

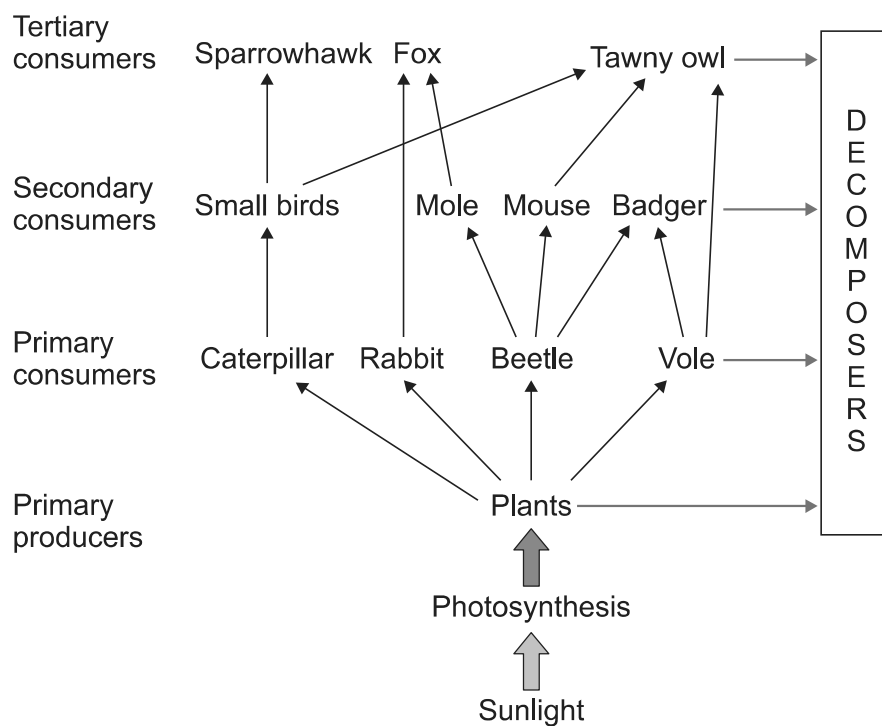
Section B The living world

Answer **all** questions in this section.

Question 2 The living world

Study **Figure 6**, which shows a food web for a small scale ecosystem in the UK.

Figure 6



0 2 . 1

Using **Figure 6**, which **one** of the following statements is true?

Shade **one** circle only.

[1 mark]

A Sparrowhawks eat plants.

☐

B Voles eat moles.

☐

C Moles eat beetles.

☐

D Badgers eat small birds.

☐


0	2	.	2
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Suggest what would happen in the food web shown in **Figure 6** if foxes became extinct.

[2 marks]

0	2	.	3
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State **one** role of decomposers in an ecosystem.

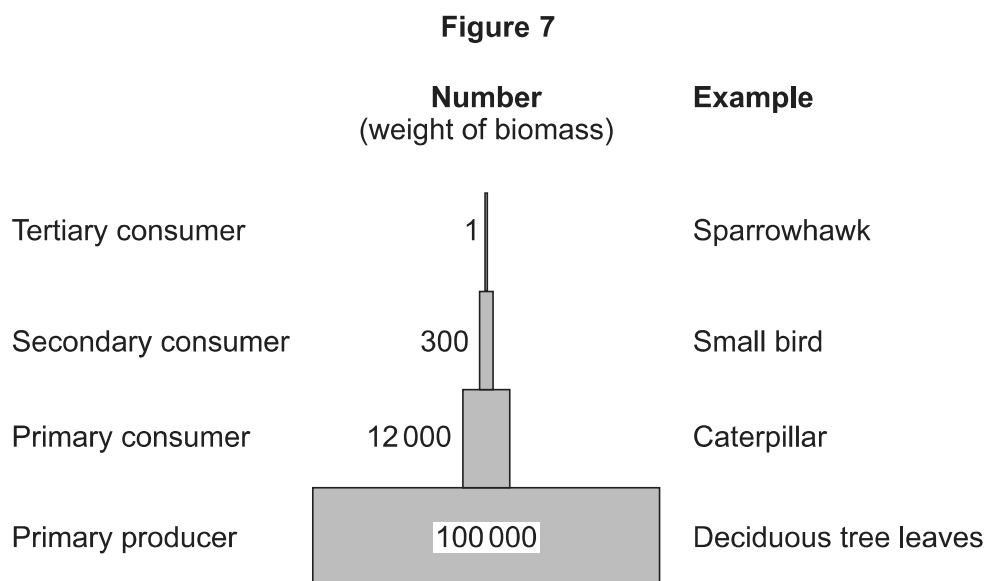
[1 mark]

Question 2 continues on the next page

Turn over ►



Study **Figure 7**, a graph showing the biomass at different levels of a food chain.



Biomass is the total quantity or weight of organisms in a given area.

0 2 . 4

Calculate the percentage loss in biomass between the primary consumer and secondary consumer levels.

Shade **one** circle only.

[1 mark]

A 2.5%

☐

B 97.5%

☐

C 25.2%

☐

D 95.5%

☐

0 2 . 5

Give **two** reasons why the biomass changes between each level in the food chain.

[2 marks]

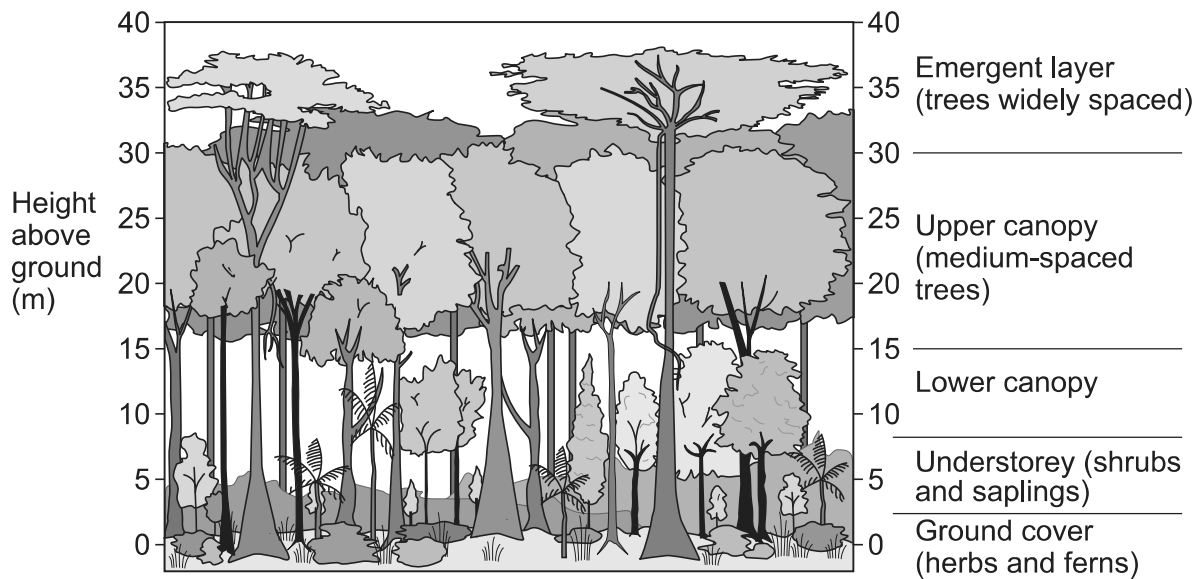
1 _____

2 _____



Study **Figure 8**, a diagram showing the structure of the tropical rainforest.

Figure 8



0 2 . 6

Using **Figure 8**, which part of the rainforest matches the following description?

'An almost continuous layer of branches and leaves between 15 and 30 metres high.'

Shade **one** circle only.

[1 mark]

A Emergent layer

☐

B Upper canopy

☐

C Lower canopy

☐

D Understorey

☐

0 2 . 7

Using **Figure 8**, describe **one** characteristic of the base of the taller trees.

[1 mark]

0 2 . 8

Give **one** effect of deforestation on the soils of the rainforest.

[1 mark]

Turn over ►



Study either **Figure 9** or **Figure 10**.

Figure 9 (plants and animals in a hot desert)



Figure 10 (plants and animals in a cold environment)



Turn over ►



Either

or

Tick (✓) the box to show which environment you have chosen.

7

7

[9 marks]

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Extra space

25

End of Section B

Turn over for Section C

Turn over ►



For the multiple-choice questions, shade the circle next to the correct answer.

CORRECT METHOD



WRONG METHODS



If you want to change your answer you must cross out your original answer as shown. 

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. 

Section A Urban issues and challenges

Answer **all** questions in this section.

Question 1 Urban issues and challenges

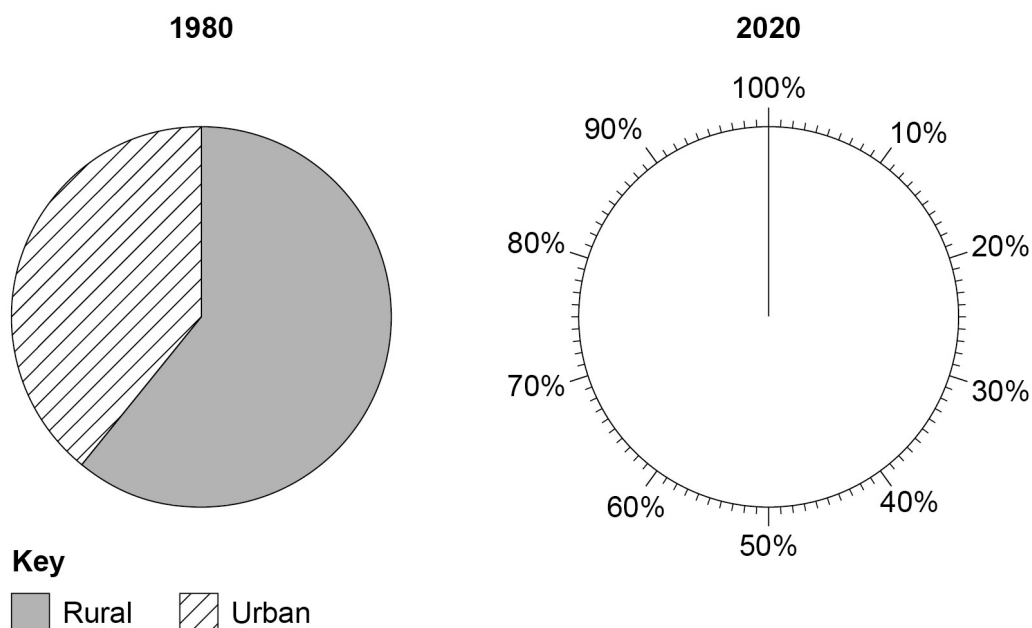
Figure 1 is pie charts showing the percentage of the global population living in rural and urban areas in 1980 and 2020.

0 1 . 1 Complete **Figure 1** below using the following data.

[2 marks]

	1980	2020
Rural	61%	44%
Urban	39%	56%

Figure 1



0 1 . 2 Using **Figure 1**, which of the following statements is true?

Shade **one** circle only.

Between 1980–2020 the proportion of the population living in rural areas:

[1 mark]

A decreased by 12%

☐

B decreased by 17%

☐

C doubled

☐

D increased by 12%

☐

0 1 . 3 Give **two** push factors that encourage people to leave rural areas in LICs/NEEs.

[2 marks]

1 _____

2 _____

0 1 . 4 Give **one** way a major city in a LIC/NEE is nationally important.

[1 mark]

Name of major city _____

National importance _____

Question 1 continues on the next page



Figure 2

The study's author said, "Our study shows that many people are investing in their homes, but there is also an urgent need for governments to help improve infrastructure."

[6 marks]

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Extra space _____

Study **Figure 3**, a photograph and factfile about transport improvements in Utrecht, a city in the Netherlands.

Figure 3



From Bus Stops to Bee Stops

- 316 bus stops have green roofs covered in plants
- All have LED lighting and 96 have solar panels
- The base of the shelter is made of recycled concrete

0 1 . 5

Suggest how developments such as this can help urban areas to become more sustainable.

Use **Figure 3** and your own understanding.

[4 marks]

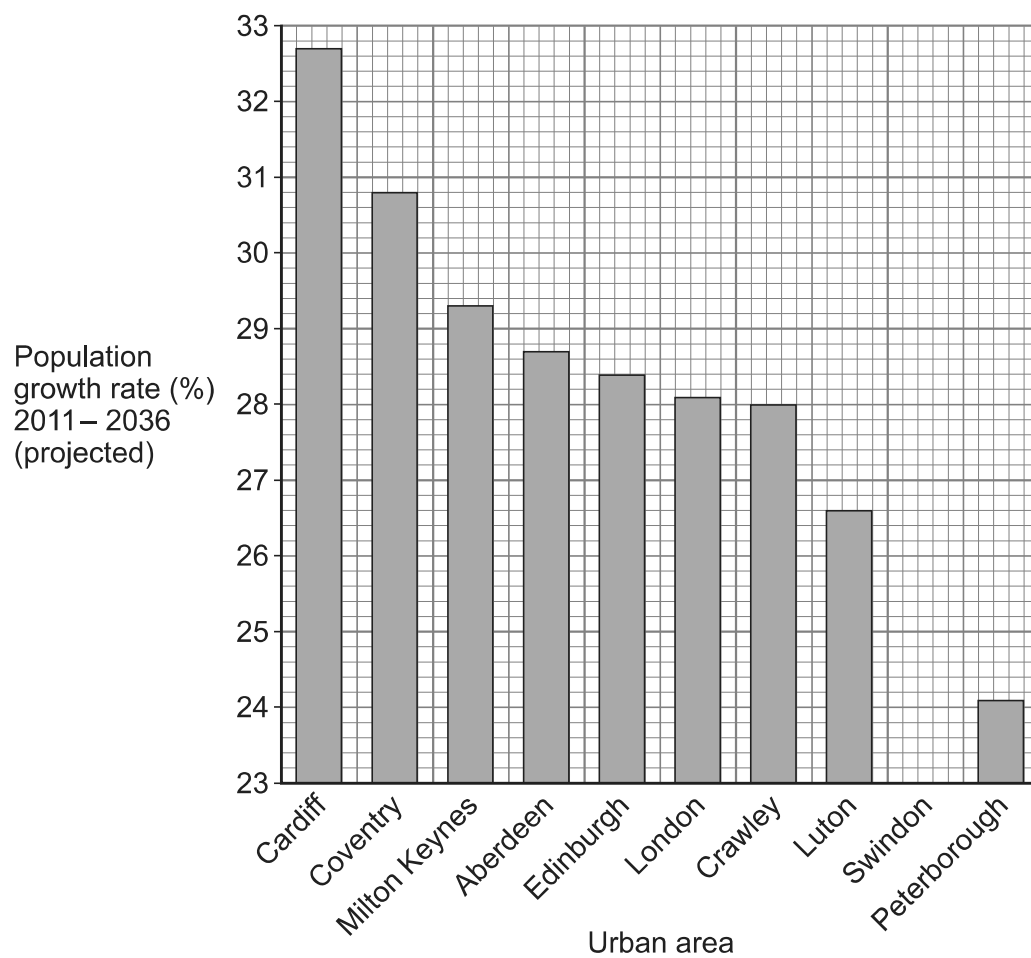
Turn over ►



Extra space _____

Study **Figure 4**, a graph showing the 10 UK urban areas with the highest population growth rate (%), 2011–2036 (projected).

Figure 4



0 1 . 6

Complete **Figure 4** using the following data.

[1 mark]

City	Population growth rate (%) 2011–2036 (projected)
Swindon	26.5

0 1 . 7

Calculate the range of population growth rate (%), 2011–2036 (projected) for the urban areas shown in **Figure 4**.Shade **one** circle only.

[1 mark]

- A** 8.0% ☐
- B** 8.3% ☐
- C** 8.6% ☐
- D** 8.9% ☐

Question 1 continues on the next page

Turn over ►



Study **Figure 5**, a map showing the 10 highest and 10 lowest UK urban areas for population growth rate (%), 2011–2036 (projected).

Figure 5



0	1	.	8
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Compare the distribution of the 10 highest and 10 lowest urban areas shown in **Figure 5**.

[2 marks]

0	1	.	9
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Outline how international migration has affected a UK city you have studied.

[2 marks]

Name of UK city _____

Question 1 continues on the next page

Turn over ►



[+ 3 SPaG marks]

[illegible]



Do not write
outside the
box

33

End of Section A
Turn over for Section B

Turn over ►

