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EDEXCEL INTERNATIONAL GCSE GEOGRAPHY: QUESTIONS BY TOPIC

Rural Environments (Topic 5)

International GCSE Geography Topic 5

32 questions · 688 marks · Mark schemes included

Pearson Edexcel International GCSE (9–1) Geography 4GE1, Papers 1, 1R, 2 & 2R, June 2019 - June 2025

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HOW TO USE THIS BOOKLET

Questions are grouped by sub-topic (exam questions, then fieldwork), oldest paper first.
Click any heading or question row below to jump straight to it.
On every question page, click ANSWER in the top-right corner to jump to its mark scheme.
Diagrams, graphs, tables and data are printed exactly as they appeared in the original papers.

	QUESTION	SOURCE	MARKS	PAGE
RURAL ENVIRONMENTS: EXAM QUESTIONS		16 questions · 400 marks		3
1.	**Q2**	Paper 2 June 2019	25	4
2.	**Q2**	Paper 2R June 2019	25	10
3.	**Q2**	Paper 2 November 2020	25	16
4.	**Q2**	Paper 2R November 2020	25	21
5.	**Q2**	Paper 2 June 2021	25	27
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FIELDWORK: INVESTIGATING RURAL ENVIRONMENTS		16 questions · 288 marks		89
17.	**Q5**	Paper 2 June 2019	20	90
18.	**Q5**	Paper 2R June 2019	20	94
19.	**Q5**	Paper 2 November 2020	20	98
20.	**Q5**	Paper 2R November 2020	20	101
21.	**Q5**	Paper 2 June 2021	12	104
22.	**Q5**	Paper 2 November 2021	12	108
23.	**Q5**	Paper 2 June 2022	12	113
24.	**Q5**	Paper 2R June 2022	12	116
25.	**Q5**	Paper 2 June 2023	20	118
26.	**Q5**	Paper 2R June 2023	20	123
27.	**Q5**	Paper 2 November 2023	20	128
28.	**Q5**	Paper 2 June 2024	20	132
29.	**Q5**	Paper 2R June 2024	20	136
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QUESTIONS

32 questions · 688 marks · grouped by sub-topic

SUB-TOPIC

RURAL ENVIRONMENTS: EXAM QUESTIONS

16 questions in this booklet

2 Rural environments.

(a) Identify the meaning of the term **NGO**.

(1)

☒	**A** non-governmental organisation
☒	**B** non-global organisation
☒	**C** non-geographically organised
☒	**D** non-global operation

(b) Define the term **negative multiplier effect**.

(1)

(c) Identify **one** example of a global biome.

(1)

☒	**A** pond
☒	**B** moorland
☒	**C** salt marsh
☒	**D** tundra

(d) Study Figure 2a in the Resource Booklet.

Suggest **one** piece of evidence from the photograph that shows this farm has diversified.

(2)

(e) State **one** other type of rural or farm diversification.

(1)

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(f) Explain **two** factors that have led to changes in rural areas in a named developed country.

(4)

Named developed country .....

1 .....

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2 .....

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(g) Study Figure 2b in the Resource Booklet.

Suggest **one** reason for the trend shown.

(3)

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(h) For a named developing **or** emerging country, explain how **two** different groups or organisations have managed challenges within rural environments.

(4)

Named developing or emerging country .....

Group or organisation 1

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Group or organisation 2

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(i) Study Figure 2c in the Resource Booklet.

Analyse how exploiting natural ecosystems can affect their goods and services.

(8)

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Figure 2a

An example of arable farm diversification, south west England

(Source: © David Holmes)

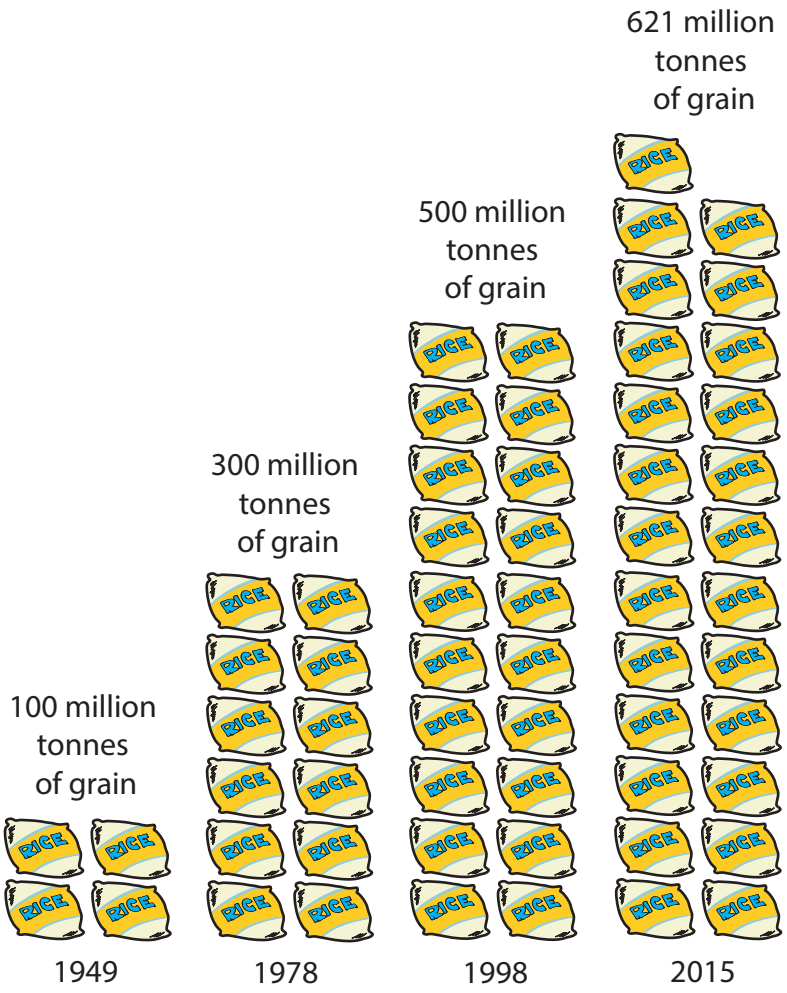


Figure 2b

Changes in China's grain production, 1949-2015

(Source: © Reuters)

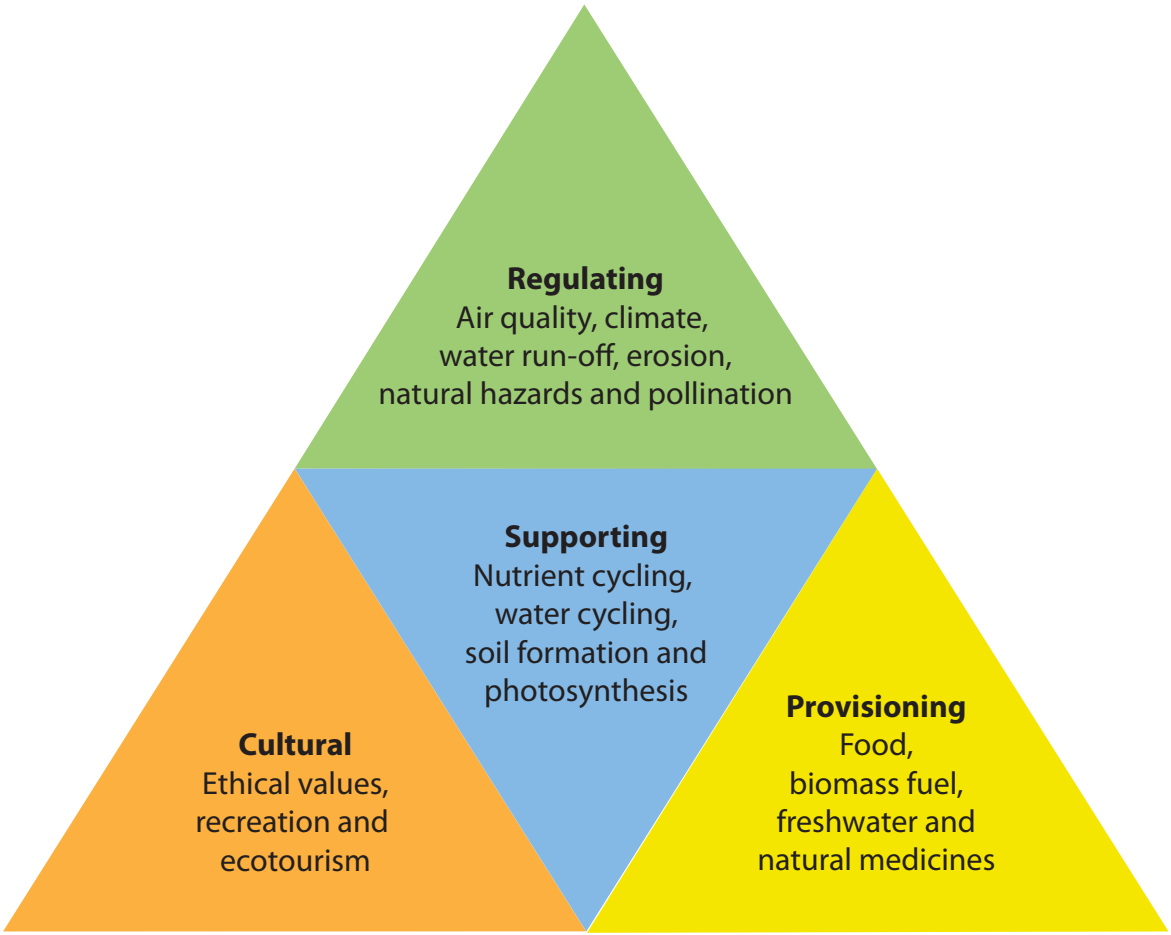


Figure 2c

Examples of natural ecosystems, goods and services

(Source: from https://askabiologist.asu.edu/explore/biomes)

If you answer Question 2 put a cross in the box ☒

2 Rural environments.

(a) Identify the meaning of the term **suburbanisation**.

(1)

☒	**A** the outward growth of urban development
☒	**B** population movement from rural to urban areas
☒	**C** increasing movement of people from urban to rural areas
☒	**D** population movement from the suburbs to the countryside

(b) Define the term **GM crop**.

(1)

(c) Identify **one** of the goods provided by natural ecosystems.

(1)

☒	**A** soil formation
☒	**B** waste decomposition
☒	**C** timber
☒	**D** aluminium

(d) Study Figure 2a in the Resource Booklet.

Explain **one** physical factor that could have influenced the choice of crop shown in the farming system on Figure 2a.

(2)

(e) State **one** way that farmers can modify natural ecosystems to improve farm system productivity.

(1)

(f) Explain **two** reasons why some farmers are moving into diversification of farming.

(4)

1

2

(g) Study Figure 2b in the Resource Booklet.

Suggest **one** reason for one of the trends shown on Figure 2b.

(3)

(h) For a named **developing** or **emerging** country, explain how **two** different groups have managed challenges within the rural environment.

(4)

Named developing or emerging country .....

Group 1

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Group 2

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(i) Study Figure 2c in the Resource Booklet.

Analyse the reasons for the distribution of the world's biomes.

(8)

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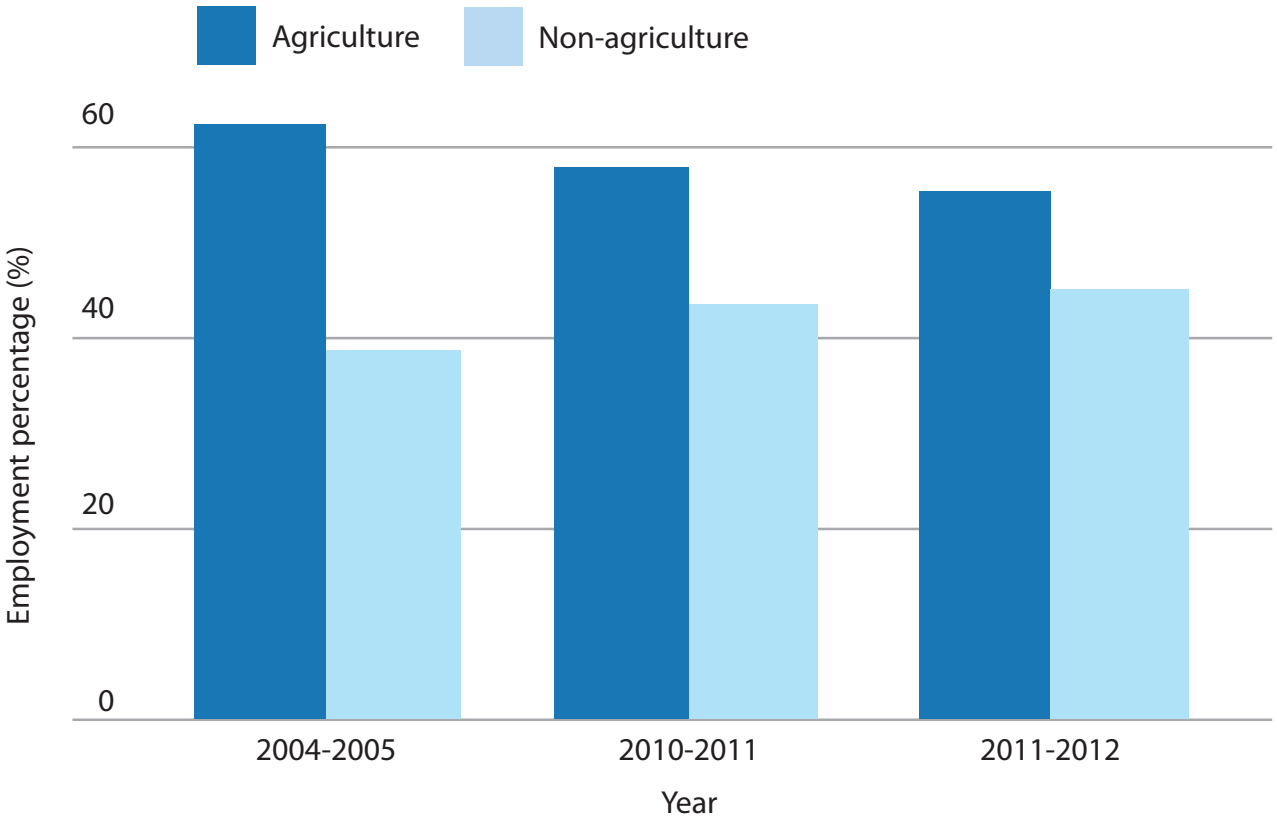
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(Source: © Jay's photo/Getty Image)

Figure 2a

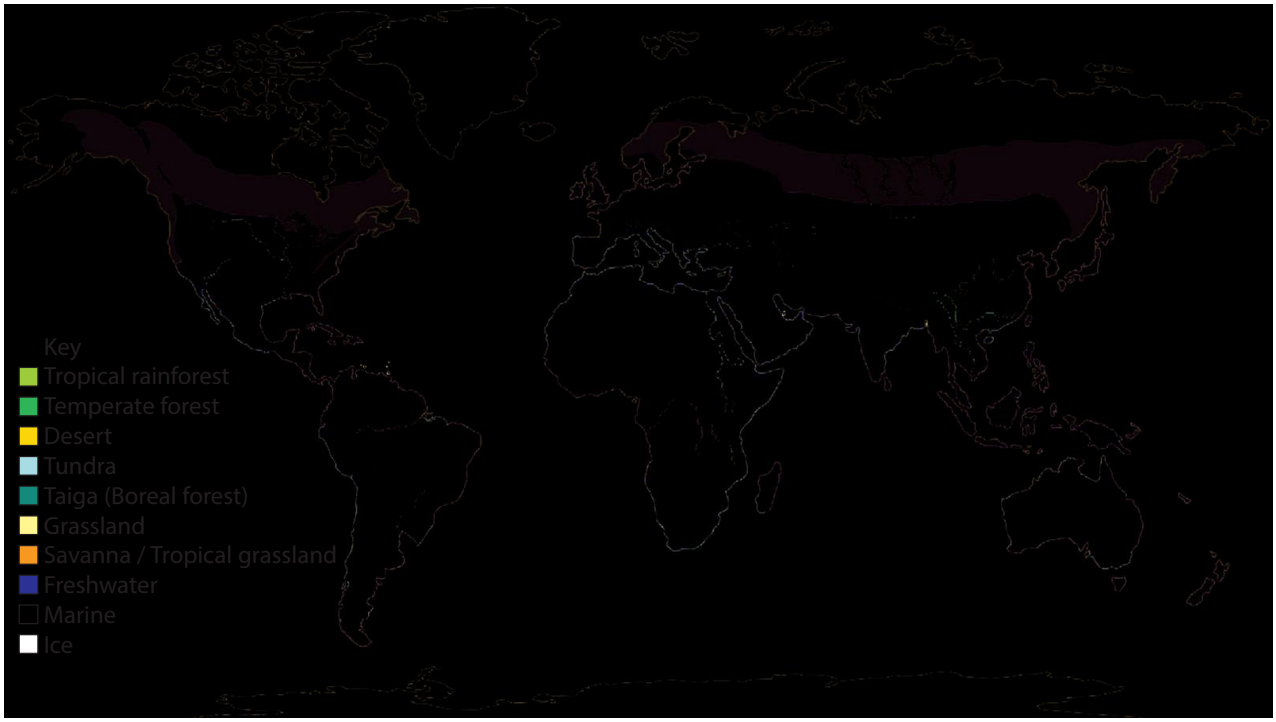
A rice paddy field, Taiwan



(Source: http://www.rediff.com/business/special/special-why-indias-construction-slowdown-threatens-to-increase-poverty/20160510.htm)

Figure 2b

Percentage changes in employment, in India, 2004-2012



(Source : https://askabiologist.asu.edu/explore/biomes)

Figure 2c

The global distribution of biomes

If you answer Question 2 put a cross in the box ☒.

2 Rural environments

(a) Identify the meaning of the term **suburbanisation**.

(1)

☒	**A** the outward growth of urban development
☒	**B** population movement from rural to urban areas
☒	**C** increasing movement of people from urban to rural areas
☒	**D** population movement from the suburbs to the countryside

(b) Define the term **negative multiplier effect**.

(1)

(c) Identify the meaning of the term **IGO**.

(1)

☒	**A** intergovernmental organisation
☒	**B** national government organisation
☒	**C** international government operation
☒	**D** non-governmental organisation

(d) Study Figure 2a in the Resource Booklet.

Suggest **one** physical factor that could have influenced the choice of farming system shown in Figure 2a.

(2)

(e) State **one** way that farmers can improve crop yields.

(1)

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(f) Explain **two** reasons why there has been a decline in farm employment in some developed countries.

(4)

1 .....

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(g) Study Figure 2b in the Resource Booklet.

Suggest **one** reason for a trend shown in Figure 2b.

(3)

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(h) For a named **developed** country, explain **two** different farming diversification strategies.

(4)

Named developed country .....

1 .....

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2 .....

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(i) Study Figure 2c in the Resource Booklet.

Analyse the role of temperature and precipitation on the distribution of different biomes.

(8)

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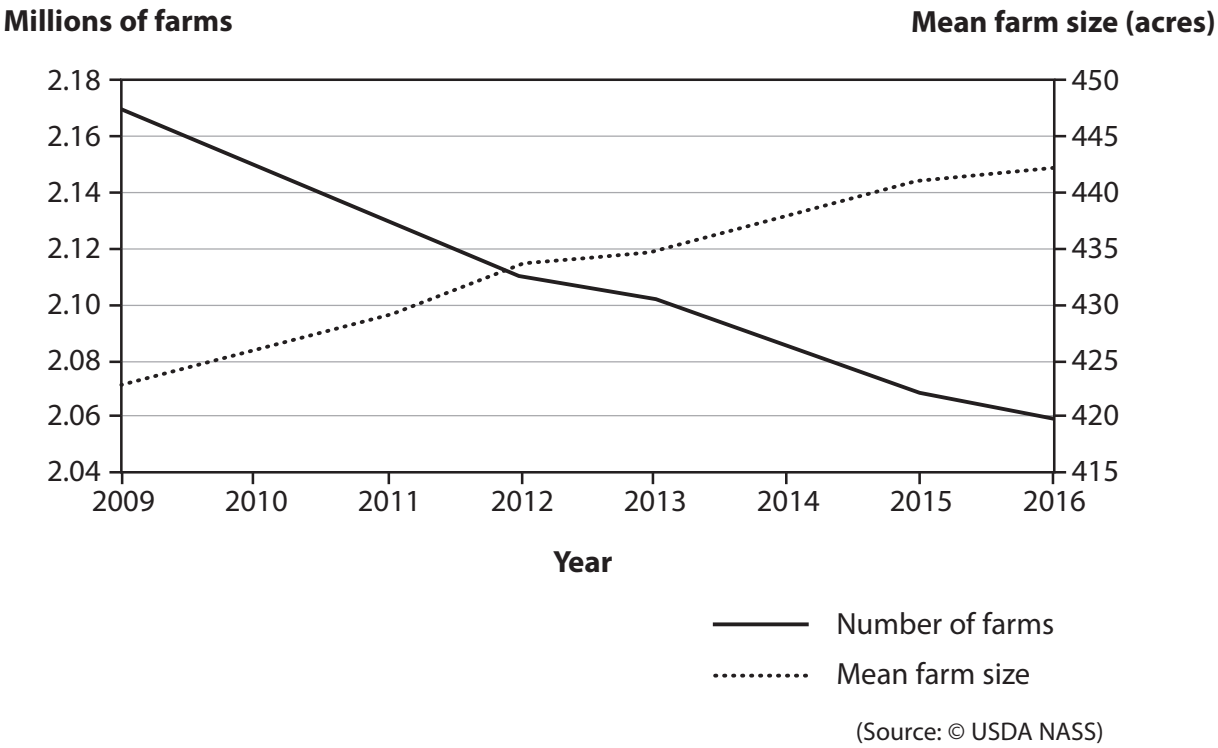
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(Source: © David Holmes Geography)

Figure 2a

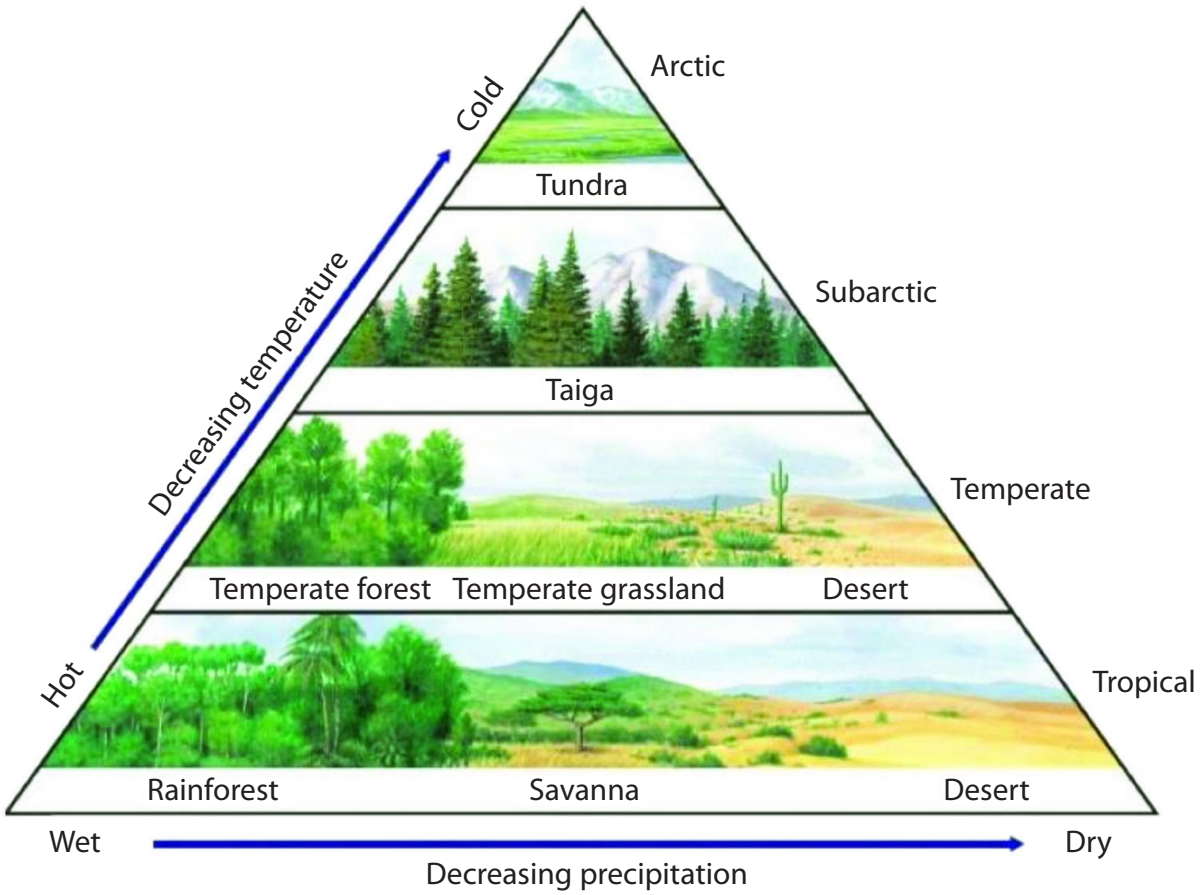
A beef-farming system in southern England



(Source: © USDA NASS)

Figure 2b

Changes in number and size of farms, USA, 2009–2016



(Source: https://slideplayer.com/slide/10505544/)

Figure 2c

The relationship between biome type, temperature and precipitation

If you answer Question 2 put a cross in the box ☒.

2 Rural environments

(a) Identify the meaning of the term **rural–urban migration**.

(1)

☒	**A** the growth of urban areas
☒	**B** population movement from rural to urban areas
☒	**C** increasing movement of people from urban to rural areas
☒	**D** population movement from the suburbs to the countryside

(b) Define the term **biome**.

(1)

(c) Identify the meaning of the term **NGO**.

(1)

☒	**A** intergovernmental organisation
☒	**B** national government organisation
☒	**C** not-guaranteed operation
☒	**D** non-governmental organisation

(d) Study Figure 2a in the Resource Booklet.

Suggest **one** physical factor that could have influenced the land use shown in Figure 2a.

(2)

(e) State **one** way that farmers can diversify to provide new income streams.

(1)

(f) Explain **one** type of goods and **one** service provided by natural ecosystems.

(4)

Goods

Service

(g) Study Figure 2b in the Resource Booklet.

Suggest **one** reason for the distribution of tundra.

(3)

(h) For a named **developing or emerging** country, explain how **two** factors have caused rural change.

(4)

Named developing or emerging country .....

1 .....

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(i) Study Figure 2c in the Resource Booklet.

Analyse the possible reasons for the change in the number of farms and crops and cattle production.

(8)

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(Source: © David Holmes Geography)

Figure 2a

A remote area of north west Scotland

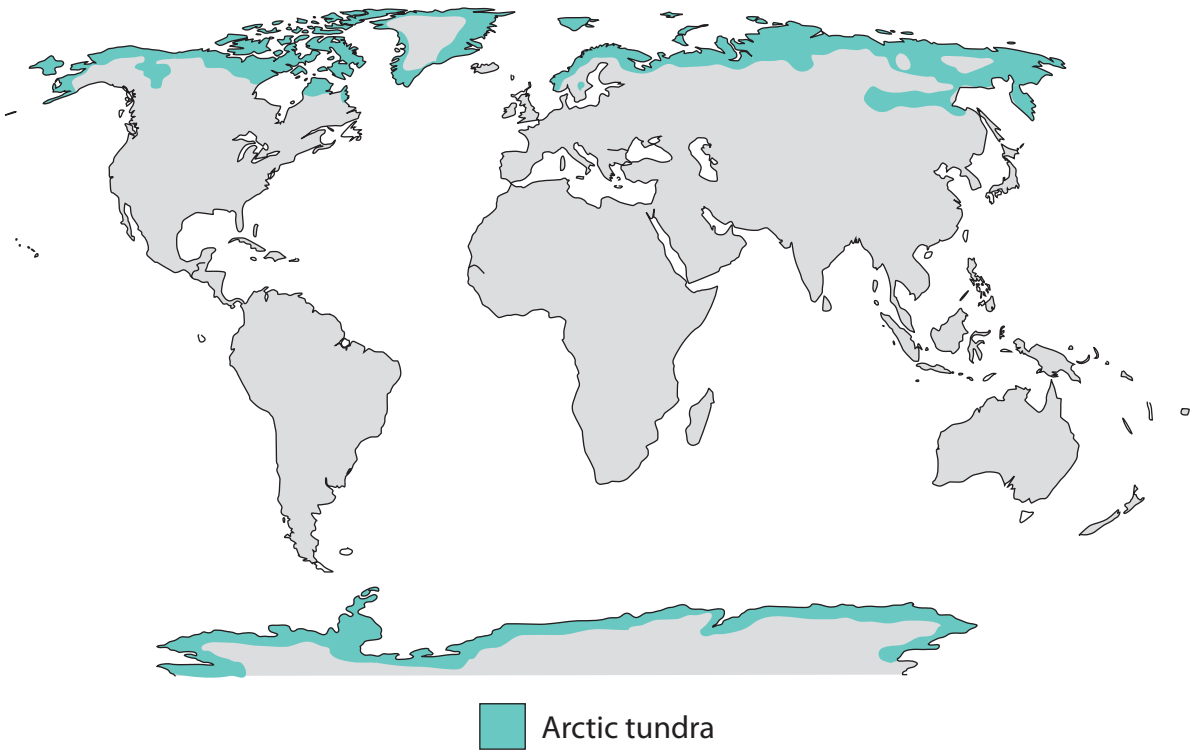
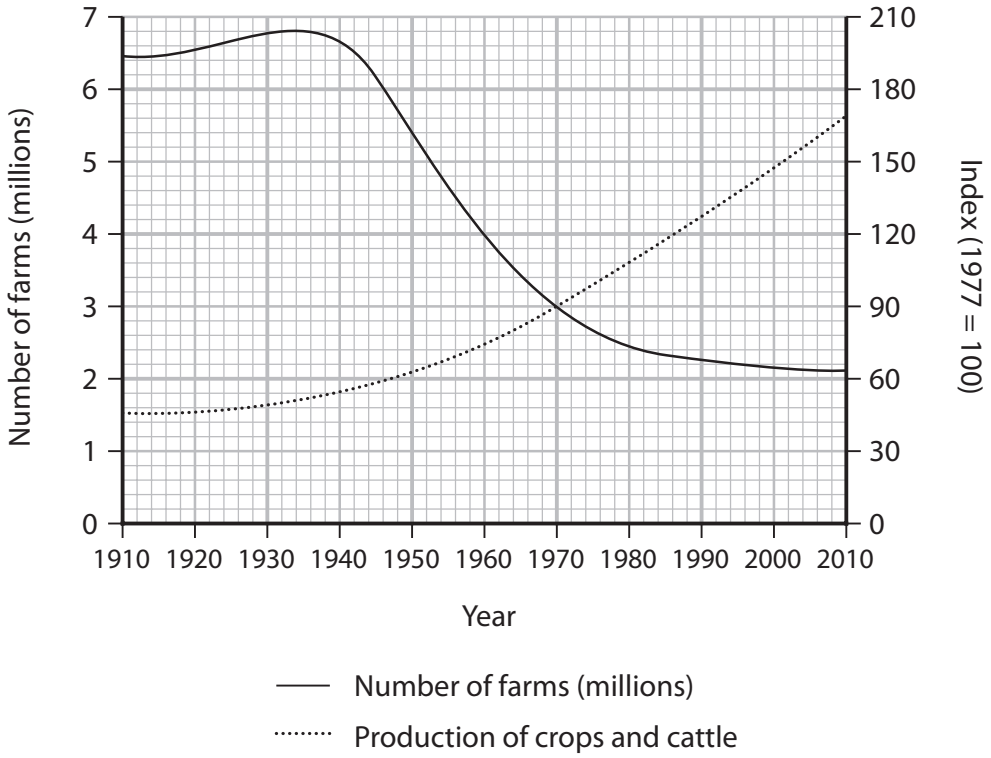


Figure 2b

The distribution of arctic tundra



(Source: http://www.globalharvestinitiative.org/gap-report-gap-index/2015-gap-report/gap-report-2015-infographics/)

Figure 2c

USA: number of farms and an index of crops and cattle production, 1910–2010

If you answer Question 2 put a cross in the box ☒

2 Rural environments

(a) (i) Define the term **organic farming**.

(1)

(ii) Identify **two** forms of farm diversification.

(2)

☒	**A** Buying more land.
☒	**B** Buying more tractors.
☒	**C** Creating a farm shop.
☒	**D** Increasing irrigation.
☒	**E** Using more fertiliser.
☒	**F** Opening a bed and breakfast for tourists.

(b) Study Figure 2a in the Resource Booklet.

Suggest **one** way this dairy farm has diversified its income.

(2)

(c) (i) State **one** factor leading to rural isolation.

(1)

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(ii) Explain **two** ways tourist pressure is affecting rural areas.

(4)

1 .....

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(d) Study Figure 2b below.

(i) Label the box with an X to indicate the year with the largest urban population.

(1)

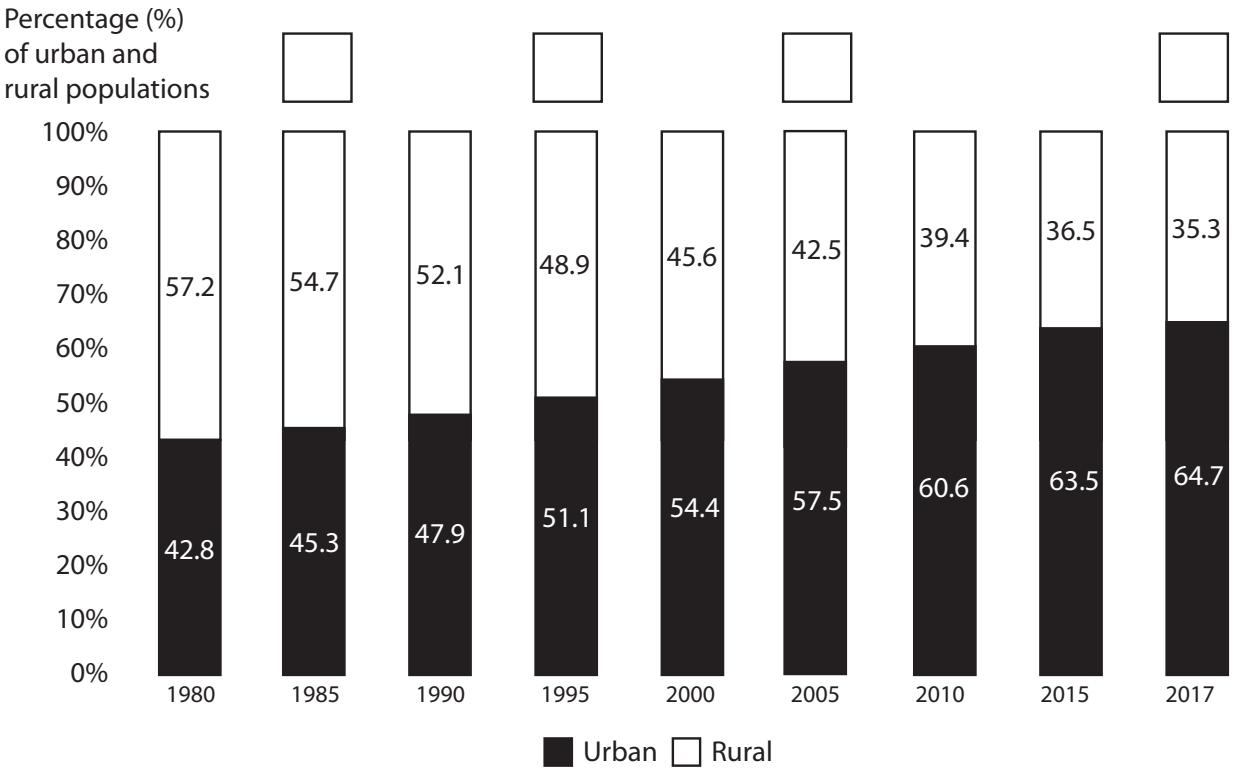


Figure 2b

Global urban and rural populations, 1980–2017

(ii) Identify the year in which the urban population first becomes larger than the rural population.

(1)

☒	**A** 1985
☒	**B** 1995
☒	**C** 2005
☒	**D** 2017

(iii) State **one** factor leading to rural-urban migration.

(1)

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(e) For a named developing or emerging country explain **two** environmental challenges facing rural areas.

(4)

Named developing or emerging country .....

1 .....

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2 .....

(f) Study Figure 2c in the Resource Booklet.

Analyse the importance of natural ecosystems for providing goods and services.

(8)

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Figure 2a

New activities on a dairy farm

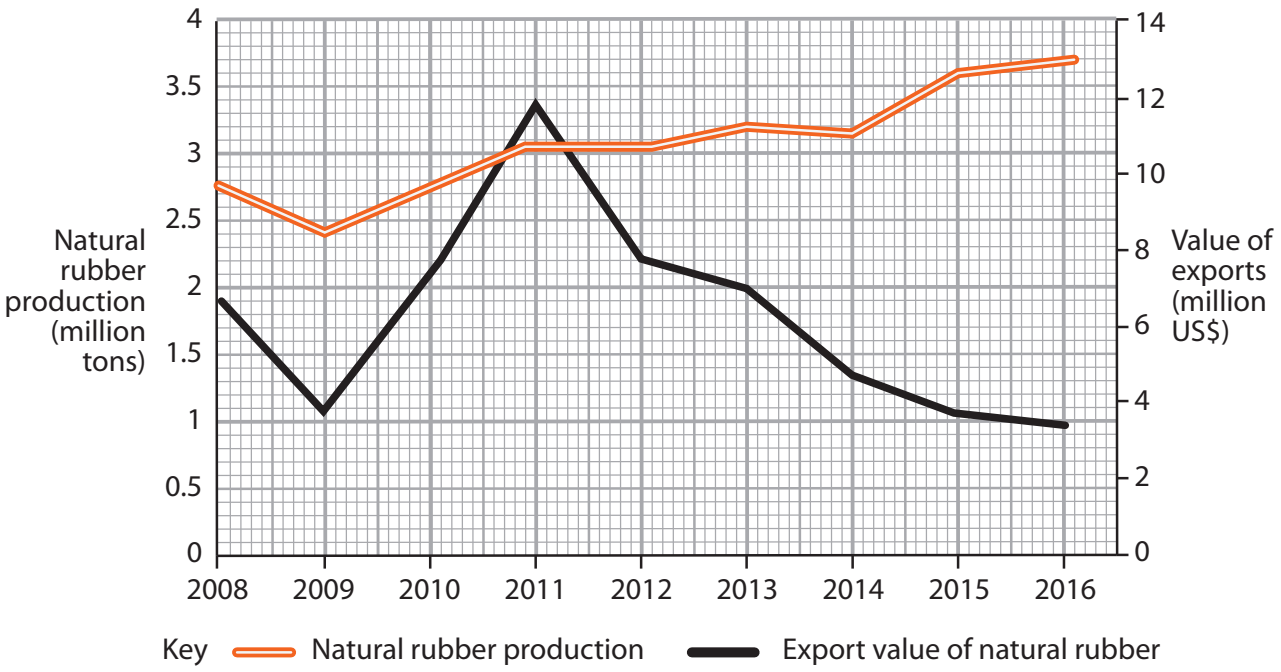


Figure 2c

Production and export value of natural rubber extracted from forests in Indonesia, 2008–2016

If you answer Question 2 put a cross in the box ☒.

2 Rural environments

(a) (i) Define the term **natural ecosystem**.

(1)

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(ii) Identify **two** services provided by natural ecosystems.

(2)

☒	**A** Emission of oxygen
☒	**B** Food
☒	**C** Fuelwood
☒	**D** Recycling of nutrients
☒	**E** Timber for building
☒	**F** Water

(b) Study Figure 2a in the Resource Booklet.

(i) Suggest **one** way this rural landscape has been changed.

(2)

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(ii) Identify **one** other way rural areas in developed countries are changing.

(1)

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(c) Explain **two** ways rural-urban migration affects rural areas.

(4)

1 .....

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2 .....

(d) Study Figure 2b below. It shows population pyramids for urban and rural populations in the USA in 1980 and 2015.

(i) Label, with an X in the box, the age group with an urban population of between 10 and 15 million.

(1)

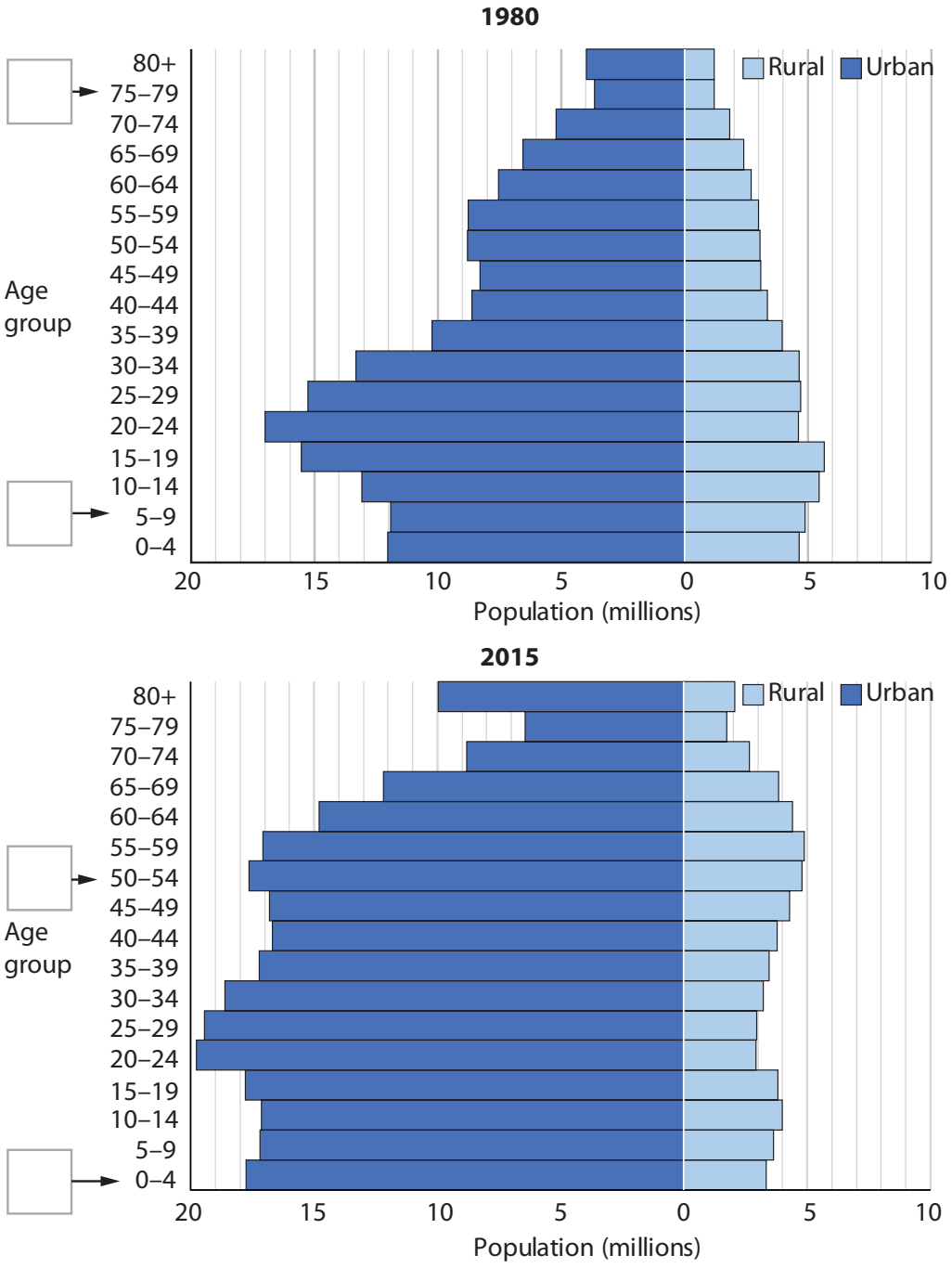


Figure 2b

Urban and rural populations in the USA in 1980 and 2015

(ii) Identify the largest population age group in 2015.

(1)

☒	**A** 0–4 Urban
☒	**B** 20–24 Urban
☒	**C** 35–39 Rural
☒	**D** 60–64 Rural

(iii) State **one** reason for counter-urbanisation.

(1)

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(e) For a named developing or emerging country, explain **two** strategies used to improve quality of life in rural areas.

(4)

Named developing or emerging country .....

1 .....

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2 .....

(f) Study Figure 2c in the Resource Booklet.

Analyse the impact of humans on the rural landscape.

(8)

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Figure 2a

Photograph of a visitor centre in a rural area

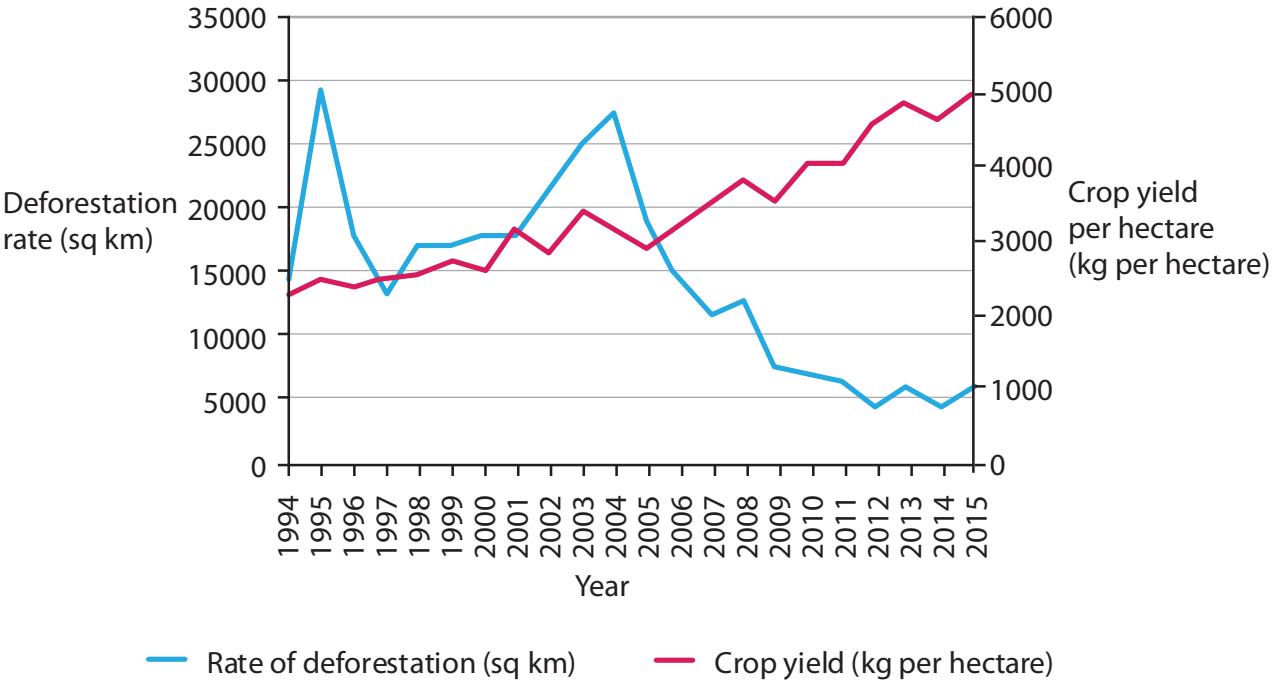


Figure 2c

Rates of deforestation and crop yields in Brazil, 1994–2015



Figure 2a

Photograph of a visitor centre in a rural area

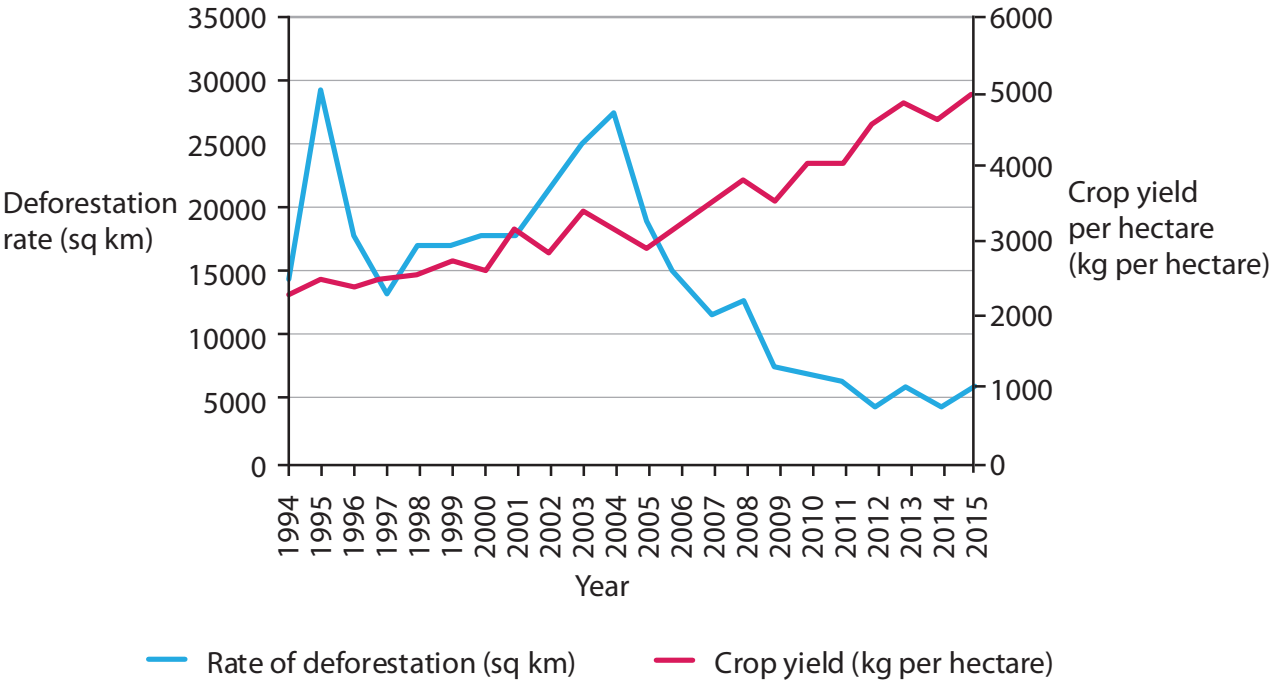


Figure 2c

Rates of deforestation and crop yields in Brazil, 1994–2015

2 Rural environments

(a) (i) Identify **one** characteristic associated with a tropical forest.

(1)

- ☒ **A** arid conditions
- ☒ **B** low temperature
- ☒ **C** high humidity
- ☒ **D** strong winds

(ii) Define the term **biome**.

(1)

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(b) Identify the meaning of the term **organic farming**.

(1)

- ☒ **A** farming that only produces genetically modified crops.
- ☒ **B** farming that uses chemical fertilisers.
- ☒ **C** farming that does not require irrigation.
- ☒ **D** farming that does not use chemical fertilisers.

(c) Study Figure 2a in the Resource Booklet.

Suggest how this forest ecosystem might provide goods for people.

(2)

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(d) State **one** advantage of using genetically modified (GM) crops.

(1)

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(e) For people living in a developed country, explain **two** strategies used to make rural life more sustainable.

(4)

1 .....

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(f) Study Figure 2b in the Resource Booklet.

Suggest **one** reason for the trends shown.

(3)

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(g) Explain how governments and NGOs manage challenges in rural environments in developing or emerging countries.

(4)

Governments

NGOs (Non-governmental organisations)

(h) Study Figure 2c in the Resource Booklet.

Analyse the factors that can lead to rural changes in developing or emerging countries.

(8)



Figure 2a

A temperate forest in the United States of America

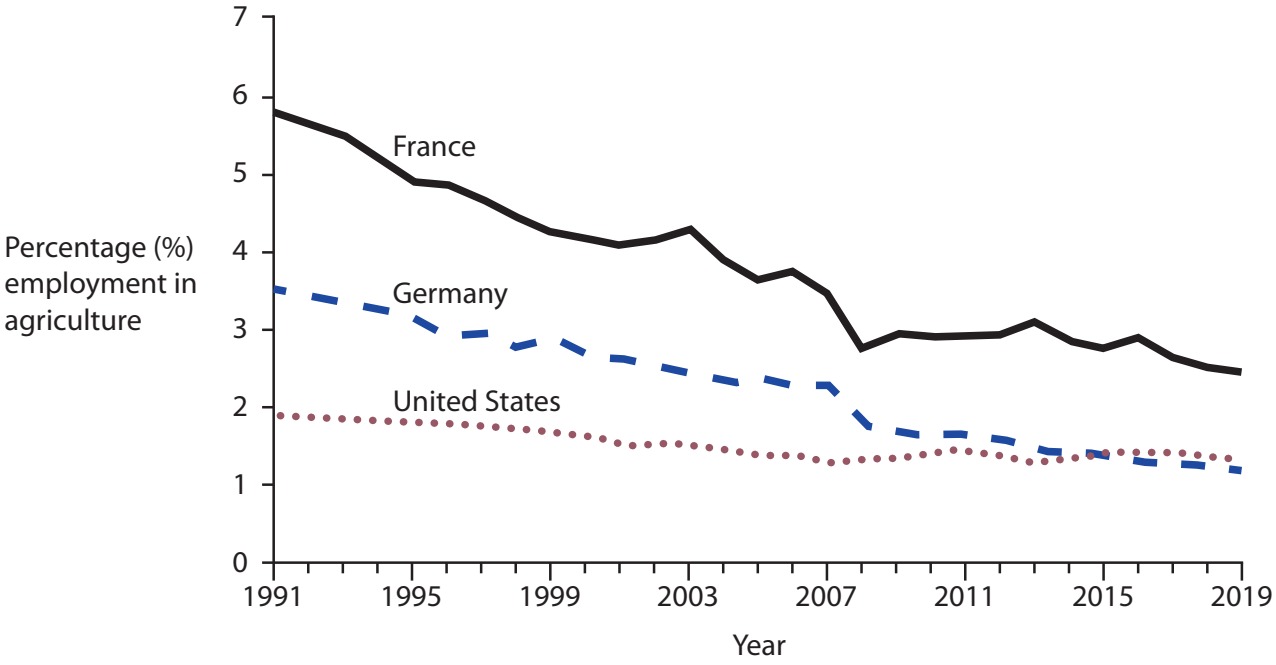


Figure 2b

Percentage (%) of employment in agriculture for selected countries, 1991–2019

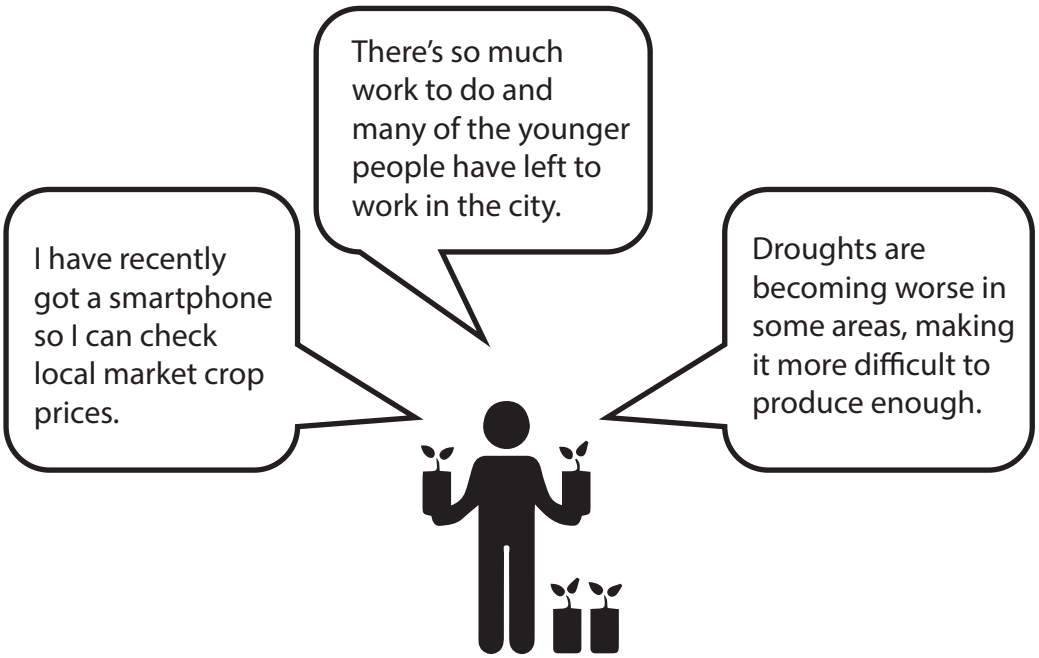


Figure 2c

Views from a farmer in Uganda

If you answer Question 2 put a cross in the box ☒.

2 Rural environments

(a) (i) Identify **one** characteristic of the savanna biome.

(1)

- ☒ **A** daily rainfall
- ☒ **B** grassland
- ☒ **C** dense forest
- ☒ **D** permafrost

(ii) Define the term **natural ecosystem**.

(1)

(b) Identify the meaning of the term **genetically-modified (GM) crops**.

(1)

- ☒ **A** Plants with root systems that have been changed to increase size.
- ☒ **B** Plants with DNA that have been changed to increase yield.
- ☒ **C** Animals with DNA that have been changed to increase size.
- ☒ **D** Livestock that have greater resistance to disease.

(c) Study Figure 2a in the Resource Booklet.

Suggest how this natural ecosystem might provide services.

(2)

(d) State **one** type of land use found in a rural environment.

(1)

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(e) Explain how NGOs have managed **two** challenges in rural environments in developing or emerging countries.

(4)

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(f) Study Figure 2b in the Resource Booklet.

Suggest **one** reason for the trends shown.

(3)

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(g) Explain **one** strategy used to improve health and **one** strategy used to improve housing in rural areas in developing or emerging countries.

(4)

Health

Housing

(h) Study Figure 2c in the Resource Booklet.

Analyse the factors that have caused rural change in developed countries.

(8)



Figure 2a

A rainforest trail in Peru

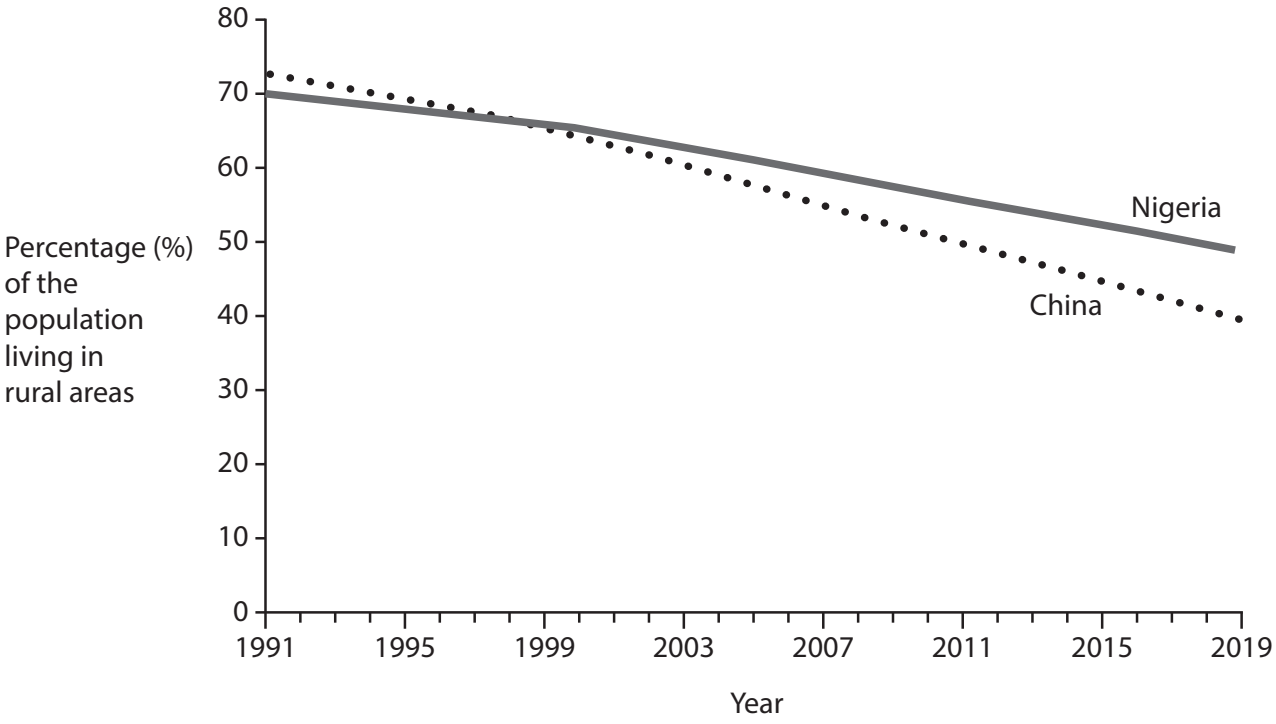


Figure 2b

Percentage (%) of the population living in rural areas

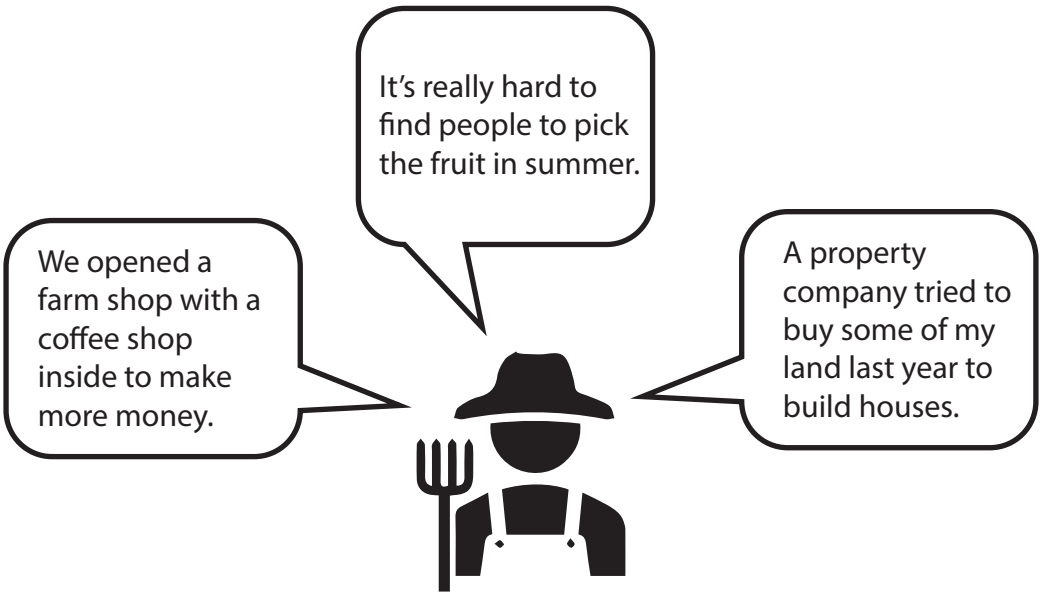


Figure 2c

Views from a farmer in the United States

If you answer Question 2, put a cross in the box ☒.

2 Rural environments

(a) (i) Identify a service provided by a tropical forest.

(1)

- ☒ **A** recycling of nutrients
- ☒ **B** medicinal plants
- ☒ **C** different types of timber
- ☒ **D** many food types

(ii) Define the term **natural ecosystem**.

(1)

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(b) Identify the definition of the term **subsistence farming**.

(1)

- ☒ **A** farming that reduces environmental impact
- ☒ **B** farming to make a profit
- ☒ **C** farming to meet the needs of the farmer and family
- ☒ **D** farming in which products are intended for sale

(c) Study Figure 2a in the Resource Booklet.

Suggest how natural hazards can cause changes in rural areas.

(2)

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(d) State **one** impact of the negative multiplier effect in rural areas.

(1)

(e) For a named developing or emerging country, explain **two** ways farm incomes are being diversified.

(4)

Named developing or emerging country

1

2

(f) Study Figure 2b in the Resource Booklet.

Suggest **one** reason for the pattern shown in Figure 2b.

(3)

(g) Explain **two** strategies that improve quality of life in rural environments.

(4)

1 .....

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2 .....

(h) Study Figure 2c in the Resource Booklet.

Analyse the factors that affect the structure of rural populations in developing countries.

Refer to the resource in your answer.

(8)

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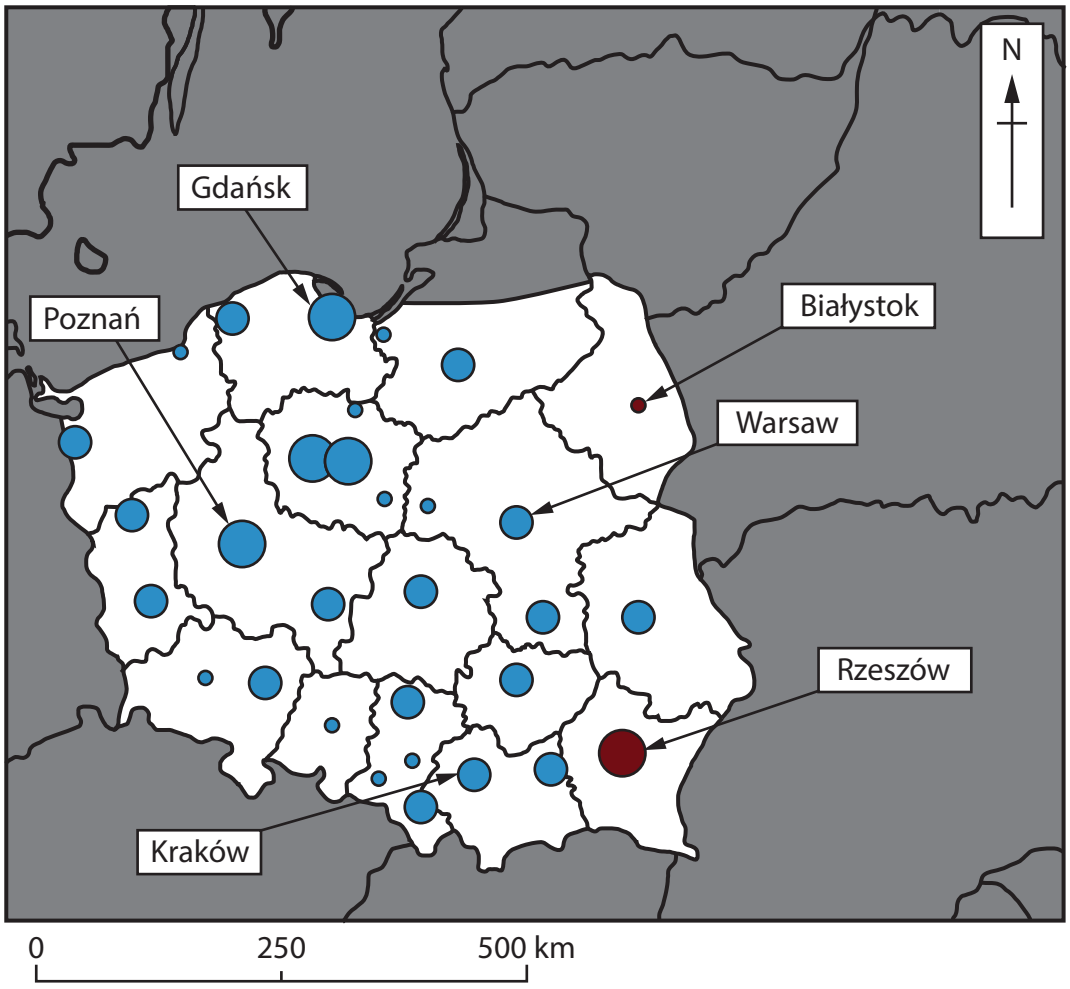
.....



(Source: © Steve Mathambo Ngoma/Shutterstock)

Figure 2a

A photograph of damage caused by Cyclone Idai in Zimbabwe, 2019



Key: Size of population movement

Inflow to cities (Percentage (%))

- >2.90
- 1.46–2.90
- 0.29–1.45

Outflow to suburban areas (Percentage (%))

- >2.90
- 1.46–2.90
- 0.29–1.45
- Outside coverage

Figure 2b

Movement of people into and out of Polish cities, 2004–2018

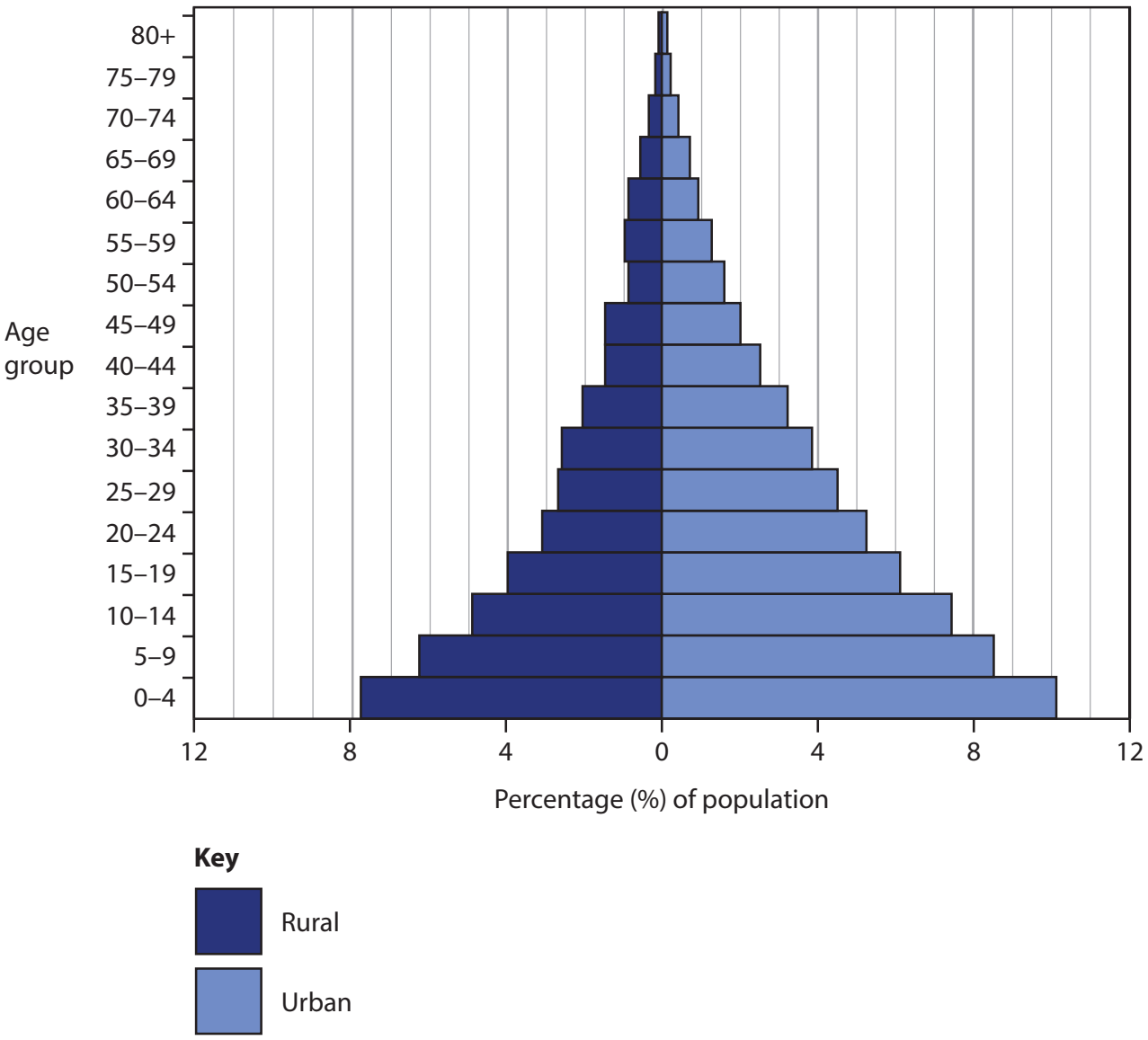


Figure 2c

A bar graph showing population structure for Nigeria, 2019

If you answer Question 2, put a cross in the box ☒.

2 Rural environments

(a) (i) Identify a type of goods provided by a tropical forest.

(1)

- ☒ **A** recycling of nutrients
- ☒ **B** tourism
- ☒ **C** timber
- ☒ **D** wildlife habitat

(ii) Define the term **subsistence farming**.

(1)

.....

.....

(b) Identify the characteristic of a tundra ecosystem.

(1)

- ☒ **A** temperatures below 0°C most of the year
- ☒ **B** no presence of permafrost
- ☒ **C** precipitation all year round
- ☒ **D** rich in nutrients

(c) Study Figure 2a in the Resource Booklet.

Suggest **one** reason suburbanisation has lead to changes in this rural area.

(2)

.....

.....

.....

.....

(d) State **one** way farmers try to increase crop yields.

(1)

.....

.....

(e) For a named developed country, explain **two** ways farm incomes can be diversified.

(4)

Named developed country

1 .....

2 .....

(f) Study Figure 2b in the Resource Booklet.

Suggest **one** way the patterns shown in Figure 2b might change the characteristics of rural areas.

(3)

(g) Explain **two** strategies being used to make rural living more sustainable in developing or emerging countries.

(4)

1 .....

2 .....

(h) Study Figure 2c in the Resource Booklet.

Analyse the factors that are leading to changes in rural areas in developing and emerging countries.

Refer to the resource in your answer.

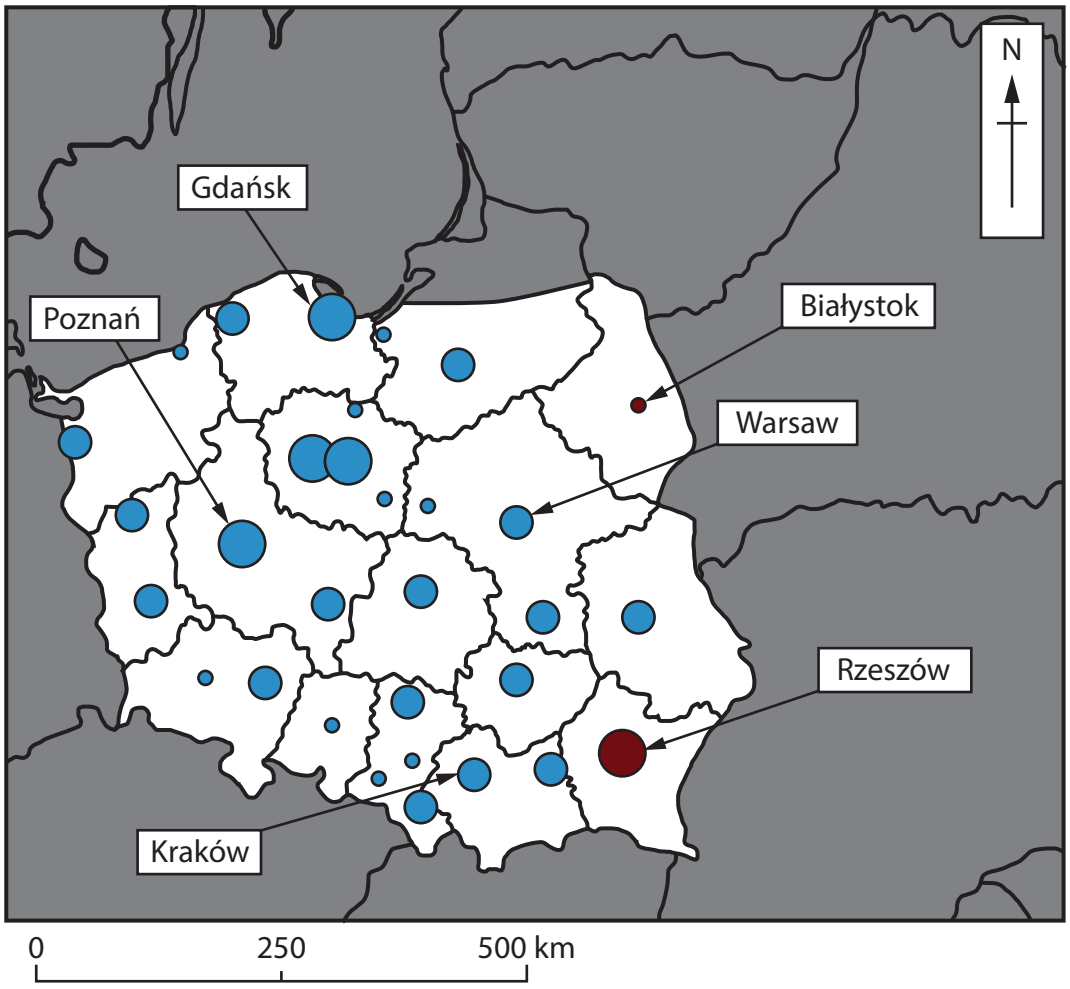
(8)



(Source: © Robert Arthur Designs/Shutterstock)

Figure 2a

A photograph of a suburb in Colorado, USA



Key: Size of population movement

Inflow to cities (Percentage (%))

- >2.90
- 1.46–2.90
- 0.29–1.45

Outflow to suburban areas (Percentage (%))

- >2.90
- 1.46–2.90
- 0.29–1.45
- Outside coverage

Figure 2b

Movement of people into and out of Polish cities, 2004–2018

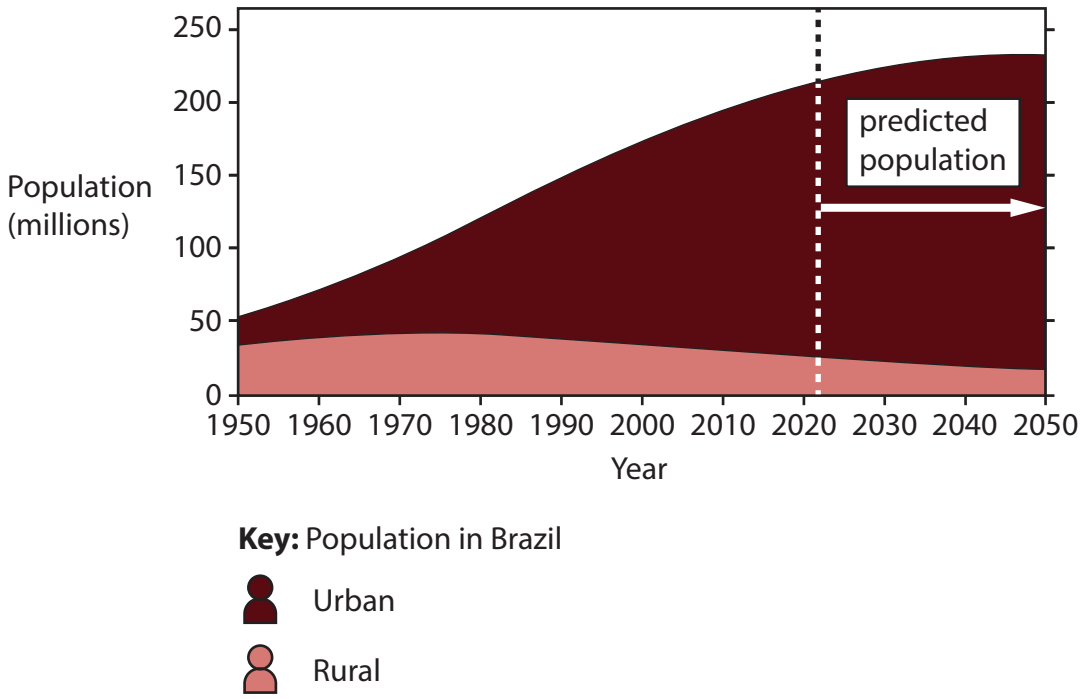


Figure 2c

Urban and rural population change and predicted change in Brazil, 1950–2050

2 Rural environments

(a) (i) Identify **one** type of farm diversification.

(1)

- ☒ **A** increasing irrigated land
- ☒ **B** increasing land used for flood defences
- ☒ **C** opening a farm shop
- ☒ **D** opening a new barn to store crops

(ii) State **one** reason for using genetically modified (GM) crops.

(1)

(b) Identify the best definition of intensive farming.

(1)

- ☒ **A** Farming which uses large amounts of resources and labour.
- ☒ **B** Farming which uses no chemical fertilisers or pesticides.
- ☒ **C** Farming which uses traditional irrigation methods.
- ☒ **D** Farming which grows crops to support the family.

(c) Study Figure 2a in the Resource Booklet which shows the distribution of selected biomes.

Explain **one** reason for the distribution of different biomes.

(2)

(d) State **one** characteristic of a temperate forest biome.

(1)

(e) Explain **two** ways natural ecosystems provide services.

(4)

1 .....

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2 .....

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(f) Study Figure 2b in the Resource Booklet which shows increases in the percentage (%) of cereal yield, and land used for growing cereals, in Asia 1961 to 2020.

Suggest **one** possible reason for the increased yields.

(3)

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(g) For a named developing or emerging country, explain how **non-governmental organisations (NGOs)** have tried to manage **two** challenges within a rural environment.

(4)

Named developing or emerging country

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1 .....

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(h) Study Figure 2c in the Resource Booklet.

Analyse the factors that may contribute to the negative multiplier effect.

Refer to the resource in your answer.

(8)

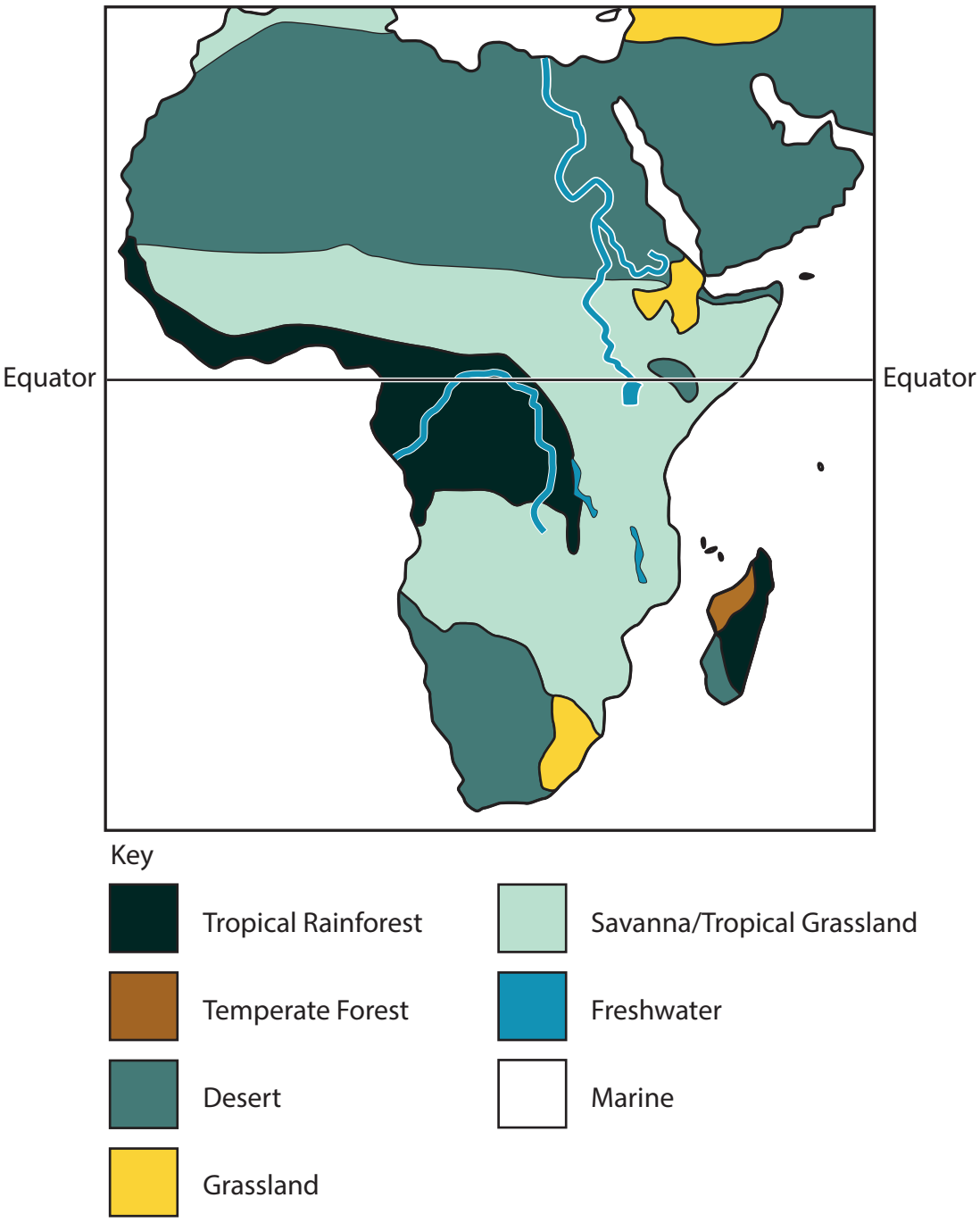


Figure 2a

Map of selected biomes

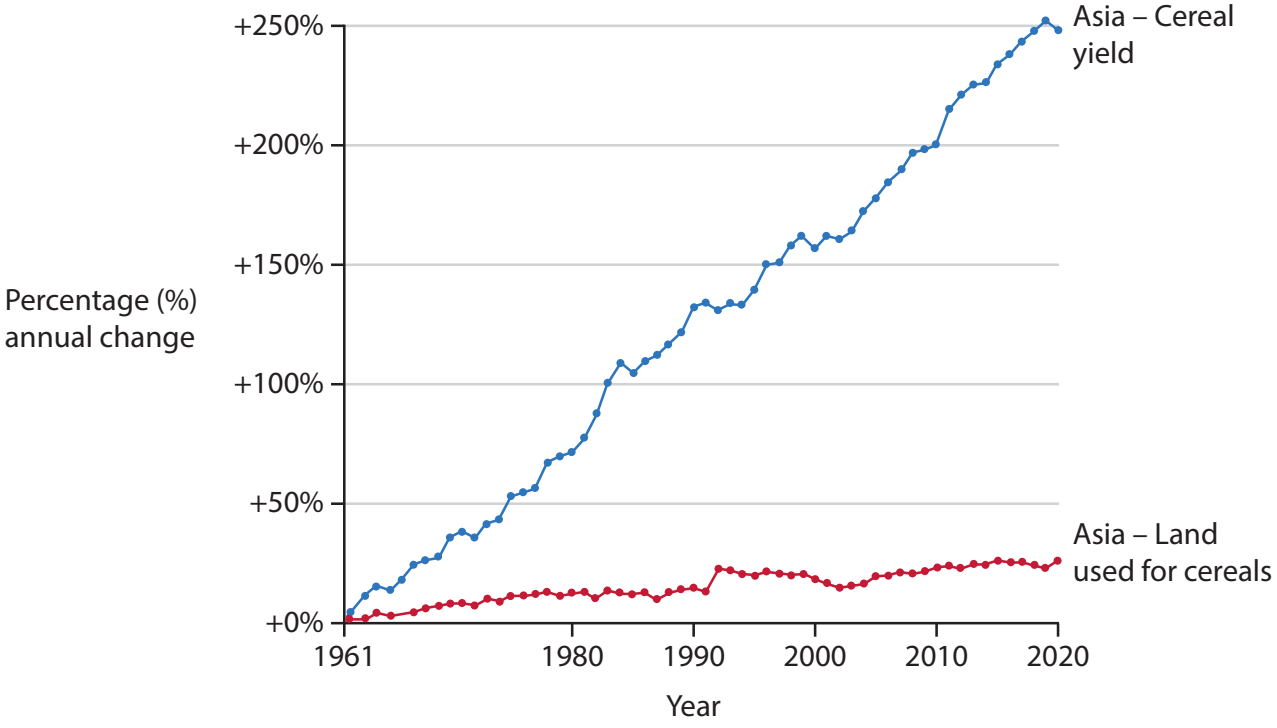


Figure 2b

Increase in percentage (%) of cereal yield and land used for growing cereals in Asia, 1961 to 2020

The downward spiral

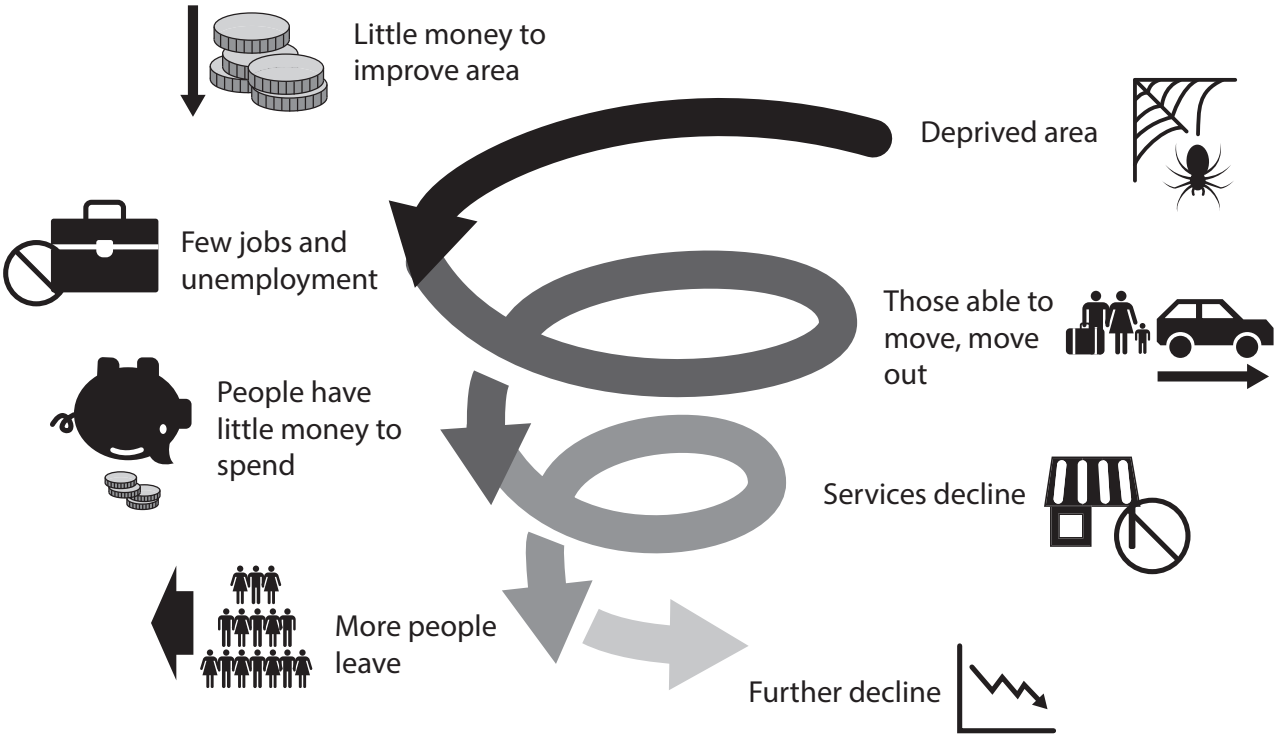


Figure 2c

The negative multiplier effect

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Acknowledgements

Pearson Education Ltd. gratefully acknowledges all the following sources used in the preparation of this paper:

Figure 1b: adapted from https://ec.europa.eu/eurostat/
Figure 1c: adapted from https://www.gleneira.vic.gov.au/services/sustainable-living/what-can-i-do-to-reduce-my-carbon-footprint
Figure 2a: Reproduced under Creative Commons Attribution-ShareAlike 3.0 license
Figure 2b: Food and Agriculture Organization of the United Nations OurWorldInData.org/crop-yields
Figure 2c: adapted from https://geogramblings.com/
Figure 3a: adapted from https://toolkit.climate.gov/image/1991
Figure 3b: adapted from https://ourworldindata.org/grapher/urban-and-rural-populations-in-the-united-states
Figure 3c: adapted from https://www.cdc.gov/nceh/multimedia/infographics/redeveloping_brownfield.html
Figure 7a: adapted from https://ourworldindata.org/co2-emissions
Figure 8a: adapted from https://ourworldindata.org/grapher/trade-as-share-of-gdp
Figure 9a: adapted from https://ourworldindata.org/grapher/economic-inequality-gini-index
Figure 9b: adapted from https://story.aidhedge.org/foreign-aid-infographics-851c8971ed7a

If you answer Question 2, put a cross in the box ☒.

2 Rural environments

(a) (i) Identify the best definition of a biome.

(1)

- ☒ **A** a community of animals which are connected through a food web
- ☒ **B** a community of animals and plants occupying a major habitat
- ☒ **C** a habitat where weather conditions change all year around
- ☒ **D** a habitat that is affected by human activity

(ii) State **one** characteristic of a desert biome.

(1)

.....

(b) Study Figure 2a in the Resource Booklet.

Explain **one** factor that can affect the distribution of biomes.

(2)

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.....

(c) Identify the best definition of arable farming.

(1)

- ☒ **A** farming that grows trees
- ☒ **B** farming that produces crops
- ☒ **C** farming that specialises in rearing fish
- ☒ **D** farming that specialises in rearing livestock

(d) State **one** way commercial farming can affect rural environments.

(1)

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(e) Explain **two** reasons accessibility is important in rural environments.

(4)

1 .....

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2 .....

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(f) Study Figure 2b in the Resource Booklet.

Suggest **one** reason why diversification is important for farmers, using the information shown.

(3)

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(g) For a named developed country, explain **two** ways tourist pressures can affect rural areas.

(4)

Named developed country

.....

1 .....

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(h) Study Figure 2c in the Resource Booklet.

Analyse the importance of natural ecosystems for the provision of goods.

You **must** refer to the resource in your answer.

(8)

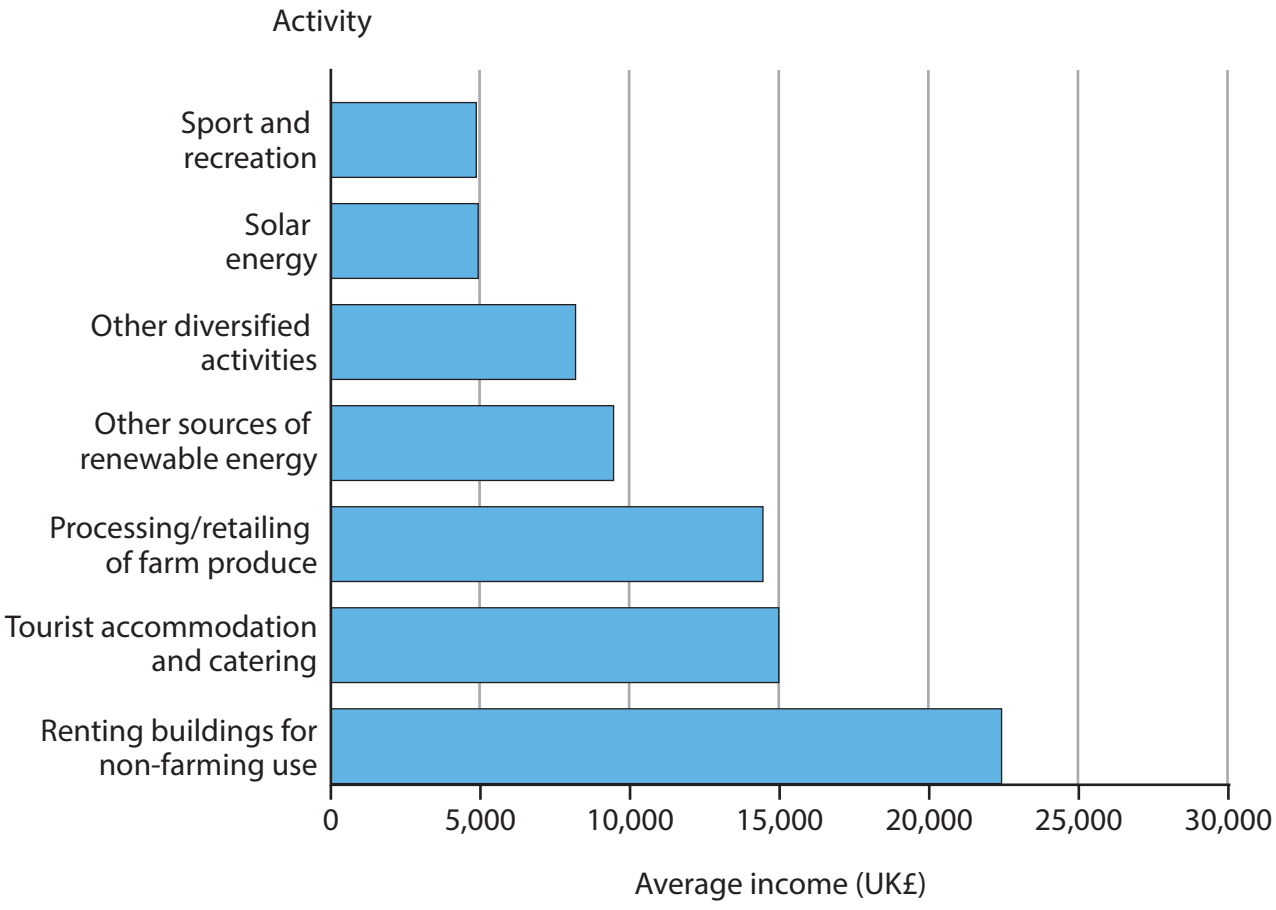


Figure 2b

Average income from farm diversification activities in England, 2022

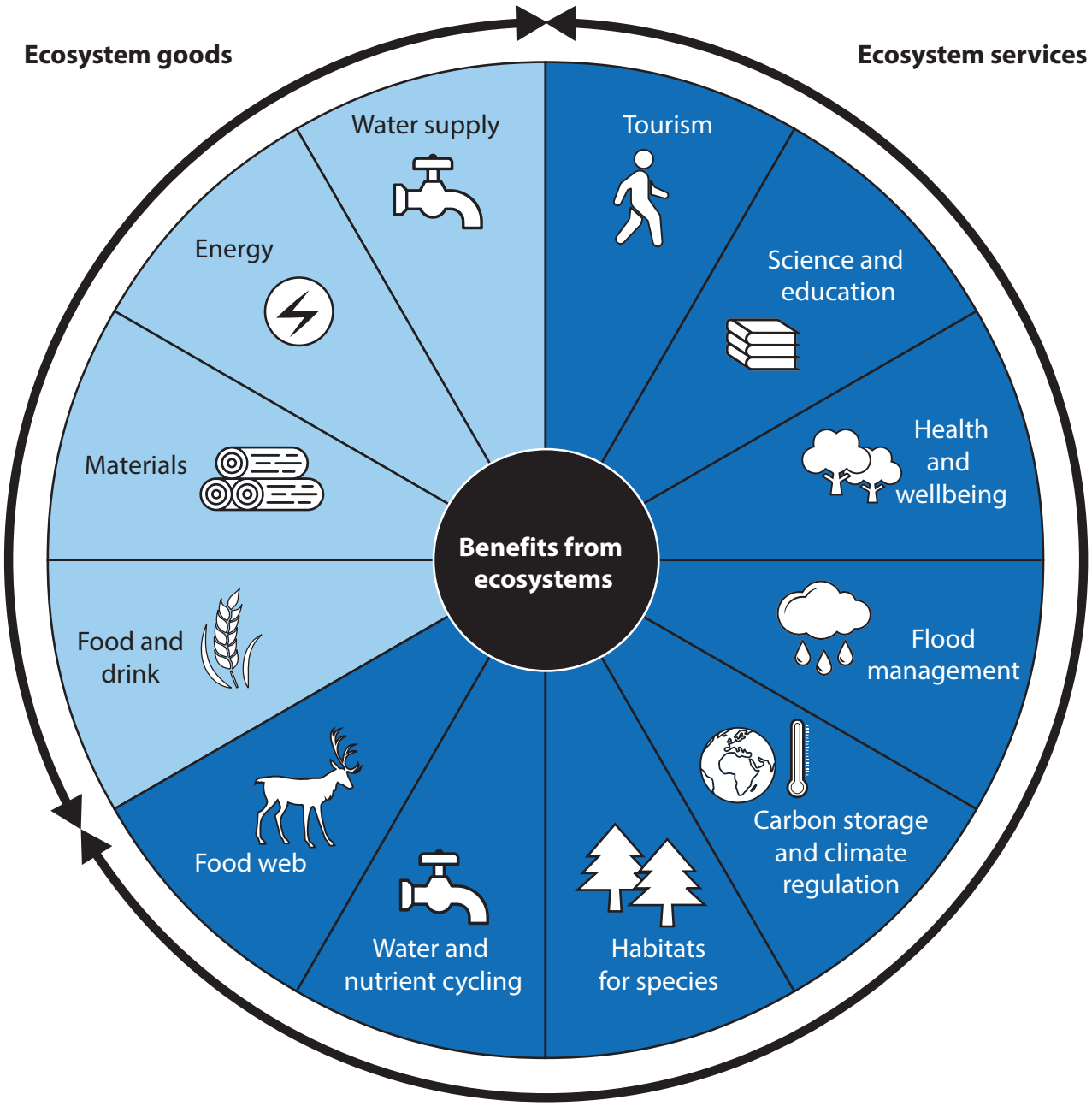


Figure 2c

Ecosystem goods and services

If you answer Question 2, put a cross in the box ☒.

2 Rural environments

(a) (i) Identify the best definition of a natural ecosystem.

(1)

- ☒ **A** animals connected in a food chain
- ☒ **B** human interaction with nature
- ☒ **C** interaction of living organisms with their environment
- ☒ **D** products from living organisms to be sold for profit

(ii) State **one** service provided by natural ecosystems.

(1)

.....

.....

(b) Study Figure 2a in the Resource Booklet.

Describe the characteristics of **one** of the world's biomes shown.

(2)

Named biome

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.....

(c) Identify the best definition of pastoral farming.

(1)

- ☒ **A** farming on flat land with fertile soil
- ☒ **B** farming using no chemicals
- ☒ **C** farming using traditional irrigation
- ☒ **D** farming that is dependent on animals

(d) State **one** way intensive farming can affect rural environments.

(1)

(e) Explain **two** impacts of counter-urbanisation on rural environments.

(4)

1

2

(f) Study Figure 2b in the Resource Booklet.

Suggest **one** way investment in rural Viet Nam could improve quality of life.

(3)

(g) For a named developing or emerging country explain **two** impacts of rural-urban migration on rural environments.

(4)

Named developing or emerging country

.....

1 .....

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(h) Study Figure 2c in the Resource Booklet.

Analyse possible reasons for the changes in farm diversification.

You **must** refer to the resource in your answer.

(8)

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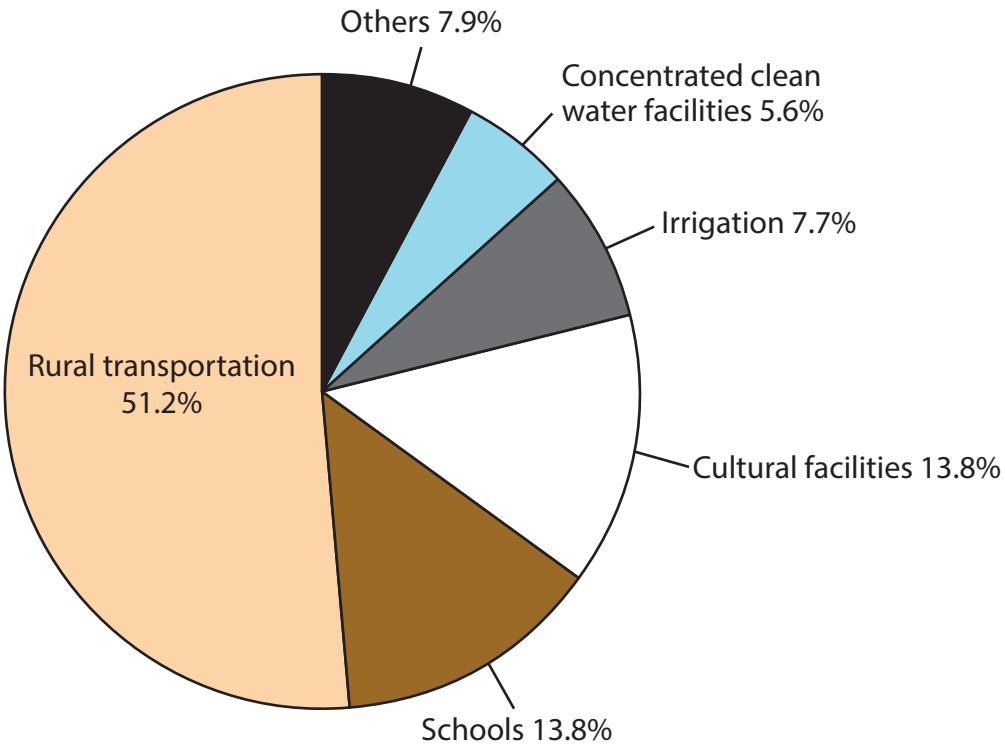


Figure 2b

Percentage (%) of investment in development spending in rural areas in Viet Nam, 2011–2020

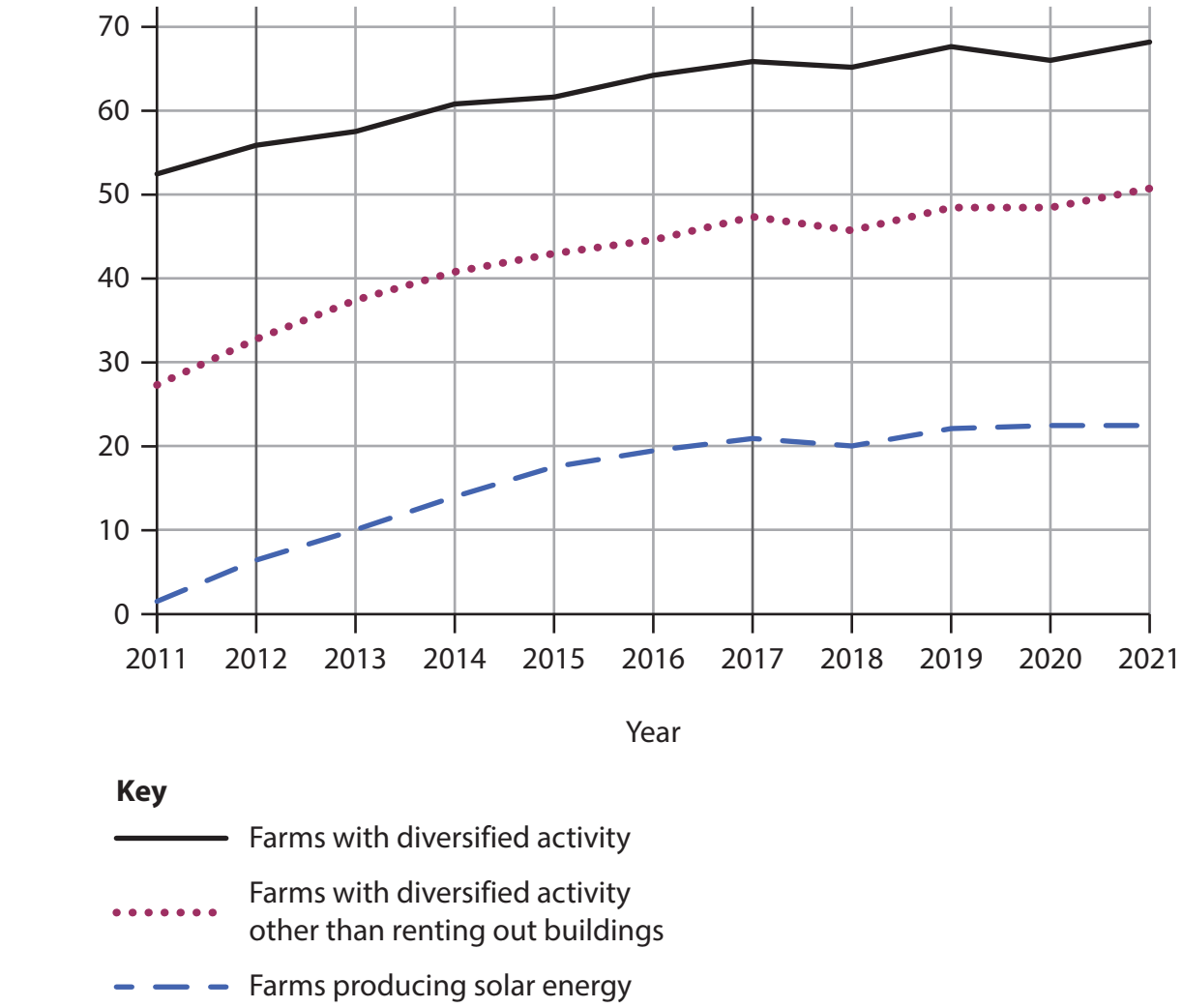


Figure 2c

Percentage (%) of farms in England that have diversified their economic activity, 2011–2021

If you answer Question 2, put a cross in the box ☒.

2 Rural environments

(a) (i) Identify **one** characteristic of intensive farming.

(1)

- ☒ **A** high inputs
- ☒ **B** little surplus crops
- ☒ **C** low yields
- ☒ **D** small areas of land used

(ii) State **one** benefit of using genetically modified (GM) crops.

(1)

.....

.....

(b) Identify **one** type of farm diversification.

(1)

- ☒ **A** building a new road to the farm
- ☒ **B** limiting the amount of pesticides used
- ☒ **C** opening a farm shop
- ☒ **D** reducing the number of crops grown

(c) Study Figure 2a in the Resource Booklet.

Describe the characteristics of this rural environment.

(2)

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(d) State **one** strategy used to make water supplies more sustainable in rural areas.

(1)

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.....

(e) Explain **two** ways tourism can have a negative impact on rural areas.

(4)

1 .....

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2 .....

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(f) Study Figure 2b in the Resource Booklet.

Explain how **either** temperature **or** precipitation can affect the characteristics of biomes.

(3)

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(g) Explain **two** ways natural ecosystems provide goods for people.

(4)

1 .....

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2 .....

(h) Study Figure 2c in the Resource Booklet.

Analyse the importance of the negative multiplier effect on the population structure of rural areas.

You **must** refer to the resource in your answer.

(8)



Figure 2a

Rural environment in the Midwest of the USA

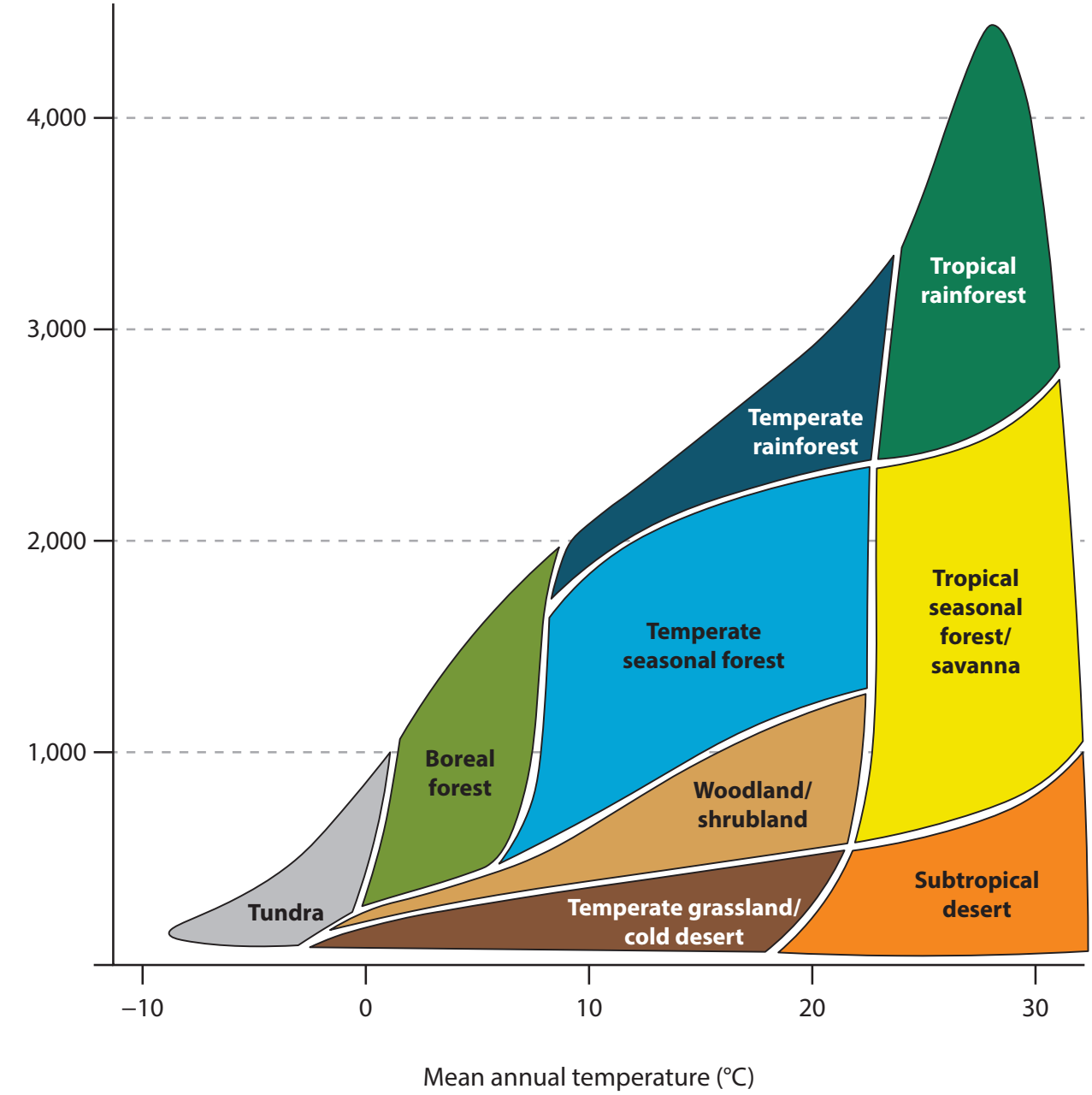


Figure 2b

Annual precipitation and mean annual temperature of key biomes

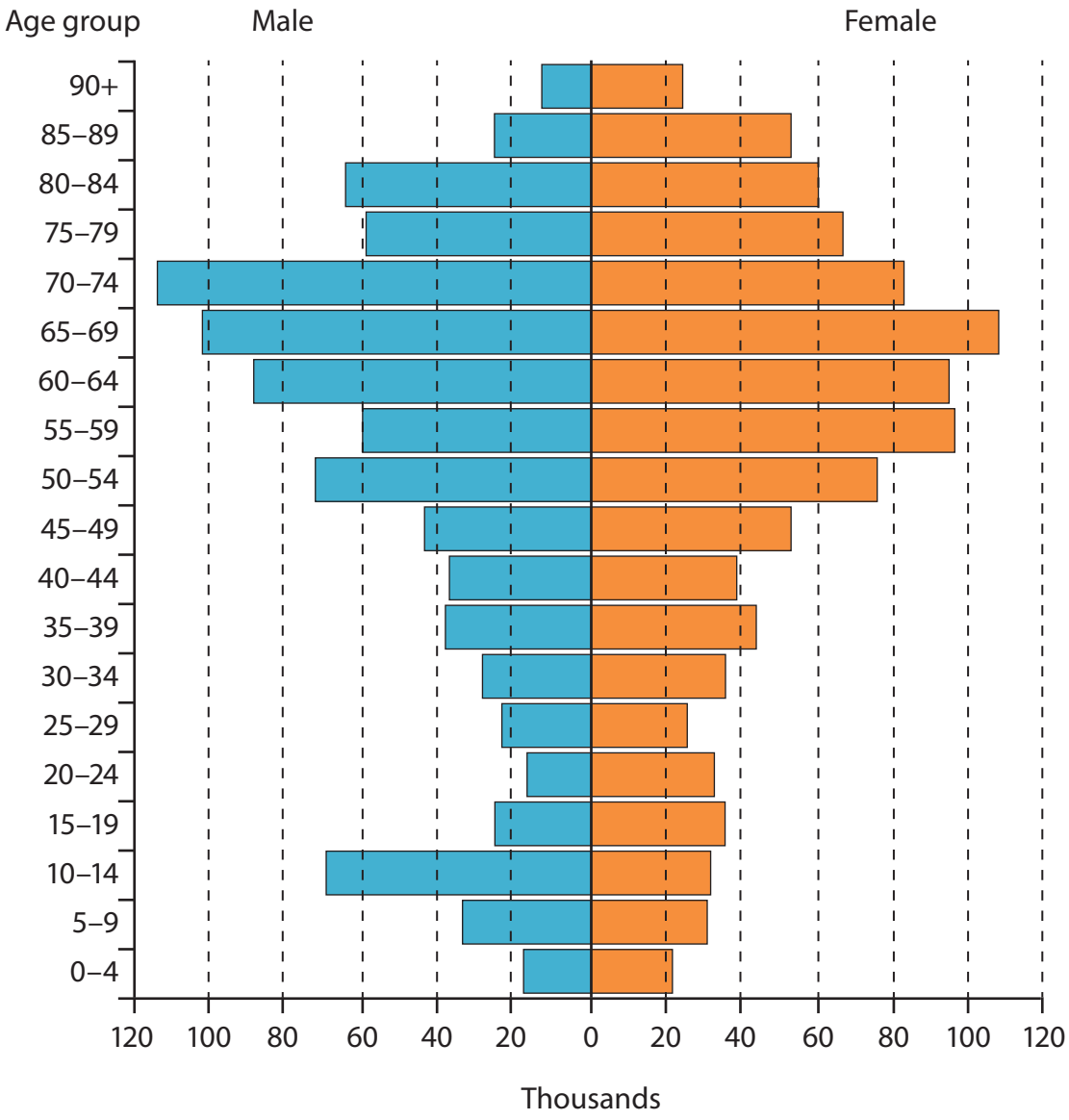


Figure 2c

Population structure for a rural area in the United Kingdom, 2023

If you answer Question 2, put a cross in the box ☒.

2 Rural environments

(a) (i) Identify the location where tropical rainforests are usually found.

(1)

- ☒ **A** between 23.5°N and 40°N of the equator
- ☒ **B** between 66.50°S and 90°S of the equator
- ☒ **C** between the Tropic of Cancer and the Arctic Circle
- ☒ **D** between the Tropic of Cancer and the Tropic of Capricorn

(ii) State **one** characteristic of a tundra biome.

(1)

.....

(b) Identify **one** type of service provided by grasslands.

(1)

- ☒ **A** plants used for medicines
- ☒ **B** regulate air quality
- ☒ **C** timber for building
- ☒ **D** wheat for flour production

(c) Study Figure 2a in the Resource Booklet.

Suggest **one** piece of evidence humans have changed this environment.

You **must** refer to the resource in your answer.

(2)

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.....

(d) State **one** strategy used to improve air quality in rural environments.

(1)

.....

.....

(e) Explain **one** advantage and **one** disadvantage of using genetically modified (GM) crops.

(4)

advantage

disadvantage

(f) Study Figure 2b in the Resource Booklet.

Suggest **one** way governments can reduce isolation in rural environments.

You **must** refer to the resource in your answer.

(3)

(g) Explain **two** ways farm economies are changing in a named developing or emerging country.

(4)

Named developing or emerging country

.....

1 .....

.....

.....

(h) Study Figure 2c in the Resource Booklet.

Analyse the possible changes to rural areas caused by the trend shown.

You **must** refer to the resource in your answer.

(8)

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Figure 2a

A rural environment in Bali, Indonesia

Study finds elderly 'isolated in rural environments'.

Cuts to bus services may present problems for many older people who live in the countryside.

A lack of shops, access to health and social care, and difficulties getting broadband also create obstacles.

Figure 2b

Extract from news article on rural isolation

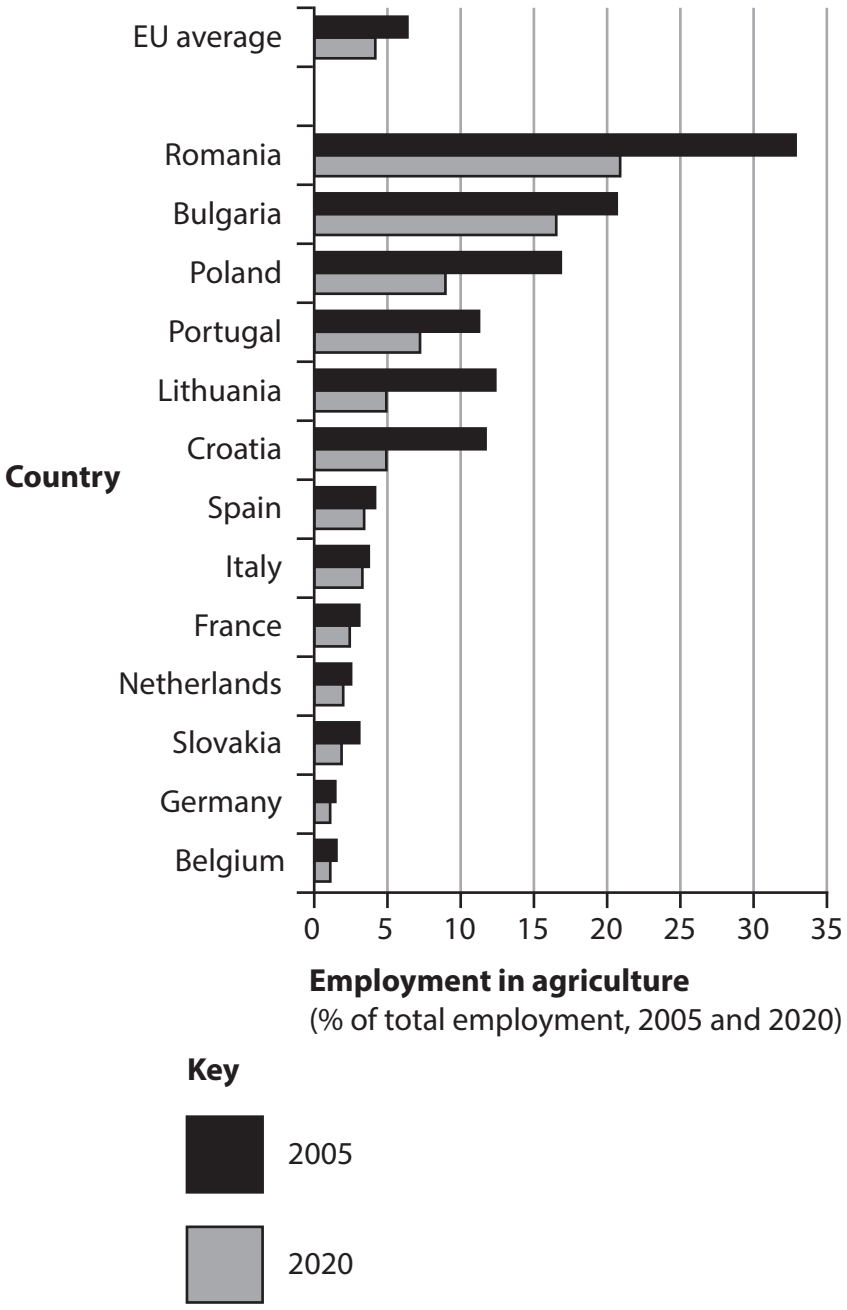


Figure 2c

Employment in agriculture for selected countries in the European Union, 2005 and 2020

If you answer Question 2, put a cross in the box ☒.

2 Rural environments

(a) (i) Identify **one** characteristic of boreal forests.

(1)

- ☒ **A** absence of rainfall
- ☒ **B** coniferous vegetation
- ☒ **C** equatorial climate
- ☒ **D** salty water

(ii) State **one** type of biome that is associated with low rainfall.

(1)

.....

(b) Identify **one** type of farm diversification strategy.

(1)

- ☒ **A** increasing crop yields
- ☒ **B** opening a farm shop
- ☒ **C** planting more of the same crop
- ☒ **D** reducing the amount of land used

(c) Study Figure 2a in the Resource Booklet.

Suggest **one** piece of evidence that intensive farming operates in this rural area.

You **must** refer to the resource in your answer.

(2)

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.....

(d) State **one** characteristic of subsistence farming.

(1)

.....

.....

(e) Explain **one** advantage and **one** disadvantage of organic farming.

(4)

advantage

disadvantage

(f) Study Figure 2b in the Resource Booklet.

Suggest **one** way non-governmental organisations (NGOs) can manage challenges in rural environments.

You **must** refer to the resource in your answer.

(3)

(g) For a named developed country, explain **two** ways the rural economy is changing.

(4)

Named developed country

1

(h) Study Figure 2c in the Resource Booklet.

Analyse how the trend shown in water supplies should improve the quality of life in rural areas.

You **must** refer to the resource in your answer.

(8)



Figure 2a

Peach production near Saluzzo, Italy

Challenges in rural areas

Rural areas in some developing countries are characterised by high dependence on agriculture and natural resources, high levels of informal employment and poverty.

They also often have poor quality infrastructure, such as lack of public transport, poor internet, unstable electricity and poor quality public services.

Figure 2b

Extract from report on rural challenges

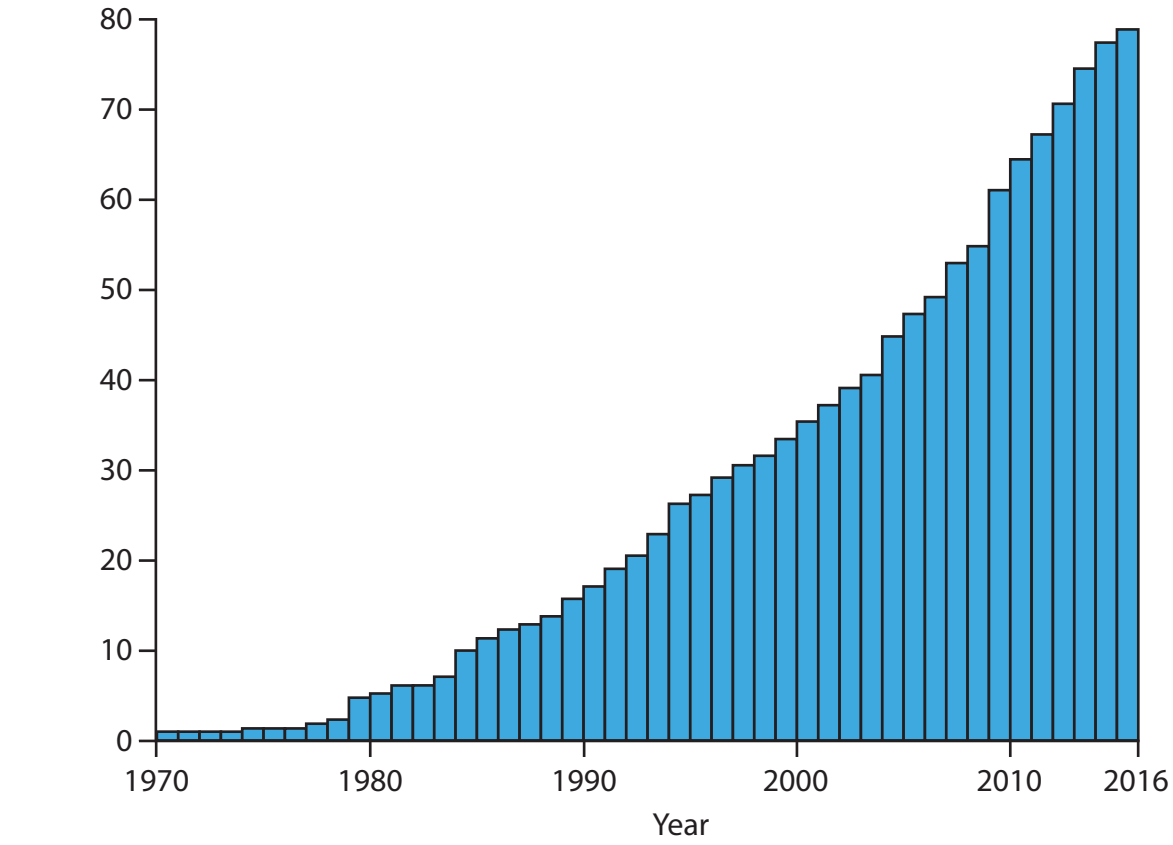


Figure 2c

Percentage of villages with piped water access in China, 1970–2016

SUB-TOPIC

FIELDWORK: INVESTIGATING RURAL ENVIRONMENTS

16 questions in this booklet

If you answer Question 5 put a cross in the box ☒

5 Investigating rural environments.

You have studied rural environments as part of your own geographical enquiry.

State the title of your geographical enquiry.

.....

(a) (i) State **one** type of sampling you used in your geographical enquiry.

(1)

.....

(ii) Explain **one** way this sampling technique helped you to collect reliable data or information.

(2)

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(b) Explain **one** way you managed a risk associated with your primary data collection.

(2)

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(c) Draw an annotated sketch map or annotated diagram to show how you selected locations to collect your fieldwork data.

(3)

(d) Explain **two** limitations of the method that you used to collect **qualitative data**.

(4)

1 .....

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2 .....

(e) Study Figures 5a, 5b and 5c in the Resource Booklet. They show three different data presentation techniques from a student's investigation into the changing use of rural environments.

The aim of the student's enquiry was to investigate the attitudes towards the plans for a new tourist development in the New Territories, Hong Kong.

The student used three different presentation techniques to help understand people's opinions towards the proposed tourist development.

Evaluate how effective the techniques were in presenting the data and information collected.

(8)

Question number	People's views				Total
	Strongly disagree	Slight disagreement	Not sure	Slight agreement	
1				3	3
2				7	7
3	2	5	3		20
4	6	1	3		10
5	2	2	2	2	8
6		5	5		10
7	1	6	3		10
8			1	2	9

Figure 5a

Results from a survey of people's views on a proposed new tourist development



Figure 5b

Photographic results evidence lorry traffic on small roads

(Source: © Kumar Sriskandan / Alamy Stock Photo)



Figure 5c

Presentation of attitudes towards the tourist development

5 Investigating rural environments.

You have studied rural environments as part of your own geographical enquiry.

(a) (i) State **one** type of secondary data you used in your geographical enquiry.

(1)

(ii) Explain **one** way this secondary data helped you when investigating rural environments.

(2)

(b) State the title of your geographical enquiry.

Explain **one** reason why this title was suitable for your geographical enquiry.

(2)

(c) Explain **one** limitation of a method that you used to collect **quantitative data**.

(3)

(d) Explain **two** methods you used to analyse some of your fieldwork data.

(4)

Method 1

Method 2

(e) Study Figures 5a and 5b in the Resource Booklet. It shows two different data presentation techniques from a student's fieldwork into the use of rural environments.

The aim of the student's investigation was to identify attitudes towards the plans for a new tourist development in the New Territories, Hong Kong.

The student carried out two different types of surveys into people's opinions and attitudes towards the proposed tourist development.

Evaluate the student's data presentation techniques.

(8)

Question number	Peoples' Responses				Total
	Strongly disagree	Slight disagreement	Not sure	Slight agreement	
1				3	3
2				7	7
3	2	5	3		20
4	6	1	3		10
5	2	2	2	2	8
6		5	5		10
7	1	6	3		10
8			1	2	9

Figure 5a

Results from a questionnaire survey into the proposed tourist development

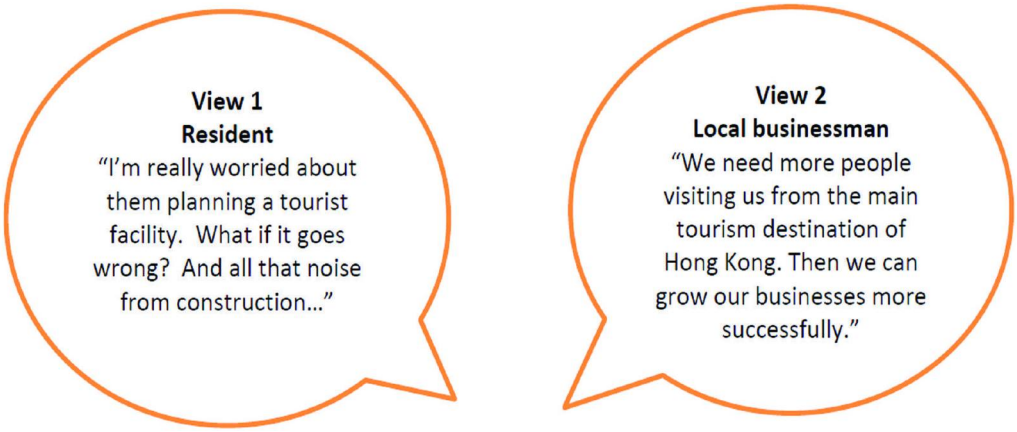


Figure 5b

Interview results on the proposed tourist development

If you answer Question 5 put a cross in the box ☒.

5 Investigating rural environments

You have studied rural environments as part of your own geographical enquiry.

State the title of your geographical enquiry.

(a) (i) State **one** type of **primary** data you used in your geographical enquiry.

(1)

(ii) Explain **one** way this **primary** data helped you when investigating rural environments.

(2)

(b) State the location of your geographical enquiry.

Explain **one** reason why this location was suitable for your geographical enquiry.

(2)

(c) Explain **one** way you used **secondary** data to support your geographical enquiry.

(3)

(d) Explain **two** techniques you used to analyse some of your fieldwork data.

(4)

1

2

(e) Study Figures 5a and 5b in the Resource Booklet. They show an extract from a student's conclusion and evaluation into the changing use of rural environments, and an annotated photograph.

> The aim of the student's enquiry was to investigate the attitudes towards the changing use of rural areas in Dorset, UK.
>
> The student carried out a questionnaire, environmental quality survey and took photographs, which the student annotated.

Evaluate the student's written conclusions, evaluation and annotated photograph.

(8)

Comments	Conclusions
1	I found that there were lots of differences in the environmental quality survey between the areas.
2	The questionnaire showed rural areas are having a lot of changes at the moment.
3	There is a big difference in the areas based on how they look.
	Evaluations
4	I think my results were very reliable but if I had more time I would have had a larger questionnaire sample.
5	The environmental quality survey worked well but we should have used other people to fill in the forms.
6	Overall the fieldwork was very beneficial to my knowledge of geography and I enjoyed the investigation.

Figure 5a

An extract from a student's conclusions and evaluations



(Source: © David Holmes Geography)

Figure 5b

An annotated photograph that was used as part of the conclusion

If you answer Question 5 put a cross in the box ☒.

5 Investigating rural environments

You have studied rural environments as part of your geographical enquiry.

State the title of your geographical enquiry.

.....

.....

(a) Explain how you managed **one** risk associated with your geographical enquiry.

(2)

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.....

(b) (i) Explain **one** limitation of a method that you used to collect **qualitative** data.

(2)

Qualitative method .....

.....

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.....

(ii) Explain **one** way you could have improved the collection of your qualitative data.

(2)

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(c) Explain **one** way secondary data was used to support your geographical enquiry.

(2)

(d) Explain **two** methods you used to present some of your fieldwork data.

(4)

1

2

(e) Study Figures 5a and 5b in the Resource Booklet. These show extracts from a student's methods and techniques used to investigate the changing use of rural environments.

> The aim of the student's enquiry was to investigate the attitudes and perceptions about the changing use of rural environments.
>
> The student designed a method and carried out a questionnaire.

Evaluate the student's data collection methods.

(8)

- Sample size will be 5–10 questionnaires to local people and visitors.
- Questionnaires undertaken at lunchtime.
- I will ask every 8th person that I see in the street.

Figure 5a

The student's proposed design methodology

Hello, I'm a student on a GCSE Geography field trip. I would like to ask you a few questions. It won't take long.

1. **What do you think of the new quarry being opened here? Do you like the idea?**
Mark only one oval.

	1	2	3	4	5	
Yes, I'm really happy	◯	◯	◯	◯	◯	No, I really don't want it

2. **Lots of people are worried about noise pollution. How do you think it will affect this area?**
Mark only one oval.

- ◯ More traffic
- ◯ More flooding
- ◯ More light pollution
- ◯ More earthquakes
- ◯ Not sure

3. **How old are you?**
Check all that apply.

- ☐ 0-10
- ☐ 10-20
- ☐ 20-30
- ☐ 30+

4. **Do you think it's a good idea to plant more trees in this area?**
Check all that apply.

- ☐ Yes
- ☐ No
- ☐ Don't know

Figure 5b

An extract from a student's questionnaire

If you answer Question 5 put a cross in the box ☒.

5 Investigating rural environments

(a) Study Figure 5a in the Resource Booklet.

(i) State **one** piece of secondary data that would be useful to investigate this rural environment.

(1)

.....

.....

(ii) Explain why photographs are a useful source of primary data.

(2)

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.....

(b) Study Figure 5c below. It shows data from an environmental quality survey carried out in five sites around a new factory development.

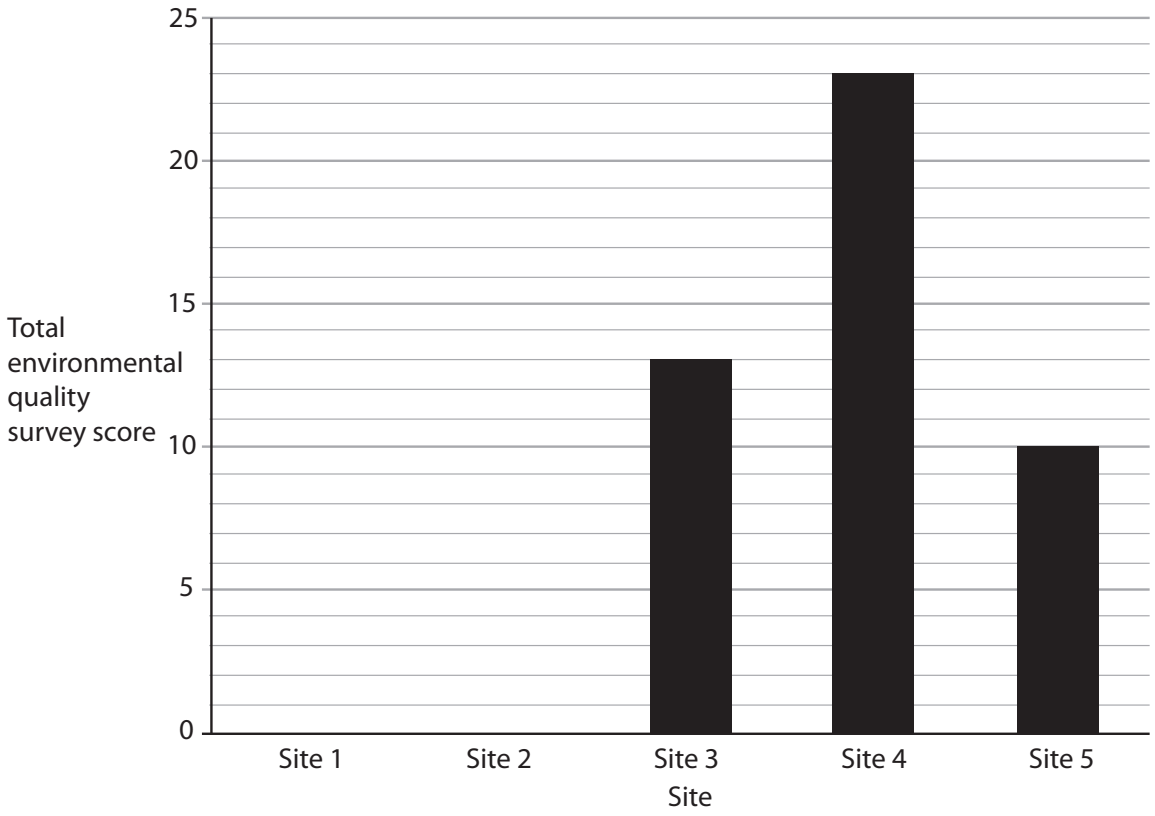


Figure 5c

A graph of environmental quality survey data

(i) Plot the data for sites 1 and 2 (from Figure 5b in the Resource Booklet) to complete the graph above (Figure 5c).

Some data has been plotted for you.

(2)

(ii) Identify the type of graph shown in Figure 5c.

(1)

☒	**A** Bar
☒	**B** Line
☒	**C** Pie
☒	**D** Scatter

(iii) Identify the site in Figure 5c that has the highest environmental quality score.

(1)

(iv) Calculate the range in environmental quality scores.

Show all your workings.

(2)

(c) Explain **one** way you could manage a risk during fieldwork in a rural area with a new development.

(3)



Figure 5a

Photograph of a new development in a rural area

Environmental quality indicator	Site 1	Site 2	Site 3	Site 4	Site 5
Building condition (1 = Poor condition/5 = Good condition)	4	5	3	5	2
Road quality (1 = Poor condition/5 = Good condition)	4	2	3	5	2
Noise (1 = Very noisy/5 = No noise)	4	3	3	4	1
Litter (1 = A lot of litter/5 = No litter)	4	4	3	5	3
Air pollution (1 = Poor air quality/5 = Good air quality)	4	1	1	4	2
Total environmental quality score	20	15	13	23	10

Figure 5b

Extract from a table of results from an environmental quality survey

5 Investigation rural environments

(a) Study Figure 5a in the Resource Booklet.

(i) Identify **one** type of qualitative data collection in this enquiry.

(1)

.....

.....

(ii) Explain **one** type of sampling method chosen by the student.

(2)

.....

.....

(b) Study Figure 5b in the Resource Booklet. It shows results from a questionnaire carried out as part of a student's geographical enquiry.

(i) Plot the data for the questionnaire for **Question 2** (Figure 5b in the Resource Booklet) to complete Figure 5c below.

(2)

Some data has been plotted for you as an example.

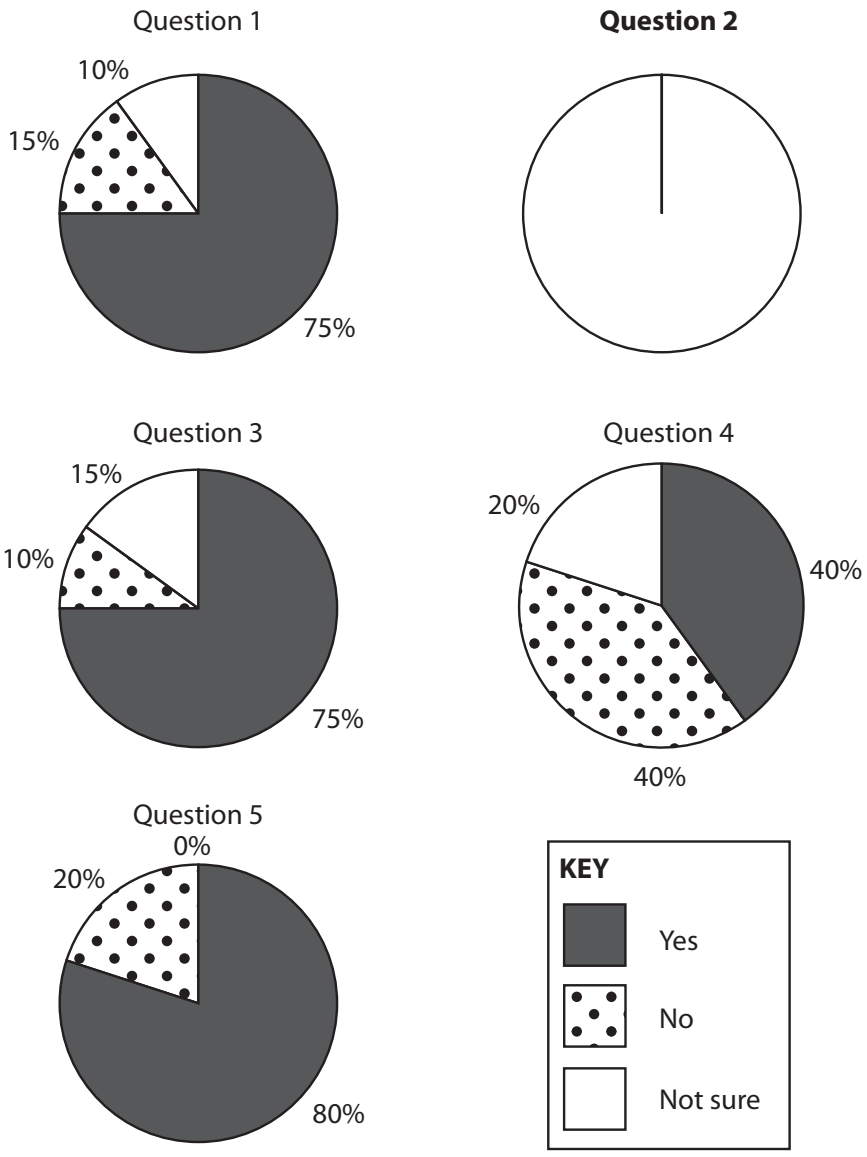


Figure 5c

Results from a questionnaire displayed in pie charts

(ii) Identify **one** advantage of using a questionnaire.

(1)

☒	**A** An expensive data collection method compared to other methods.
☒	**B** Guarantees responses from people.
☒	**C** Potential to generate a mixture of qualitative and quantitative data.
☒	**D** Provides data about everything you need to know.

(iii) Identify the correct statement below.

(1)

☒	**A** The mean percentage for people who answered 'not sure' was 1.
☒	**B** The mean percentage for people who answered 'not sure' was 11.
☒	**C** The mean percentage for people who answered 'not sure' was 21.
☒	**D** The mean percentage for people who answered 'not sure' was 31.

(iv) Suggest **one** way the data collection for this enquiry could be improved.

(2)

.....

.....

(c) Suggest **one** advantage of using secondary data as part of this enquiry.

(3)

.....

.....

.....

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.....

Method	Purpose	Details
Secondary data from websites and newspapers	To provide background information on the study site.	Conduct web search using Google and Google Scholar for selected key words.
Photographs/Field sketches	To provide a visual record of the different parts of the enquiry site.	Take photos and field sketches where possible.
Environmental Quality Survey	To provide an understanding of how environmental quality varies across the site.	To be conducted at five sites at regular intervals along a road.
Questionnaire	To understand different views of the developments taking place.	Complete 10 questionnaires. Two at each site.

Figure 5a

An extract from a student's methodology

	Yes (%)	No (%)	Not sure (%)
Question 1: Did you think this area needs to be improved?	75	15	10
Question 2: Do you think the developments have improved the area?	50	40	10
Question 3: Do you think further improvements need to be made?	75	10	15
Question 4: Do you think local government should be responsible for leading the development of this area?	40	40	20
Question 5: Are you local to this area?	80	20	0

Figure 5b

Extract from a student's questionnaire

Method	Purpose	Details
Secondary data from websites and newspapers	To provide background information on the study site.	Conduct web search using Google and Google Scholar for selected key words.
Photographs/Field sketches	To provide a visual record of the different parts of the enquiry site.	Take photos and field sketches where possible.
Environmental Quality Survey	To provide an understanding of how environmental quality varies across the site.	To be conducted at five sites at regular intervals along a road.
Questionnaire	To understand different views of the developments taking place.	Complete 10 questionnaires. Two at each site.

Figure 5a

An extract from a student's methodology

	Yes (%)	No (%)	Not sure (%)
Question 1: Did you think this area needs to be improved?	75	15	10
Question 2: Do you think the developments have improved the area?	50	40	10
Question 3: Do you think further improvements need to be made?	75	10	15
Question 4: Do you think local government should be responsible for leading the development of this area?	40	40	20
Question 5: Are you local to this area?	80	20	0

Figure 5b

Extract from a student's questionnaire

If you answer Question 5 put a cross in the box ☒

5 Investigating rural environments

Study Figures 5a and 5b in the Resource Booklet. These show extracts from a student's data collection and presentation methods.

> The aim of the student's investigation was to understand how local people felt about the impact of tourists in the Lake District National Park.
>
> The student carried out a questionnaire, took photographs of tourist services, and used secondary data about visitor numbers to the national park.

(a) Identify **one** question in Figure 5a that would produce qualitative data.

(1)

(b) Identify **one** advantage of the presentation type shown in Figure 5b.

(1)

(c) Explain **one** type of sampling that could have been used in this investigation.

(2)

(d) Study Figures 5a and 5b in the Resource Booklet.

Evaluate the student's data collection and presentation methods.

(8)

Questionnaire: Investigating the impact of tourists in the Lake District National Park

1. Do you think tourists have a negative impact on the national park?

   Yes ☐ No ☐

2. Do you think there should be limits on the number of tourists?

   Yes ☐ No ☐

3. Why?

.....

.....

.....

4. How do you think tourists could reduce their impact on the national park?

.....

.....

.....

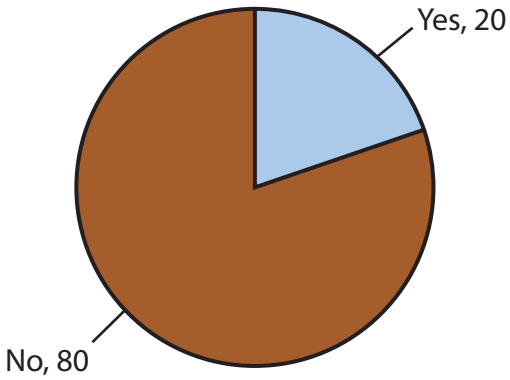
5. On a scale of 1–5 how much do tourists affect these features of the national park:

	1	2	3	4	5
Traffic	☐	☐	☐	☐	☐
Property prices	☐	☐	☐	☐	☐
Scenic beauty	☐	☐	☐	☐	☐
Pollution	☐	☐	☐	☐	☐

Figure 5a

An extract from a student's questionnaire

Question 1. Do you think tourists have a negative impact on the national park?



Question 2. Do you think there should be limits to the number of tourists?

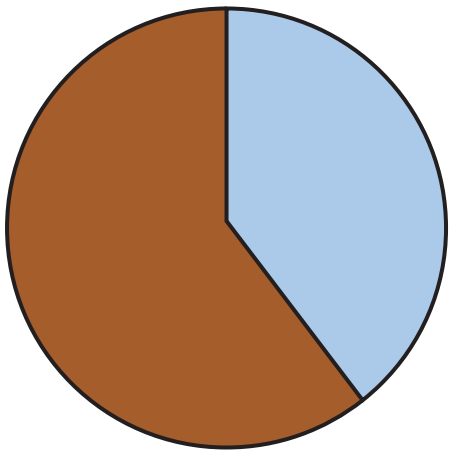


Figure 5b

An extract from a student's data presentation

5 Investigating rural environments

Study Figures 5a and 5b in the Resource Booklet. These show extracts from a student's data analysis, conclusions and evaluations about the changing use of rural environments.

> The aim of the student's investigation was to investigate local attitudes towards the development of a new visitor centre in The Cévennes National Park, France.
>
> The student carried out a questionnaire, environmental quality survey and took photographs, which the student annotated, and collected newspaper articles including photos of the area.

(a) Identify **one** source of secondary data used by the student.

(1)

(b) Identify **one** advantage of using a questionnaire as a data collection method.

(1)

(c) Suggest **one** way the reliability of the data could have been affected.

(2)

(d) Study Figures 5a and 5b in the Resource Booklet.

Evaluate the student's data analysis and conclusions.

(8)



Figure 5a

Word cloud from questionnaire responses about the new visitor centre

Conclusions	
1	I found that there were a lot of views about the new visitor centre.
2	The questionnaire showed that most of the local people are against the new visitor centre.
3	The photographs show that the visitor centre is a small feature in the landscape compared to the number of fields that are currently used for farming.
Evaluations	
4	I think my results were very reliable but if I had more time I would have asked more people to complete my questionnaire.
5	I was able to use newspaper articles about other new tourist facilities to consider if the views from local people were similar.
6	The photographs were good to remind me of the place I visited on fieldwork, but I didn't know how to use them well to present my data.

Figure 5b

An extract from a student's written conclusion and evaluation

If you answer Question 5, put a cross in the box ☒

5 Investigating rural environments

(a) Study Figure 5b in the Resource Booklet.

(i) Identify **one** of the closed questions in the questionnaire.

(1)

.....

(ii) Explain why open questions can be useful in a questionnaire.

(2)

.....

.....

.....

.....

(b) Study Figure 5a in the Resource Booklet.

(i) Identify the type of sampling used for the questionnaire.

(1)

.....

(ii) Plot the remaining data for Site 1 (Figure 5c in the Resource Booklet) to complete the bar graph below (Figure 5d). Some data has been plotted for you as an example.

(2)

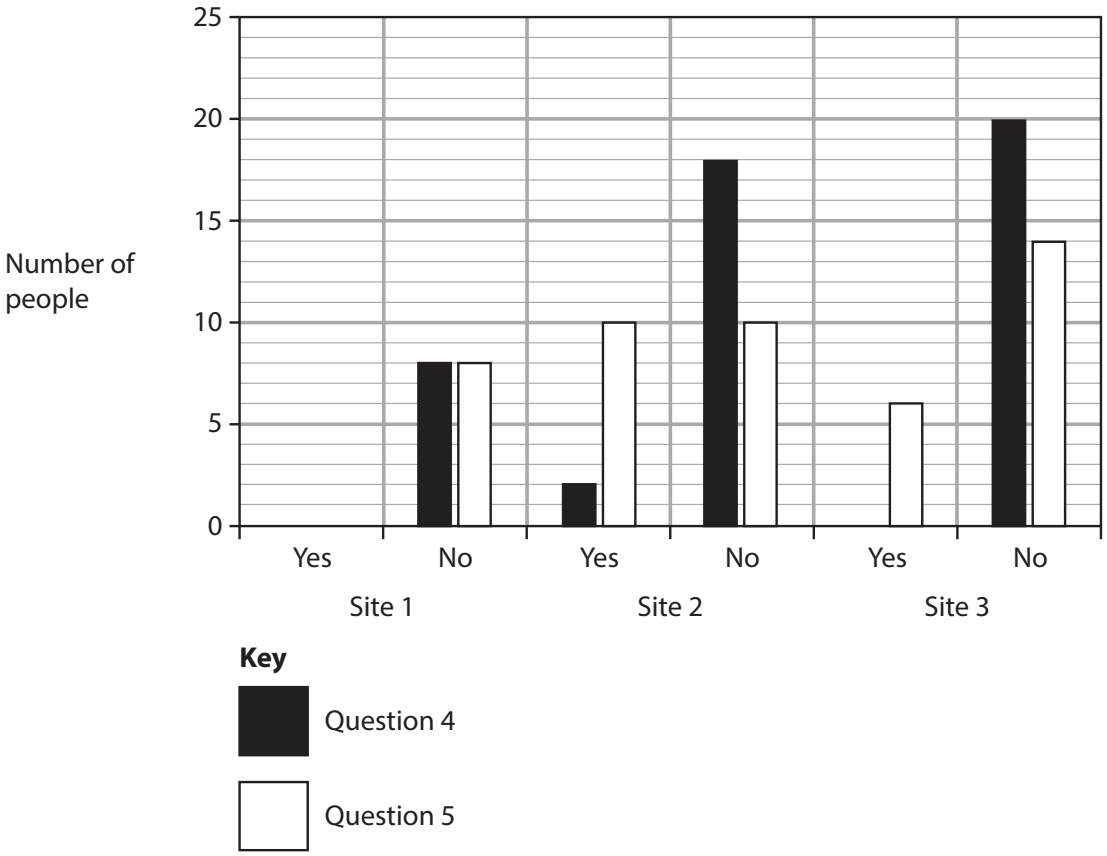


Figure 5d

Bar graph to show data from questionnaire

(iii) Identify the site that had the largest range for Question 1 in the questionnaire.

(1)

.....

(iv) Calculate the mean number of people who travelled out of the village frequently (Question 5).

(2)

Write your answer to 1 decimal place.

Show all your workings.

.....

(c) Explain **one other** data collection method the students could have used in this enquiry.

(3)

(d) You have studied rural environments as part of your own geographical enquiry.

State the title of your geographical enquiry.

Evaluate the data presentation techniques you used.

(8)

Geographical enquiry title

Enquiry question: How has accessibility affected village life?

A questionnaire was conducted with a total of 60 people from 3 different areas. In each area we conducted 20 questionnaires selecting every 2nd person that we met.

Figure 5a

Information about the students' data collection

Q1. Do you travel by public or private transport?	**Public** ☐ **Private** ☐
Q2. What types of public transport do you use?	....
Q3. Do you think the village has good accessibility?	**Yes** ☐ **No** ☐
Q4. Would you like trains to stop here more frequently?	**Yes** ☐ **No** ☐
Q5. Do you travel out of the village frequently?	**Yes** ☐ **No** ☐
Q6. What impact do you think the new train station has had on the village?	....

Figure 5b

Extract from the students' questionnaire

	Site 1		Site 2		Site 3	
	Yes	No	Yes	No	Yes	No
Question 1	16	4	4	16	2	18
Question 3	10	10	10	10	0	20
Question 4	4	8	2	18	0	20
Question 5	12	8	10	10	6	14

Figure 5c

Extract from the students' questionnaire results

If you answer Question 5, put a cross in the box ☒

5 Investigating rural environments

(a) Study Figure 5a in the Resource Booklet.

(i) Identify **one** of the open questions in the questionnaire.

(1)

.....

(ii) Explain why closed questions can be useful in a questionnaire.

(2)

.....

.....

.....

.....

Study Figure 5b in the Resource Booklet. It shows environmental quality scores collected at regular distances from the new collection of farm shops.

(b) (i) Plot the Environmental Quality Score for 40m and 60m (Figure 5b in the Resource Booklet) to complete the scatter graph below (Figure 5c). Some data has been plotted for you as an example.

(2)

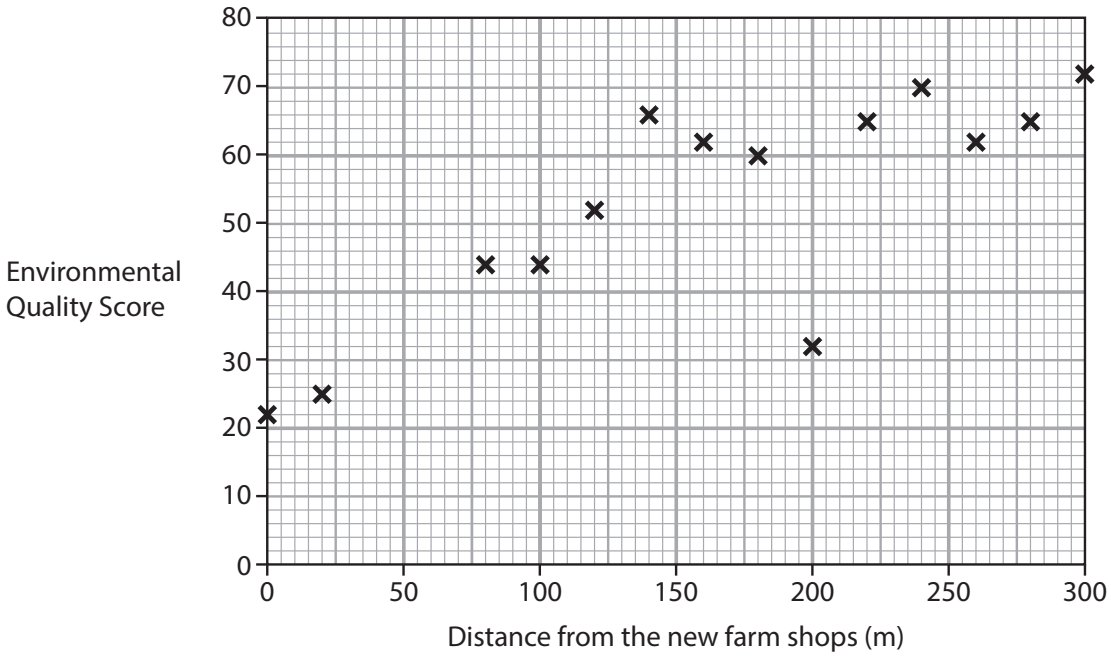


Figure 5c

(ii) Identify at which distance there is an anomaly.

(1)

.....

(iii) On Figure 5c, draw a line of best fit.

(1)

(iv) Calculate the median Environmental Quality Score (EQS).

(2)

Write your answer to one decimal place.

Show all your workings.

.....

(c) Explain how secondary data could have been used to support this enquiry.

(3)

(d) You have studied rural environments as part of your own geographical enquiry.

State the title of your geographical enquiry

Evaluate how far your data collection methods allowed you to achieve your aim.

(8)

Geographical enquiry title

Enquiry question: How has the new collection of farm shops impacted the local area?

Q1. Do you think the new farm shops are good for the area?	**Yes** ☐ **No** ☐
Q2. What benefits do they bring?	....
Q3. Do you think the new farm shops will improve the local economy?	**Yes** ☐ **No** ☐
Q4. Do you think the new farm shops will damage the environment?	**Yes** ☐ **No** ☐
Q5. Do you think the new farm shops will affect house prices in the area?	**Yes** ☐ **No** ☐
Q6. What impact do you think the new farm shops have had on the area?	....

Figure 5a

Extract from the student's questionnaire

Distance from the new farm shops (m)	Total Environmental Quality Score (Max 80)
0	22
20	25
40	38
60	40
80	44
100	44
120	52
140	66
160	62
180	60
200	32
220	65
240	70
260	62
280	65
300	72

Figure 5b

Extract from the student's data collection

If you answer Question 5, put a cross in the box ☒.

5 Investigating rural environments

(a) Study Figure 5a in the Resource Booklet.

(i) Identify **one** type of secondary data that could support this enquiry.

(1)

(ii) Explain **one** advantage of using secondary data.

(2)

Study Figure 5b in the Resource Booklet. It shows some of the results from the Environmental Quality Survey (EQS).

(b) (i) Plot the data for the EQS (Figure 5b in the Resource Booklet) to complete the radar graph below (Figure 5c). Some data has been plotted for you as an example.

(2)

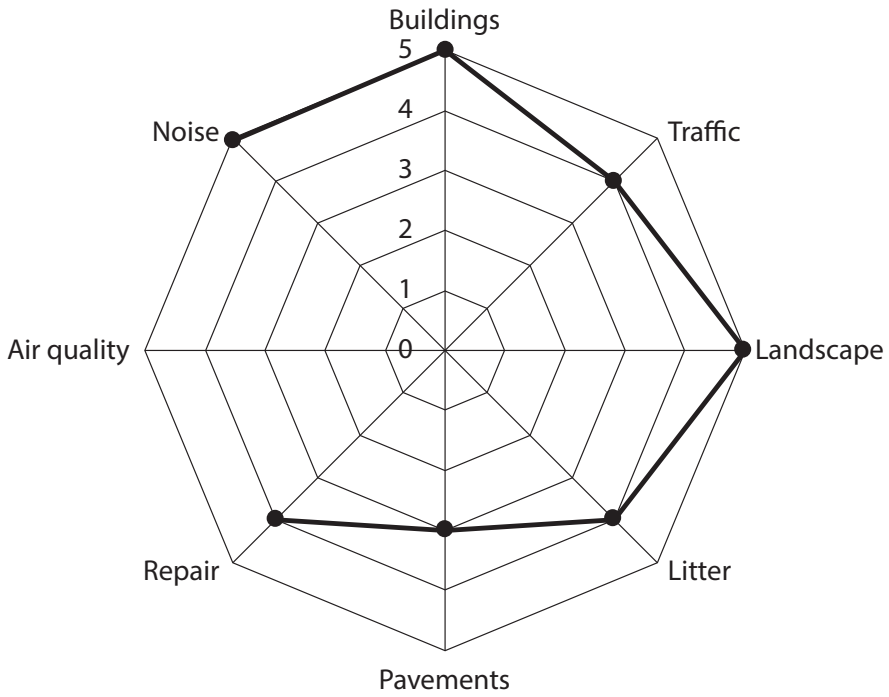


Figure 5c

Radar graph for Environmental Quality Survey

(ii) State **one** observation you can make from the data presented in Figure 5c.

(1)

.....

(iii) Identify **one** advantage of using this type of graph to present data.

(1)

.....

.....

(iv) Calculate the modal Environmental Quality Score for the data shown in Figure 5b.

Show all your workings.

(2)

(c) Explain how the student's own photographs could be used in this enquiry.

(3)

(d) You have studied rural environments as part of your own geographical enquiry.

State the title of your geographical enquiry.

Evaluate how the conclusions you made demonstrated you had answered your enquiry question.

(8)

Geographical Enquiry Title

Enquiry question: What are the impacts of a new small business park on the edge of a rural village?

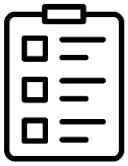
Primary data collected:



Observations of the business park and its surroundings



Interviews with local residents



Environment Quality Survey near the business park and in the local village



Field sketches of the business park

Figure 5a

Information about the students' enquiry and primary data collection

Indicator	Negative	1	2	3	4	5	Positive
Buildings	Buildings are in poor condition					X	Buildings are in good condition
Traffic	Large amount of traffic				X		Low amount of traffic
Landscape	Landscape is unattractive					X	Landscape is attractive
Litter	Large amount of litter				X		Small amount of litter
Pavements	Pavements are in poor condition			X			Pavements are in good condition
Repair	Many features in need of repair				X		Few features in need of maintenance
Air quality	Poor air quality				X		Good air quality
Noise	High noise levels					X	Low noise levels

Figure 5b

Environmental Quality Survey data from site near the business park

If you answer Question 5, put a cross in the box ☒.

5 Investigating rural environments

You have studied rural environments as part of your own geographical enquiry.

State the title of your geographical enquiry.

(a) (i) State **one** potential risk that you managed as part of your enquiry.

(1)

(ii) Explain **one** factor that affected the decision on the sites you chose to collect your data.

(2)

(b) Explain **one** way secondary data was used to support your enquiry.

(2)

(c) Explain **one** advantage and **one** disadvantage of a data presentation technique you used in your enquiry.

(4)

Advantage

Disadvantage

(d) Suggest **one** reason the conclusions from your enquiry were reliable.

(3)

(e) Study Figure 5a and 5b in the Resource Booklet. They show some of the equipment chosen and some of the data collection methods used, including an interview guide.

The aim of the student's enquiry was to investigate local residents' attitudes to the construction of a new train line through greenfield land on the edge of Berlin, Germany.

Evaluate the choice of equipment and the data collection methods used.

You **must** refer to the resources in your answer.

(8)

Fieldwork equipment	Data collection methods
Mobile phone (with camera) Environmental quality survey sheet Interview guide	Review of newspaper articles Photographs Environmental quality survey Interviews

Figure 5a

Fieldwork equipment and data collection methods used

Interview guide	
Q1	To which age group do you belong? ....
Q2	How long have you lived in this area? Under a year ☐ 1–5 years ☐ 5–10 years ☐ 10 years + ☐
Q3	What are your views on trains as a form of transport? ....
Q4	Do you support the construction of the new train line? Yes ☐ No ☐
Q5	What do you think the land should be used for? ....
Q6	On a scale of 1–5 what impact do you think the new train line will have on the local area? 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ (Very negative) (Very positive)

Figure 5b

Interview guide

If you answer Question 5, put a cross in the box ☒.

5 Investigating rural environments

You have studied rural environments as part of your own geographical enquiry.

State the title of your geographical enquiry.

.....

.....

(a) State **one** type of sampling used in your enquiry.

(1)

.....

(b) Explain **one** way you managed a risk as part of your enquiry.

(2)

.....

.....

.....

.....

(c) (i) Describe how you used **one** piece of equipment to collect your primary data.

(2)

.....

.....

.....

.....

(ii) Explain **one** advantage and **one** disadvantage of a primary data collection method you used in your enquiry.

(4)

Advantage

Disadvantage

(d) Explain **one** way you tried to make sure your results were accurate.

(3)

(e) Study Figures 5a and 5b in the Resource Booklet. They show some of the data presentation methods used by the student.

The aim of the student's enquiry was to investigate the impact of tourism on the local village.

The student collected data at five sites in the village. The data included an environmental quality survey, a questionnaire with people in the local village and taking photographs.

Evaluate the data presentation methods used by the student.

You **must** refer to the resources in your answer.

(8)

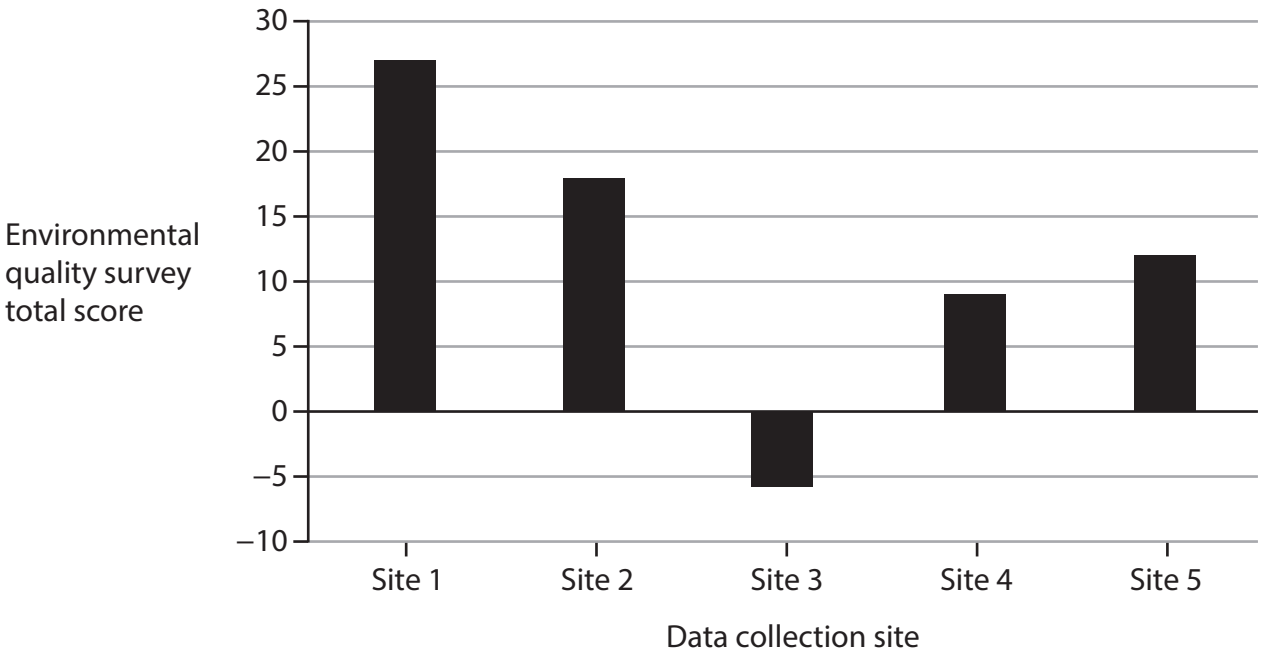


Figure 5a

Bar graph of environmental quality total scores

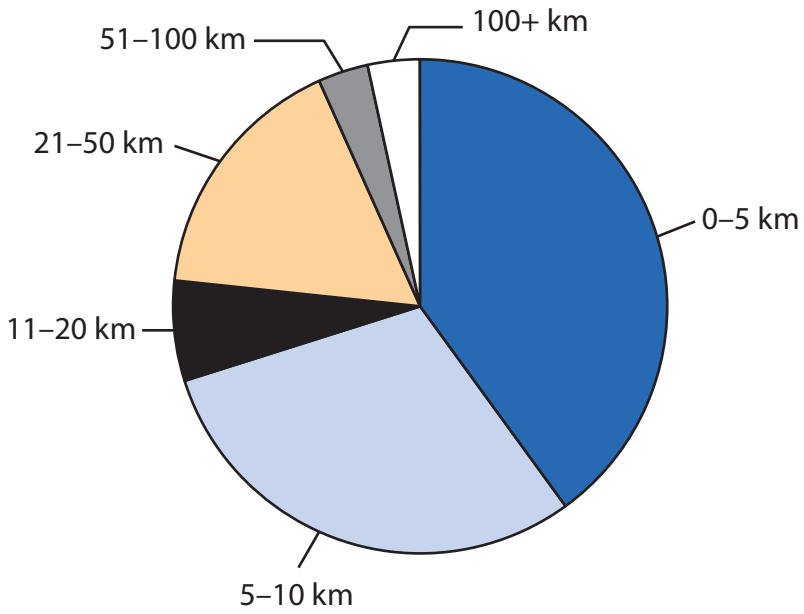


Figure 5b

Pie chart showing responses to the question, "How far have you travelled today?"

If you answer Question 5, put a cross in the box ☒.

5 Investigating rural environments

You have studied rural environments as part of your own geographical enquiry.

State the title of your enquiry.

(a) (i) Name **one** type of graph you used to present your data.

(1)

(ii) Explain **one** reason for your choice of graph.

(2)

(b) Explain **one** qualitative primary data collection technique you used in your enquiry.

(2)

(c) Explain **two** ways you used secondary data in your enquiry.

(4)

1 .....

.....

.....

.....

2 .....

.....

.....

.....

(d) Suggest **one** improvement you could have made to your data analysis.

(3)

.....

.....

.....

.....

.....

(e) Study Figures 5a, 5b and 5c in the Resource Booklet. They show key information about the methodology, part of the data presentation and some conclusions.

> The aim of the student's enquiry was to investigate the impact of tourism on a village in a national park.

Evaluate the student's data presentation method and conclusions.

You **must** refer to the resources in your answer.

(8)

.....

.....

.....

.....

.....

- Evidence recorded of the impact of tourism along a transect.
- Photographs.
- Questionnaire for local residents.
- Secondary data on tourism in the national park.

Figure 5a

Data collection methods

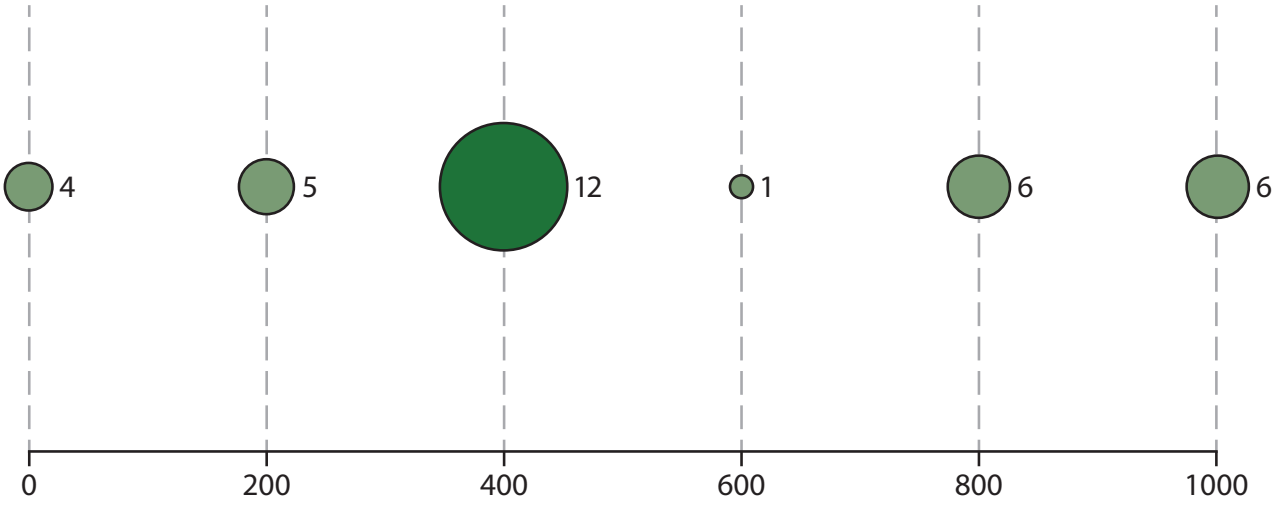


Figure 5b

Evidence of tourism along a transect

1	Tourism is an important part of the local economy.
2	Tourism affects the entire village.
3	Tourism has a positive impact on the lives of residents in the village.
4	There are a range of other activities that take place in the village.

Figure 5c

Conclusions

If you answer Question 5, put a cross in the box ☒.

5 Investigating rural environments

Study Figures 5a and 5b in the Resource Booklet. They show some information about data collection methods students used and an extract from their questionnaire results.

> The aim of the students' enquiry was to investigate views on building a new housing estate on the edge of a village in Northern Spain.

(a) Identify **one** piece of equipment that could be used in this enquiry.

(1)

(b) Identify **one** type of secondary data used by the students.

(1)

(c) Explain why the students may have chosen random sampling for the questionnaire.

(3)

(d) (i) Plot the data for Site 1, Question 3, from Figure 5b in the Resource Booklet, to complete the bar chart in Figure 5c in the Question Paper.

(2)

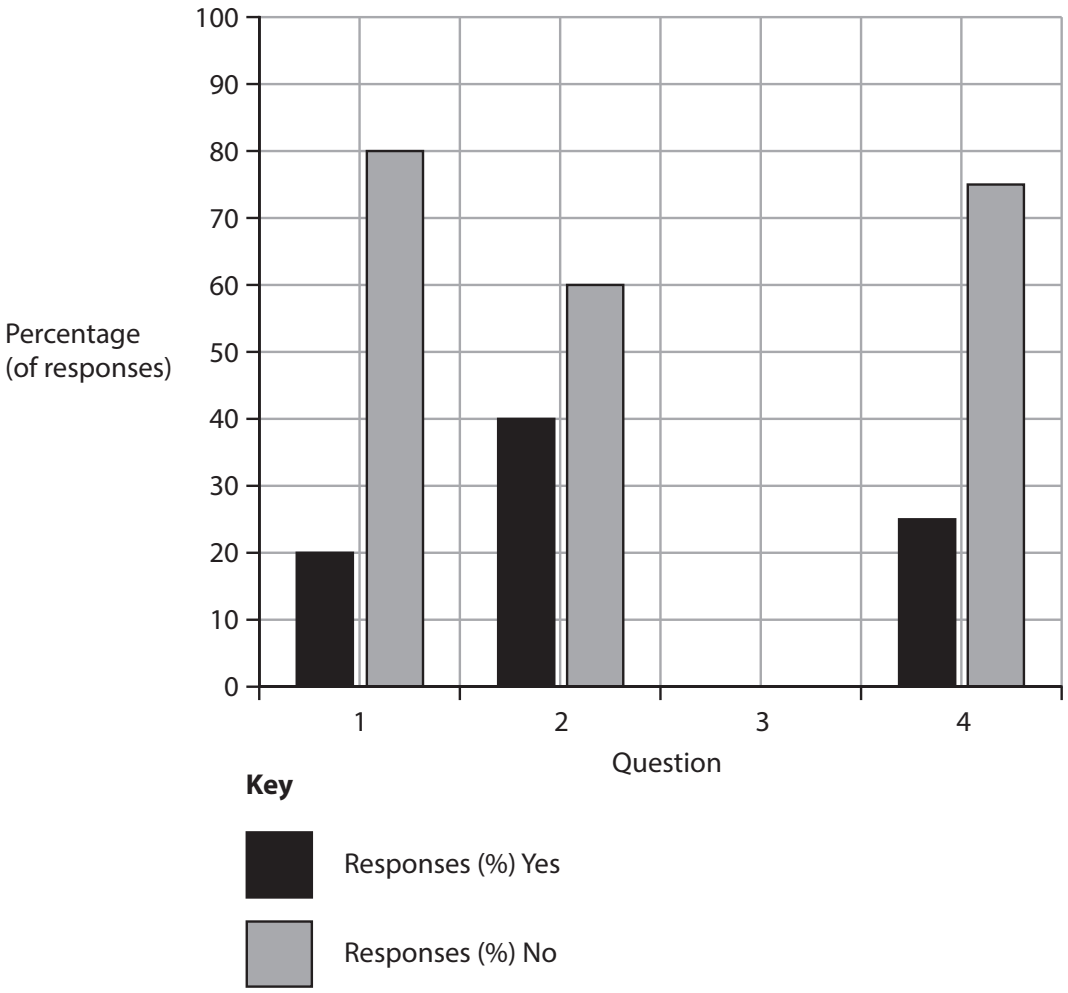


Figure 5c

(ii) State **one other** data presentation method that could have been used for the data shown in Figure 5c.

(1)

.....

(iii) Calculate the range in the number of responses for respondents that selected 'Yes' for Question 2 in Figure 5b in the Resource Booklet.

You **must** show all your workings.

(2)

.....

(e) State **one** advantage and **one** disadvantage of the data presentation method used in Figure 5c.

(2)

advantage

.....

.....

disadvantage

.....

.....

(f) You have studied rural environments as part of your own geographical enquiry.

Evaluate the importance of qualitative data in helping you reach your conclusions.

(8)

State the title of your geographical enquiry.

	Data collection methods	Details
1	• Environmental quality survey	• Conducted in three places in and around the village.
2	• Questionnaires	• 20 people in the area selected at random.
3	• Photographs	• Taken at each site for environmental quality survey and where questionnaires collected.
4	• Information on new housing estate and property prices in the area.	• Websites and real estate agent leaflets.
5	• Data on the number of residents in the village.	• Data collected for 2014 to 2024.

Figure 5a

Data collection methods used

	Question	Responses (%)					
		Site 1		Site 2		Site 3	
		Yes	No	Yes	No	Yes	No
1	Do you live in the village?	20	80	0	100	10	90
2	Do you know other people who live in this village?	40	60	20	80	50	50
3	Do you think there should be development of new homes in the area?	95	5	80	20	75	25
4	Do you think there are enough services to support more residents?	25	75	50	50	40	60

Figure 5b

Extract from questionnaire results

If you answer Question 5, put a cross in the box ☒.

5 Investigating rural environments

Study Figures 5a and 5b in the Resource Booklet. They show some information about data collection methods the students used and an extract from their questionnaire results.

> The aim of the students' enquiry was to investigate local views on the impact of tourism on the village of Montrésor, France.

(a) State **one** health and safety risk that should have been considered for this enquiry.

(1)

(b) Identify **one** type of primary data collected by the students.

(1)

(c) Explain why the students may have chosen systematic sampling for the questionnaire.

(3)

(d) (i) Plot the data for Site 1, Question 3, from Figure 5b in the Resource Booklet, to complete the pie chart in Figure 5c in the Question Paper.

(2)

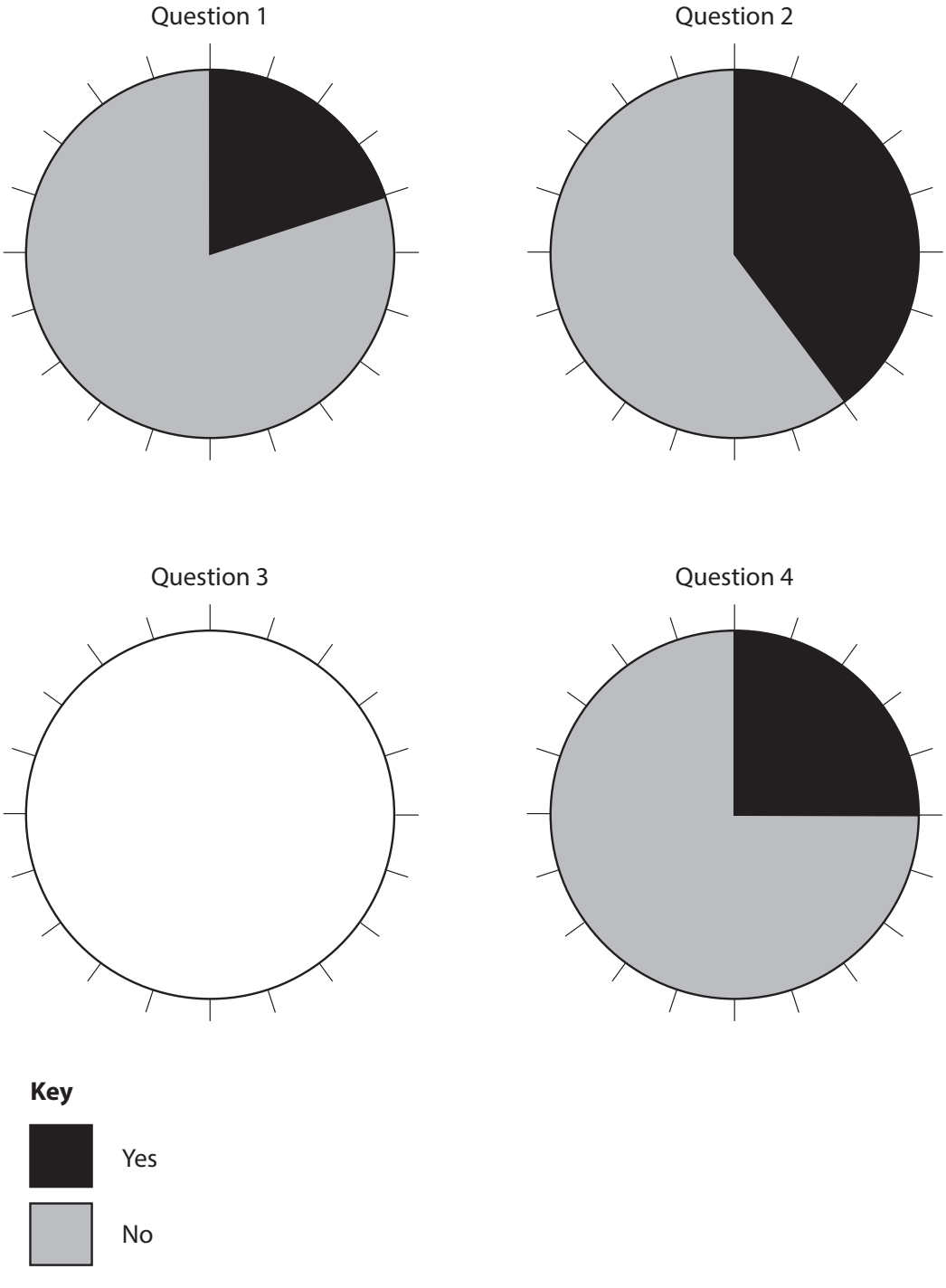


Figure 5c

Data presentation for Site 1

(ii) State **one** advantage and **one** disadvantage of the data presentation method used in Figure 5c.

(2)

advantage

.....

.....

disadvantage

.....

.....

(iii) State **one other** data presentation method that could have been used for the data shown in Figure 5c.

(1)

.....

(iv) Calculate the mean response for the number of people who responded 'Yes' to Question 2.

You **must** show all your workings.

(2)

(e) You have studied rural environments as part of your own geographical enquiry.

Evaluate the importance of quantitative data in helping you reach your conclusions.

(8)

State the title of your geographical enquiry.

.....

.....

.....

.....

	Data collection methods	Details
1	• Environmental quality survey	• Conducted in three locations in the village.
2	• Questionnaires	• 20 people in each location asking every 10th person walking past.
3	• Photographs	• Taken at each site for environmental quality survey and where questionnaires collected.
4	• Information on tourist attractions and facilities.	• Websites and local tourist information leaflets.
5	• Data on the number of tourists.	• Data available for 2014 to 2024.

Figure 5a

Data collection methods used

Question		Responses (%)					
		Site 1		Site 2		Site 3	
		Yes	No	Yes	No	Yes	No
1	Do you live in the village?	20	80	0	100	10	90
2	Do you think this village has been affected positively by tourism?	40	60	20	80	50	50
3	Do you think there should be development of new tourist facilities in the area?	95	5	80	20	75	25
4	Do you think there are enough services to support residents in the village?	25	75	50	50	40	60

Figure 5b

Extract from questionnaire results

MARK SCHEMES

official Pearson Edexcel mark schemes

2(a)	**AO1 (1 mark)** A Non-Governmental Organisation A is the correct answer as the other options do not have the correct meanings of the term.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** • An impact / cause / factor / trigger which causes a bad / negative income on the overall economy of an area (1). • A problem that leads to / triggers other issues or problems occurring (1) • A spiral of decline that creates other issues, e.g. depopulation or lowers development and investment (1) • A chain of events that leads to a negative impact on the people / economy of an area (1). • Decline in one area creates decline in another area, e.g. negative feedback loop (1) Accept any other appropriate response. **Note: Do not accept "downwards spiral of decline" or "keeps getting worse over time" just on its own.**	**(1)**

Question number	Answer	Mark
2(c)	**AO1 (1 mark)** D tundra D is the correct answer as the other options are smaller scale ecosystems, rather than biomes.	**(1)**

Question number	Answer	Mark
2(d)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark (AO3) for a reason from the image and further mark (AO2) for extension through explanation, up to a maximum of 2 marks:	

	• The land-use has changed away from growing crops to one where there are lots of tourists (1) as this will likely be a more profitable use of the land (1). • Lots of visitors and families evident (1) so this is the move away from using a farm traditionally for just crops and livestock (1). • Appears that barns (background) have been converted into spaces for visitors (1) rather than their likely original use as shelter for animals or storing machinery (1). • An area which is now for public use with families (1) which would not be likely in a farm which had not diversified (1). Accept any other appropriate responses.	**(2)**

Question number	Answer	Mark
2(e)	**AO1 (1 mark)** Award 1 mark for any of the following. • Bed and breakfast / B&B (1) • Camping / caravanning (1) • Vineyard (1) • Camel farming (1) • Organic farming (1) • Selling farm produce / farm shop / farm café (1) • Making / selling cheese (1) • Fruit picking / PYO (1) • Farming crops as well as livestock / changing crops (1) • Energy crops / solar / wind (1) Accept any other appropriate response. **Note: Reject animal farms / petting zoo as too similar to (2d).**	**(1)**

Question number	Answer	Mark
2(f)	**AO2 (4 marks)** Award 1 mark for an approach and a further expansion mark, up to a maximum of 2 marks each. • Some governments have incentivised change and particular land management (1) e.g. CAP supporting prices for some farmers (1). • Some governments and agencies have supported diversification by offering grants and set-up costs (1) this has allowed the farmer to change land practice through a financial safety-net (1). • Farmers are paid to transform their landscape (1), e.g. there are government subsidies available for managing woodland for conservation (1). • Some developers have been supported to set up new mineral extraction areas / quarries (1) which have facilitated through grants and planning restrictions (1). Accept any other appropriate response, e.g. rural-urban migration or urban-rural migration, counter urbanisation, mechanisation of farming, increasing tourism, green-belt development.	**(4)**

Question number	Answer	Mark
2(g)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of a reason and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks. • There is an increase in the amount of grain produced 100m tonnes (1949) to 621m tonnes (2015) (1) as farms have become more mechanised (1). They use machines efficiently to produce greater yields (1) • There is an increase in the amount of grain produced 100m tonnes (1949) to 621m tonnes (2015) (1) as farms have become larger (1) and therefore there is more land in agricultural production (1). Accept any other appropriate response, which may include ideas around population increase and globalisation.	**(3)**

Question number	Answer	Mark
2(h)	**AO2 (4 marks)** Award 1 mark for initial explanation and an additional 1 mark for development through further explanation or exemplification. **Maximum of 2 marks when no named developing country is used in context, or a developed country is used instead.** A range of countries and groups / organisations could be chosen, based on either increasing production, switching to using "greener" approaches, or reducing demand, e.g. with policies and incentives. • In the Vietnam Programme 133 the government has provided credit to farmers (1) and this is linked to local investment in infrastructure to help reduce poverty (1). • In Vietnam, NGOs have worked with the government also to provide better rural health and education services (1) which has lifted some people out of poverty (1). • UNICEF helps children in Africa have a better quality of life (1) by providing food and shelter to some communities (1). Accept any other appropriate response. **Note: group or organisation can be implicit or explicit.**	**(4)**

Question number	Indicative content
2 (i)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • The goods and services they provide are vital to sustaining well-being, and to future economic and social development. • All goods and services are important, but their significance will vary both spatially and temporally, depending on a range of factors. • There is a complex relationship between soils, climate and vegetation which affect this overall pattern of goods and services provided by a given biome or ecosystem; for example biomes with ample rainfall and warm temperatures may have high productivity and a larger amount of provisioning

	• The pattern of biomes can be interrupted locally by people, e.g. agricultural systems which can modify the vegetation, although this map (Figure 2c) is unable to directly show these local scale effects. This can result is modification of goods and services. **AO4** • Figure 2c shows the that there are 4 types of goods and services: regulating, cultural, supporting and provisioning • On Figure 2c, it can be seen that there is no hierarchy of goods and services; all are positioned equally within the triangle • Figure 2c shows that each of the main goods and services contains a number of sub-ideas and linked systems related to the overarching function.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–3**	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)	**AO1 (1 mark)** A the outward growth of urban development A is the correct answer as the other options do not describe suburbanisation.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** • A genetically modified (crop).	**(1)**

Question number	Answer	Mark
2(c)	**AO1 (1 mark)** C timber A is the correct answer as the other options do not include goods from natural ecosystems.	**(1)**

Question number	Answer	Mark
2(d)	**AO3 (1 mark) / AO1 (1 mark)** Award 1 mark (AO3) for evidence from the image and a further mark (AO2) for extension through explanation, up to a maximum of 2 marks: • A good supply of water (rainfall or irrigation) from the mountains (1) which means the plants have high yield (1). • The climate will be relatively hot during the day in Taiwan (1) so the plants grow well increasing productivity (1). • Appears to be a flat and possibly lowland area (1) so the field can be flooded / irrigated for the crop to thrive (1). • Large area (of open space) with few buildings in the foreground (1) so they can grow a large crop of rice (1) Accept any other appropriate response, e.g. able to use machinery, quality of soil, weather which can be inferred from the resource.	**(2)**

Question number	Answer	Mark
2(e)	**AO1 (1 mark)** Award 1 mark for any of the following. • Add nutrients (1) • Add fertilizers (1) • Drain fields (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(f)	**AO2 (2+2 marks)** Award 1 mark for a reason and a further expansion mark, up to a maximum of 2 marks each. • To increase farm income (1) by switching to an alternative system then more money can be generated (1). • Diversification can add value to farm products (1) e.g. selling meat grown on the farm to local markets / people (1). • Farmers are paid to transform their landscape (1), e.g. there are government subsidies available for managing woodland for conservation (1). Accept any other appropriate response, e.g. growing different crops to maintain soil health, avoid risk from climate change etc.	**(4)**

Question number	Answer	Mark
2(g)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark (AO3) for a trend from the resource and a further 2 marks (AO2) for extension through explanation, up to a maximum of 3 marks. • Decreasing employment in rural areas (1) which results in rural-urban migration (1) as people try to find better paid jobs in other sectors / the city (1). • There is a decrease in agricultural employment as people are finding different jobs (1) as alternative employment	

	will likely pay better (1) which means the that the employee has a better overall quality of life (1). • The increase in non-agriculture employment comes as a result of changing employment structures (1) which has stimulated the growth of new jobs in industry (1) and there are also more jobs in the tertiary sector as the country develops (1). Accept any other appropriate response, including ideas linked to urbanisation, agricultural mechanisation, changing crop types and structural employment changes.	**(3)**

Question number	Answer	Mark
2(h)	**AO2 (4 marks)** Award 1 mark for initial explanation and an additional 1 mark for development through further explanation or exemplification. **Maximum of 2 marks (1 per way) when no named developing / emerging country is used in context, or a developed country is used instead.** A range of countries and challenges could be chosen, based on either increasing production, switching to using "greener" approaches, or better soil management etc, e.g. with policies and incentives. • In rural China the government have promoted the use of solar panels to generate electricity (1) this is because they are environmentally low carbon and cheaper than non-renewable energy (1). • In the Vietnam Programme 133 has provided credit to farmers (1) and this is linked to local investment in infrastructure to help reduce poverty (1). • In Vietnam the government have also paid for better rural health and education services (1) which have been aided by NGOs and have lifted some people out of poverty (1). Accept any other appropriate response, but must be rural in context. **Note group can be implicit (i.e. through the answer) or explicit for credit.** **Note: Country (or area within a country) must be developing or emerging for full credit.**	**(4)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>2 (i)</td><td colspan="2">AO3 (4 marks)/AO4 (4 marks)
Marking instructions
Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.

Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• Biomes are large scale or global scale ecosystem units.
• Climate is the most important factor (precipitation and temperatures) in controlling the distribution in Figure 2c
• There is a complex relationship between soils, climate and vegetation which affect this overall distribution pattern; for example climates with seasonal rainfall may have different biomes compared to those with more year-round precipitation.
• The pattern of biomes can be interrupted locally by people, e.g. agricultural systems which can modify the vegetation, although this map (Figure 2c) is unable to show these local scale effects.

AO4
• Figure 2c shows the overall distribution of the worlds biomes is largely controlled by latitude
• On Figure 2c, it can be seen that there are also more local effects of altitude or continentality that disrupt the pattern of vegetation.
• Figure 2c shows that deserts for example are common in North Africa and central Australia, whereas much of northern Russia and Canada has a large belt of tundra.
• The large mountain ranges of the Andes, Himalayas and Rockies affect the patterns with tundra and taiga common at high altitude.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)
• Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)</td></tr>
<tr><td>Level 2</td><td>4–6</td><td>• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly</td></tr>
</table>

		relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)	A the outward growth of urban development A is the correct answer as the other options are related to other processes, e.g. urbanisation	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** • A set of factors or reasons as to why a rural area might go into continued decline (1). • (Government) spending money and not getting full value or financial return from the initial outlay (1). Accept any other appropriate responses.	**(1)**

Question number	Answer	Mark
2(c)	**AO1 (1 mark)** A intergovernmental organisation A is the correct answer as the other options are not the correct meaning for IGO.	**(1)**

Question number	Answer	Mark
2(d)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for a basic evidence from the from the image (AO3) and a further 1mark for extension through explanation (AO2), up to a maximum of 2 marks. • A good supply of rainfall based on the colour of the grass (1) means good growth for grasslands for grazing (1). • The ground is quite steep (1) so it would be difficult to use machines to harvest and arable crop (1). • Appears to be an exposed area (1) so it's too windy for arable crops to grow (1). • It looks poor quality on the steeper slopes (1) so it's not fertile enough to support cereal or arable crop production (1). Accept any other appropriate responses.	**(2)**

Question number	Answer	Mark
2(e)	**AO1 (1 mark)** Award 1 mark for a suitable way identified. • Add fertilizers to soils (1) • Improve field or soil drainage (1) • Improve soil texture (1) • Use of GM crops (1) • Introduce better crop rotation and management systems (1) • Crop change for a more appropriate crop type / nitrogenous crop (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(f)	**AO2 (2+2 marks)** Award 1 mark for a reason and a further expansion mark, up to a maximum of 2 marks each. • Increased mechanisation of agriculture (1) means that machines replace people for some agricultural tasks (1). • Farming systems have become more efficient and profitable (1) and as a result they have been able to reduce their workforce (1). • Changes in farm operations / systems, e.g. production of biofuels (1) means that there may be a reduction in the workforce required (1). • External pressure to be more competitive and profitable, e.g. from supermarkets (1) mean that some farmers have reduced number of workers in order to remain operational (1). • Workers have been placed on short term contracts (1) so that agricultural operations can be more flexible and profitable (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(g)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of a trend and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks. • There has been an increase in average farm size between 2009-2016 (approximately 420 to 440 acres) (1) as larger farms are more efficient with mechanisation (1) allowing greater profitability per unit land (1). • There has been a decrease in the number of farms (2.17m to 206m in 2016) (1) as farms grow in size (merging with smaller farms) (1) in an attempt to be more profitable (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(h)	**AO2 (2+2 marks)** Award 1 mark for initial explanation and an additional 1 mark for development through further explanation or exemplification. Maximum of 2 marks total when no named developed country is used in context. A range of countries and strategies could be chosen. • [Vineyard] In Surrey, UK the conversion of cereal crops to grapes for wine (1) has increased the farms profitability per unit area of land (1). • [Camping] In France many farmers have converted parts of their farm to cater for campers (1) which has allowed them to offer special family-friendly holidays, close to nature (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
2 (i)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Biomes are large-scale environments that are distinguished by characteristic temperature ranges and amounts of precipitation. • These two variables are, in most instances, the dominant controls which affect the types of vegetation and animal life that can exist in those areas. • Because each biome is defined by climate, the same biome can occur in geographically distinct areas with similar climates. • Other local factors may also be important in limiting distribution such as altitude and the direction a slope is facing (aspect). • The influence of people and human activity (e.g. deforestation, land drainage, soil improvement etc) can also disrupt the model that is presented in Figure 2c. **AO4** • Figure 2c shows temperature and precipitation control types of biome found globally. • On Figure 2c there are eight major terrestrial biomes: tropical rainforests, savannas, subtropical deserts, chaparral, temperate grasslands, temperate forests, boreal forests, and Arctic tundra. • On Figure 2c, there is a relationship between biome type and both precipitation and temperature. • On Figure 2c deserts are found in the driest and hottest locations whereas tundra is found only in moderately dry and cold environments. • Figure 2c shows that tropical and temperate rainforests need lots of precipitation and warm temperatures.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–3**	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)	B population movement from rural to urban areas The answer cannot be A (urbanisation), C or D (counter-urbanisation).	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** • A collection of plants and animals (in the same area) that have common characteristics due to similar climate (1). • A community of plants and animals that have common characteristics for the environment they exist in (1). • Biomes are large scale or global scale ecosystem units. (1)	**(1)**

Question number	Answer	Mark
2(c)	**AO1 (1 mark)** D non-governmental organisation The answer cannot be A, B or C as these are not the correct definitions of NGO.	**(1)**

Question number	Answer	Mark
2(d)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for a basic evidence from the from the image (AO3) and a further 1 mark for extension through explanation (AO2), up to a maximum of 2 marks. • Ground looks wet (1) means that this type of farming is appropriate (1). • It is too wet to grow cereal crops (1) so the grazing pasture is the only viable alternative (1). • Appears to be an exposed coastal area (1) so it's too windy for crops to grow (1). • An area wet pasture (1) which is too boggy / muddy to mechanise with machines (1). Accept any other appropriate responses.	**(2)**

Question number	Answer	Mark
2(e)	**AO1 (1 mark)** Award one mark for suitable way farmers can diversify identified. • Holiday barns and / or campsites (1). • Paintballing and other leisure industries (1). • Sell products direct to customers (1). • Develop vineyards (1). • Crop change for higher value, e.g. biofuels (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(f)	**AO2 (2+2 marks)** Award 1 mark for a reason and a further expansion mark, up to a maximum of 2 marks each. • Ecosystems purify atmosphere and hydrological systems (1) therefore supporting life and maintaining biodiversity (1). • Ecosystems provide provisioning goods e.g. wood and water (1) which are used by people in construction or water supply for homes and crops (1). • Ecosystems provide access to natural environments for the public (1), which increases wellbeing (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(g)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of a reason and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks. • At high latitudes the climate is colder (1) and the temperatures stay below 0°C most of the year (1) allowing the ground to remain frozen, apart from a few centimetres of thaw in the summer (1). • At high latitudes there is limited precipitation (1) and this falls as snow (1) allowing this biome distribution to be restricted to a few areas around the globe (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(h)	**AO2 (4 marks)** Award 1 mark for initial explanation and an additional 1 mark for development through further explanation or exemplification. Maximum of 2 marks when no named developed or emerging country is used in context. A range of countries and examples could be chosen, based on several changes, e.g. political, socio-economic, environmental etc. • In the Vietnam Programme 133 the government has provided credit to farmers (1) and this is linked to local investment in infrastructure to help reduce poverty (1). • In Vietnam, NGOs have worked with the government also to provide better rural health and education services (1) which has lifted some people out of poverty (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
2 (i)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Increases in farm productivity are likely due to a range of factors: more efficiencies, greater use of technology / better equipment, more fertilizers and chemicals. • Although the amount of farmland under production has remains fairly stable (it's a finite resource) this may hide an underlying trend of an increase in actual farm size. • The reduction in the number of farms is likely due to amalgamation and greater economies of scale from larger scale production and more efficient use of machinery on bigger farms. • Figure 2c shows averages for the whole of USA and there may be considerable local variations in the patterns of data and so cannot be relied on as an accurate pattern of trends everywhere. **AO4** • Figure 2c shows a steady increase in farm / agricultural productivity over time. • On Figure 2c, the overall number of farms has decreased. • The fastest rate of decline in the numbers of farms was between 1940-1990. • Figure 2c shows that area of farms (acres) has remained fairly constant at about 1 billion acres.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–3**	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

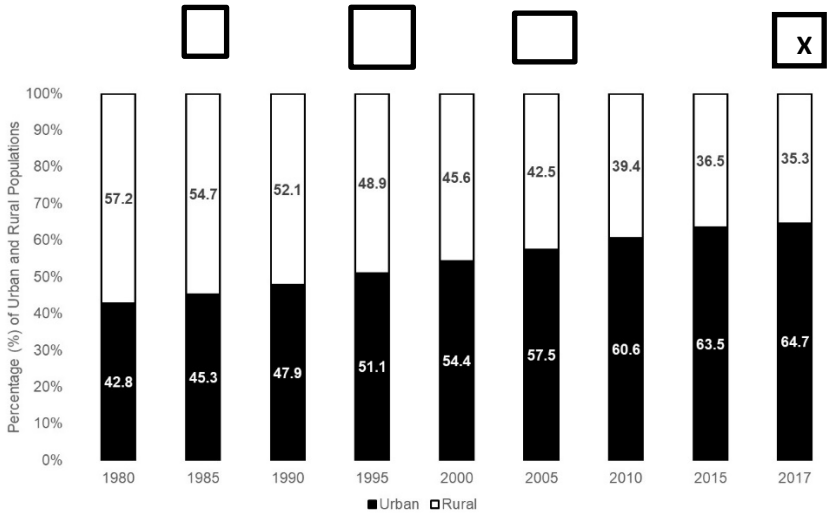
2(a)(i)	**AO1 (1 mark)** Award 1 mark for a suitable definition. • Farming proesses that do not use artifical chemicals. (1) • Using organic fertilisers and pesticides to grow food. (1) Accept any other appropriate response. Do not accept farming organically.	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (2 marks)** C - Creating a farm shop. (1) F - Opening a bed and breakfast for tourists. (1) A, B, D, E, are all incorrect as they focus on increasing agricultural production.	**(2)**

Question number	Answer	Mark
2(b)	**AO2 (1 mark) /AO3 (1 mark)** Award 1 mark for suitable way relevant to the photograph (AO3), and a further 1 mark for extension through explanation (AO2), up to a maximum of 2 marks. • Allowing people to visit the farm to pick strawberries (1) to gain additional income not provided by cows.(1) • Switched to producing other crops (1) to protect against falls in the value of price of dairy products. (1) Accept any other appropriate response. Evidence must be plausibly inferred from the photograph, e.g. there are no longer cows in the photograph.	**(2)**

Question number	Answer	Mark
2(c)(i)	**AO1 (1 mark)** Award 1 mark for a suitable factor: • Rural decline (1). • Shortage of workers in some rural areas (1). • Increased need for technology (1). • Closure of village services / closure of village post office / closure of local school (1). • Loss of bus routes (1). • Poor internet access (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(c)(ii)	**AO2 (2 +2 marks)** Award 1 mark for each suitable way tourists are affecting rural areas, with a further mark for explanation, up to maximum of 2 marks for each. • Increased number of tourists are causing pressures on services (1) which means local peoples' lives are affected. (1) • In national parks footpaths are being damaged (1) which means increased costs for maintenance. (1) • Increased traffic in small villages (1) causing congestion. (1) • Litter being left by tourists (1) damaging the natural beauty. (1) Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(d)(i)	**AO3 (1 mark)** Award 1 mark for an X in the box above the 2017 column (1).  	**(1)**

Question number	Answer	Mark
2(d)(ii)	**AO3 (1 mark)** B 1995 (1) A is incorrect because the rural area is larger than urban. C and D are incorrect because there is an earlier year where the urban population is larger than rural.	**(1)**

Question number	Answer	Mark
2(d)(iii)	**AO2 (1 mark)** Award 1 mark for a suitable factor. • Lack of employment. (1) • Rural decline/isolation. (1) • Better jobs in the city. (1) • Lack of access to education. (1) • Lack of transport (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
(e)	**AO2 (4 marks)** Award 1 mark for each initial explanation of an environmental challenge facing rural areas and an additional mark for development through further explanation or exemplification. Maximum of 2 marks when no named developing/emerging country is provided. A range of countries could be used. • [Kenya]: ○ Increasing frequency of droughts (1) has led to reduced food supplies. (1) ○ Environmental degradation (1) due to poverty. (1) • [China]: ○ Rural areas have been damaged by natural disasters such as floods and earthquakes (1) and often emergency aid for rural areas is limited as priority is given to urban areas (1). ○ Salination of water supplies due to over irrigation (1) is reducing rice yields (1). Accept any other appropriate response.	**(4)**
Question number	**Indicative content**	
2(f)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include the following. **AO3** • Natural ecosystems provide a wide variety of goods and services which can provide significant economic benefit to a country. • Goods from natural ecosystems that may be discussed include: timber for building; fuelwood; food (for humans and animals); ingredients for medicine; and water.	

	• For many developing and emerging countries these goods provide an important proportion of the economies' income, fuelling the development process. • While the economic benefit of goods from natural ecosystems (such as natural rubber) are more easily measured, the services it provides are less easy to measure but could be argued are more important. • Natural ecosystem services that may be discussed include: removal of air pollutants; emission of oxygen; recycling of nutrients; recycling water; maintaing biodiversity. Some services can even provide a more direct economic benefit such as leisure opportunities through tourism. **AO4** • Figure 2c shows the gradual increase in natural rubber production over time from forests in Indonesia. • Figure 2c shows how the export value of natural rubber has varied but with an overall decrease since 2008. • Figure 2c shows how despite increases in production the value of goods from natural ecosystems, in this case natural rubber, can vary, quite significantly from year to year. • Figure 2c shows a significant drop in the export value of natural rubber after 2011. • Figure 2c indicates that the export value of natural rubber is not constant despite increases in production.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–3**	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced,

		well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

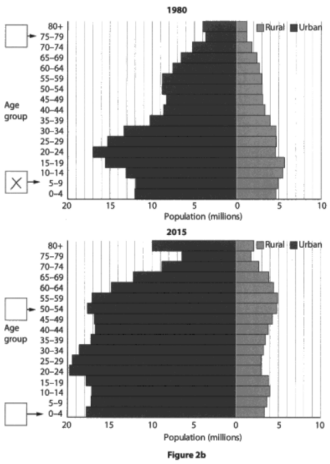
2(a)(i)	**AO1 (1 mark)** • A natural environment that includes flora (plants) and fauna (animals) that live and interact within that environment (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (2 marks)** A Emission of oxygen D Recycling of nutrients B, C , E and F are incorrect as they are goods provided by ecosystems, not services.	**(2)**

Question number	Answer	Mark
2(b)(i)	**AO2 (1 mark) /AO3 (1 mark)** Award 1 mark for suitable reason using evidence from the photograph (AO3), and a further 1 mark for extension through explanation (AO2), up to a maximum of 2 marks. • Building created in the landscape (1) to create amenities for tourists (1). • Transport routes (1) provide easy access to the countryside (1). • Farmland to be repurposed (1) as value for some crops too low (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
2(b)(ii)	**AO1 (1 mark)** Award 1 mark for any of the following: • Farm diversification (1). • Changing employment patterns (1). • Increased tourist pressures (1). • Rural isolation (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(c)	**AO2 (2 +2 marks)** Award 1 mark for a suitable way rural-urban migration affects rural areas with a further mark for explanation, up to maximum of 2 marks. • Increased number of rural-urban migrants (particulalry males) means many rural communities have a shortage of workers (1) which makes it difficult to manage farms (1). • Increased money being sent back to rural areas through remittances (1) as rural migrants are keen to support their families (1). • Loss of services (1) as not enough people to support their operation (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(d)(i)	**AO3 (1 mark)** Award 1 mark for an X in the box next to the 5-9 age category in the 1980 population pyramid (1).  Figure 2b	**(1)**

Question number	Answer	Mark
2(d)(ii)	**AO2 (1 mark)** B 20-24 Urban. All other options are less than the 20-24 age group so are incorrect.	**(1)**

Question number	Answer	Mark
2(d)(iii)	**AO2 (1 mark)** • Cheaper land outside of city centres (1) • Decline of the inner city (1) • Transport links (1) • Crime rates (1) • Concerns about air pollution (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
(e)	**AO2 (4 marks)** Award 1 mark for each initial explanation of a strategy used to improve quality of life in rural areas with an additional 1 mark for development through further explanation or exemplification. A range of countries could be used. • NGOs providing assistance to improve farming methods (1) to increase yields meaning people can move beyond subsistence farming (1). • Increased funding for education facilities in rural areas (1) to ensure skilled workers are created to support economic growth (1). • Improved rural infrastructure (1) to reduce isolation and increase access to services (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content

<table>
<tr><td>2(f)</td><td colspan="2">AO3 (4 marks)/AO4 (4 marks)

Marking instructions
Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.

Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include the following.
AO3
• Humans have an impact on the landscape in various ways through their activities in family lives and as part of industry.
• Primary industries involve extraction of materials from the natural environment. Primary industries have a significant impact on the forested rural landscapes.
• Many forests are cleared for agriculture as well as for timber, both contributing to economic development.
• Brazil’s economic growth has benefitted greatly from the value provided by the forests.
• In the case of the Amazon rainforest humans have had a significant impact clearing huge areas of land for various economic activities. Deforestation has taken place both to sell the timber, but also to create more land for agriculture and other industries. To access these areas, roads and transport infrastructure (Trans-Amazonian highway for example) also had to be built into the forest, creating further damage to the landscape.
• Such can increase processes of soil erosion as the land becomes exposed, which can contribute to land degradation.
AO4
• Figure 1c shows the rate of deforestation in Brazil have fluctuated greatly but with an overall decline from 1994 to 2016.
• Figure 1c shows that crop yields fluctuated from 1994 to 2016 but experienced an overall increase.
• Figure 1c shows a drop in deforestation from 2005-2012.
• Figure 1c shows a slight increase in deforestation after 2014.
• Figure 1c shows a peak in crop yield in 2015 at around 5,000kg per hectare.</td></tr>
<tr><td>Level</td><td>Mark</td><td>Descriptor</td></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)
• Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)</td></tr>
<tr><td>Level 2</td><td>4–6</td><td>• Applies understanding to deconstruct information and provide</td></tr>
</table>

		some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

Question Number	Answer	Mark
2(a) (i)	C High humidity (1). The answer cannot be A (rainforests are not arid), B (rainforests have high temperatures), or D (these are associated with tundra climate).	**(1)**

Question Number	Answer	Mark
2(a) (ii)	**AO1 (1 mark)** • Plant and animal community covering a large area of the Earth's surface (1). • A large ecological area defined by abiotic factors (e.g. climate/relief/vegetation) (1). Accept any other appropriate responses.	**(1)**

Question Number	Answer	Mark
2(b)	**AO1 (1 mark)** D Farming that does not use chemical fertilisers (1) The answer cannot be A (incorrect), B (incorrect), or C (incorrect).	**(1)**

Question Number	Answer	Mark
2(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for basic evidence from the from the image (AO3) and a further 1 mark for extension through explanation (AO2), up to a maximum of 2 marks. • The machinery is cutting the trees (1) showing how the forest can provide timber (1). • There are piles of tree trunks (1) which could be used to make furniture and other goods (1).	

	• The wood being collected by the loggers (1) might be used for firewood (1). Accept any other appropriate responses.	**(2)**

Question Number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for a suitable advantage identified. • Higher yields (1). • More pest/disease resistant (1). • Greater food security (1). • Require less use of pesticides (1). • They tend to grow faster (1). • More tolerable to climatic conditions/more frost resistant/more drought or flood resistant (1). Accept any other appropriate response.	**(1)**

Question Number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for a reason and a further expansion mark, up to a maximum of 2 marks each. • Farms diversifying their income to include pick your own options and a farm shop (1) to compensate for falling prices for crops and increase profitability of the farm (1). • Improving transport connections to remote rural areas (1) to improve access to jobs and services. • Switching to organic farming (1) to try and obtain a higher price for crops produced (1). • Obtaining grants from the EU to establish businesses in rural areas (1) and increase community sizes (1).	

	• Develop tourist attractions on farms e.g. seeing farm animals (1) in order to increase incomes (1). Accept any other appropriate response.	**(4)**

Question Number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of a trend and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks. • There has been a decrease in the percentage of people working in agriculture between 1991-2019 (1). From around 6%-3% in France (1). This may be due to fewer people willing to work in low wage agricultural jobs (1). • There has been a decrease in the percentage of people employed in agriculture between 1991-2019 (1) but it is only a small decrease, around 0.2% for the USA (1), because the country has already shifted to more employment in other sectors (1). Accept any other appropriate response.	**(3)**

Question Number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for initial explanation and an additional 1 mark for development through further explanation or exemplification. Maximum 2 marks for government strategy and maximum 2 marks for NGO strategy. A range of countries and strategies could be chosen. Government • Investment in infrastructure to improved road access to the more remote areas (1) to ensure crops can reach markets more easily (1). • Providing funding for irrigation schemes (1) to try and combat increasing drought conditions (1). NGOs	

	• NGO, Project Chirag providing rural households with solar lighting units (1) to provide power for areas with poor access to electricity (1). • Water Aid provide training for local people to build toilets (1) to improve sanitation facilities (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
2 (h)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **Factors rural change developing countries** **AO3** • There are a range of economic, social and environmental factors that are leading to change in rural areas in developing countries. • In many developing countries rural areas are experiencing labour shortages as people often migrate to cities to look for work with the prospect of higher wages than they could get working on farms. • For some rural areas environmental factors are facilitating greater change. The impacts of climate change are already affecting some areas, with increasing droughts making it more difficult to grow crops. Some farmers are trying to find alternative crops to grow in a changing climate, or for example moving to more drought resistant crops varieties. • There are many organisations that are trying to support changes in rural areas in developing countries. Many NGOs try to support local communities, sometimes through donation of money, equipment or expertise. Where farming methods are still very labour intensive, sometimes the shift to using technology such as tractors can support a shift to more intensive farming which can increase profits and move towards more that subsistence farming.

	AO4 • Figure 2c indicates that NGO activity can facilitate change, sometimes through the donation of machinery which can support increasing crop yields. • Figure 2c suggests that there are labour supply issues as it states that many people have moved to the cities to look for work. • Figure 2c indicates that there are environmental issues facing farmers, with increasing drought conditions making farming more challenging.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

2(a) (i)	B Grassland The answer cannot be A (associated with tropical rainforest), C (associated with forests), or D (associated with tundra).	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** • A community of plants and animals that interact with each other and their physical environment. Accept any other appropriate responses.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** B plants with DNA that has been changed to increase yield. The others answers cannot be correct. A (refers to root systems), C and D (refers to animals and livestock, not crops).	**(1)**

Question number	Answer	Mark
2(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for basic evidence from the from the image (AO3) and a further 1mark for extension through explanation (AO2), up to a maximum of 2 marks. • There appears to be a walker in the picture (1) which shows how the forest can act as a place of recreation (1).	

	• The forest provides a leisure environment (1) for ecotourists (1). • The trees (1) produce oxygen (which humans need to breathe) (1). • There are wide variety of trees shown (1) indicated how the forest helps maintain biodiversity (1). Accept any other appropriate responses.	**(2)**

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award one mark for a suitable land use. • Agriculture (1) • Tourism (1) • Recreation/leisure (1) • Residential (1) • Mining (1) • Forestry (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification of a challenge and a further expansion mark, up to a maximum of 2 marks each. • To increase access to safe drinking water (1) NGOs such as Water Aid have helped dig wells and establish sustainable water supplies (1). • To help increase yields (1) NGOs such as Tractors for Africa have donated tractor to aid mechanisation (1).	

	• To help those in rural areas have access to education (1) some NGOs such as Build Africa support education in rural communities as a route out of poverty (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of a trend and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks. • There has been a significant decline in the percentage of people living in rural areas in Nigeria (1) almost 20% from 1991-2019 (1) due to rapid urbanisation and associated rural-urban migration (1). • There has been a decline in the percentage of urban population in both Nigeria and China (1) although this has been slightly faster in China (1) likely to be increased industrialisation (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for identification of each suitable strategy for health and housing, an additional mark for development through further explanation or exemplification. Maximum two marks for each strategy. Health: • Build a new health centre (in remote rural area) (1) to ensure rural communities can access information about healthy diets (1). Housing:	

	• Improve housing to include solar powered lighting (1) to allow families to work at home in areas off the main electricity grid (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
2 (h)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • The factors leading to change in rural areas are predominantly human. • Processes of rural-urban migration mean there are still labour shortages in many rural areas. Often farmers have to bring in labour especially during harvest seasons. • Counter-urbanisation and the desire to move away from the city is creating pressure on land in rural areas, particularly to build new housing, or new business parks/industrial estates. • The price of many crops has fallen, as many can be imported at a cheap price, so some farmers need to diversify their income to maintain viability, this can include pick-your-own farm, farm shops, farm experiences. **AO4** • Figure 2c shows how there are some challenges facing farmers in the United States including labour and property developers. • Figure 2c indicates that there are activities which can take place to try and diversify income, including opening a coffee shop. • Figure 2c shows how the need for labour and additional income, as well as demand for building property in rural areas may be affecting rural change in developed countries.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)(i)	A Recycling of nutrients (1) The answer cannot be B, C or D as these are all goods provided by a forest rather than services.	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for a suitable definition. • A natural environment which includes plants and animals that interact with that environment. (1) Accept any other appropriate responses.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** C farming to meet the needs of the farmer and family (1) The answer cannot be A (extensive farming), B or C (commercial farming).	**(1)**

Question number	Answer	Mark
2(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for a basic evidence from the from the image (AO3) and a further 1mark for extension through explanation (AO2), up to a maximum of 2 marks. • Hazards such as cyclones can cause a lot of damage to property and goods (1) which people may not have the money to replace (1). • Hazards can damage homes (1) which means people may consider leaving the area (1). • Hazards such as cyclones may damage crop stores (1) which can lead to food insecurity for people living in rural areas (1). Accept any other appropriate responses.	**(2)**

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for a suitable impact. • Unemployment (1) • Spiral of decline (1) • Rural – urban migration (1) • Closure of village schools (1) • Closure of shops (1) • Rural isolation (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification of a challenge and a further expansion mark, up to a maximum of 2 marks each. Maximum 2 marks if developing/emerging country provided. If no country provided but relevant content for a developed country then award up to max marks. A range of examples could be provided. • e.g. Kenya: ○ Low income (1) has led some rural areas to expand tourist services to increase profits (1). ○ Low prices for crops (1) so farmers have diversified into cut flowers which can get higher prices (1). Creating tourist attractions (1) to allow a sustainable income (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of a pattern and a further 2 marks for extension through explanation or description, up or use of figures from the resource to a maximum of 3 marks. • Most Polish cities have experienced an outflow of residents (1) which suggests it is experiencing suburbanisation (1) as cities have expanded and need to build on suburbs to accommodate people (1). • Only two areas of Poland have cities which are experiencing an inflow to cities (1) because most are experiencing suburbanisation (1) as residents seek a better quality of life (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for identification of strategy and an additional 1 mark for development through further explanation or exemplification. Award marks for 2 strategies up to a maximum of 2 marks for each strategy. A range of strategies could be chosen. Candidate may make reference to a country but it is not required. • Improved healthcare facilities (1) to ensure people have access to medicines and treatments for illness (1). • Investment in technology (1) to support growth in agricultural production (1). • Promoting ecotourism (1) to provide a livelihood for people living in rural areas (1). • Improved infrastructure (1) allows access to services / opportunities for work (1). Accept any other appropriate response.	**(4)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>2 (h)</td><td colspan="2">AO3 (4 marks)/AO4 (4 marks)
Marking instructions
Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.

Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• The factors leading to change in rural areas are predominantly human.
• Processes of rural-urban migration mean rural areas often lose many of their economically active population, leaving rural areas underpopulated. This leaves younger, and older age groups behind in rural areas.
• There is still a relatively high proportion of young children in rural areas partly due to lack of access to healthcare services and education about family planning. A high number of children because many are too young to earn money and leave the area.

AO4
• Figure 2c shows a population pyramid for Nigeria in 2019.
• Figure 2c indicates overall there is a much larger proportion of the population living in urban areas rather than rural.
• Figure 2c shows the age groups most needed for labour in agriculture, are much lower in rural areas than urban. In the 20-24 age group 6% of the population are in urban areas, but only 3% in rural areas.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)
• Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)</td></tr>
<tr><td>Level 2</td><td>4–6</td><td>• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3)</td></tr>
</table>

		• Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)(i)	C timber (1) The answer cannot be A, B or D as these are all services provided by a forest rather than goods.	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for a suitable definition. • When crops and animals are produced by farmers to feed their family rather than selling goods at a market. (1) Accept any other appropriate responses.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** A temperatures below 0^{oC} most of the year (1) The answer cannot be B, C or D as these are not characteristics of a tundra ecosystem.	**(1)**

Question number	Answer	Mark
2(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for basic evidence from the image (AO3) and a further 1mark for extension through explanation (AO2), up to a maximum of 2 marks. • Green spaces can be taken up with houses (1) which might cause conflicts with existing residents (1). • New homes built (1) might cause a rise in house prices (1). • Development of buildings/houses (1) could cause damage to local wildlife (1). Accept any other appropriate responses.	**(2)**

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for a suitable way: • Fertilisers (1) • GM crops (1) • High yielding varieties of crops (1) • Increase farm size (1) • Pesticides/Herbicides (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification of a way farm incomes are being diversified and a further mark for development or exemplification, up to a maximum of 2 marks each. Maximum 2 marks where a developing or emerging country or no country is provided. A range of examples could be provided. • United Kingdom: ○ Adding a bed and breakfast on site (1) to be able to earn money from tourism. (1). ○ Changing part of the farm to pick your own (1) to attract a wider range of people to the farm. • USA: ○ Allowing land to be used for wind turbines (1) to earn money for generating energy as well as growing crops (1). ○ Opening a farm shop (1) so produce can be sold direct to consumers rather than just through intermediaries (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of a pattern and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks. • Most Polish cities have experienced an outflow of residents (1) which may lead to high demand for housing in suburban areas (1) which encroaches into rural areas (1). • A lot of movement to the suburbs (1) which there could be infrastructure developments (1) which could improve accessibility of some rural areas (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for each strategy and an additional 1 mark for development through further explanation or exemplification. Maximum 2 marks for each strategy. A range of strategies chosen and countries referred to. • Efforts from NGOs to improve access to electricity (1) so people can run appliances from their home reliably (1). • Introducing GM crops (1) which can improve yields or be more pest resistant (1). • Reduce the use of pesticides and chemicals (1) and produce goods with certification standards which can gain a higher price from consumers (1). Accept any other appropriate response.	**(4)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>2 (h)</td><td colspan="2">AO3 (4 marks)/AO4 (4 marks)
Marking instructions
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Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• The factors leading to change in rural areas are predominantly human in developing an emerging country.
• Processes of rural-urban migration mean rural areas often lose many of their economically active population, leaving rural areas underpopulated. This leaves older age groups behind in rural areas.
• Loss of economically active populations means there may be a shortage of suitable labourers in some areas. This could lead to reduced production in agriculture for example. If the country is experiencing a decline in primary sector industries such as agriculture then those remaining working in rural areas may need to consider alternative sources of income so diversification on farms may take place - this could involve developing tourist facilities, or switching to crops which gain a higher income but require less manual labour.
• Globalisation often support continued economic growth in cities which means that economic development tends to focus on the urban areas supporting core-periphery theory.

AO4
• Figure 2c shows changes to the population of urban and rural populations in Brazil.
• Figure 2c how in 1950 there was a total population of just over 50 million people which were around two thirds rural.
• Figure 2c shows how the population of Brazil in general increased substantially over the time period to around 230 million people with the majority (around 90%) of these being urban.
• Figure 2c shows how after 2000 there was a slow decline in rural populations.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding.</td></tr>
</table>

		Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)(i)	C Opening a farm shop (1) The answer cannot be A, B or D as these are not types of farm diversification.	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for suitable reason. • To increase yield. (1) • To increase resistance to pests/reduce loss from pests (1) • To have crops that are more tolerant of changing climate (1). • To increase tolerance to herbicides (1) • To grow crops faster (1) Accept any other appropriate responses.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** A Farming which uses large amounts of resources and labour (1) The answer cannot be B, C or D as these are not definitions of intensive farming. B is organic farming and D is subsistence farming.	**(1)**

Question number	Answer	Mark
2(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for identification of reason (AO2) and a further 1 mark for extension through explanation linked to the resource (AO3), up to a maximum of 2 marks. • Temperature can affect where plants can grow (1) leading to deserts being located in areas of high temperature (1). • Latitude/distance from the equator as this affects sunlight (1) leading to lots of forests around the equator (1). Climate as this determine the type of ecosystem that can survive (1). Warm and humid climates support forest development across central Africa (1). Accept any other appropriate responses.	**(2)**

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for a suitable characteristic: • High precipitation / 750-2,400mm (annual rainfall) (1) Accept within this range. • High humidity (1) • Deciduous trees (1) • Four distinct seasons (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification of a service provided by natural ecosystems and a further expansion mark, up to a maximum of 2 marks each. • Pollination (1) as ecosystems such as forests, act as habitats for pollinating insects (1). • Purification of water and air (1) through photosynthesis (1). • Increased flood protection (1) as trees can intercept rainfall / roots can absorb water from rainfall (1) . • Climate regulation (1) through processes such as evapotranspiration (1). • Mangroves can protect against coastal erosion (1) by providing a natural barrier (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of a pattern and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks. • Rise in yields is higher than the land used (1) this could be due to increased use of fertilisers (1) as the amount of land used has not grown as much, and this would lead to a higher yield of crops (1). • Yields rise faster than land use (1). This could be due to increased mechanisation in farm processes (1) as this would allow higher yields without having to use a lot more land (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for initial explanation of how an NGO has tried to manage environmental challenges and an additional 1 mark for development through further explanation or exemplification, up to a maximum of 2 marks for each. A range of countries and strategies could be chosen. For example: Kenya: • NGO - Practical Action have been trying to reduce poverty through supporting agricultural programmes (1) which equip farmers with skills to increase their food production (1). • WaterAid - Using funds to improve the water infrastructure in rural areas (1) so people have clean drinking water supplies (1). Indonesia: • Jendela Desa supported poverty reduction in rural areas (1) through increasing access to education in remote areas (1). • NGO - established a project to enhance women's involvement in community development (1) this enabled greater participation of more local people in the issues that affected particular villages (1). Accept any other appropriate response.	**(4)**

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Marking instructions
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Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• The negative multiplier effect can occur in rural areas where there is lack of investment or a reduction in spending in a particular area.
• This kickstarts a process that leads to increased deprivation in an area, usually coupled with fewer jobs and increasing unemployment. For those with reduced income there is less money to spend in the area. While some people may be able to move out of the area, others may not have the means to do so.
• As more people leave and there is less money spent in the area this leads to further decline.
• While the extent of the decline may be affected by the size and composition of the area, the process is kickstarted by a reduction in income or investment somewhere in the area.

AO4
• Figure 2c shows some of the different components of the negative multiplier effect.
• Figure 2c indicates the downward spiral of the negative multiplier effect is prompted by lack of money in a particular area which leads to a series of knock-on effects to individuals and the places where they are located.
• Figure 2c shows how the loss of money can lead to greater unemployment, which can lead to people living the area, and this leads to reduced services, which then leads to more people leaving.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
</table>

Level 1	**1–3**	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)(i)	**AO1 (1 mark)** B a community of animals and plants occupying a major habitat (1) The answer cannot be A (refers to only animals), C or D as these are not definitions of a biome.	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for suitable characteristics. • Hot (climate) (1) • Dry (climate) (1) • Low rainfall /lack of precipitation (1) • Little/sparse vegetation/named suitable vegetation (1) • Dry/sandy soils (1) • Low biodiversity (1) Accept any other appropriate responses.	**(1)**

Question number	Answer	Mark
2(b)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for identification of factor (AO2) and a further 1 mark for extension through explanation linked to the resource (AO3), up to a maximum of 2 marks. • Temperature (1) leading to deserts being located in hot areas closer to the equator (1). • Latitude as this affects sunlight (1) leading to less forests at extreme latitudes (1). • Climate as this determine the type of ecosystem that can survive (1). Typically, colder climates away from the equator are where tundra forms (1). • Rainfall (1) as this can affect the level of plants of vegetation found in tropical grasslands (1). • Altitude (1) at higher altitude there are colder temperature so can often find tundra (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
2(c)	**AO1 (1 mark)** B farming that produces crops (1) The answer cannot be A, C or D as these are not definitions of arable farming. A is forestry, C is fish farming and D is livestock farming.	(1)

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for a way provided. • Water pollution/eutrophication (1) • Deforestation (1) • Reduced biodiversity/loss of habitat (1) • Soil erosion/degradation (1) • Provision of jobs (1) • Loss of employment due to mechanisation (1) • Taking up land that could be used for housing/industry/recreation (1) Accept any other appropriate response.	(1)

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification of a suitable reason and a further expansion mark, up to a maximum of 2 marks each. • To be able to commute for work (1) to ensure a stable income (1). • To ensure access to healthcare (1) to maintain a good quality of life (1). • To be able access services (1) to reduce isolation (1). • Access to market (1) as most farmers need a clear route to get their products to local/domestic/international markets (1). • To ensure workers can reach the rural areas (1) to facilitate harvests etc (1). • To allow people to visit farms (1) if they have diversified to include alternative activities (1). • Lack of public transport (1) so need routes to access jobs in other areas (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for a reason and a further 2 marks for extension through explanation or description with references to the resource, up to a maximum of 3 marks. • Diversification has the potential to increase income (1) with activities such as tourist accommodation being worth as much as £15,000 (1) which can complement income from crops/livestock (1). • Increases options to increase income (1) farms can engage in a range of alternative activities such as providing sport and recreation facilities (1) which could provide an additional £5,000 a year (1). • To reduce costs of production (1) using other diversified activities such as crop rotation (1) which could reduce the amounts of fertilisers/resources needed (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for initial explanation of how tourist pressures can affect rural areas, and an additional 1 mark for development through further explanation or exemplification, up to a maximum of 2 marks for each. A range of countries and tourist pressures could be chosen. For example: UK (Lake District): • High numbers of tourists can cause traffic congestion (1) which can lead to reduced air quality/increased noise pollution (1). • High demand for tourist accommodation can put pressure on housing availability (1) making homes too expensive for local people (1). Accept any other appropriate response. Do not credit pollution on its own.	**(4)**

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Indicative content guidance
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AO3
• Natural ecosystems provide a range of goods and services.
• Ecosystem goods are that ecosystems provide which are used by humans while services are benefits that are important for human wellbeing.
• Typical goods provided by ecosystems include food, fuel, water, medicinal products, timber (depending on the ecosystem).
• Services can often be categorised into:
○ Regulating services such as climate or flood regulation, or holding the soil together to reduce soil erosion (in forests).
○ Cultural services: such as provision of sites for tourism, science and education as health and wellbeing.
• In some ecosystems the range of ecosystem goods may not appear to be as broad as the range of ecosystem services.
• Such services have a large economic value, but may be less direct. While it is easy to calculate the economic value of timber from a forest, it is more complex to calculate the value of storm protection from mangroves.

AO4
• Figure 2c shows how ecosystems provide a range of different goods and services.
• Figure 2c show how ecosystem goods can include water supply, energy, materials and food and drink.
• Figure 2c shows how the goods provided range from energy provision to food and drink, to building materials.
• Figure 2c suggests there are greater range of services provided than goods.</td></tr>
<tr><td>Level</td><td>Mark</td><td>Descriptor</td></tr>
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Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)(i)	**AO1 (1 mark)** **C** interaction of living organisms with their environment (1) The answer cannot be A, B or D as these are not definitions of a natural ecosystem.	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for suitable service. • Tourism/named tourist activity/recreation/employment (1) • Nutrient/water cycling (1) • Health/wellbeing (1) • Climate regulation (1) • Carbon sink/storage/removing CO2 from the atmosphere/oxygen production (1) • Storm protection (1) • Habitat for species (1) • Energy production (1) Accept any other appropriate responses.	**(1)**

Question number	Answer	Mark
2(b)	**AO2/AO3 (2 marks)** Award 1 mark for identification of characteristics of a specific biome, and a further mark for description or development. The response must relate to one of the biomes shown in Figure 2a. The characteristics may refer to the climate or the flora/fauna that can be found there. • Tropical rainforest: high density forests (1) with high annual rainfall (1) • Desert: high temperatures (1) which only supports plants like cacti (1). • Tundra: cold environments (1) due to high altitude (1) • Temperate forests: regular rainfall (1) that support the growth of trees (1). • Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
2(c)	**AO1 (1 mark)** **D** farming that is dependent on animals (1). The answer cannot be A, B or C as these are not definitions of pastoral farming.	**(1)**

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for a suitable way provided. • Water pollution/contamination/eutrophication (1) • Deforestation (1) • Soil erosion (1) • Provides employment (1) • Lack of soil fertility/damage soil (1) • Overgrazing/overcultivation (1) • Desertification (1) • Increased productivity/output (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification of an impact, and a further expansion mark, up to a maximum of 2 marks each. • Can lead to building on greenfield land (1) which can lead to increased traffic/air/water/noise/light pollution (1). • Can lead to population growth in rural areas (1) as people seek to move away from cities (1). • Loss of biodiversity (1) as new buildings/roads in rural areas can damage habitats (1). • Deforestation (1) to clear land to build new houses (1). • Increase in housing prices (1) due to increased demand in the area (1). • Improved accessibility (1) due to investment in infrastructure/improvement in public transport (1). • Keeping local businesses to be viable (1) due to increase in local spending (1). • Can lead to the development of more services being built (1) as population increases so does demand for services (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of way investment in rural environments can improve quality of life, a further 2 marks for extension through explanation with reference to the resource, up to a maximum of 3 marks. • Increased investment in rural transportation can ensure people can still access goods and services (1) which can prevent rural decline (1) and support livelihoods (1). • Investment in schools ensures that rural populations can maintain their education (1) which means they are more likely to be in employment later in life (1) which reduces chance of poverty (1). • Investment in cultural activities may lead to increased tourism (1) which could create more jobs for local people (1) which could improve household incomes (1). • Investment of 5.6% in clean water could increase availability of water (1) which could be used for irrigation (1) to increase agricultural output (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for initial explanation of how rural-urban migration has affected rural areas, and an additional 1 mark for development through further explanation or exemplification, up to a maximum of 2 marks for each. A range of countries could be chosen. • High levels of rural-urban migration to the growing cities have left many surrounding rural areas with less working age adults (1) which means agricultural production is reduced (1). • With increased populations in the cities less investment for some services takes place in rural areas (1) which means some remote rural areas may find it difficult to access healthcare services (1). • Negative multiplier effect (1) due to loss of younger workers (1). • Less pressure on services/food supplies (1) due to smaller population (1). Accept any other appropriate response.	**(4)**

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Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• Farm diversification provides the opportunity to develop other income streams.
• Some farms adopt several diversification strategies because one on its own is not always sustainable.
• There are a range of farm diversification strategies which could be used alongside holiday rentals or solar energy, including GM crops, agritourism, using land for renewable energy.
• Many farms move to diversification in order to counter reduction in profit from more traditional income streams such as crop and livestock production.

AO4
• Figure 2c shows there has been an increase in the percentage of farms with diversified activities.
• Figure 2c shows how there has been some fluctuation in overall diversified activity.
• Figure 2c shows how farm producing solar energy have grown from around 1% to around 22% by 2021/2022.
• Figure 2c show how there has been over half of farms that have diversified activities and there have been no significant decreases.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
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		leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)(i)	**AO1 (1 mark)** A high inputs (1) The answer cannot be B, C or D as these are not characteristic of intensive farming.	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for suitable benefit. • Higher yields/more predictable yields (1) • More resistant to pests/disease (1) • More resilient to changes in climate (1). • Can be modified to have higher nutritional content (1) Accept any other appropriate responses.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** C opening a farm shop (1) The answer cannot be A, B or D as they are not farm diversification activities.	**(1)**

Question number	Answer	Mark
2(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for initial characteristics (AO2) and a further 1 mark for extension for description linked to the resource (AO3), up to a maximum of 2 marks. • Vast areas of open land (1) which can be used for different types of farming (1). • Sparse population (1) with only a few buildings presents (1). • Relatively remote (1) with limited buildings/transport routes (1). • Dominated by agricultural activity (1) which has altered the landscape through creation of fields (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for a suitable strategy. • Install new/more efficient irrigation systems (1). • Store rainwater (1). • Reduce water usage at the household/farm level (1). • Reuse wastewater (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification each initial idea of how tourism can have a negative impact on rural areas, and a further expansion mark, up to a maximum of 2 marks each. • Traffic congestion (1) as many tourists will travel by private vehicles/come in large numbers on coaches (1). • Damage to habitats (1) as tourists may walk through areas used by animals as homes (1). • Visual pollution (1) as tourists may leave litter (1). • Can push property prices for local residents to be higher (1) as properties are used for tourist accommodation (1). • Damage natural beauty (1) as new buildings services are built to accommodate their needs (1). Do not credit pollution without type of pollution provided or what is being polluted (e.g. lake/river) Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an initial idea and a further 2 marks for extension through explanation or description with reference to the resource, up to a maximum of 3 marks. • The level of rainfall will affect the type of plants that can grow (1) as some biomes like tropical rainforest need high levels of rainfall as part of their ecosystem (1) ranging from around 230mm to over 400mm (1). • Most plant species will have an optimum growing temperature (1) those that require low temperatures for example such as tundra (1) which typically can be found just above 0°C down to nearly -10°C (1). • Warm temperatures/high rainfall can support tropical rainforest (1) above 20°C/2500mm (1) leading to high biodiversity (1). • Tropical rainforests have high rainfall (1) supporting a variety of wildlife (1). This compares to deserts which can be too dry for a lot of wildlife (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for an initial point about a way natural ecosystems provide goods, and an additional 1 mark for development through further explanation or exemplification, up to a maximum of 2 marks for each. • Natural ecosystems can provide raw materials like timber (1) which can be used in manufacturing/construction (1). • Natural ecosystems can provide food (1) such as fish from oceans (1). • Ecosystems such as rainforests are known to have a wide range of plants that have healing qualities (1) which can be used to produce medicines/help develop new medicines (1). • Ecosystems provide fresh water (1) that can be used for drinking/irrigation/industry (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
2 (h)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • The negative multiplier effect is a process of downward decline in an area. In a rural environment this can be prompted by a decline in employment, which leads to greater rural-urban migration, which leads to less investment in rural areas due to lower populations which exacerbates the decline of the area. • In many developed countries rural populations can tend to have a higher proportion of older age groups as younger people tend to move away to urban areas for education and work opportunities. Older age groups tend to sometimes move back to more rural areas when they can afford larger properties or want a more rural environment (with less air pollution etc). • The population structure is largely affected by the need for jobs which explains why there tends to be lower proportions of 18-40 age groups. • The negative multiplier effect can lead to this being more pronounced as more people are likely to move away, and others may not move into the area if it has experienced significant decline or lacks sufficient services/amenities associated with a high quality of life. **AO4** • Figure 2c shows the how the population structure for the rural area in the UK is dominated by largely older age groups. • Figure 2c shows how there tends to be a slightly larger proportion of older females than males, particularly age 85 and above. • Figure 2c shows how there are generally very low levels of young people living in the area, although there is a slightly larger proportion of age 10-14 males. • Figure 2 shows there is relatively low levels of aged 9 and under living in the area.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–3**	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)(i)	D between the Tropic of Cancer and the Tropic of Capricorn (1) The answer cannot be A (too high latitude), B (too low latitude), C (too low latitude).	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for suitable characteristic. • Short hours of winter sunshine (1) • Low precipitation/arid/dry (1) • (Extremely) cold (1) • Strong winds (1) • Stunted/short/sparse vegetation (1) • Short growing season (1) • High altitude / latitude (1) • Harsh climate (1) • Lichen/mosses (1) • Permafrost (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** B regulate air quality (1) The answer cannot be A (climate characteristics), C (product not a service) or D (product not a service).	**(1)**

Question number	Answer	Mark
2(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for evidence from the photograph, and a further mark for development of how this demonstrates how humans have changed the environment. • Rice fields (1) show land used for agriculture (1) • Steep sides have been changed to terraces/steps (1) to grow rice/to prevent erosion/runoff (1). • Crop grown (1) with irrigation to support growth (1). • Trees at regular distances (1) suggests they have been planted rather than natural vegetation (1). • Buildings/constructions (1) shows human live in this location/suggestion human settlement (1) • Stone walls separating crops (1) this does not happen naturally/they are manmade (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for identification of suitable strategy. • Increased use of electric vehicles/cars (1). • Reduce domestic burning of fuels/wood burning stoves (1). • Introduce environmental regulations (for factories) (1). • Use less fertiliser (1) • Plant more trees/afforest (1) • Use renewable energy (1) • Newer /electric equipment (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification of a suitable advantage or disadvantage and a further expansion mark, up to a maximum of 2 marks each. • Advantage: ○ Potential for higher yields (1) which can improve farm income (1) ○ Some crops may be less vulnerable to climate change (1) so will have improved resistance (1). ○ May be more resistant to pests (1) so less crops are damaged (1). • Disadvantage: ○ Expensive (1) so not accessible for all farmers (1). ○ Potential for cross-pollination (1) which could contaminate other crops (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark suitable way identified and a further 2 marks for extension through explanation or description with references to the resource, up to a maximum of 3 marks. • Governments can provide funding to tackle rural isolation (1) which could include improving public transport services (1) so residents can be connected to the services in local settlements. (1). • Improve broadband access in rural areas (1) to ensure remote residents can still access services (1) and can reduce loneliness (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for identification of a way that rural economies are changing and an additional 1 mark for development through further explanation or exemplification, up to a maximum of 2 marks for each. A range of countries could be chosen. For example: Kenya: • Farmers moving from growing crops to flowers (1) as profits can be higher (1). • Rural-urban migrations is causing labour shortages (1) and crop production has reduced (1). • Expanding opportunities for tourism (1) such as onsite tours and tasting of products (1). • Mechanisation (1) leading to changing requirements for labour/leading to a reduced workforce (1). Accept any other appropriate response.	**(4)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>2 (h)</td><td colspan="2">AO3 (4 marks)/AO4 (4 marks)
Marking instructions
Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.
Indicative content guidance
The indicative content below is not prescriptive, and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• Urbanisation and associated processes of rural-urban migration mean that there are lower proportions of people living in rural areas. It is expected that only around 40% of the world's population will live in rural areas by 2030.
• Rural-urban migration can lead to the decline or rural areas. Often the migrants are young and leave to find higher paid jobs in cities. This can lead to shortages of work in rural areas which would typically have had higher proportions of jobs in agriculture.
• A decline in employment in agriculture can lead to shortages in workers and reduction in crop yields.
• There can also be shifts in employment in rural areas, as more people are able to work remotely, they may work in tertiary and quaternary sector jobs but still remain in rural areas.

AO4
• Figure 2c shows how employment in agriculture has declined for countries across the European Union between 2005 and 2020.
• Figure 2c shows how there is significant variation in the percentage of employment in agriculture both in 2005 and 2050.
• Figure 2c shows that Romania has remained the country with the highest employment in agriculture during this time period, declining from 33% to around 21%.
• Figure 2c shows how the majority of countries in the EU have a percentage of employment in agriculture below 10%.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)
• Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)</td></tr>
<tr><td>Level 2</td><td>4–6</td><td>• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly</td></tr>
</table>

		relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

2(a)(i)	B coniferous vegetation (1) The answer cannot be A, C or D as these are not characteristics associated with boreal forests.	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for suitable biome. • Deserts (1) • Tundra(1) • Grasslands/ Savanna (1) • Arctic Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** B opening a farm shop (1) The answer cannot be A, C or D as these are not farm diversification strategies. Accept any other appropriate responses.	**(1)**

Question number	Answer	Mark
2(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for evidence from the photograph, and a further mark for development of how this demonstrates that intensive farming operates in this rural area. . • Uniform rows of crops (1) used to maximise space in the field (1). • Some crops are covered in sheets/plastic (1) suggesting they are being supported to maximise growth/reduce crop growth times (1). • Many fields being used for different crops (1) showing how the land is being used to full capacity (1). • There is a large area of land (1) this increases crop yield (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for identification of a suitable characteristic. • Low yield (1) • Labour intensive (1) • Low/no profits (1) • Food to feed family/household (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification of a suitable advantage or disadvantage and a further expansion mark, up to a maximum of 2 marks each. • Advantage: ○ Reduced use of chemical fertilisers/pesticides (1) so reduced eutrophication (1). ○ Less use of chemicals (1) seen as healthier by consumers (1) ○ Better welfare standards for animals (1) so more appealing to consumers (1). ○ Improve soil quality (1) to support long term sustainability (1). • Disadvantage: ○ Lower yields (1) which means more land needed for production (1). ○ Higher costs (1) which means not accessible to all consumers (1). ○ Varied standards for different certifications (1) so difficult for consumers to understand what it means to be organic (1). ○ Crops take longer to grow (1) so have less harvest per year (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for each suitable way identified and a further 2 marks for extension through explanation or description with references to the resource, up to a maximum of 3 marks.	

	• NGOs can provide suitable technology/funding to support development of infrastructure in rural areas (1) this could be to provide off grid solar (1) so residents can have more reliable electricity supply (1). • They can coordinate efforts from the government (1) to deliver programmes to reduce poverty (1) such as provision of agricultural technology (1). • NGOs can build schools (1) this can help improve the access to education in the rural environment (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for identification of a way that rural economies are changing and an additional 1 mark for development through further explanation or exemplification, up to a maximum of 2 marks for each. A range of developed countries could be chosen. For example: Portugal: • Increased effort to focus on tourism (1) to support growth in jobs as people move away from agriculture (1). • Development of lithium mines (1) leading to destruction of agricultural land (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
2 (h)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • There are various element to supporting the sustainability of living in rural areas including food and water, alongside housing conditions, education and employment opportunities. • Access to clean drinking water is a fundamental part of improving the sustainability of lives in rural areas. • Many rural populations in developing and emerging countries lack access to basic water supply and safe sanitation. This can have

	significant impacts on human health, as well as economic cost, which can lead to inequalities. • Some rural populations rely on local water sources (wells, hand pumps, rivers) which may be contaminated. **AO4** • Figure 2c shows how the proportion of people with access to piped water in village in China has grown between 1970-2018. • Figure 2c shows how growth in piped water access increased from around 35% in 2000 to 80% by 2018. • Figure 2c shows how access to piped water in villages in China was less than 10% in 1970. • Figure 2c shows how access to piped water in villages in China had reached 35% by 2000 and 80% by 2018.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–3**	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark

5(a)(i)	**AO3 (1 mark)** Award 1 mark for any of the following. • Systematic (1) • Stratified (1) • Random (1) • Pragmatic (1) • Opportunistic (1) Accept any other appropriate response. **Note: Title not required for credit.**	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (2 marks)** Award 1 mark for a reason further mark for extension through explanation, up to a maximum of 2 marks: • It allowed find out about the spatial variation in the area of study (1) so that we knew that we would get good spatial coverage to minimise bias (1). • Stratified sampling was used as we had census data about the village population (1) so we could design a fair sampling frame for the questionnaire about energy that we were using (1). Accept any other appropriate response, e.g. asking "different people" is allowable.	**(2)**

Question number	Answer	Mark
5(b)	**AO3 (2 marks)** Award 1 mark for identifying a risk and a further expansion mark up to a maximum of 2 marks.	

	Nature of risk, and risk management will vary depending on the location as well as the context of the investigation. • In the urban area there was lots of traffic so risk the was being struck by a vehicle (1). This was managed by only using a designed crossing (1). • Fieldwork was carried out in winter so there was a small risk of hypothermia (1). Lots of warm clothes were used (1). • The wet pavements in the town presented a slip and trip risk. (1). Non-slip shoes were used to minimise the risk of falling over (1). • I knew that the title focus had published secondary data (1) therefore it was achievable in terms of testing against someone else's findings – reducing risk (1). Accept any other appropriate response. **Note – credit ideas related to risk of poor-quality data collection.**	**(2)**

Question number	Answer	Mark
5(c)	**AO3 (3 marks)** Award 1 mark for each of the following identifiers: • Locations that can be identified e.g. places (1) • Site numbers along a street / locations of sampling etc (1). • Justifications and reasons, developed through explanation and clear geography (2). • Scale and direction arrows, titles, key etc (award a max of 1 mark total) (1). **Note: If work does not include annotations or descriptive labels, then max 2 marks.**	**(3)**

Question number	Answer	Mark
5(d)	**AO3 (4 marks)** Award 1 mark for a method and a further expansion mark, up to a maximum of 2 marks each. Nature of qualitative techniques utilised will vary depending on the location as well as the context of the investigation.	

	• Interview data from a number of respondents were used to find out about attitudes towards change in rural areas (1) but it was only a small sample (1) so we could not be convinced about the strength of the conclusions (1). • Digital photographs were taken of the fieldwork equipment to measure noise (1) so that this could be later used to help evaluate the methods and their reliability (1) but the photos did not include an effective scale (1). • Field notes recorded aspects of the site location and a description (1). The notes difficult to do since we did not know the history of the area (1) so I was unable to trust their validity (1). Accept any other appropriate response, allow questionnaires and EQA / Bi-polar (as opinion) as being qualitative data.	**(4)**

Question number	Indicative content
5(e)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Both Figures 5a and 5b do show some outcomes from the fieldwork surveys, therefore it is possible to make some sense of what the student found. • Figure 5a seems incomplete as the nature of the questions asked is not present on the key so it's difficult to draw conclusions. • Figure 5b only shows one picture, so this might be biased as some could have been missed, therefore this technique is limited in its appropriateness. • Recognition of issue in presentation (both Figure 5a and 5b) may be flawed in terms of approach and usage. • An evaluation of how far the presentation techniques can be trusted may be provided. **AO4** • In Figure 5a there is no totals column for the Peoples Responses • In Figure 5a, some rows have incorrect addition

	• In Figure 5a the is no strongly agree category • In Figure 5a the colours may be the wrong choice of plot technique • In Figure 5b only 2 opinions are shown (there may have been more). • In Figure 5b the viewer doesn't know anything about the time the photo was taken, and therefore the frequency of lorry movements etc. • In Figure 5b don't anything about the area / context of where the image is taken.

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark

5(a)(i)	**AO3 (1 mark)** Award 1 mark for any of the following. • Newspapers (1) • GIS map / paper map (1) • Book / magazine (1) • Government report / policy document (1) • Blog / forum / social media (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (2 marks)** Award 1 mark for a reason further mark for extension through explanation, up to a maximum of 2 marks: • It allowed find out about the spatial variation in the area of study (1) so that we knew that we would get good spatial coverage to minimise bias (1). • Stratified sampling was used as we had census data about the villages population (1) so we could design a fair sampling frame for the questionnaire about energy that we were using (1). Accept any other appropriate response. **Note: no credit for just restating the secondary data type.**	**(2)**

Question number	Answer	Mark
5(b)	**AO3 (2 marks)** Award 1 mark for identifying a reason and a further expansion mark up to a maximum of 2 marks. Nature of risk, and risk management will vary depending on the location as well as the context of the investigation.	

	• It was linked to a village close to school (1). Therefore, the data we collected would help answer the initial question set (1). • The model of rural-urban fringe allowed us to test a theory (1), so the title and focus was established to challenge the assumptions in the model (1). • The title was both manageable and achievable. (1). Meaning that out primary data could be designed to fully answer the title set (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(c)	**AO4 (3 marks)** Award 1 mark for identification of a reason and a further mark(s) for an explanation of the reason, up to a maximum of 3 marks: • The EQA scale only goes from -5 to + 5 and it is uncalibrated (1). This means that scores recorded by different people vary (1) which caused inaccuracies in the comparison between sites (1). • A poor quality closed questions questionnaire used would have potential for errors to be introduced (1) for example by an inappropriate sequencing of questions (1) which would cause inaccurate findings to be recorded (1). Accept any other appropriate response. Allow secondary as a type of data.	**(3)**

Question number	Answer	Mark
5 (d)	**AO3 (4 marks)** Award 1 mark for a method and a further expansion mark, up to a maximum of 2 marks each. Nature of qualitative techniques utilised will vary depending on the location as well as the context of the investigation. • We used quantitative tools such as mean and median (1) so we could final measures of centrality in our data (1).	

	• Annotated sketches based on photographs from the fieldwork were used (1) and the selected annotations were able to highlight processes operating in the area (1). • A computer spreadsheet was used to calculate the spread and range in our questionnaire data (1) so that we could compare the outcomes between the two sample sites (1). Accept any other appropriate response. **Note: allow presentation in the context of analysis.**	**(4)**

Question number	Indicative content
5(e)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Both Figures 5a and 5b do show some outcomes from the fieldwork surveys, therefore it is possible to make some sense of what the student found. • Figure 5a seems incomplete as the nature of the questions asked is not present on the key so it's difficult to draw conclusions. • Figure 5b only shows one picture, so this might be biased as some could have been missed, therefore this technique is limited in its appropriateness. • Recognition of issue in presentation (both Figure 5a and 5b) may be flawed in terms of approach and usage. • An evaluation of how far the presentation techniques can be trusted may be provided. **AO4** • In Figure 5a there is no totals column for the Peoples Responses • In Figure 5a the is no strongly agree category • In Figure 5a the colours may be the wrong choice of plot technique • In Figure 5b only 2 opinions are shown (there may have been more). They may have been edited. • In Figure 5b there is no idea as to how the responses were selected • In Figure 5b show anything about the area / context of where the interview took place and when.

Level	**Mark**	**Descriptor**
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	**Answer**	**Mark**

5 (a)(i)	**AO3 (1 mark)** Award 1 mark for a suitable type of primary data. • Environmental quality survey (EQS, EQA) (1) • Questionnaire (1) • Interview (1) • Photographs (1) Nature of data will vary depending on the location as well as the context of the investigation. It must be relevant to a human geography focused piece of fieldwork.	**(1)**

Question number	Answer	Mark
5 (a)(ii)	**AO3 (2 marks)** Award 1 mark for identifying a way it helped, and a further mark (s) for an explanation, up to a maximum of 2 marks. The primary data will vary on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • Interviews were used to find out peoples' perceptions of the second-homes (1) so that we knew more local attitudes of those who lived there in order to collect reliable survey sample (1). • Photographs were taken at the proposed new housing development to record the wildlife currently there (1) so we could understand more about how the area would change with the development (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5 (b)	**AO3 (2 marks)** Award 1 mark for identify a reason and a further mark for extension through explanation, up to a maximum of 2 marks:. **NB:** the location provides a context for the investigation and the subsequent parts that follow – no credit for this. • It was safe to work in (1) and this means we could collect a sufficient range of data to be able to answer the hypothesis (1). • It was close to the local school (1) therefore we could collect primary data without having to spend a long time travelling (1) • The area provided two different communities / groups of people (1) therefore giving me a more complete picture of the contrasting attitudes towards rural development (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5 (c)	**AO3 (3 marks)** Award 1 mark for identification of the secondary data and its use, and a further mark (s) for an explanation, up to a maximum of 2 marks. The secondary data will vary on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • The local census information helped us to work out how many people lived in our sample area (1) so we were able to design a fair sample for the fieldwork (1) and that gave us stronger conclusions (1). • A rural development plan from the regional government (accessed online) allowed to find out about the proposed housing plans in the area (1) and we were then able to use these when we were considering the sample design (1) which allowed a more reliable data set to be collected (1). • A specialist textbook about rural area allowed us to find out about the planning requirements for a large housing estate (1) and we then used GIS to simulate the type of area that would be good to build new housing estate (1) and from that developed a series of questionnaires (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
5 (d)	**AO3 (2+2 marks)** Award 1 mark for a method and a further expansion mark, up to a maximum of 2 marks each. • We used located pie charts on a base map (1) to show the differences in outcomes based on the questionnaire survey (1). • We used gain-loss bar charts to show EQA data (1) and this made it easy to compare the best and worst sites (1). • We used scatter graphs to compare two proposed sites (1) which allowed us to see the relationship between places as revealed by the data (1). • Annotations on fieldwork pictures allowed commentary on different sites (1) allowing me to express my perceptions of differences (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
5 (e)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Both Figures 5a and 5b do show some outcomes from the fieldwork surveys, therefore it is possible to make some sense of what the student found. • Figure 5a seems incomplete as the nature of the questions asked is not present on the key so it is difficult to link to conclusions. • Figure 5b only shows two annotations, so this might be biased as some could have been missed, therefore this technique is limited in its appropriateness and value. • Recognition of issue in analysis (both Figure 5a and 5b) may be flawed in terms of approach and usage. • An evaluation of how far the conclusions can be trusted (line 10 +11) cannot be trusted as they are vague and don't provide a context. **AO4** • In Figure 5a there are lots of generalisations. • In Figure 5a the is no data being presented as evidence. • In Figure 5a they are mostly lists of descriptive statements. • In Figure 5b only 2 simple labels are shown, rather than annotations as indicated in the title. • In Figure 5b the label cloudy sky is not very useful as a conclusion. • In Figure 5b the image includes no scale or direct reference to a particular rural area. • In Figure 5b there is no title provided by the student.

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark

5(a)	**AO3 (2 marks)** Award 1 mark for explaining the hazard / risk and a further mark for explaining how the risk is managed, up to a maximum of 2 marks. ***NB:*** *the title provides a context for the investigation and the subsequent parts that follow – no credit for this.* • Some areas may have narrow roads so no footpaths (1) which means they need to be careful walking along and crossing roads (1). • Fieldwork was carried out in winter so there was a small risk of hypothermia (1) so lots of warm clothes were used (1). • The wet rocks present a slip and trip risk (1) so walking boots were used to minimise the risk of falling over (1). • Risk of collecting bias / unreliable data leading to invalid results (1) which could be managed by careful site selection / sample size / design (1). Nature of risk, and risk management will vary depending on the location as well as the context of the investigation.	**(2)**

Question number	Answer	Mark
5(b)(i)	**AO3 (2 marks)** Award 1 mark for identification of the qualitative data and its use, and a further mark (s) for an explanation, up to a maximum of 2 marks: The qualitative data will vary on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • Interviews were unreliable since they often have bias (1) so the respondent may have a particular attitude towards the development which is not reflected in the wider population (1). • Photographs are a snapshot of what is happening at a certain time (1) so we don't know what the place / area looks like at other times, e.g. at night for example (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(b)(ii)	**AO3 (2 marks)** Award 1 mark for an improvement and a further mark for extension through explanation, up to a maximum of 2 marks: • We could have used a larger sample of people (1) and this would have made the conclusions stronger based on more people's opinions (1). • Photographs could have been taken in different seasons (1) to see how the area has changed over time (1). • I could have completed more field sketches from different views (1) thereby giving me a more complete picture of the landscape and its environment (1).	**(2)**

	Accept any other appropriate response.	

Question number	Answer	Mark
5(c)	**AO3 (2 marks)** Award 1 mark for identification of the secondary data and its use, and a further mark (s) for an explanation, up to a maximum of 2 marks: The secondary data will vary on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • The local census information helped us to work out how many people lived in our sample area (1) so we were able to design a fair sample for the fieldwork (1). • A report from the regional government (accessed online) allowed to find out about the proposed change in the area (1) and we were then able to use these when we were considering the sample design. • A specialist textbook about rural environments allowed us to find out about the planning requirements for new development (1) and we then used GIS to simulate the type of area that would be good to have for new developments (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(d)	**AO3 (2+2 marks)** Award **1** mark for a method and a further expansion mark, up to a maximum of **2** marks each. • We used located pie charts on a base map (1) to show the differences in outcomes based on the questionnaire survey (1). • We used gain loss-bar charts to show EQA data (1) and this made it easy to compare the best and worst sites (1). • We used scatter graphs to compare two sites (1) which allowed us to see the relationship between places as revealed by the data (1) • Annotations on fieldwork pictures allowed commentary on different sites (1) allowing me to express my perceptions of differences (1). Accept any other appropriate response.	**(4)**

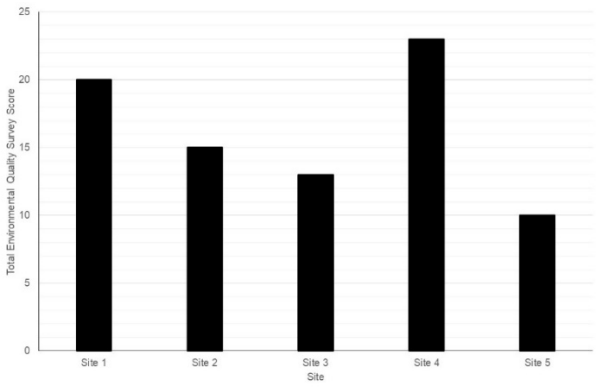
Question number	Indicative content
5(e)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Both Figures 5a and 5b do show some relevant approaches to the collection questionnaire data. • Figure 5a seems to have the questions in the wrong order. • Figure 5a – can be very difficult to judge age, therefore this technique is limited in its appropriateness. • 5b has several limitations in terms of sample size, timing / frequency and the choice / selection of people. • No justification or rationale for sample size or spacing, e.g. every 8th person – may lead to bias. **AO4** • In Figure 5a there are issues with the age categories – overlap. • In Figure 5a the questions are poorly worded. • In Figure 5a there is a scale which has a mid-3 on it. • In Figure 5b there is a small sample size. • In Figure 5b their questionnaires are delivered at lunchtime.

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark

5(a)(i)	**AO3 (1 marks)** Award 1 mark for a suitable piece of secondary data. • Newspaper articles about the area. (1) • Local data on rural populations. (1) • Census data (1) • Leaflet from interested pressure group. (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (2 marks)** Award 1 mark for inital point and a further mark for explanation. • Can capture lots of detail (1) which means they can be examined properly after the fieldtrip has ended. (1) • Provides an accurate representation of the site (1) at that point in time (1). • Can be used to capture the state of the site at the present time (1) which can be used to compare to historical photographs. (1). • Easy to annotate to show details (1) so can help with analysis (1). Accept any other appropriate response. Do not accept easy to take.	**(2)**

Question number	Answer	Mark
5(b)(i)	**AO4 (1 mark)** 1 mark for each correctly plotted bar. Site 1 should be 20 (1) Site 2 should be 15 (1)  	**(2)**

Question number	Answer	Mark
5(b)(ii)	**AO4 (1 mark)** A - Bar (1) All the other options are incorrect.	**(1)**

Question number	Answer	Mark
5(b)(iii)	**AO3 (1 mark)** • Site 4. (1)	**(1)**

Question number	Answer	Mark
5(b)(iv)	**AO4 (2 marks)** Award 1 mark for the calculation of the correct answer = 13 (1)	

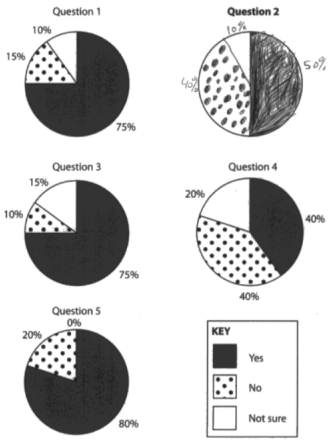
	Award 1 mark for correct method to calculate range = 23-10 (1) or working out with similar numbers, i.e. understands idea of difference/substraction (highest and lowest values).	**(2)**

Question number	Answer	Mark
5(c)	**AO3 (3 marks)** Award 1 mark for a correct suggested way to manage a risk, with a further 2 marks for expansion. • Remain alert (1) to ensure awareness for traffic (1) to prevent accident. (1) • Wear appropriate clothing (1) to ensure remain comfortable during fieldwork (1) and reduce chance of illness. (1) • Work in groups (1) to ensure safety (1) against unexpected events. (1) Accept any other appropriate response. Note: credit ideas related to risk of poor data collection.	**(3)**

Question number	Answer	Mark

5(a)(i)	**AO3 (1 marks)** • Photos and sketches (1) • Information from newpapers/websites (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (2 marks)** • Systematic (1) collecting data in an ordered or regular way. (1) • Random/opportunistic (1) collecting evidence where possible/appropriate (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(b)(i)	**AO3 (1 mark)** 1 mark for each correctly drawing the lines and 1 mark for correctly shading or labelling the portions. Portions can be in any order. Yes: 50% No: 40% Not sure: 10% For example:  	**(2)**

Question number	Answer	Mark
5(b)(ii)	**AO4 (1 mark)** C Potential to generate a mixture of qualitiative and quantiative data.	**(1)**

Question number	Answer	Mark
5(b)(iii)	**AO3 (1 mark)** B The average percentage for people who answered 'not sure' was 11.	**(1)**

Question number	Answer	Mark
5(b)(iv)	**AO4 (2 marks)** Award one mark for each suitable suggestion of how to improve data collection, up a maximum of 2 marks: • Increase the number of questionnaires completed (1) in order to get a more representative sample (1). • Increase the number of sites where data was collected (1) to get different perspectives (1). • Acquire more secondary data (1) to be able to understand more about the area before primary data collection (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(c)	**AO3 (3 marks)** Award 1 mark for identification of an advantage of secondary data, with a further 2 marks for expansion. • Secondary data can be compared to primary data (1) to check for any differences or similarities (1) and to confirm conclusions (1). • Increases sources of data (1) which can be used to form a more complete picture (1) which increases validity of the enquiry (1). • Can access different types of data that would otherwise be available (1) often with a much larger amount of data that could be collected by one student (1) expanding the types of data analysis that can be conducted (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark

Question Number	Answer	Mark
5(a)	**AO3 (1 mark)** Award 1 mark for: 3 / Why? 4 / How do you think tourists could reduce their impact on the national park? Accept either the question number on its own or it the candidate has written out the appropriate question shown above.	**(1)**

Question Number	Answer	Mark
5(b)	**AO3 (1 mark)** Award 1 mark for identifying a suitable advantage. • Easy to see proportions of data (1) • Easy to compare data (1) • Clear presentation of results (1). Accept any other appropriate response.	**(1)**

Question Number	Answer	Mark
5(c)	**AO3 (2 marks)** Award 1 mark for suitable sampling technique identified and further mark for explanation, up to a maximum of 2 marks. • Systematic sampling (1) collecting data in an ordered way e.g. every 5th person (1). • Stratified sampling (1) where a particular number of different categories of people are chosen to reflect the proportion of the number in the total population (1). • Random sampling (1) where there is no subjectivity over who is chosen to participate (1).	

	Accept any other appropriate response.	**(2)**

Question Number	Indicative content
5(d)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Figure 5a shows an appropriate data collection method for exploring views about tourism in the Lake District. • Figure 5b presents simple data that was produced the questionnaire data, but doesn't explore the views in detail. • Figure 5a seems to make it difficult to validate conclusions because there is no way to classify the responses in more detail. • Figure 5b only shows presentation of data from two questions and doesn't show in combination with the outcomes of the different methods of the investigation. • Figure 5b does not present any of the qualitative data that could have revealed the information to help the student reach their aim. **AO4** • In Figure 5a there are no questions to categorise responses (gender, age etc). • In Figure 5a there are a range of open and closed questions to generate qualitative and quantitative data. • In Figure 5a there is no question to check understanding of how people understand the issue of tourism in the Lake District. • In Figure 5b there are only 2 simple pieces of data presented. • In Figure 5b there are no data labels for some of the data presented. • In Figure 5b the pie charts are presented in different sizes.

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

5(a)	**AO3 (1 mark)** Award 1 mark for: • Newspaper articles or photos in newspaper articles (1)	**(1)**

Question number	Answer	Mark
5(b)	**AO3 (1 mark)** Award 1 mark for identifying a suitable advantage. • Can include qualitative and quantitative data (1) • Can allow open and closed questions (1) • Easy to gather data (1) • Can be easily analysed (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(c)	**AO3 (4 marks)** Award 1 mark for a suitable way reliability of data could have been affected and a further mark for extension through explanation, up to a maximum of 2 marks: • The student might have visited the area at a time when there were not many people around (1) so views collected would not be representative (1). • The student may have hurried the annotated diagram (1) so missed important details (1). • The environmental quality survey is subjective (1) so views may differ every time it is conducted (1). Accept any other appropriate response.	**(2)**

Question number	Indicative content
5(d)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Both Figures 5a and 5b do show some outcomes from the fieldwork surveys, therefore it is possible to make some sense of what the student found. • Figure 5a seems to make it difficult to validate conclusions as not aware of the nature of the data collected to create the word cloud. • Figure 5b shows three basic conclusions, but it is difficult to use 4a to validate the conclusions as there is not enough detail about where these views were coming from. • Figure 5b the evaluation statements are quite vague and require more detail, although 4 makes a sensible suggestion about how to improve the study, particularly given conclusion 3. **AO4** • In Figure 5a there are lots of key words shown in the word cloud. • In Figure 5a the words are shown in different sizes which may indicate frequency. • Figure 5a does not provide context of who said these words. • Figure 5a does not suggest which questions these words respond to. • In Figure 5b the conclusions are very descriptive. • In Figure 5b the evaluation statements make suggestions about how the methods could have been improved. • Figure 5b suggests there were elements of the fieldwork that were not effective.

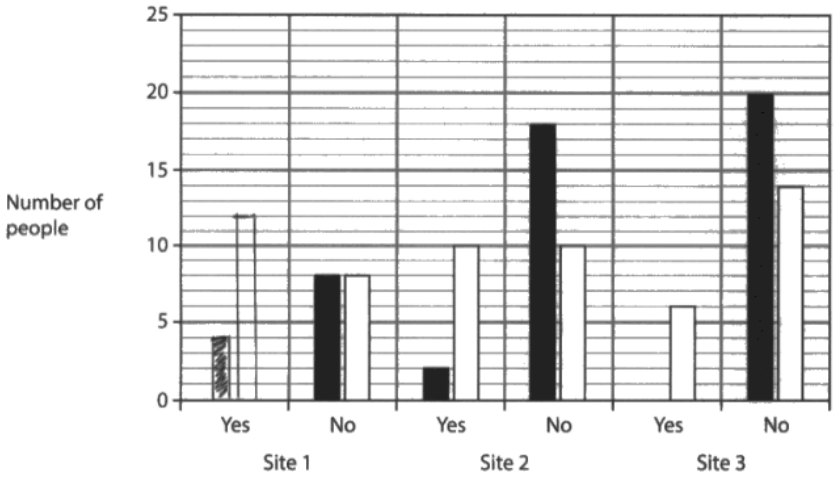
Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark

5(a)(i)	**AO3 (1 mark)** Award one mark for any of the following: • Question 1 or "Do you travel by public or private transport?" • Question 3 or "Do you think the village has good accessibility?" • Question 4 or "Would you like trains to stop here more frequently" • Question 5 or "Do you travel out of the village frequently" • Accept answers that just provide a number e.g. 1 or Q1.	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (2 marks)** Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. • Open question allow opinions to be gained (1) which can be provided in more detail than closed questions (1). • Open questions allow for responses that were not expected (1) which would not be captured by closed questions (1). • Allows you gain qualitative data (1) which means you can understand people's views (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(b)(i)	**AO3 (1 mark)** Award 1 mark for: Systematic sampling (1)	**(1)**

Question number	Answer	Mark
5(b)(ii)	**AO4 (2 marks)** Award 1 mark each correctly drawn bar with correct shading. Award 2 marks for all 2 correctly drawn bars with correct shading. Some indication of shading is acceptable does not have to be completely filled in.  	**(2)**

Question number	Answer	Mark
5(b)(iii)	**AO4 (1 mark)** Award 1 mark for: Site 3 / 3 (1)	**(1)**

Question number	Answer	Mark
5(b)(iv)	**AO4 (2 marks)** Award 1 mark for working and 1 mark for correct answer. 12+ 10+ 6 = 28 / 3 (1) Allow 12+10+6/3 (1) = 9.3 (1) They do not have to write the answer on the answer line. Credit correct answers anywhere in the space provided.	**(2)**

Question number	Answer	Mark
5(c)	**AO3 (3 marks)** Award 1 mark for a suitable method, and further 2 marks for explanation. • Environmental Quality Survey (1) which could have assessed the varied quality of areas where there are more transport options (1) to see if there were any correlations (1). • Environmental Quality Survey (1) provides quantitative data (1) that can aid analysis/evaluation (1). • Interview a local council representative (1) to understand what the council was doing about accessibility (1) and if they were offering incentives to local people to use them in their homes (1).	**(3)**

Question number	Indicative content
5(d)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Evaluation is likely to be linked to the use of a range of data presentation methods to strengthen argument, linked to aims. • Evaluation will most likely be linked to the evaluation of the data presentation methods as well as collection methods and fieldwork design. • Recognition of the extent to which presentation methods chosen were suitable for the data types collected e.g. doesn't allow for presentation of qualitative data effectively. • A supported judgement is reached about the presentation methods, drawing on evidence such as strengths, weaknesses, alternatives and relevant examples using data. **AO4** • There is evidence of using different skills and techniques as part of primary fieldwork.

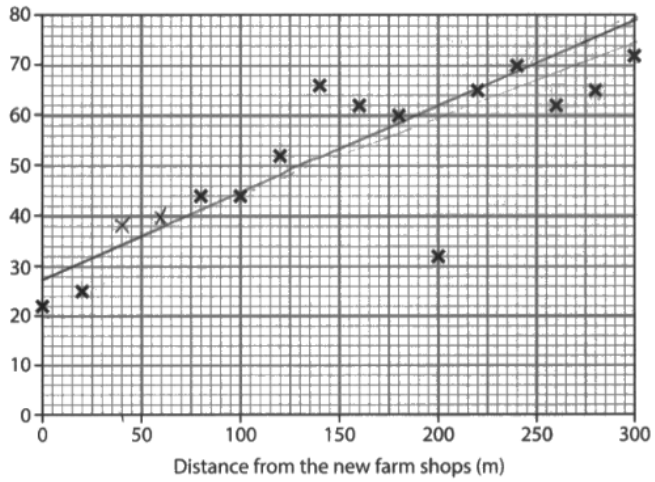
	• There is evidence of using different skills and techniques relevant to data presentation stage of the enquiry. • There is evidence of using different skills and techniques to investigate aspects of rural environments. • There is evidence of own fieldwork data (and design) i.e. reference to the field data collected by the student.

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)

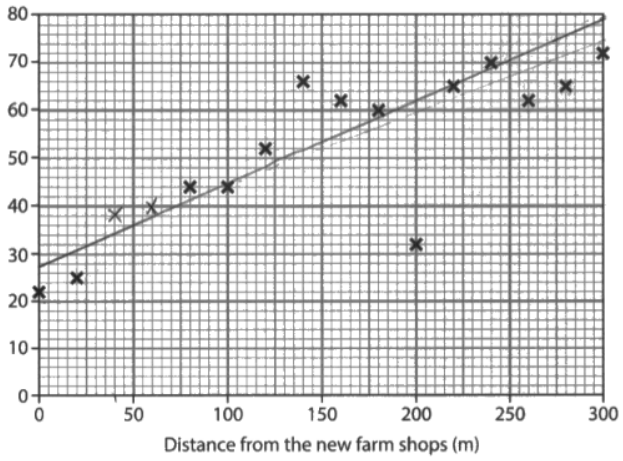
Question number	Answer	Mark

5(a)(i)	**AO3 (1 mark)** Award one mark for any of the following: • Question 2/Q2/2 or 'What benefits does it bring?' (1) • Question 6/Q6/6 or 'What impact do you think the new farm shop has had on the area? (1) .	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (2 marks)** Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. • Closed question allow opinions to be quantified (1) which make data analysis straightforward when creating graphs and charts (1). • Closed questions are usually quicker to respond to (1) so it might be possible to get more people to answer these (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(b)(i)	**AO4 (2 marks)** Award 1 mark each correctly plotted point at 40m and 60m. Correct diagram shown below:  	**(2)**

Question number	Answer	Mark
5(b)(ii)	**AO4 (1 marks)** Award 1 mark for: 200m (1) Accept 200.	**(2)**

Question number	Answer	Mark
5(b)(iii)	**AO4 (1 mark)** Award 1 mark for a suitable line drawn, similar to below:  Line of best fit needs to be within the first and last plots but angle and height can vary slightly from the example shown above.	**(1)**

Question number	Answer	Mark
5(b)(iv)	**AO4 (2 marks)** Award 1 mark for working and 1 mark for correct answer. • (52+60) /2 (1) • 56/56.0 (1)	**(2)**

Question number	Answer	Mark
5(c)	**AO3 (3 marks)** Award 1 mark for a suitable method, and further 2 marks for explanation. • Local newspaper articles (1) can be used to find out views of local people on the new collection of farm shops (1) and compare to views from questionnaire (1) . • Reports from local council on rural commerce / tourism (1) to consider potential impacts of the new collection of farm shops (1) and what is being done to minimise impacts (1). Accept any other appropriate response. Do not credit 'internet' on its own.	**(3)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>5(d)</td><td colspan="2">AO3 (4 marks)/AO4 (4 marks)
Marking instructions
Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.

Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• Evaluation is likely to be linked to the use of a range of data collection methods to strengthen argument, linked to aims.
• Evaluation will most likely be linked to the evaluation of the data collection methods as well as fieldwork design and the techniques used to analyse and present data.
• Recognition of the extent to which data collection methods chosen were suitable for the data types collected e.g. doesn’t allow for presentation of qualitative data effectively.
• A supported judgement is reached about the data collection methods, drawing on evidence such as strengths, weaknesses, alternatives and relevant examples using data.

AO4
• There is evidence of using different data collection methods and thought about the design of these methods as part of primary fieldwork.
• There is evidence of using different skills and techniques relevant to design of the methodology stage of the enquiry.
• There is evidence of using different skills and techniques to investigate aspects of rural environments.
• There is evidence of own fieldwork data (and design) i.e. reference to the field data collected by the student.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No acceptable response.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)
• Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)</td></tr>
</table>

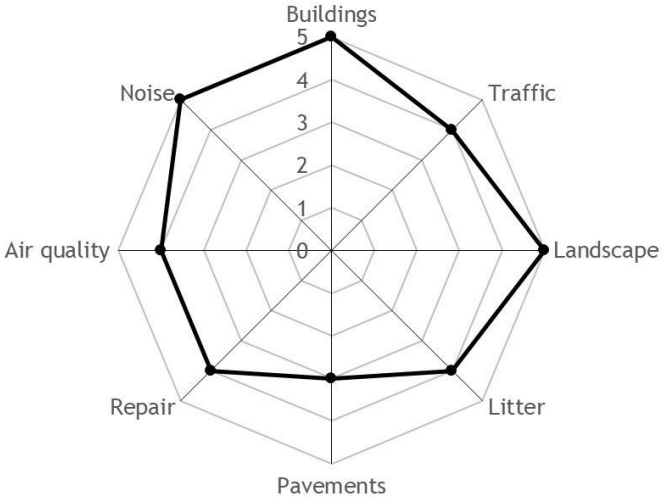
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)

.

Question number	Answer	Mark

5(a)(i)	**AO3 (1 mark)** Award one mark for a suitable type of secondary data • Data on local population demographics(1) • Local planning reports (1). • Local newspaper articles on energy issues (1). • Data from social media (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (2 marks)** Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. • It can be used to find out more features of the enquiry area (1) which can provide the context for the enquiry (1). • It can be used to confirm findings from primary data (1) and support conclusions (1). • It can be used to compare to historical patterns (1) to understand where changes have taken place (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(b)(i)	**AO4 (2 marks)** Award 1 mark for: Plotting points correctly (1) Connecting lines correctly (1). This should look like the diagram below:  	**(2)**

Question number	Answer	Mark
5(b)(ii)	**AO4 (1 mark)** Award 1 mark for a suitable observation. • The site has a good/positive environmental quality. (1) • The high scores suggest a high environmental quality. (1) • The area might not be set up for pedestrians. (1) • There is a lot of traffic in the area. (1)	**(1)**

Question number	Answer	Mark
5(b)(iii)	**AO4 (1 mark)** Award 1 mark for a suitable advantage: • A lot of different features can be plotted on one graph. (1) • It is clear to see the environmental quality of the area. (1) • Easy to compare different factors (1)	**(1)**

Question number	Answer	Mark
5(b)(iv)	**AO4 (2 marks)** Award 1 mark for working and 1 mark for correct answer. 5,4,5,4,3,4,4,5 or 3,4,4,4,4,5,5,5 (1) = 4 (1)	**(2)**

Question number	Answer	Mark
5(c)	**AO3 (3 marks)** Award 1 mark for an initial point, and further 2 marks for explanation. • Photographs can be used to record features of the area (1) which can be annotated in the data presentation stage (1) and demonstrate findings such as evidence of poor pavements (1). • Photographs can be used as an alternative for field sketches (1) and can be more accurate (1) to allow the student to look back after leaving the fieldwork site (1). Photographs can be used for rephotography (1) so the current features could be compared with the past (1).	**(3)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>5(d)</td><td colspan="2">AO3 (4 marks)/AO4 (4 marks)
Marking instructions
Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.

Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• Evaluation is likely to be linked to the conclusions made and how these linked to the aims for the enquiry.
• Evaluation will most likely be linked to the methods used that led to these conclusions and how the nature of fieldwork design led to the creation of the conclusions.
• Recognition of the extent to which aim was met and how the methods chosen to allow these conclusions to be reached.
• A supported judgement should be reached about how the aim was met drawing on evidence from the conclusions, such as the strength and weaknesses of the findings, using relevant examples from either the data or the conclusions that they led to.

AO4
• There is evidence of using different skills and techniques as part of primary fieldwork.
• There is evidence of using different skills and techniques relevant to conclusion stage of the enquiry.
• There is evidence of using different skills and techniques to investigate aspects of rural environments.
• There is evidence of own fieldwork data (and design) i.e. reference to the field data collected by the student.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No acceptable response.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)
• Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)</td></tr>
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Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark

5(a)(i)	**AO3 (1 mark)** Award one mark for a suitable risk: • Getting lost (1) • Falls/slips/injuries (1) • Loss of equipment (1) • Being hit by traffic/bikes (1) • Theft (1) • Sunburn/hypothermia (1) • Data collected is biased/data not reliable (1) • Failure of equipment (1) • Difficulty in achieving sample size (1) • Issues with wildlife (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (2 marks)** Award 1 mark for suitable factor, and a further mark for explanation, up to a maximum of 2 marks. • Accessibility (1) they needed to be in walking distance to ensure data could be collected (1). • To ensure range of data gathered across the village (1) to support reliable conclusions (1). • Time available (1) to ensure all sites could be feasibly visited in a day (1). • Safety (1) to not go in areas that do not have sufficient pavements (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(b)	**AO3 (2 marks)** Award 1 mark for a suitable way identified, and a further mark for development or explanation. • Local newspaper articles (1) to provide evidence to support conclusion (1). • Government reports (1) provided background data on new transport schemes (1). • Government website (1) with data on rural population characteristics (1). • Old photographs (1) to show change over time (1).	**(2)**

	• Past investigations (1) to check for annual changes (1). • Maps/online maps/land use maps (1) to be able to explore patterns (1). Accept any other appropriate response. Secondary data needs to be specific, do not accept, the internet for information. The secondary data will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments.	

Question number	Answer	Mark
5(c)	**AO3 (4 marks)** Award 1 mark for an advantage and 1 mark for a disadvantage with a further mark for development or explanation up to a maximum of 2 marks each. Max 2 marks for advantage or disadvantages. The data presentation techniques will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. Advantages: • Pie chart allows view of relative proportion of people's views (1) which allows conclusions to be formed (1). • Bar graph give a clear visual picture of the data (1) which provides a summary of questionnaire data to be able to form conclusions (1). Disadvantages: • Pie chart only showed overall proportions of people's views (1) rather than explaining what they thought. • Bar graph only shows a snapshot of information (1) rather than how the data has changed over time (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
5(d)	**AO3 (3 marks)** Award 1 mark for an initial point, and further 2 marks for explanation. • Data was collected at several sites (1) to ensure an accurate representation of views (1) to ensure conclusions could be supported with evidence (1). • Findings from primary data collection were compared to findings from secondary data collection (1) and similar ideas were found (1) showing how the conclusions confirmed the views about the new development (1). Accept any other appropriate response.	**(3)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>5(e)</td><td colspan="2">AO3 (4 marks)/AO4 (4 marks)
Marking instructions
Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.

Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• Evaluation is likely to be linked to the choice of equipment and data collection methods used and how these linked to the aims for the enquiry.
• Evaluation will most likely be linked to how suitable the equipment was for the choice of data collection methods and how this may have affected the conclusions made.
• Recognition of the extent to which aim was met and how the equipment and data collection methods were suitable for the type of fieldwork carried out.
• A supported judgement should be reached about the choice of equipment and data collection methods, such as the strength and weaknesses, or suggestions of additional/alternative equipment or data collection methods which could have been used.

AO4
• In Figure 5a there shows there is relevant fieldwork equipment for the data collection methods identified (e.g. Interview guide for interviews).
• Figure 5a shows the students are using both primary and secondary data.
• Figure 4a does not specify if they are using any maps.
• In Figure 5b there are no age groups specified in the interview.
• In Figure 5b some of the questions are too general, e.g. Q3.
• In Figure 5b the student only collects quantitative data for Q6 which should have been followed with a question to understand the reasons for their respond in Q6.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No acceptable response.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)
• Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has</td></tr>
</table>

		limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark

5(a)	**AO3 (1 mark)** Award one mark for a suitable type of sampling. • Random (1) • Stratified (1) • Systematic (1) • Opportunistic (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(b)	**AO4 (2 marks)** Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. The risks managed will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • We crossed the road safely (1) to avoid getting hit by cars/bikes/buses (1). • Conducted a risk assessment before travelling to fieldwork site (1) to ensure we were aware of risks we could face (1). • Provided team members with phone numbers (1) so we could regroup if we got lost (1). • Wore suncream/lots of layers (1) to avoid sunburn/avoid hypothermia (1). • We stayed in our group/took a map/took our phone (1) to avoid getting lost (1). • Carried water supplies (1) to avoid dehydration (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(c)(i)	**AO3 (2 marks)** Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. The equipment used will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • Mobile phone (1) to plot data on a map/take photos (1). • Questionnaire (1) to gather views from local people (1). • Sound meter (1) to explore changes in noise around the area (1). • Stopwatch (1) for timing a minute to count pedestrians (1). • Pencil (1) to draw annotated field sketches/diagrams (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(c)(ii)	**AO3 (4 marks)** Award 1 mark for each advantage and disadvantage, and a further mark for explanation, up to a maximum of 2 marks for each. The data collection methods used will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. Advantages: • Survey was a quick way of collecting data (1) which meant we could collect a bigger sample (1). • Taking photographs provided an accurate visual record of the area (1) which meant I could refer back to them when doing the data analysis (1). • Environmental quality surveys create quantitative data (1) which makes easy to compare (1). Disadvantages: • People didn't want to fill in our surveys (1) which meant we had a small sample (1). • Photographs do not capture the sounds and smells of the sites (1) so cannot be used to recollect all details about the environmental quality of the area (1). • Environmental quality surveys are subjective (1) so different people may get different data about the same site (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
5(d)	**AO3 (3 marks)** Award 1 mark for an initial point, and further 2 marks for explanation. • I took photographs as well as field sketches (1) to make sure I did not miss any details (1) this meant I could refer to these images when analysing the data (1). • I chose several sites around the area (1) to make sure that I collected data from a range of people (1) to try and get a representative sample of people (1). Accept any other appropriate response.	**(3)**

Question number	Indicative content
5(e)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Evaluation is likely to be linked to the data presentation methods used and how these linked to the aims for the enquiry. • Evaluation will most likely be linked to how effective the data presentation methods are for displaying the chosen data, and the level of detail provided in these data presentation methods. • Recognition of the extent to which aim could be met with the chosen data presentation methods. • A supported judgement should be reached about the suitability and quality of the data presentation methods, such as the strength and weaknesses of these methods, using relevant examples from the figures provided. **AO4** • Figure 5a shows a bar graph of total environmental quality scores, but does not show what elements were used to create this total score. • Figure 5a is accurately labelled axis and has a title. • Figure 5b is a pie chart where it is easy to see the proportions of how people responded.

	• Figure 5b does not have any percentage labels so it is difficult to know the exact percentages. • Figure 5b shows there are overlaps on the categories of distances recorded.

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark

5(a)(i)	**AO3 (1 mark)** Award one mark for a suitable type of graph: This will be dependent on the type of enquiry but typically graphs could include: • Bar graph/stacked bar graph (1) • Line graph (1) • Pie chart (1) • Histogram • Scattergraph (1) • Bubble chart (1) • Box plot (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (2 marks)** Award 1 mark for initial reason, and a further mark for explanation, up to a maximum of 2 marks. This will be dependent on the previous response but answers could include: • Easy to visualise the data (1) and make comparisons between locations/data sets (1). • Can be used to identify patterns (1) and show any significant anomalies in the data (1). • Suitable for the data being plotted (1) needed to show change over time/continuous data (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(b)	**AO3 (2 marks)** Award 1 mark for a suitable way qualitative technique, and a further mark for development or explanation. This will vary depending on enquiry question, but could include: • Photographs (1) to capture accurate visual record of the surrounding to annotate later (1). • Interviews (1) to capture views of local stakeholders (1) Surveys/questionnaires (with open questions) (1) to understand the reasons behind participant choices (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
5(c)	**AO3 (4 marks)** Award 1 mark for each way identified with a further mark for development or explanation up to a maximum of 2 marks each. Max 2 marks for each way provided. The type of secondary data will vary on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • Used local newspaper articles (1) to research information about the history of the local area (1). • Used a government report about tourism (1) to provide a national context for changes taking place to inform my interview questions (1). • Used data on property prices (1) to look for correlations with the data I had from the Environmental Quality Survey (1). • Map (1) to be able to examine land features (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
5(d)	**AO3 (3 marks)** Award 1 mark for identification of an improvement, and further 2 marks for explanation. The type of data analysis will vary on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • I could have compared the data I had from different sites (1) in order to consider broader patterns (1) to understand where significant differences were (1). • I could have created a word cloud with data from the report (1) to systematically highlight key themes from the report (1) rather than just highlight interesting sentences (1). • Use a greater variety of data presentation methods/use line graphs rather than pie chart (1) to be able to more easily identify trends (1) to be able to support conclusions (1). Accept any other appropriate response.	**(3)**

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<tr><td>5(e)</td><td colspan="2">AO3 (4 marks)/AO4 (4 marks)
Marking instructions
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Indicative content guidance
The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO3
• Evaluation is likely to be linked to the conclusions made and how these linked to the aims for the enquiry.
• Evaluation will most likely be linked to the methods, and limited data presentation provided that led to these conclusions and how the nature of fieldwork design led to the creation of the conclusions.
• Recognition of the extent to which aim was met and how the methods chosen to allow these conclusions to be reached.
• A supported judgement should be reached about how useful the conclusions were, using relevant examples from the resources.
AO4
• In Figure 5a there is a summary of data collection methods used (including photographs and questionnaire collected along a transect, and secondary data).
• In Figure 5a shows the students are using both primary and secondary data.
• In Figure 5b there is a bubble graph which shows evidence of tourism.
• In Figure 5c there are conclusions about tourism.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No acceptable response.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)
• Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)</td></tr>
<tr><td>Level 2</td><td>4–6</td><td>• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to</td></tr>
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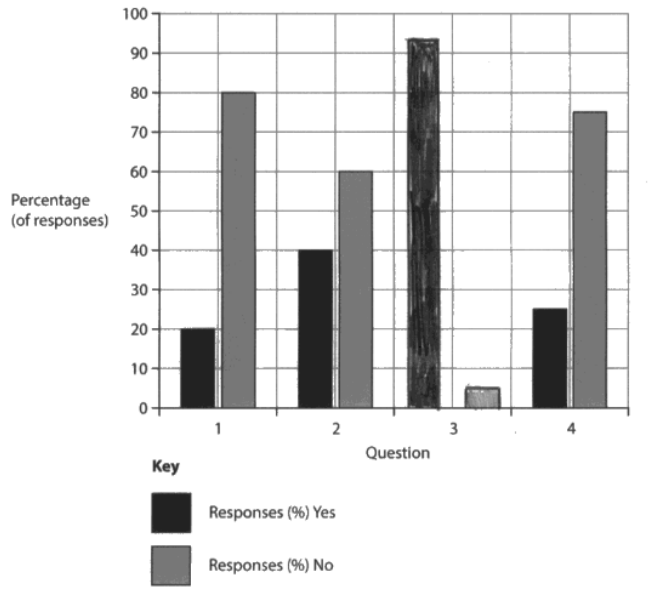
		judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark

5(a)	**AO3 (1 mark)** Award one mark for a suitable piece of equipment: • Camera/Mobile phone (1) • Environmental quality survey sheet (1) • Questionnaire (1) • Map (1) • Stopwatch (1) • Notebook (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(b)	**AO3 (1 mark)** Award 1 mark for either of the following: • Websites and (real estate agents') leaflets (1) • Data on the number of residents (in the village) (1)	**(1)**

Question number	Answer	Mark
5(c)	**AO3 (3 marks)** Award 1 mark for a suitable reason, and a further mark for development or explanation up to a maximum of 3 marks. • It is less biased than other options (1) as participants are chosen randomly rather than for a particular reason (1) which means data should be more accurate (1). • Random sampling is easy to implement (1) it does not require access to a particular group of people (1) so they can be selected as they walk by (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
5(d)(i)	**AO4 (2 marks)** Award 1 mark for accurate plotting of each bar.  	**(2)**

Question number	Answer	Mark
5(d)(ii)	**AO4 (1 mark)** Award 1 mark for another suitable presentation method: • Pie chart (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(d)(iii)	**AO4 (2 marks)** Award 1 mark for correct method to calculate the range. Award 2 marks for correct answer. NB Only look at working out if answer is incorrect. 50-20 (1) (method mark) 30 (2)	**(2)**

Question number	Answer	Mark
5(e)	**AO3 (2 marks)** Award 1 mark for an advantage, and 1 mark for a disadvantage. • Advantage: ○ Easy to see patterns for each site (1) ○ Easy to compare sites (1) • Disadvantage: ○ Does not show any correlations between questions (1) ○ This chart shows percentages rather than real numbers of responses (1). ○ Difficult to read accurately because of the scale on the y-axis being so spaced out (1) ○ Difficult to know what question was asking from the graph (1) Accept any other appropriate response.	**(2)**

Question number	Indicative content
5(f)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3**

	• Evaluation is likely to be linked to the use of a range of data collection methods to generate qualitative data. • Evaluation will most likely make links between the qualitative data used and how this strengthened the argument/conclusions. • Evaluation will most likely be linked to the evaluation of the use of quantitative data alongside qualitative data to form accurate conclusion. • Recognition of the extent to which the type of data collected can affect how data is analysed/ the aim is met/conclusions are made. • A supported judgement is reached about the use of qualitative data in their enquiry drawing on evidence such as strengths, weaknesses, alternatives and relevant examples using data. **AO4** • There is evidence of using different skills and techniques as part of primary fieldwork. • There is evidence of qualitative techniques such as interviews, open ended questions in questionnaires, photographs. • There is evidence of using different skills and techniques relevant to how data is collected or analysed as part of the enquiry. • There is evidence of using different skills and techniques to investigate aspects of urban environments. • There is evidence of own fieldwork data i.e. reference to the field data collected by the student.

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout.

Question number	Answer	Mark
	A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)	

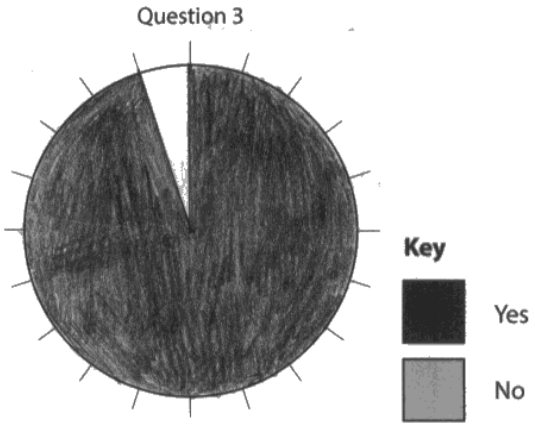
Question number	Answer	Mark

5(a)	**AO3 (1 mark)** Award one mark for a suitable risk: • Road safety (1) • Weather conditions (1) • Proximity to electricity pylon (1). • Access rights (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(b)	**AO3 (1 mark)** Award 1 mark for any of the following: • Environmental quality survey (1) • Questionnaires (1) • Photographs (1)	**(1)**

Question number	Answer	Mark
5(c)	**AO3 (3 marks)** Award 1 mark for a suitable reason, and a further mark for development or explanation up to a maximum of 3 marks. • Systematic sampling is easy to implement (1) it does not require access to a particular group of people (1) so they can be selected as they walk past by counting intervals (1). • It is less biased than other options (1) as participants are chosen by a system rather than for a particular reason (1) which means data should be more accurate (1). Accept any other appropriate response.	**(3)**

Question	Answer	Mark

number		
5(d)(i)	**AO4 (2 marks)** Award 1 mark for accurate drawing of segments. Award 1 mark for accurate shading.  	**(2)**

Question number	Answer	Mark
5(d)(ii)	**AO3 (2 marks)** Award 1 mark for an advantage, and 1 mark for a disadvantage. • Advantage: ○ Easy to see patterns for each site (1) ○ Easy to compare sites (1) • Disadvantage: ○ Does not show any correlations between questions (1) ○ This chart shows percentages rather than real numbers of responses (1). Accept any other appropriate response.	**(2)**

Question Number	Answer	Mark
5(d)(iii)	**AO3 (1 mark)** Award 1 mark for another suitable presentation method: • Bar graph (1) • Histogram (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark

5(d)(iv)	**AO4 (2 marks)** Award 2 marks for correct answer. Award 1 mark for correct method to calculate the mean if the answer is not correct. 40 + 20 + 50 / 3 (1) 36.67 (accept 36.6/36.7/37) (1)	**(2)**

Question Number	**Indicative content**	
5(e)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO3** • Evaluation is likely to be linked to the use of a range of data collection methods to generate quantitative data. • Evaluation will most likely make links between the quantitative data used and how this strengthened the argument/conclusions. • Evaluation will most likely be linked to the evaluation of the use of quantitative data alongside qualitative data to form accurate conclusions. • Recognition of the extent to which the type of data collected can affect how data is analysed/ the aim is met/conclusions are made. • A supported judgement is reached about the use of quantitative data in their enquiry drawing on evidence such as strengths, weaknesses, alternatives and relevant examples using data. **AO4** • There is evidence of using different skills and techniques as part of primary fieldwork. • There is evidence of using different skills and techniques relevant to how data is collected or analysed as part of the enquiry. • There is evidence of using different skills and techniques to investigate aspects of economic activity and energy. • There is evidence of own fieldwork data i.e. reference to the field data collected by the student.	
Level	**Mark**	**Descriptor**
	0	No acceptable response.

Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark