*.
  - (ii) With reference to examples, describe the reasons for counter-urbanisation and evaluate its effects.

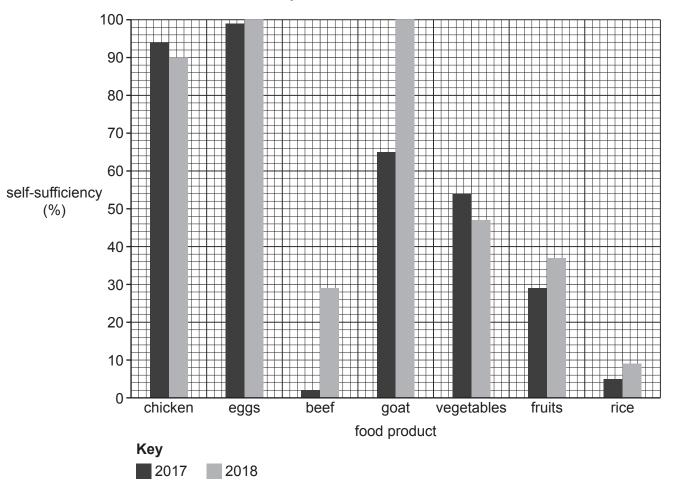
[Total: 25]

[2]

2 (a) (i) Define the term *agriculture*.

(ii) Study Fig. 2.1, which shows food production in Brunei in 2017 and 2018.

4



Food production in Brunei, 2017 and 2018

Fig. 2.1

Name the food product with the largest increase in percentage in self-sufficiency from 2017 to 2018. [1]

- (iii) Calculate the number of food products in which Brunei was more than 50% self-sufficient in 2017, as shown in Fig. 2.1. [1]
- (iv) Describe strategies used to increase agricultural production in Brunei. [5]

OR

(b) (i) Study Fig. 2.2 (Insert), which shows rice production in mainland China.

Describe the distribution of provinces with rice production of 25–999 tonnes (10000) shown in Fig. 2.2. [3]

- (ii) Define subsistence rice farming and commercial rice farming. [2]
- (iii) Explain why rice farming is so important to people living in Southeast Asia. [4]
- (c) With reference to one rice farming area in Southeast Asia, describe how rice production methods have changed over time. How effective are management strategies used to increase rice production?

[Total: 25]

#### Theme 2: The natural environment

Answer **one** question from this theme.

#### EITHER

**3** (a) (i) Study Fig. 3.1 (Insert), a satellite image of Typhoon Haiyan in 2013.

Name the part of the typhoon indicated by the arrow and describe the weather conditions in this part of the typhoon. [4]

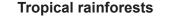
(ii) Study Fig. 3.2 (Insert), which shows the effects of Typhoon Haiyan.

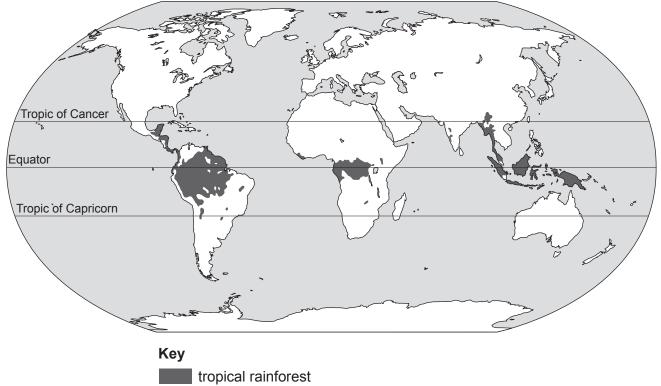
Using the information on Fig 3.2, explain why Typhoon Haiyan has been described as one of the worst typhoons ever to hit The Philippines. [2]

(iii) Suggest management strategies that could be used to reduce the impact of a typhoon.

[5]

(b) (i) Study Fig. 3.3, which shows the distribution of tropical rainforests.





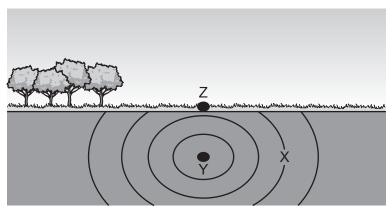
## Fig. 3.3

Describe the distribution of tropical rainforests shown in Fig. 3.3. [3]

- (ii) Explain how tropical rainforest plants have adapted to the rainforest environment. [4]
- (c) With reference to an area of tropical rainforest, describe the threats to the rainforest. How effective are management strategies used to conserve this area of rainforest? [7]

#### OR

- 4 (a) Draw a labelled diagram to help explain how earthquakes are caused along a transform/ conservative plate boundary. [4]
  - (b) (i) Study Fig. 4.1, which shows the location of an earthquake.



# Location of an earthquake



Which letter (X, Y or Z) represents the focus of the earthquake? [1]

- (ii) Which letter (X, Y or Z) represents the epicentre of the earthquake? [1]
- (iii) Describe the difference between the Richter scale and the Mercalli scale when measuring earthquakes. [2]
- (c) (i) Study Fig. 4.2 (Insert), which shows damage from an earthquake in Chile, 2010.

Identify **two** priorities for the emergency services shown in Fig. 4.2. [2]

- (ii) Suggest reasons to explain why some buildings withstand an earthquake, as shown in the background of Fig. 4.2. [4]
- (d) (i) Describe the different types of material released by volcanic eruptions. [4]
  - (ii) 'The benefits of living near to volcanoes outweigh the threats that a volcanic eruption can bring.' With reference to examples, to what extent do you agree with this statement?

[7]

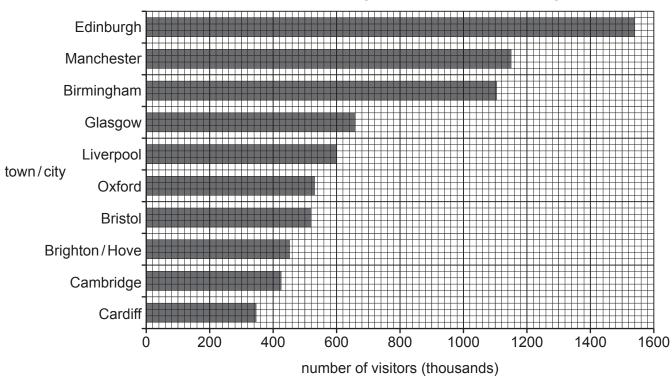
[Total: 25]

#### Theme 3: Economic development

Answer **one** question from this theme.

#### EITHER

**5** (a) (i) Study Fig. 5.1, which shows the number of tourists visiting cities in the UK for one night in 2015.



Number of tourists visiting cities in the UK for one night, 2015

Fig. 5.1

State the number of tourists that visited Cambridge, as shown in Fig. 5.1. [1]

- (ii) Study Fig. 5.2 (Insert), which shows a tourist site in Cambridge, UK.
  - Using Fig. 5.2, suggest reasons why tourists visit Cambridge. [4]
- (iii) Suggest the problems that tourists may bring to the urban area shown in Fig. 5.2. [4]
- (iv) Describe how government can reduce the problems created by tourism in urban areas. [4]

(b) (i) Define the term sustainable tourism.

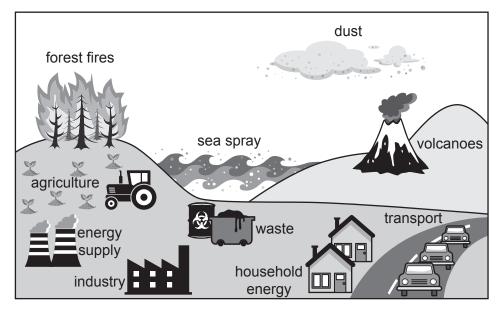
Identify the features shown in Fig. 5.3 that suggest sustainable tourism is taking place in the area. [3]

(iii) 'Sustainable tourism can only occur when low tourist numbers are involved.' With reference to examples, to what extent do you agree with this statement? [7]

[Total: 25]

[2]

6 (a) (i) Study Fig. 6.1, which shows causes of air pollution.



# Causes of air pollution

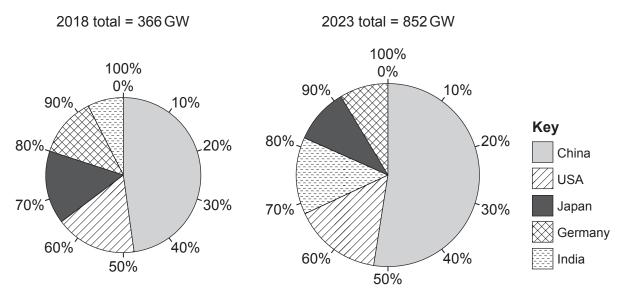


From Fig. 6.1, identify **two** natural causes of air pollution. [2]

- (ii) Describe how transport can cause air pollution. [2]
- (iii) Explain how the following strategies can be used to reduce the impact of industry on the environment:
  - A legislation
  - B green taxes
  - **C** pollution permits.

[6]

(b) (i) Study Fig. 6.2, which shows the top 5 producers of solar energy in 2018 and projected for 2023.



Top 5 producers of solar energy in 2018 and 2023 (projected)

Fig. 6.2

Compare how the rank order of the countries shown in Fig. 6.2 changes between 2018 and 2023. [3]

- (ii) Describe the advantages and disadvantages of using solar energy. [5]
- (c) Explain the factors influencing the location of the Seria oil refinery in Brunei. Evaluate how important this refinery has been to the economy and people of Brunei. [7]

[Total: 25]

#### **BLANK PAGE**

The boundaries and names shown, the designations used and the presentation of material on any maps contained in this question paper/insert do not imply official endorsement or acceptance by Cambridge Assessment International Education concerning the legal status of any country, territory, or area or any of its authorities, or of the delimitation of its frontiers or boundaries.

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.