Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

9443968335

GEOGRAPHY **0460/13**

Paper 1 Geographical Themes **October/November 2021**

1 hour 45 minutes

You must answer on the question paper.

You will need: Insert (enclosed) Ruler
Calculator
Protractor

INSTRUCTIONS

- Answer **three** questions in total, **one** from each section.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- If additional space is needed, you should use the lined pages at the end of this booklet; the question number or numbers must be clearly shown.

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.

Definitions
MEDCs – More Economically Developed Countries
LEDCs – Less Economically Developed Countries

This document has **28** pages.

© UCLES 2021

Section A

Answer **one** question from this section.

1 **(a)** Study Fig. 1.1, which shows information about population density in Europe in 2018.

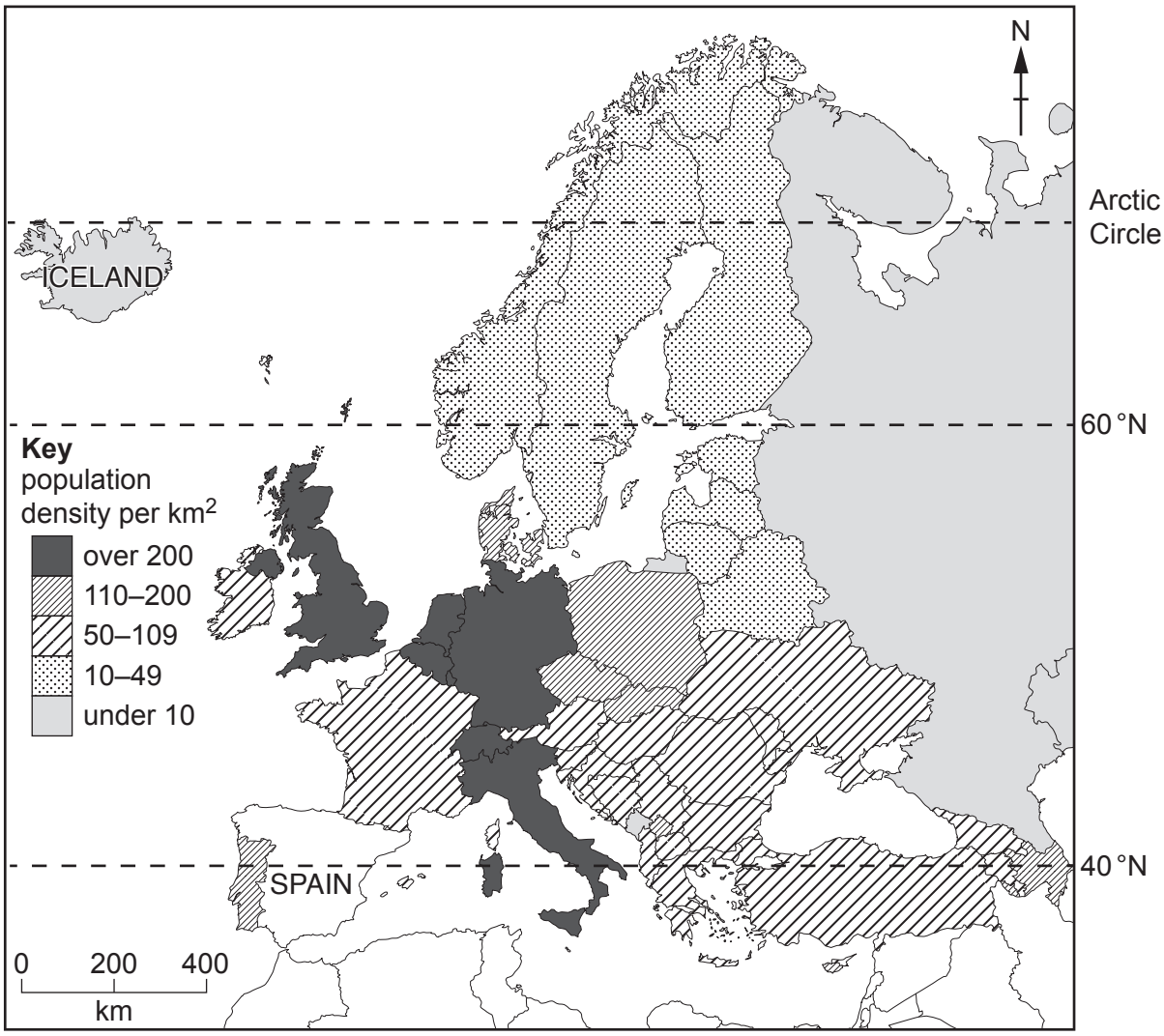


Fig. 1.1

(i) **Complete Fig. 1.1** by plotting the following information:

The population density of Spain is 91 people per km^2. [1]

(ii) The continent of Europe had a population of 743 million in 2018. The land area is 10.18 million km^2.

Calculate the population density of Europe.
You should show your calculations in the box below and give your answer to the nearest whole number.

..... per km^2

[2]

(iii) Describe the distribution of the areas in Europe with over 200 people per km^2.

.....

.....

.....

.....

.....

..... [3]

(iv) Suggest how **two** different physical factors have resulted in Iceland being sparsely populated.

1 .....

.....

.....

.....

2 .....

.....

.....

..... [4]

(b) Study Fig. 1.2 (Insert), which is a photograph taken in Amman, the capital city of Jordan.

(i) Give **three** pieces of evidence from Fig. 1.2 which suggest that Amman is densely populated.

1 .....

.....

2 .....

.....

3 .....

..... [3]

(ii) Describe the problems experienced by people living in densely populated cities, such as Amman.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

(c) For a named country you have studied, explain the causes of overpopulation.

Name of country .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [7]

[Total: 25]

2 **(a)** Study Fig. 2.1, which is a map showing the Lower Don Valley in Sheffield, a city in the UK.

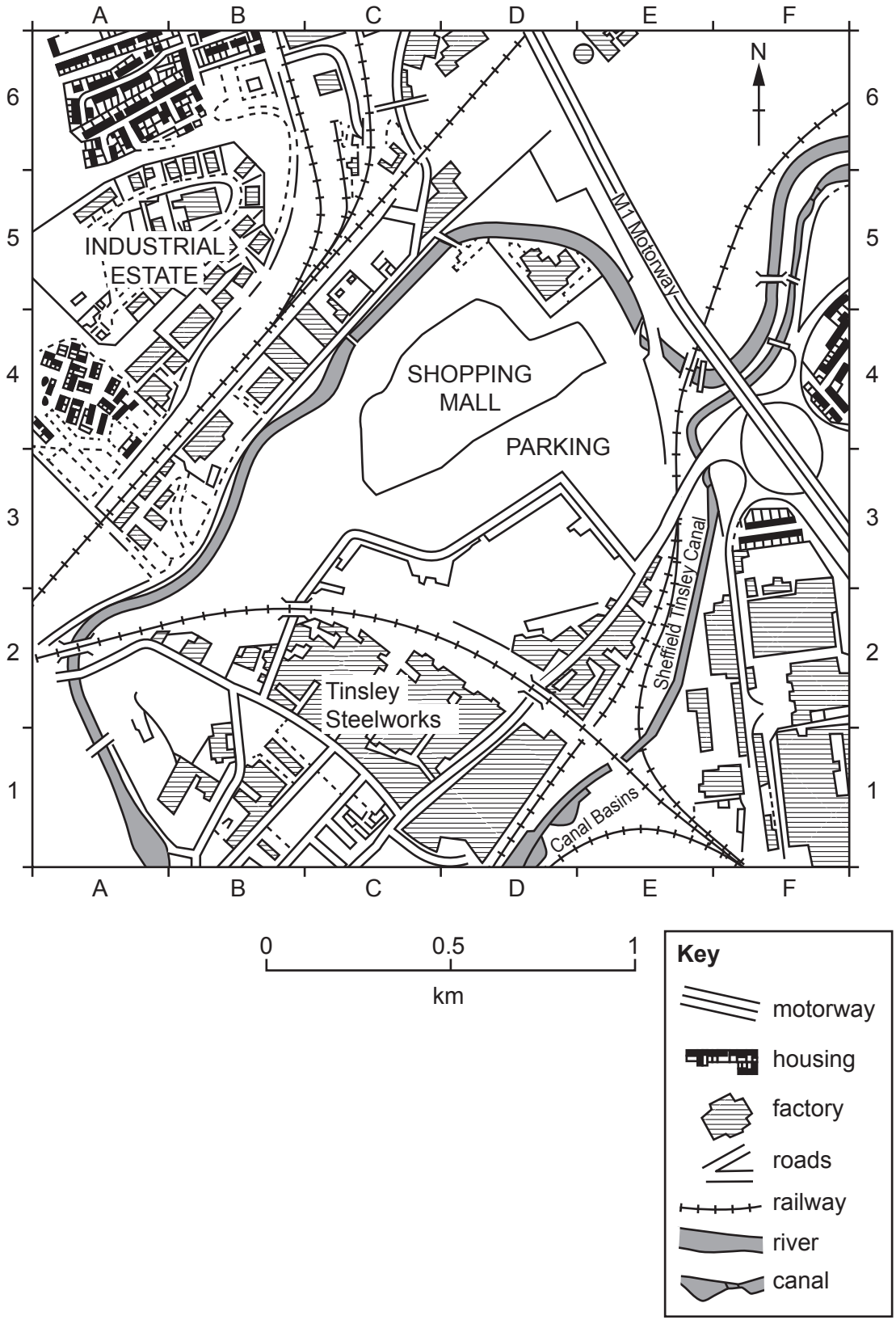


Fig. 2.1

(i) Which urban zone is shown in Fig. 2.1?
Tick (✓) your answer in the table below.

	tick (✓)
Central Business District (CBD)	
high cost housing area	
inner city area with mixed land use	
outer suburban residential area	

[1]

(ii) Identify the main land use in the following grid squares:

A6 .....

F2. ..... [2]

(iii) Using evidence from Fig. 2.1 **only**, state **three** different forms of transport which may have attracted manufacturing industry to the area shown.

1 .....

2 .....

3 ..... [3]

(iv) The shopping mall in grid square D4 in Fig. 2.1 was recently built on the site of a disused factory.
Suggest reasons why some people were in favour of the building of this shopping mall whilst other people were against it.

.....

.....

.....

.....

.....

.....

.....

..... [4]

(b) Study Fig. 2.2 (Insert), which is a photograph taken in the Central Business District (CBD) of Shanghai, a city in China.

(i) Using Fig. 2.2 **only**, describe **three** characteristics of the CBD of Shanghai.

1 .....

.....

2 .....

.....

3 .....

..... [3]

(ii) Give reasons why parts of the CBD of many cities are being redeveloped.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

(c) For a named urban area you have studied, describe the types of pollution which occur and explain their causes.

Name of urban area ....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

.... [7]

[Total: 25]

Section B

Answer **one** question from this section.

3 **(a)** Study Figs. 3.1 and 3.2, which are diagrams of different types of volcano.

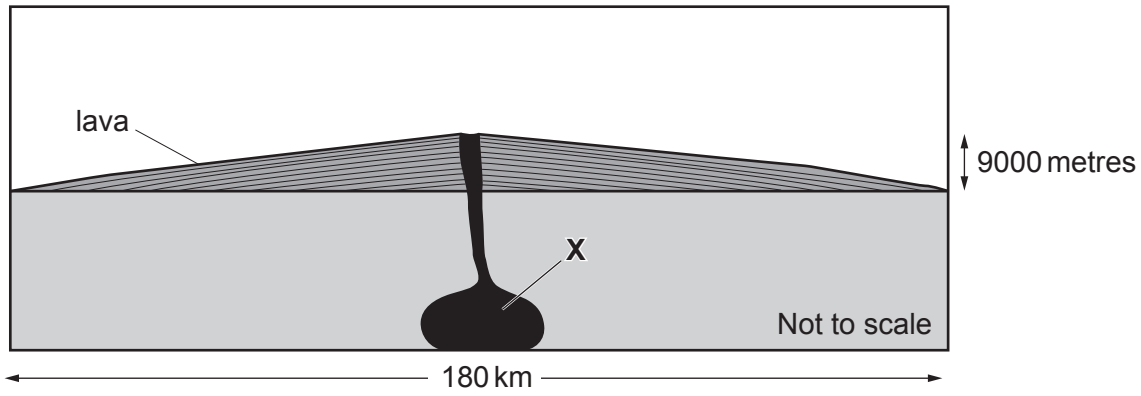


Fig. 3.1

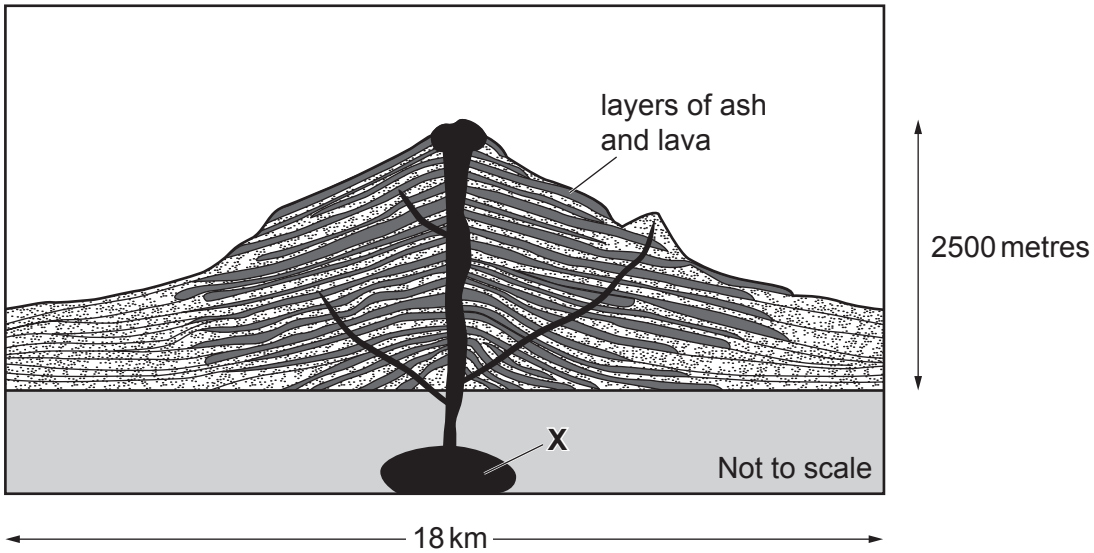


Fig. 3.2

(i) What feature is shown by **X** in Figs. 3.1 and 3.2?

..... [1]

(ii) Which types of volcano are shown in Figs. 3.1 and 3.2?

Fig. 3.1 .....

Fig. 3.2 ..... [2]

© UCLES 2021

(iii) Using Figs. 3.1 and 3.2 **only**, describe **three** differences between the volcanoes shown.

1 .....

.....

2 .....

.....

3 .....

..... [3]

(iv) Describe the benefits of living close to a volcano.

.....

.....

.....

.....

.....

.....

.....

..... [4]

(b) Study Fig. 3.3, which is information about earthquakes which occurred in Indonesia in 2018.

> More than 400 people died after a tsunami struck Java and southern Sumatra during the evening of 22 December. World Vision, an international aid agency, assisted families in some of the worst-affected areas on the west coast of Java.
>
> A few months earlier, a magnitude 7.5 earthquake struck Indonesia's Central Sulawesi province triggering a tsunami and landslides that caused widespread destruction and loss of life. More than 2000 people died and 4400 were seriously injured. With about 68 000 houses damaged or destroyed, hundreds of thousands of people were made homeless and without any income. Many communities were isolated due to damage to roads.
>
> The Central Sulawesi earthquake occurred less than two months after a series of earthquakes struck Indonesia's Lombok island. The strongest of those earthquakes had a magnitude of 6.9. More than 500 people were killed and nearly 1500 were injured.
>
> The people affected by Indonesia's 2018 earthquakes and tsunamis will need help for years as they rebuild their lives.

Fig. 3.3

(i) Suggest **three** different types of help which would have been needed from international agencies, such as World Vision, after the earthquakes and tsunamis in Indonesia in 2018.

1 .....

.....

2 .....

.....

3 .....

..... [3]

(ii) Suggest what could be done to reduce the impacts of future earthquakes on people in Indonesia.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

(c) Explain the causes of an eruption of a named **volcano** you have studied.

Name of volcano .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [7]

[Total: 25]

4 **(a)** Study Fig. 4.1, which shows four instruments which are used for weather recording.

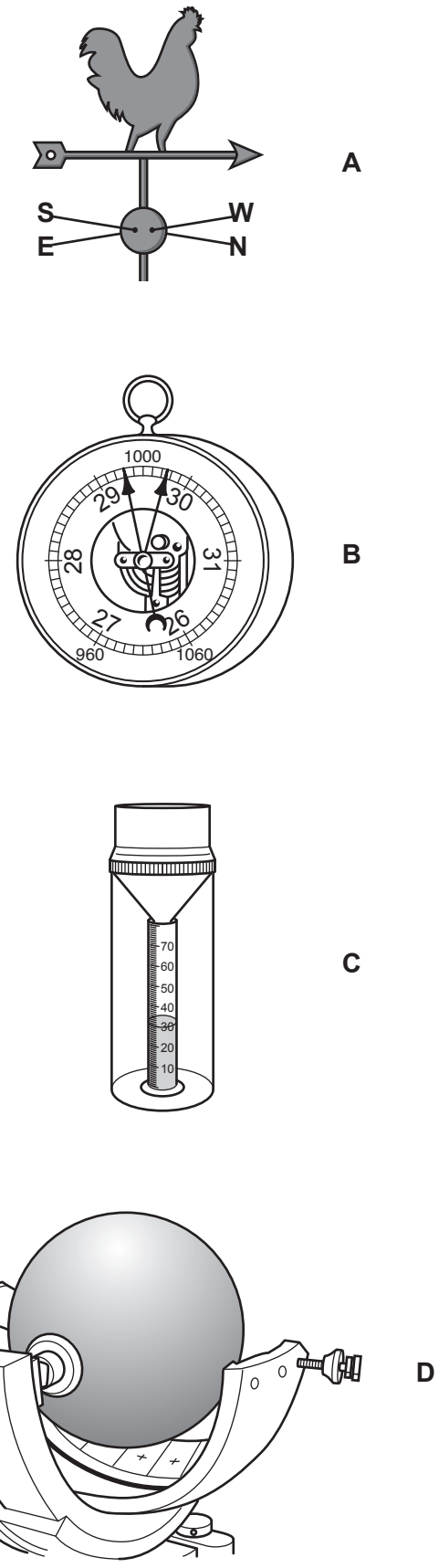


Fig. 4.1

(i) Which weather instrument shown in Fig. 4.1 is kept inside a Stevenson Screen? Circle your answer.

A **B** **C** **D**

[1]

(ii) Identify (using the letters **A**, **B**, **C** or **D**) the **two** weather instruments shown in Fig. 4.1 which measure the following weather data:

Atmospheric pressure .....

Precipitation. ..... [2]

(iii) Draw arrows to match the names of the weather instruments **A**, **B**, **C** and **D** with their names in the table below.

instrument **A**	barometer
instrument **B**	rain gauge
instrument **C**	sunshine recorder
instrument **D**	wind vane

[3]

(iv) Describe and explain the ideal location for a wind vane at a weather station.

.....

.....

.....

.....

.....

.....

.....

..... [4]

(b) Study Fig. 4.2 (Insert), which is a photograph showing different types of clouds.

(i) Using Fig. 4.2:

identify the type of cloud at **X** .....

estimate the amount of cloud cover ..... oktas

describe **one** feature of the cloud type shown at **X**.

.....

..... [3]

(ii) Explain how observations of cloud type and cover can be made and used to compare two different months.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

(c) Explain how a named river you have studied is managed to reduce the impacts of flooding.

Name of river .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [7]

[Total: 25]

Section C

Answer **one** question from this section.

5 **(a)** Study Fig. 5.1, which shows the sources used for electricity production in Finland (an MEDC in Europe) in 2015.

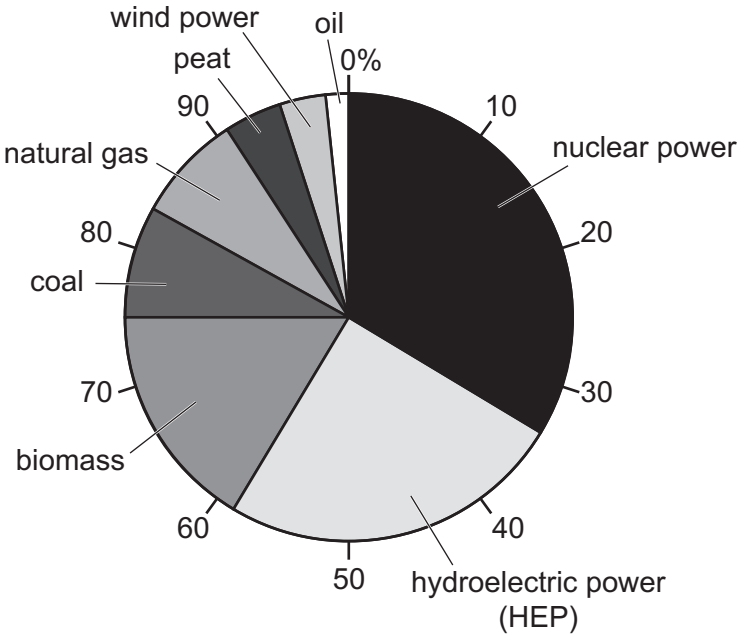


Fig. 5.1

(i) What percentage of electricity was generated using coal in Finland in 2015?

..... % [1]

(ii) Identify **two** renewable methods of electricity generation which were used in Finland in 2015.

1 .....

2 ..... [2]

(iii) Suggest reasons to explain why Finland is planning to increase its use of renewable energy.

.....

.....

.....

.....

.....

..... [3]

(iv) Give **two** advantages and **two** disadvantages of using nuclear power to generate electricity.

Advantage 1

.....

.....

Advantage 2

.....

.....

Disadvantage 1

.....

.....

Disadvantage 2

.....

..... [4]

(b) Study Fig. 5.2, which shows the site of a proposed dam and HEP station in The Gambia (an LEDC in Africa).

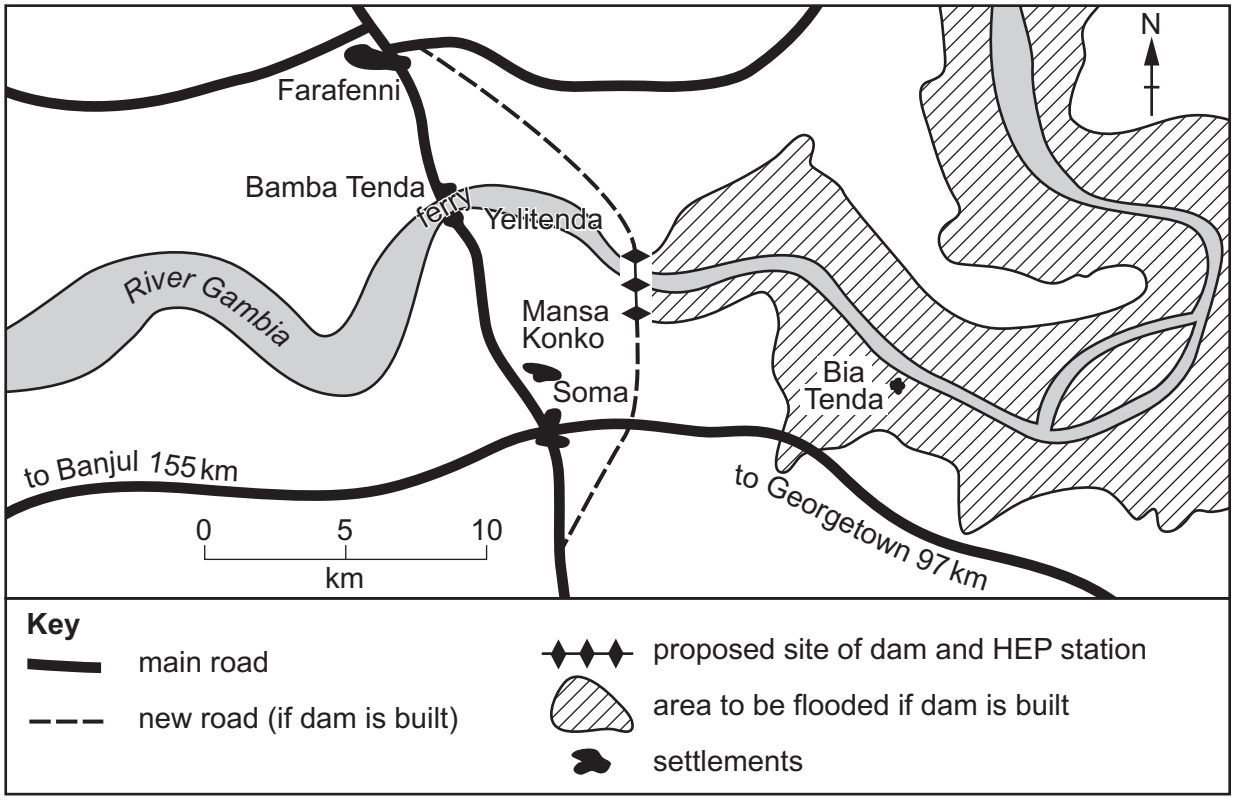


Fig. 5.2

(i) Suggest **three** problems which may be caused by building the dam and HEP station shown in Fig. 5.2.

1 .....

.....

2 .....

.....

3 .....

..... [3]

© UCLES 2021

(ii) Explain why building the dam and HEP station shown in Fig. 5.2 could result in economic development taking place in the area.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

(c) For a named country or area you have studied, explain how sufficient water is supplied for domestic use.

Name of country or area .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [7]

[Total: 25]

6 **(a)** Study Fig. 6.1, which shows information about the relationship between two indicators of development in selected countries.

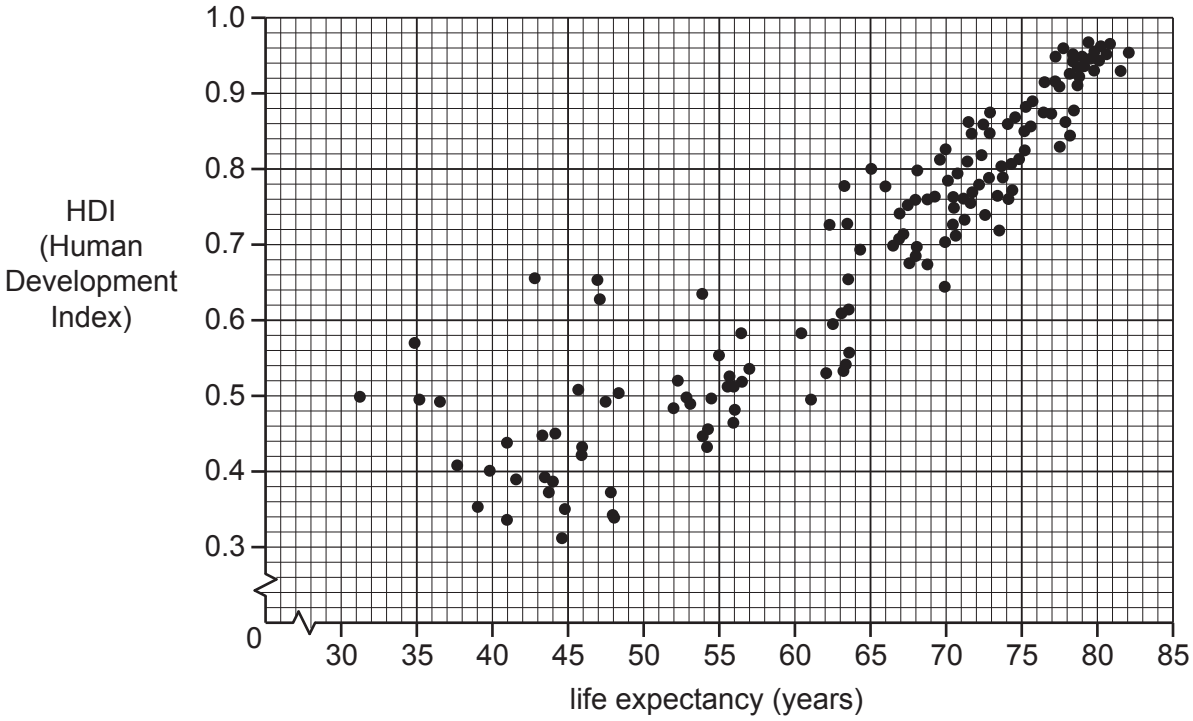


Fig. 6.1

(i) **Draw a best-fit line** on Fig. 6.1. [1]

(ii) To what extent does Fig. 6.1 show that there is a relationship between HDI and life expectancy?

.....

.....

.....

..... [2]

(iii) Explain why there is a relationship between HDI and life expectancy.

.....

.....

.....

.....

.....

..... [3]

(iv) Explain why HDI is a more useful measure of the development of a country than using average income per person.

.....

.....

.....

.....

.....

.....

.....

..... [4]

(b) Study Fig. 6.2, which shows changes in the employment structure of Brazil between 2007 and 2017. Brazil is a newly industrialised country (NIC) in South America.

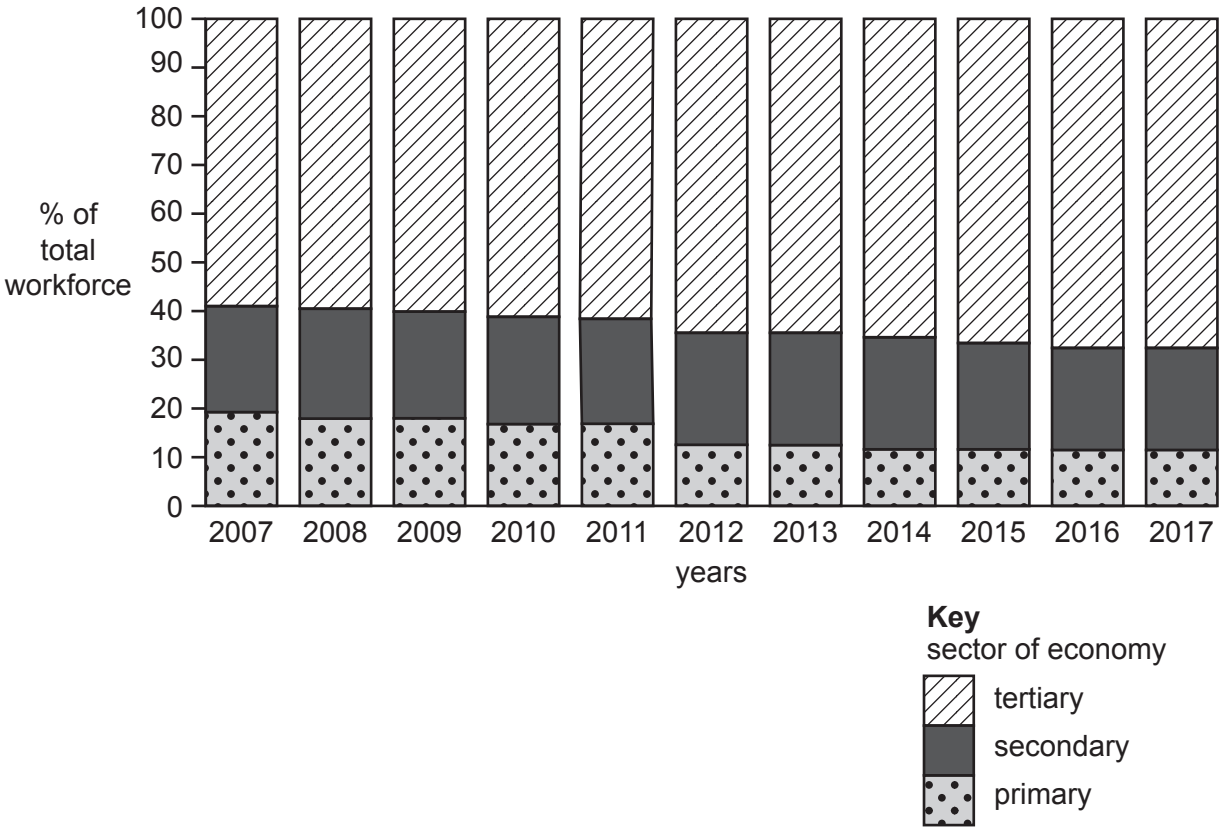


Fig. 6.2

(i) Using Fig. 6.2 **only**, describe the changes in the employment structure of Brazil between 2007 and 2017.
You should use statistics in your answer.

.....

.....

.....

.....

.....

..... [3]

(ii) Explain why the employment structure of a country changes as it develops.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

(c) Describe the effects of **global warming**. You should refer to named areas affected.

Name of areas .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [7]

[Total: 25]

Additional Pages

If you use the following lined pages to complete the answer(s) to any question(s), the question number(s) must be clearly shown.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

© UCLES 2021

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 the Cambridge Assessment Group. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which itself is a department of the University of Cambridge.

© UCLES 2021