

Surname	Centre Number	Candidate Number
First name(s)		0



GCSE

C112U10-1



O21-C112U10-1



WEDNESDAY, 17 NOVEMBER 2021 – AFTERNOON

GEOGRAPHY B – Component 1
Investigating Geographical Issues

1 hour 45 minutes

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1	32	
SPaG	4	
2	32	
3	32	
Total	100	

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01

ADDITIONAL MATERIALS

In addition to this paper you may use a calculator and a ruler if required.

INSTRUCTIONS TO CANDIDATES

Answer **all** of the questions in this examination paper.

Use black ink or black ball-point pen. Do not use gel pen. Do not use correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

Write your answers in the spaces provided in this booklet.

Additional space is provided for some questions within the booklet (if required). If further space is required for any question, you should use the lined page(s) at the end of this booklet. The question number(s) should be clearly shown.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question or part-question.

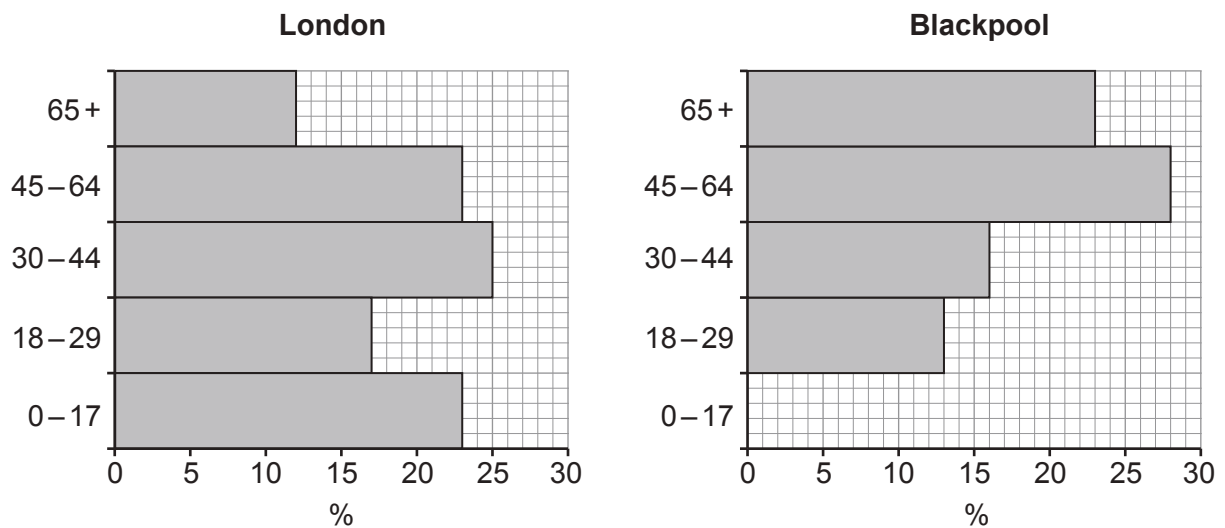
You are reminded that assessment will take into account your ability to spell, punctuate and use grammar and specialist terminology accurately in your answer to question 1(d).



OCT21C112U10101

Theme 1: Changing Places – Changing Economies*Answer all questions.*

1. (a) Study **Figure 1.1** below.

Figure 1.1 – Age structure of two UK urban areas.

- (i) Complete the graph for Blackpool by drawing the bar to show the following: [1]

0–17 yr olds	20%
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- (ii) Compare the age structure of London and Blackpool. Use figures in your answer. [3]

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- (iii) There are a number of processes that contribute to urban change in the UK.

Read the definitions below.

Letter	Definition
A	The outward spread of a city
B	The movement of people from large cities to small towns and villages
C	The reuse of derelict land in a city
D	The movement of people back to cities

Add the letter of the correct definition to each of the following terms below.

[4]

Term	Letter
Suburbanisation	
Re-urbanisation	
Counterurbanisation	
Infill	

- (iv) Over 33% of London's population are international migrants.

Explain why international migration can have social and economic consequences for urban areas in the UK.

[4]

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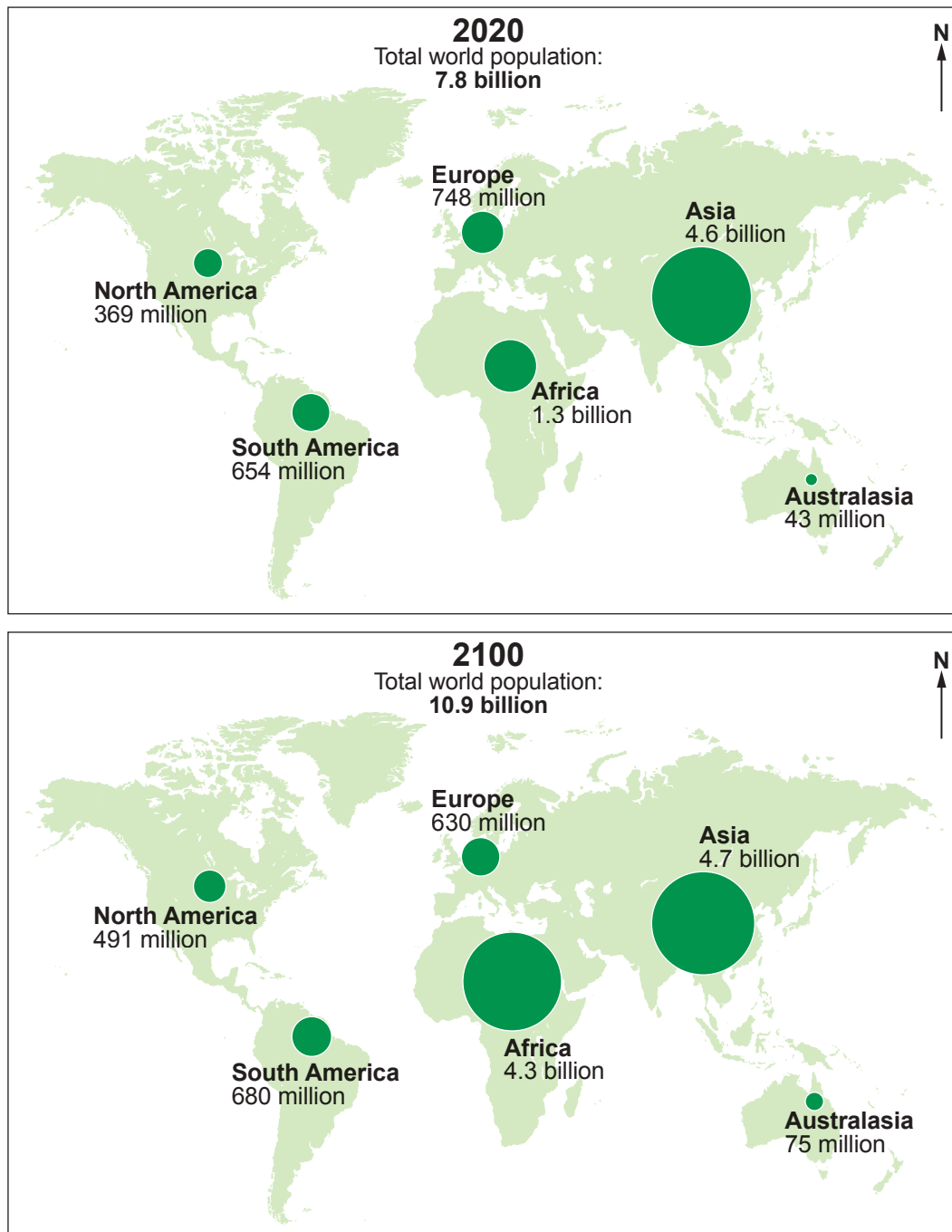
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- (b) Urbanisation has contributed to population change on a global scale.
Study **Figure 1.2** below.

Figure 1.2 – Estimated changes in world population between 2020 and 2100.



- (i) Complete the sentences by adding the correct information from the box below. [2]

3.6	Europe	7.8
Asia	3.1	North America

By 2100, the world's population will have increased by billion.

The continent which will have a decrease in population is

- (ii) Calculate the percentage change in the population of Australasia between 2020 and 2100. [2]

Show your working below.

Answer %



- (c) (i) Rapid urbanisation is taking place in some parts of the world. Give **two** reasons why. [4]

Reason 1

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Reason 2

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- (ii) One challenge of urban growth is waste disposal.

Describe how **one** global city you have studied is dealing with the problem of waste disposal. [4]

Name of global city

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- (d) Both slum clearance and self-help schemes are possible solutions to housing problems in LICs/NICs.

Study **Figure 1.3** below.

Figure 1.3 – Slum clearance and self-help housing schemes.

SLUM CLEARANCE SCHEMES



Clearing slums in China



Low-cost housing replacing slums in India

SELF-HELP SCHEMES



Self-help house building in Kenya



House built with loan in Cambodia



Your ability to spell, punctuate and use grammar and specialist terminology accurately will be assessed in your answer to this question. [4]

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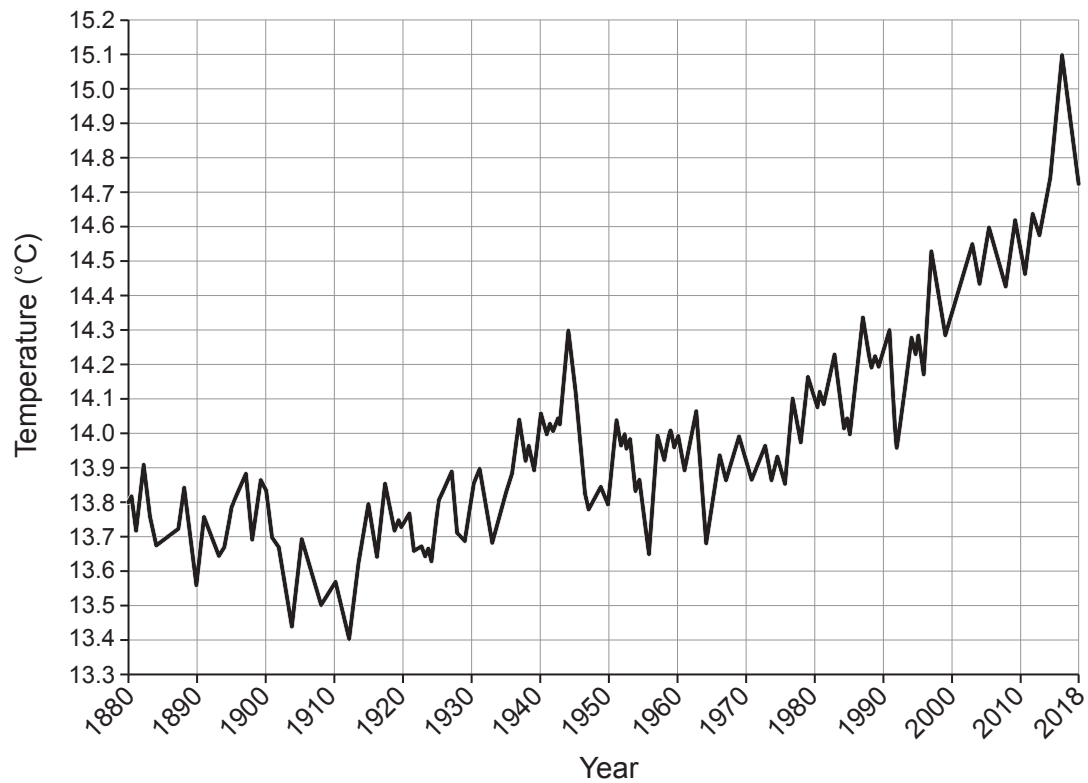
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End of Question 1



Theme 2: Changing Environments*Answer all questions.***2. (a)** Study **Figure 2.1**.**Figure 2.1 – Average global temperature change 1880–2018.**

- (i) Describe the pattern of temperature change shown on **Figure 2.1**. Use figures in your answer. [4]

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(ii) Describe **one** human cause of global warming.

[2]

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(iii) Give **two** reasons why it is difficult to get agreement on ways to reduce the impact of climate change.

[4]

Reason 1

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Reason 2

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(iv) Give **four** ways individuals in the UK can reduce the risk of climate change.

[4]

1.
2.
3.
4.



- (v) The UK Government can also reduce the risk of climate change.

Tick (✓) two correct statements from the list below.

[2]

To reduce the risk of climate change the government can:	Tick (✓)
Encourage the use of fossil fuels	
Increase the cost of public transport	
Increase the tax on air travel	
Build more roads	
Invest in renewable sources of energy	

- (b) Study **Figure 2.2** which shows information about how severe tropical storms (hurricanes and cyclones) are measured.

Figure 2.2 – Saffir-Simpson Hurricane Scale.

Category	Wind speed (km per hour)	Likely damage	Average frequency of storms in every 10 years affecting USA
5	252+	Catastrophic	0.2
4	209–251	Extreme	1.2
3	178–208	Extensive	4.6
2	154–177	Moderate	4.7
1	119–153	Little	7.1

- (i) Describe the relationship between the category of storm and the frequency with which they have occurred.

[2]

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- (ii) Study **Figure 2.3** below. It shows the number of Category 5 storms that have occurred globally between 2010 and 2018.

Figure 2.3 – Global Category 5 Storms 2010-2018.

Year	Number of Category 5 Storms
2010	4
2011	3
2012	3
2013	4
2014	9
2015	9
2016	8
2017	3
2018	11
Total	54

Calculate the **mean** number of Category 5 storms that have occurred between 2010 and 2018. [2]

Show your working below.

Mean number of Category 5 storms =

- (iii) Increased frequency of storms leads to management challenges in coastal areas. Explain why. [4]

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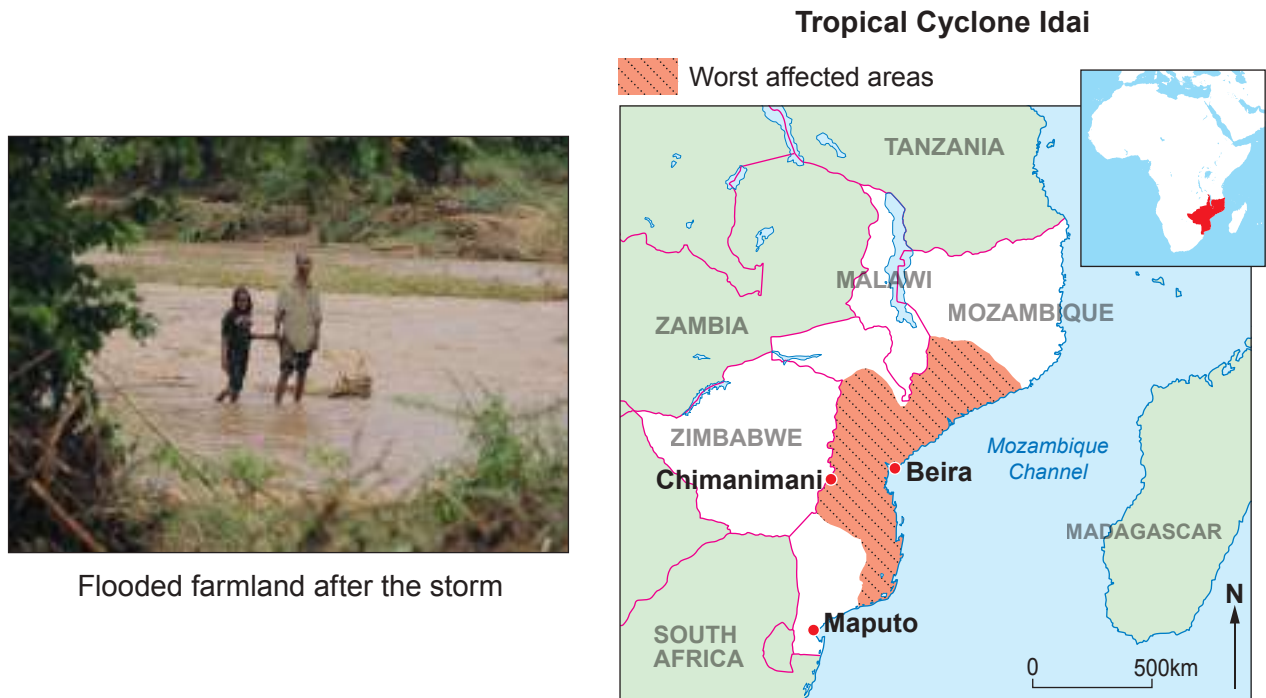
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(c) Study the information in **Figure 2.4** below.

Figure 2.4 – The effects of Cyclone Idai which affected the African countries of Mozambique, Zimbabwe and Malawi in March 2019.



Flooded farmland after the storm



Some emergency aid arrives



Damaged bridge

Effects of Cyclone Idai

447 deaths

1.85 million people in need of aid

72 000 houses damaged or destroyed

1.2 million acres of crops damaged

Diseases such as cholera and malaria widespread



[8]

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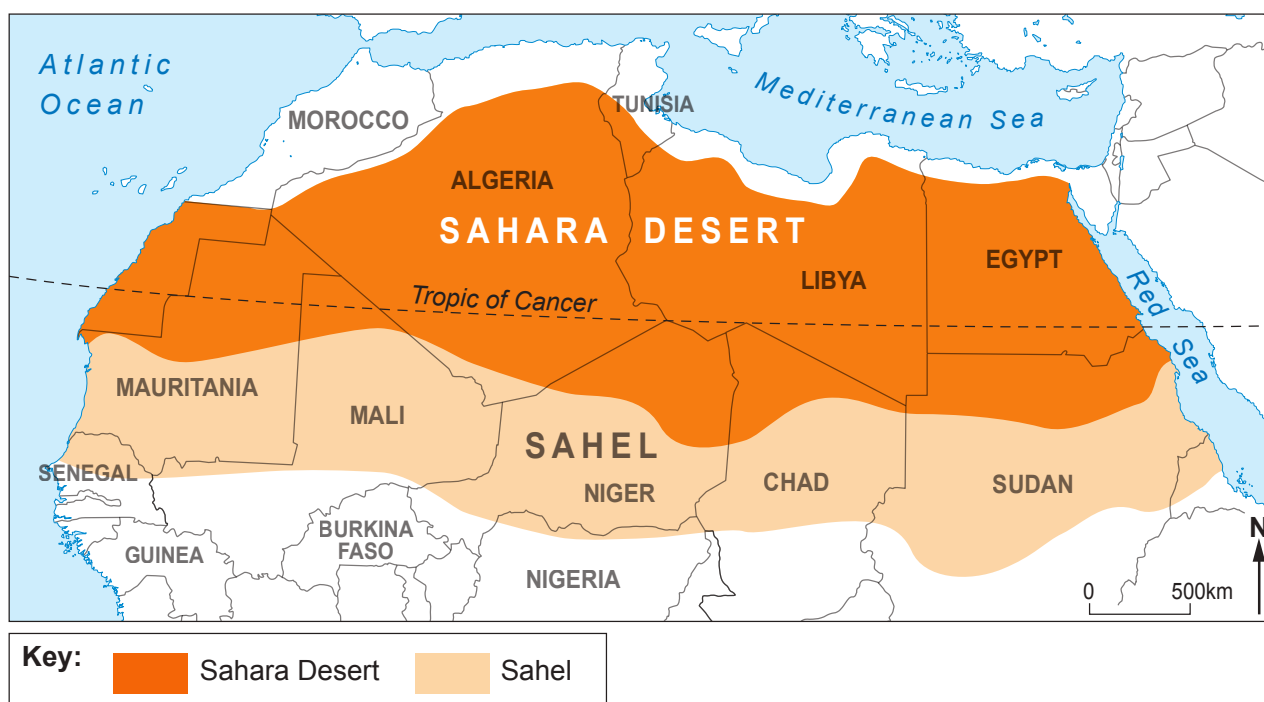
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End of Question 2



Theme 3: Environmental Challenges*Answer all questions.*

3. (a) Study **Figure 3.1** below.

Figure 3.1 – Location of the Sahel Region of Africa.

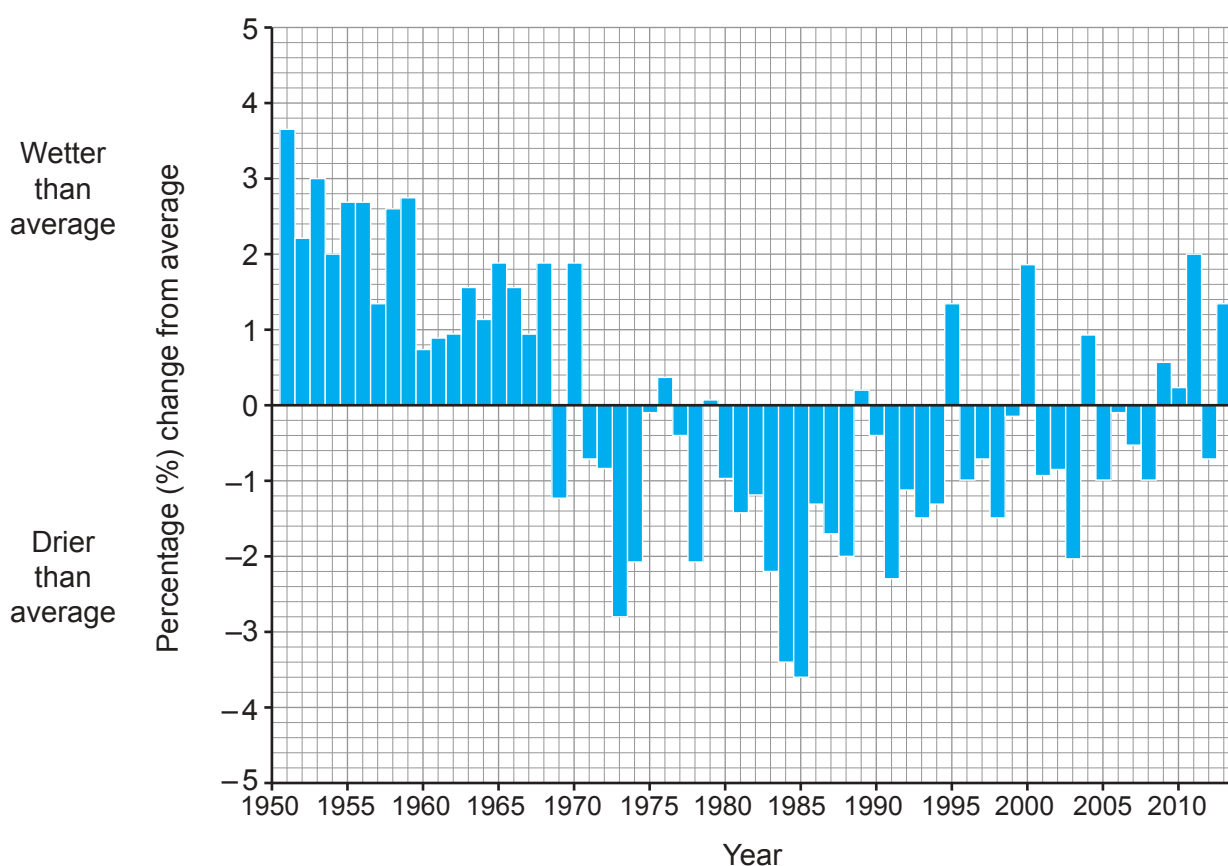
- (i) Use the information in **Figure 3.1**. Tick (✓) the **two** correct facts about the location of the Sahel in the table below. [2]

Facts about the location of the Sahel	Tick (✓)
North of the Tropic of Cancer	
South of the Sahara Desert	
Extends from the Atlantic Ocean to the Mediterranean Sea	
Includes parts of Mali, Chad and Egypt	
North of Burkina Faso	
South of Nigeria	



(ii) Study **Figure 3.2** below.

Figure 3.2 – Graph showing variations in rainfall in the Sahel 1950–2013.



Use **Figure 3.2** to decide if each of the statements below is **true** or **false**.

[4]

Statement	True Tick (✓)	False Tick (✓)
1950–1959 was the wettest 10-year period		
1970–1979 was the driest 10-year period		
In 2013, rainfall was higher than average		
Between 2000 and 2009 rainfall was mostly lower than average		



(b) Desertification is caused by both physical and human actions.

(i) Complete the sentences below by adding the correct words from the box. [4]

moisture	deposition	nutrient	evaporated	erosion
intercepted	management	condensed	salt	

Increases in temperature mean more rainfall is which means that less is retained in the soil. If trees are cut down, then the cycle is broken and the roots no longer hold the soil together. This increases the process of

(ii) Explain why overgrazing can lead to desertification. [4]

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(iii) Drip irrigation is used in areas vulnerable to desertification. Describe how drip irrigation works. [4]

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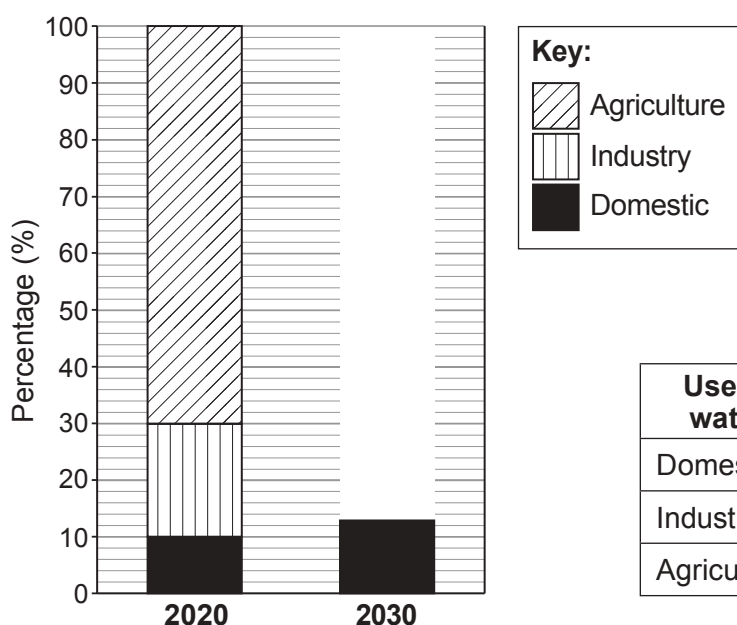
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(c) Study **Figure 3.3** below.

Figure 3.3 – Graph to show predicted changes in the global use of water between 2020 and 2030.



- (i) Use the information in the table to complete the graph for 2030. [2]
- (ii) Give **two** reasons why economic growth leads to an increased demand for water. [4]

Reason 1

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Reason 2

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(d) Study the resources in **Figure 3.4** below. The Mekong river crosses six countries.

Figure 3.4 – Water Management on the Mekong River.



Dam producing electricity in Laos



Fishing near the mouth of the Mekong River in Vietnam

Dams along the Mekong River

Evaluate the impacts of water management across national boundaries.

You may use the resources above and/or examples you have studied to support your answer. [8]

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End of Question 3

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