Cambridge O Level

GEOGRAPHY **2230/01**

Paper 1 Geographical Themes **May/June 2024**

2 hours

You must answer on the enclosed answer booklet.

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.

[Turn over

Theme 1: Population and settlement

Answer **one** question from this theme.

EITHER

1 (a) Study Fig. 1.1, which shows the world population in 1900, 1960 and 2020.

World population in 1900, 1960 and 2020

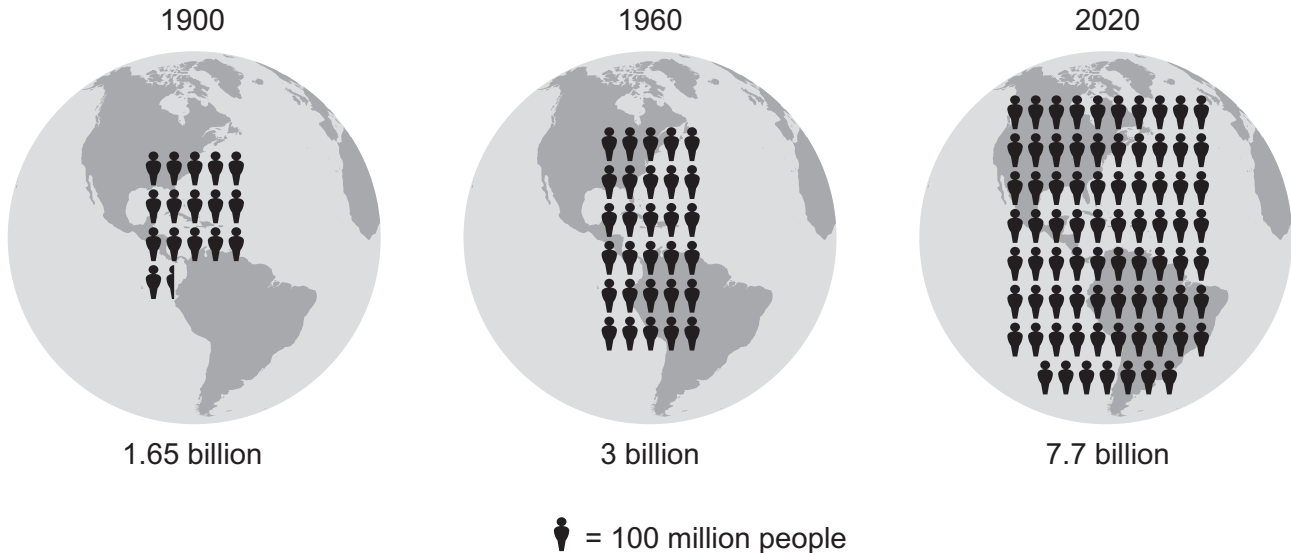| 1900	1960	2020
1.65 billion	3 billion	7.7 billion

♀ = 100 million people

Fig. 1.1

(i) Describe how the world population has changed between 1900, 1960 and 2020. [3]

(ii) Suggest **two** reasons to explain the change in the world population shown in Fig. 1.1. [2]

(b) (i) Define the term 'population density'. [1]

(ii) Study Fig. 1.2 (Insert), a photograph which shows an area of low population density.

Describe and explain **two** characteristics of the area shown in Fig. 1.2 which caused the low population density. [4]

(iii) Explain the consequences of overpopulation for both people **and** the environment. [5]

(c) (i) State **three** urban land use zones that can be found in both LICs/MICs (low income countries/middle income countries) and HICs (high income countries). [3]

(ii) With reference to an urban area that you have studied, describe how the land use has changed. Evaluate the impact of the land use changes on the urban area. Give examples to support your answer. [7]

[Total: 25]

OR

2 **(a)** **(i)** Describe the location of inland fishing areas **and** marine fishing areas in Brunei. [2]

(ii) Explain how the following **physical** factors affect the development of the fishing industry in Brunei:

A climate of Brunei

B length and shape of Brunei's coastline. [4]

(iii) Describe the challenges facing the fishing industry in Brunei. [3]

(b) Study Fig. 2.1, which shows 10 countries and the percentage of population aged 65 and over in 2020.

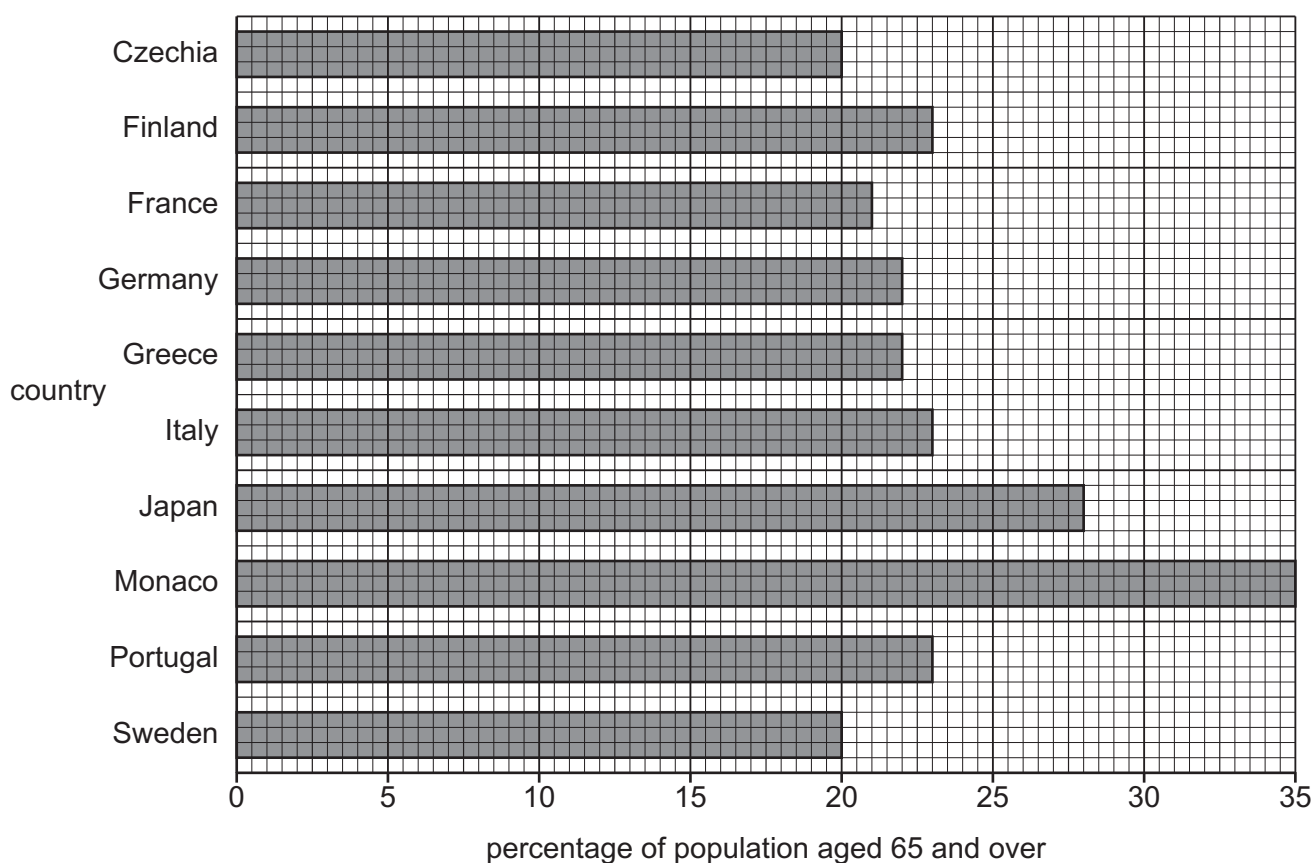**10 countries and the percentage of population aged 65 and over, 2020**

Fig. 2.1

(i) Identify the country which had the highest percentage of population aged 65 and over. [1]

(ii) State the difference in the percentage of population aged 65 and over between Japan and France. [1]

(iii) Suggest reasons why the percentage of population aged 65 and over is higher in some countries. [3]

(c) (i) Study Fig. 2.2, which shows the urban and rural population for the world, 1900–2050 (projected).
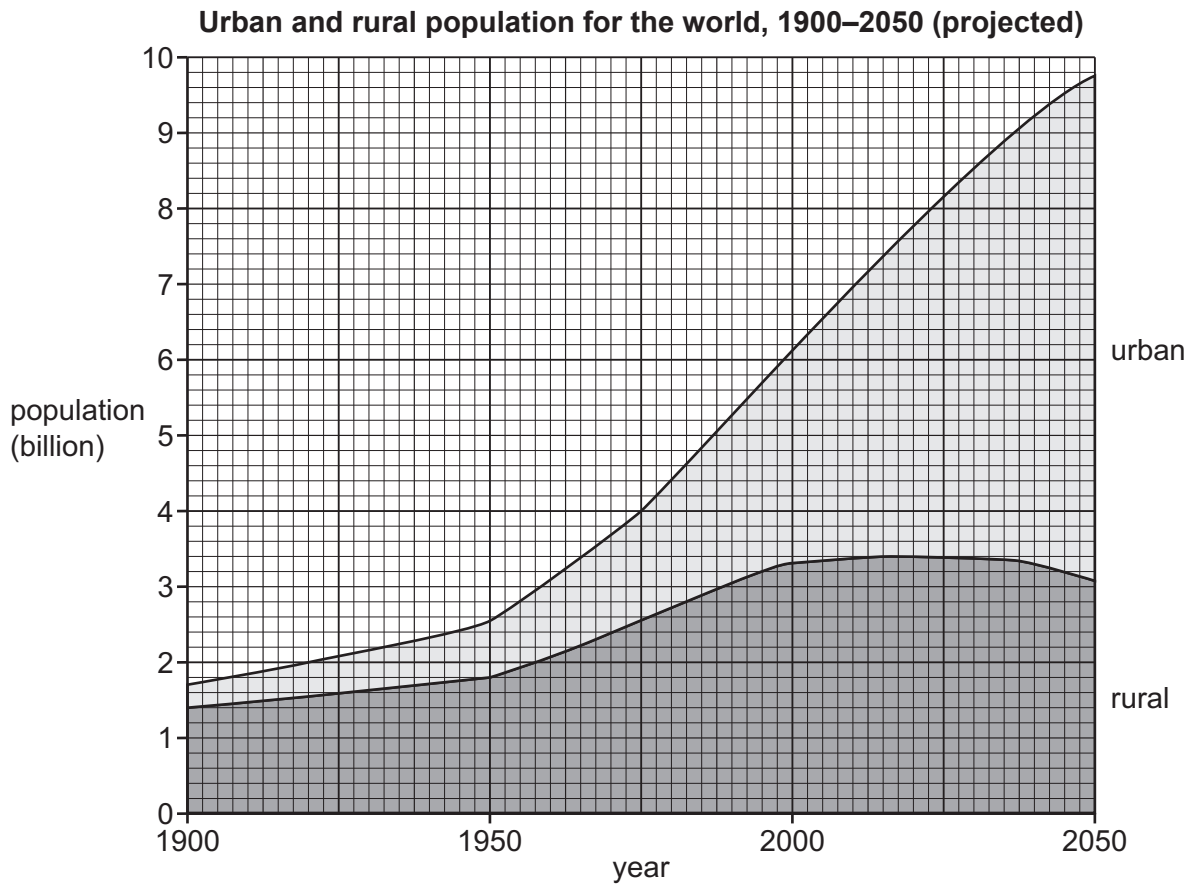
Urban and rural population for the world, 1900–2050 (projected)

Fig. 2.2

Describe how the **urban** population changes between 1900 and 2050. [3]

(ii) State **one** reason why urbanisation may take place in a country. [1]

(iii) Describe how traffic management **and** housing policy are used as strategies to overcome problems in urban areas. Evaluate the effectiveness of these strategies. Give examples to support your answer. [7]

[Total: 25]

Theme 2: The natural environment

Answer **one** question from this theme.

EITHER

3 **(a)** Study Fig. 3.1 (Insert), a photograph which shows river landforms.

    (i) Identify the river landforms labelled **A** and **B**. [2]

    (ii) Using a diagram(s), explain how landform **B** has formed. [5]

  (b) **(i)** Name **and** explain **two** processes of river transportation. [4]

    (ii) Study Table 3.1, which shows different material transported by a river and the average size of this material.

Table 3.1

material transported by a river when travelling from source to mouth	average sediment size in the river (mm)
clay	0.002
sand	2.0
pebbles	50.0
boulders	290.0

Using Table 3.1, identify **one** material transported by a river which is very unlikely to be found in the lower course of a river. Give reasons for your answer. [3]

 [Turn over

(c) (i) What is a typhoon? [1]

(ii) Study Fig. 3.2, which shows a list of physical factors.

Physical factors

Latitudes 30–40 degrees north and south of the Equator

Low pressure areas

Low humidity

High pressure areas

Latitudes 6–20 degrees north and south of the Equator

High humidity

Fig. 3.2

Identify the **three** physical factors from Fig. 3.2 which cause typhoons. [3]

(iii) With reference to **one** named major typhoon event, describe the impacts of the typhoon on the environment. Evaluate the effectiveness of the management strategies used to reduce damage from the typhoon. Give examples to support your answer. [7]

[Total: 25]

OR

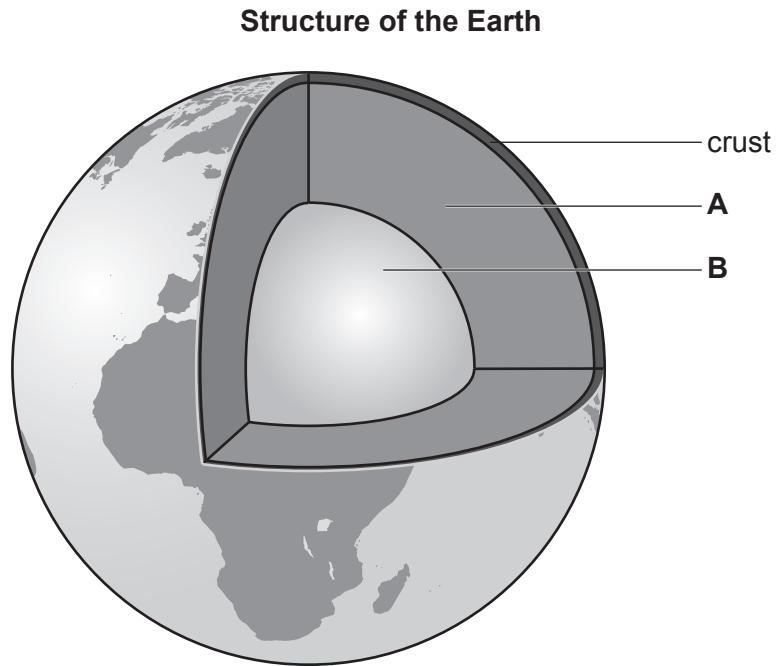**4** **(a)** Study Fig. 4.1, which shows the structure of the Earth.

Structure of the Earth

Fig. 4.1

    (i) Identify the parts labelled **A** and **B** on the diagram. [2]

    (ii) Name the **two** types of crust. [2]

  (b) **(i)** Use a labelled diagram to show why volcanoes occur at divergent/constructive plate boundaries. [4]

    (ii) Explain how fold mountains are formed. [3]

(c) (i) Study Table 4.1, which shows data from 10 major earthquakes between 1994 and 2011.

Table 4.1

country	name	year	magnitude	deaths	loss (US$bn)
USA	Northridge	1994	6.7	61	44.0
Iran	Bam	2003	6.6	26 271	1.5
Thailand	Indian Ocean	2004	9.2	276 025	14.0
Pakistan	Kashmir	2005	7.6	100 000	2.3
China	Wenchuan	2008	8.0	90 000	75.0
Italy	L'Aquila	2009	5.8	309	16.0
Chile	Maule	2010	8.8	550	30.0
New Zealand	Christchurch	2011	6.3	185	16.0
Japan	Tohoku	2011	9.0	18 500	235.0
Turkey	Van	2011	7.1	605	1.0

Using Table 4.1:

A which country had the strongest earthquake?

B which country had the greatest loss in US$ billions?

C how many deaths occurred in 2011 from the major earthquakes? [3]

(ii) Explain how depth of focus **and** type of soil can affect how much damage earthquakes can cause. [4]

(d) With reference to **one** major earthquake, describe the causes of the earthquake. Evaluate the effectiveness of the management strategies used to reduce the damage from the earthquake. Give examples to support your answer. [7]

[Total: 25]

TURN OVER FOR THEME 3

Theme 3: Economic development

Answer **one** question from this theme.

EITHER

5 **(a)** **(i)** Study Fig. 5.1 (Insert), two photographs which show different types of employment.

Name the sectors of industry shown in photograph **A** and photograph **B**. [2]

(ii) State how the number of people employed in photograph **B** will change as the country moves from an LIC/MIC (low income country/middle income country) to an HIC (high income country). [1]

(iii) Describe **and** suggest reasons for the employment structure in Brunei. [4]

(b) **(i)** Study Fig. 5.2, which shows CO_2 emissions in 2010 and 2020 in 10 countries.

CO_2 emissions in 2010 and 2020 in 10 countries
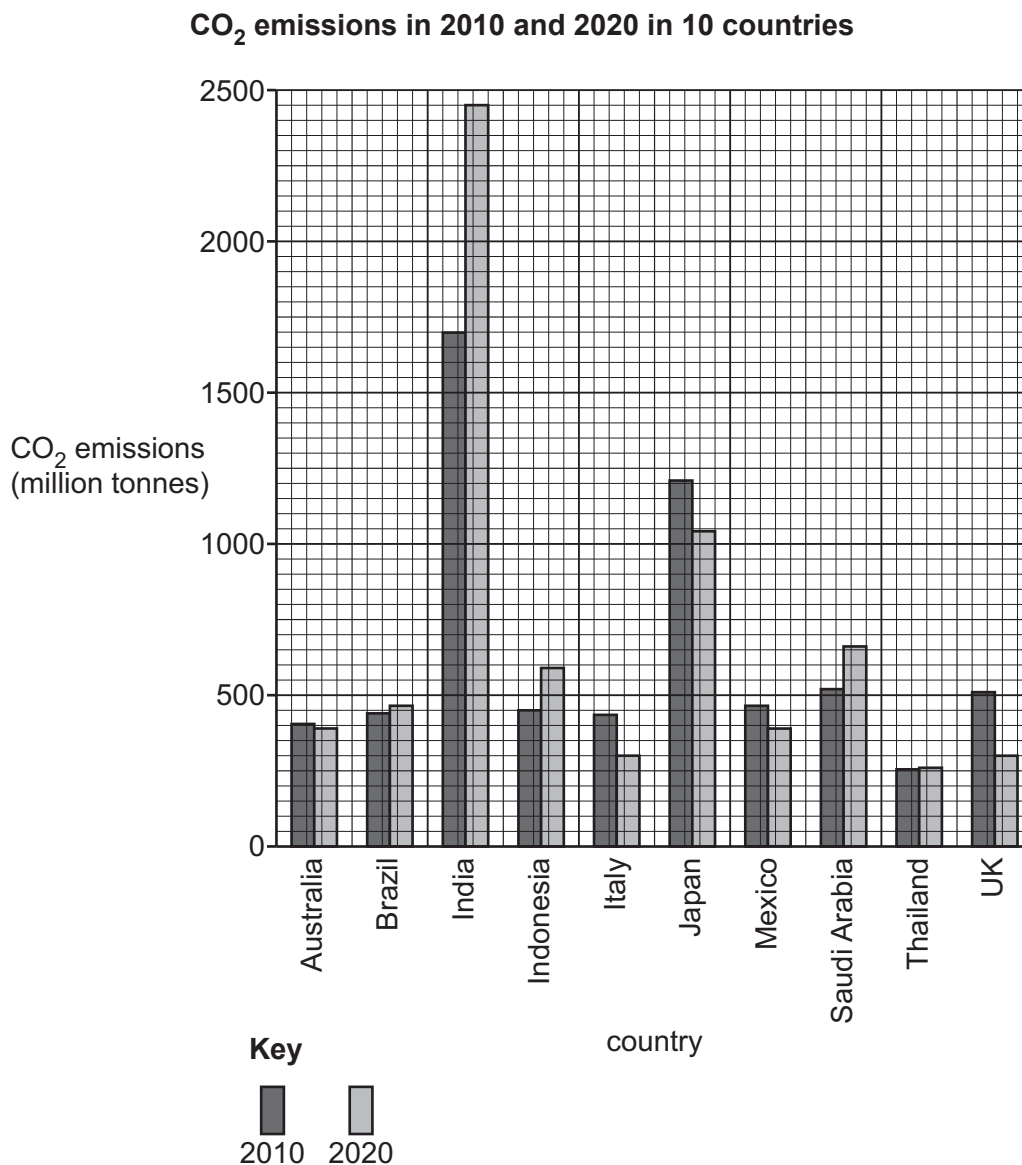
Fig. 5.2

Using Fig. 5.2:

A name the country which had the largest decrease in CO_2 emissions between 2010 and 2020

B name the country which produced the lowest CO_2 emissions in 2020

C state the change in India's CO_2 emissions between 2010 and 2020. [3]

(ii) Explain how industry can cause water pollution **and** noise pollution. [4]

(c) (i) Explain how the following factors have affected the development of secondary industry in Brunei:

A designated industrial sites for foreign direct investment (FDI)

B Free Trade Agreements. [4]

(ii) With reference to **one** industrial zone or factory in Brunei, describe the location and nature of the industry. Evaluate the location chosen for the industrial zone or factory. Give examples to support your answer. [7]

[Total: 25]

OR

6 **(a)** **(i)** Study Fig. 6.1 (Insert), which shows electricity production from solar energy in 2021.

Describe the distribution of countries which have 4.0% and above of electricity produced from solar energy. [3]

(ii) Suggest reasons for the differences in the amount of electricity that can be produced from solar energy. [4]

(b) **(i)** Define the term 'fossil fuels'. [1]

(ii) Explain the consequences of the use of fossil fuels on:

A health

B visibility. [4]

(c) **(i)** Name the **two** main gases which cause acid rain. [2]

(ii) Study Fig. 6.2 (Insert), which shows how acid rain affects the natural environment.

With the help of Fig. 6.2, explain how the natural environment is affected by acid rain. [4]

(d) Describe **three** strategies that can be used to reduce a carbon footprint. Evaluate how effective these strategies are. Give examples to support your answer. [7]

[Total: 25]