Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME	
CENTRE NUMBER	
CANDIDATE NUMBER	

GEOGRAPHY **0460/13**

Paper 1 **October/November 2017**

1 hour 45 minutes

Candidates answer on the Question Paper.

Additional Materials: Calculator
Ruler

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces provided.
Write in dark blue or black pen.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.
DO **NOT** WRITE IN ANY BARCODES.

Write your answer to each question in the space provided. If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.

Answer **three** questions, **one** from each section.

The Insert contains Photographs A and B for Question 2, and Photograph C for Question 3.
The Insert is **not** required by the Examiner.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

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

The syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **31** printed pages, **1** blank page and **1** Insert.

DC (LK/SW) 132662/4
© UCLES 2017

CAMBRIDGE International Examinations

https://xtremepape.rs/

Section A

Answer **one** question from this section.

QUESTION 1

1 **(a)** Study Fig. 1, which shows population pyramids for Australia and Canada (MEDCs).

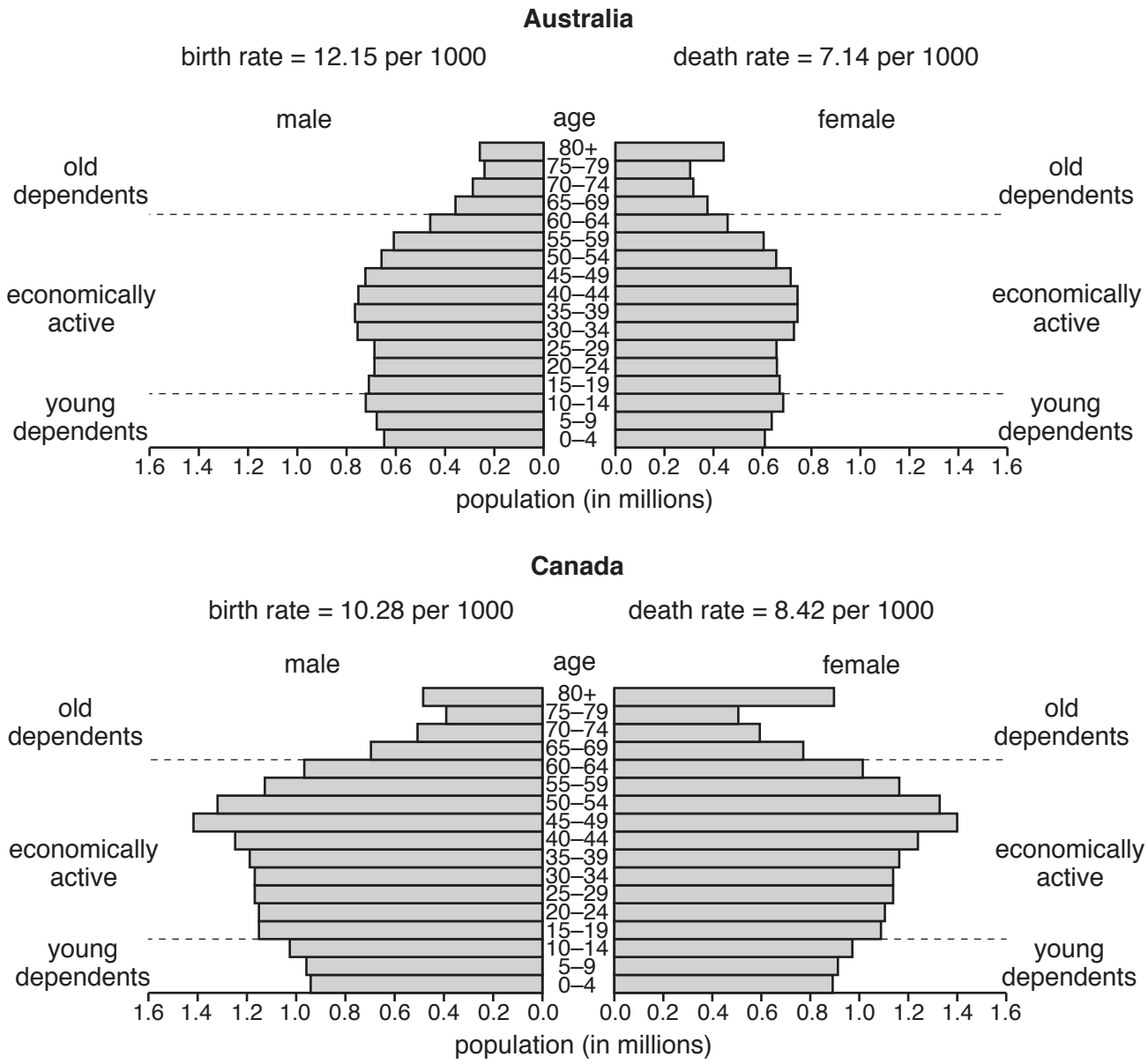

Fig. 1

https://xtremepape.rs/

(i) Estimate the number of old dependents in Australia.

Choose from the list below and circle your answer.

1.4 million 2.5 million 3.5 million 6 million [1]

(ii) Using Fig. 1 **only**, describe **one** similarity and **one** difference between the population structure of Australia and Canada.

Similarity .....

.....

Difference .....

.....[2]

(iii) Give **three** reasons why the birth rates of MEDCs, such as Australia and Canada, are low.

1 .....

.....

2 .....

.....

3 .....

.....[3]

(iv) Describe how the population structure of an LEDC is likely to be different from the population structure of MEDCs such as Australia and Canada.

.....

.....

.....

.....

.....

.....

.....

.....[4]

https://xtremepape.rs/

(b) Study Fig. 2, which shows information about changes in the percentage of the world population of different ages between 2000 and 2040 (estimated).

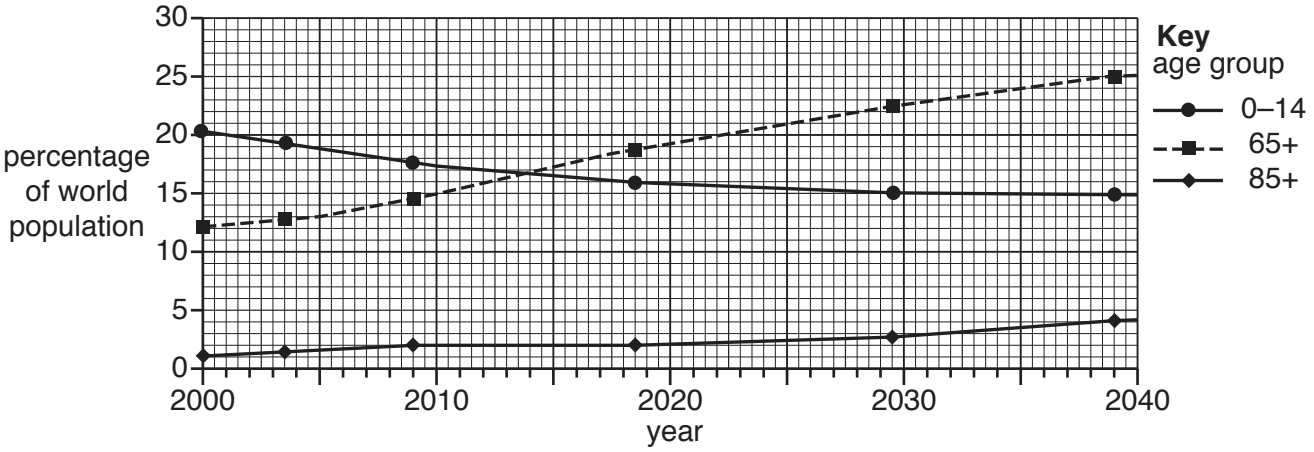

Fig. 2

(i) Using Fig. 2 **only**, describe the changes in the percentage of dependents:

aged from 0 to 14; .....

.....

aged 65 and over; .....

.....

aged 85 and over. .....

.....[3]

https://xtremepape.rs/

(ii) Suggest how the changes in the percentage of young and old dependents shown in Fig. 2 could cause problems in MEDCs such as Australia and Canada.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[5]

https://xtremepape.rs/

(c) Describe the consequences of over-population for a named country you have studied.

Name of country .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[7]

[Total: 25 marks]

END OF QUESTION 1

https://xtremepape.rs/

QUESTION 2

2 **(a)** Study Fig. 3, which shows information about the population of five LEDCs.

Country	Total population (millions)	Urban population (percentage)	Largest city	Population of largest city (millions)
Angola	19.1	59	Luanda	4.5
Brazil	202.7	87	São Paulo	20.0
Indonesia	253.6	44	Jakarta	9.1
Kenya	45.0	22	Nairobi	3.4
Mexico	120.3	78	Mexico City	19.3

Fig. 3

(i) Name the city with the largest population in Kenya.

..... [1]

(ii) Using Fig. 3 **only**, identify the country which has the largest percentage of:

- the total population of the country living in towns and cities;

  .....

- the total population of the country living in its largest city.

  ..... [2]

(iii) The largest cities named in Fig. 3 are examples of high-order settlements.
Give **three** characteristics of high order settlements.

1 .....

.....

2 .....

.....

3 .....

.....[3]

https://xtremepape.rs/

(iv) Explain why many people migrate from rural areas to cities in LEDCs.

.....

.....

.....

.....

.....

.....

.....

.....[4]

https://xtremepape.rs/

(b) Study Photographs A and B (Insert), which show different types of services in an urban settlement.

(i) Compare the services shown in Photographs A and B by completing the table below. You should circle one word in each of the six boxes.

	Photograph A	Photograph B
order of service	low medium high	low medium high
size of sphere of influence	small medium large	small medium large
size of threshold population	small medium large	small medium large

[3]

(ii) Suggest reasons why people travel different distances to use the services shown in Photographs A and B.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[5]

https://xtremepape.rs/

(c) For an area or country you have studied, describe the hierarchy of settlement and service provision.

Name of area or country .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[7]

[Total: 25 marks]

END OF QUESTION 2

https://xtremepape.rs/

Section B

Answer **one** question from this section.

QUESTION 3

3 **(a)** Study Fig. 4, a map of the Rio Puerco drainage basin in the USA.

Major streams of the Rio Puerco drainage basin

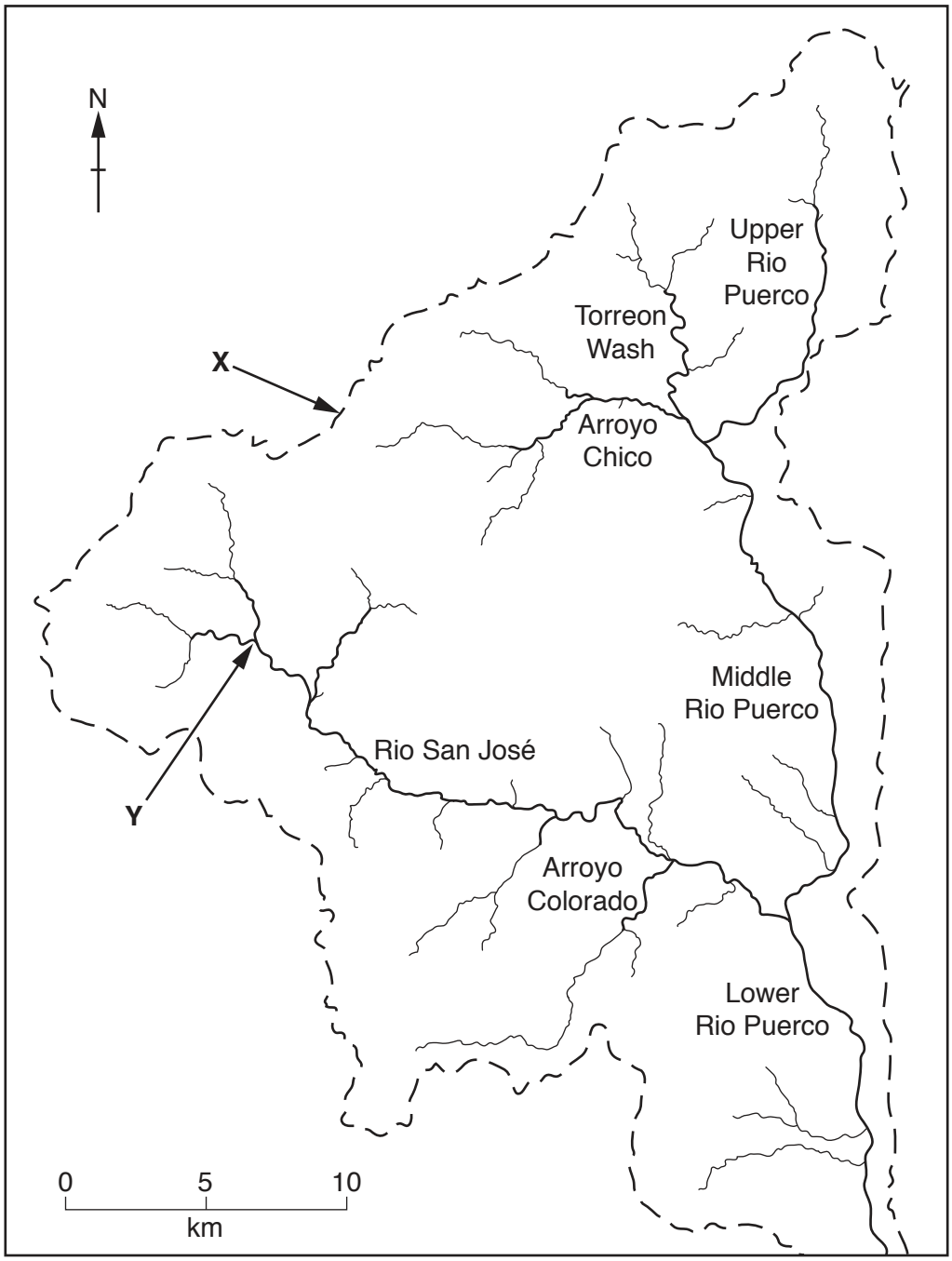

Fig. 4

(i) What is meant by the term *drainage basin*?

.....

.....[1]

https://xtremepape.rs/

(ii) Identify the features labelled **X** and **Y** on Fig. 4.

X .....

Y ..... [2]

(iii) Using evidence from Fig. 4, suggest why flooding is more likely in the Lower Rio Puerco than in the Torreon Wash.

.....

.....

.....

.....

.....

.....[3]

(iv) Describe **four** different strategies which can be used to reduce river flooding.

1 .....

.....

2 .....

.....

3 .....

.....

4 .....

.....[4]

https://xtremepape.rs/

(b) Study Photograph C (Insert), which shows a river close to its source.

(i) Identify **three** ways in which the river shown in Photograph C is typical of a river close to its source.

1 .....

.....

2 .....

.....

3 .....

.....[3]

(ii) Explain how the long profile and cross section of the valley of the river shown in Photograph C will change as the river flows towards the sea.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[5]

https://xtremepape.rs/

(c) Describe the main natural features of a delta and explain how it is formed.
You may use a labelled diagram or diagrams.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

[7]

[Total: 25 marks]

END OF QUESTION 3

© UCLES 2017

https://xtremepape.rs/

QUESTION 4

4 **(a)** Study Fig. 5, which shows the climate of Balikpapan, an area of equatorial climate in Borneo in south east Asia.

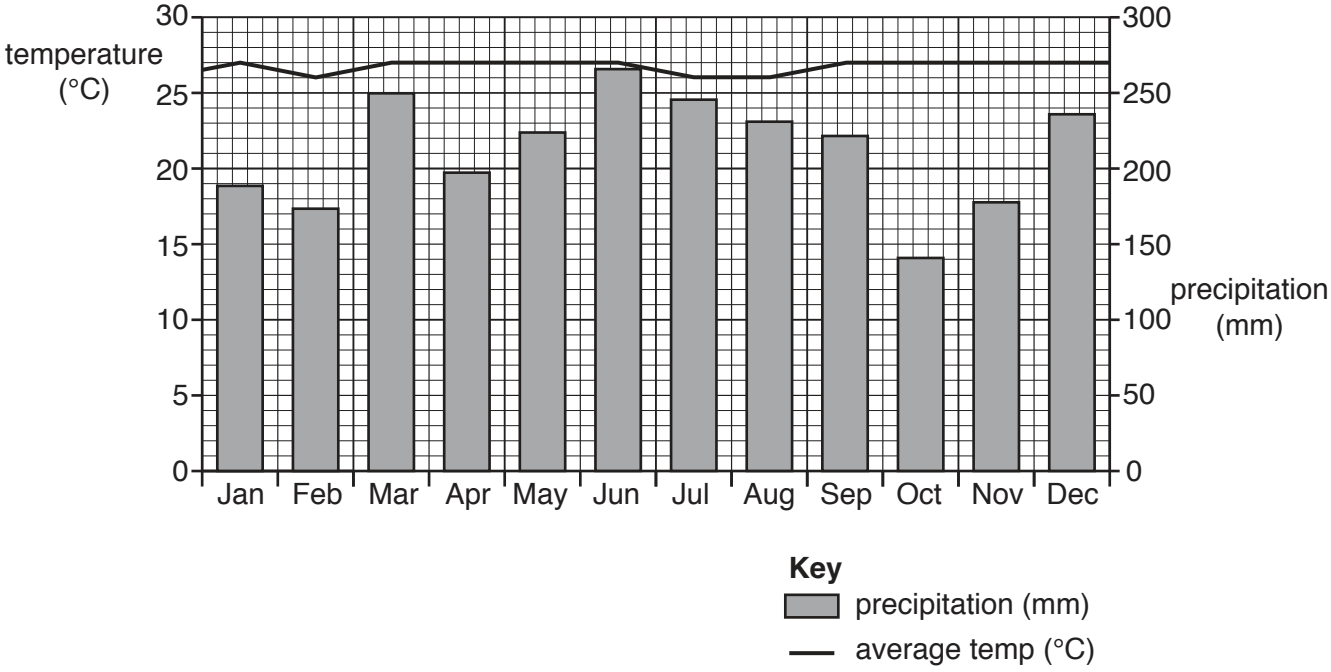

Fig. 5

(i) What is the precipitation at Balikpapan during the wettest month?

..... mm [1]

(ii) Calculate the annual temperature range at Balikpapan. You should show your calculations in the box below.

..... °C

[2]

https://xtremepape.rs/

(iii) Explain why equatorial climates have a low temperature range.

.....

.....

.....

.....

.....

.....[3]

(iv) Explain why equatorial climates have large amounts of rainfall.

.....

.....

.....

.....

.....

.....

.....

.....[4]

https://xtremepape.rs/

(b) Study Fig. 6, which shows information about the tropical rainforest ecosystem.

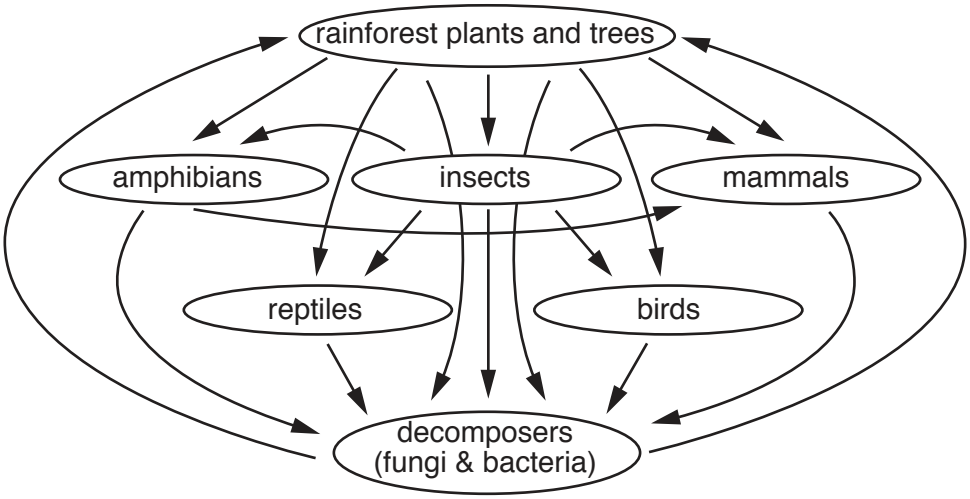

Fig. 6

(i) Using Fig. 6 **only**, suggest **three** impacts of deforestation on the tropical rainforest ecosystem.

1 .....

.....

2 .....

.....

3 .....

.....[3]

https://xtremepape.rs/

(ii) Explain why large amounts of deforestation are taking place in the tropical rainforest.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[5]

https://xtremepape.rs/

(c) For a named area of **hot desert** you have studied, describe and explain the characteristics of the ecosystem.

Name of desert .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[7]

[Total: 25 marks]

END OF QUESTION 4

https://xtremepape.rs/

Section C

Answer **one** question from this section.

QUESTION 5

5 **(a)** Study Fig. 7, which shows information about access to clean drinking water sources in rural and urban areas in eight countries in 1990 and 2014.

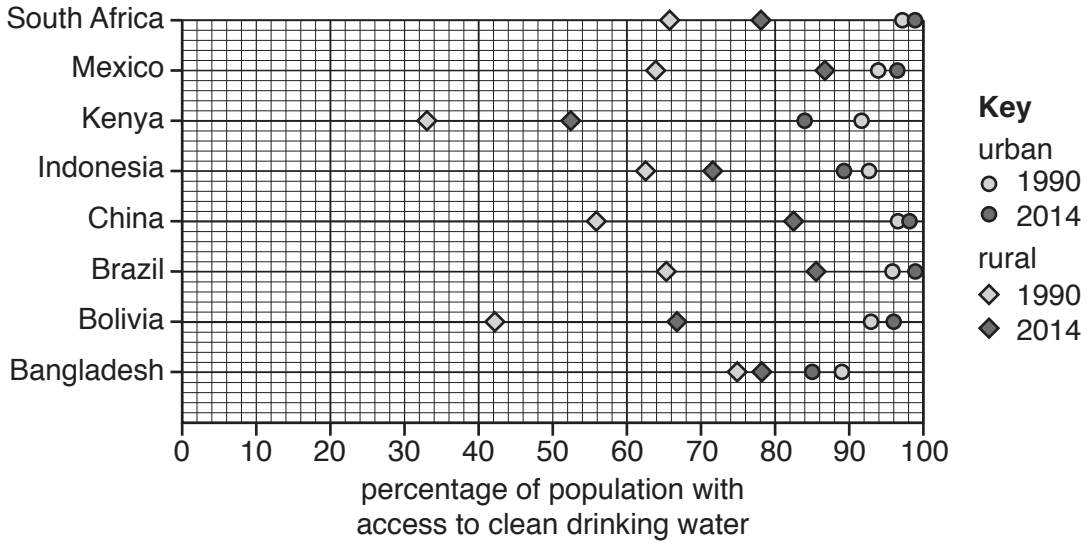

Fig. 7

(i) What percentage of the rural population in Kenya had access to clean drinking water supplies in 2014?

…..... % [1]

(ii) Using Fig. 7, identify a country:

- where access to clean drinking water for people in both rural and urban areas improved between 1990 and 2014;

  .....

- where over 80% of people had access to clean drinking water in 2014 in both rural and urban areas.

  ……..... [2]

(iii) Describe **three** methods of increasing supplies of clean drinking water.

1 .....

.....

2 .....

.....

3 .....

.....[3]

https://xtremepape.rs/

(iv) Explain why it is important to increase clean drinking water supplies in LEDCs.

.....

.....

.....

.....

.....

.....

.....

.....[4]

https://xtremepape.rs/

(b) Study Fig. 8, which shows information about the use of water in Germany (an MEDC) and Egypt (an LEDC).

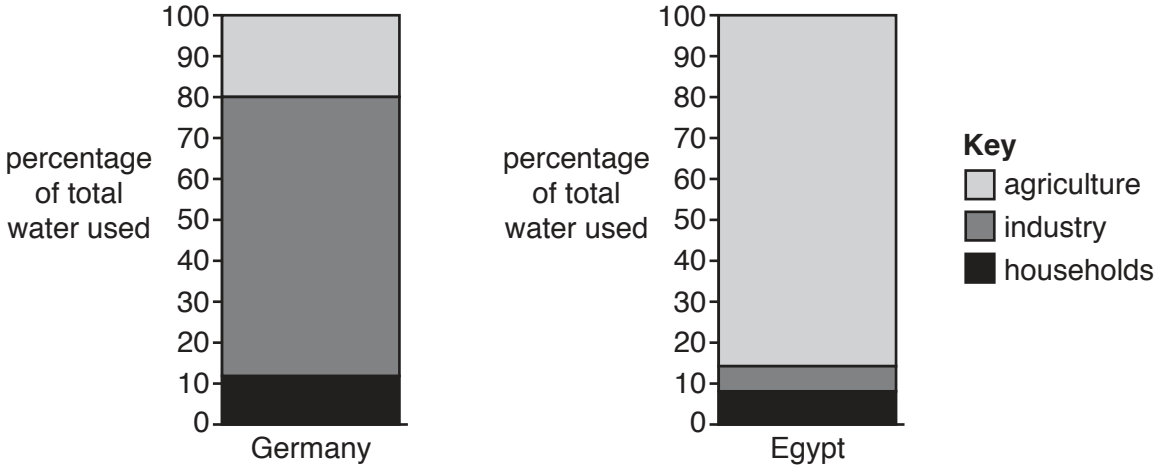

Fig. 8

(i) Using Fig. 8 **only**, compare the percentage of water used for different purposes in Germany and Egypt.

.....

.....

.....

.....

.....

.....[3]

https://xtremepape.rs/

(ii) Suggest reasons for the differences in the percentage of water used for different purposes in Germany and Egypt.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[5]

https://xtremepape.rs/

(c) For a named country you have studied, explain how its **energy** is supplied.

Name of country .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[7]

[Total: 25 marks]

END OF QUESTION 5

https://xtremepape.rs/

QUESTION 6

6 **(a)** Study Fig. 9, which shows information about the gold industry in Mumbai, India (an LEDC).

Toxic fumes in Mumbai are giving residents deadly diseases

Residents of two congested streets in part of Mumbai are inhaling fumes from gold dust purifying units. Local residents have suffered from bronchitis, asthma, high blood pressure and breathing problems.

There are 40 units which recover gold by melting dust collected from jewellery shops. Some of the units were established around 40 years ago, but their numbers have risen.

The dust is dipped in acid to separate the gold, which is what gives off dangerous fumes. These units are important for jewellers as they help recover gold which would otherwise have been lost in the dust.

The fumes are damaging the health of residents. One resident said, "The air we breathe smells of acid. The wind carries the fumes into our homes."

Another nearby resident has developed severe breathing problems. He said, "We cannot breathe in our homes. It's like I am dying a slow death." Showing skin peeling off her hands, his wife said, "We've lived here for decades but this never happened before the units increased in number."

People say that if the units are health hazards then they should either be moved or fitted with a proper ventilation system and air purifier. The problem is that the buildings are so old that air purifiers cannot be installed in them.

Fig. 9

(i) What type of pollution is described in Fig. 9?

Choose from the words below and circle your answer.

air noise visual water [1]

(ii) Explain why the pollution described in Fig. 9 is occurring.

.....

.....

.....

.....[2]

(iii) Using Fig. 9 **only**, describe the impacts of the pollution on local people.

.....

.....

.....

.....

.....

.....[3]

https://xtremepape.rs/

(iv) Suggest reasons why the authorities may not want to solve the problems caused by the gold industry in Mumbai.

.....

.....

.....

.....

.....

.....

.....

.....[4]

https://xtremepape.rs/

(b) Study Fig. 10, which shows information about the greenhouse effect and global warming.

The Greenhouse Effect

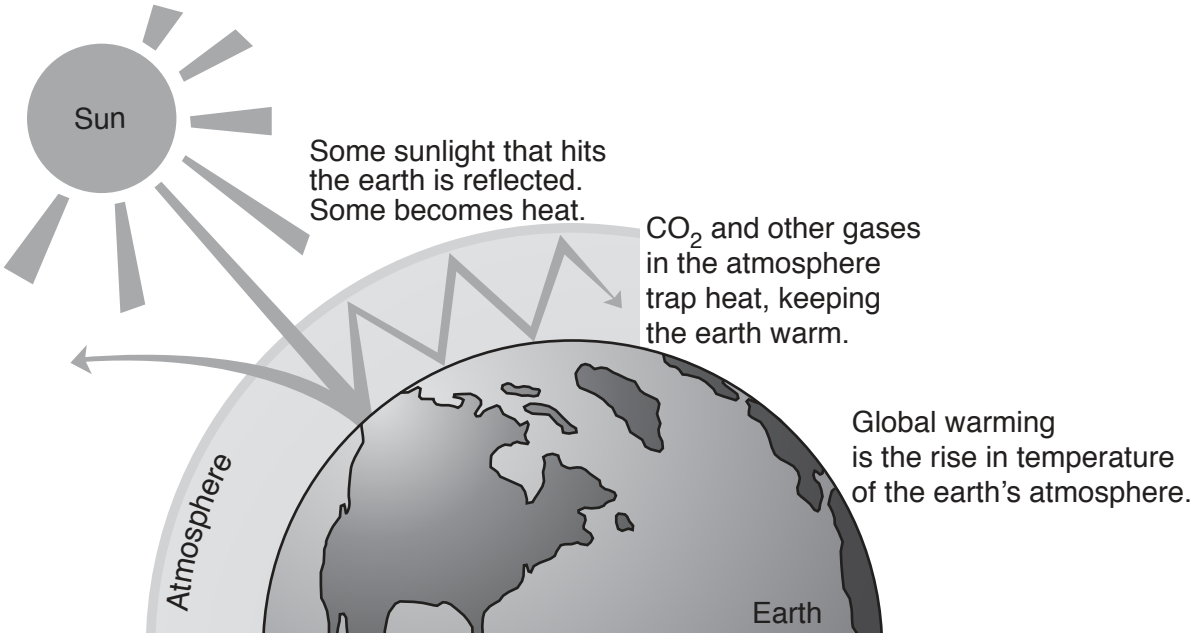

Fig. 10

(i) Explain how economic activities are causing global warming.

.....

.....

.....

.....

.....

.....[3]

https://xtremepape.rs/

(ii) Explain why global warming is a threat to the natural environment.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[5]

https://xtremepape.rs/

(c) Name an area which you have studied and state an economic activity which is causing the environment to be at risk.

Explain how it is being managed so that it is more sustainable.

Name of area .....

Economic activity .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[7]

[Total: 25 marks]

END OF QUESTION 6

https://xtremepape.rs/

Additional Pages

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

https://xtremepape.rs/

https://xtremepape.rs/

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cie.org.uk after the live examination series.

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

© UCLES 2017

https://xtremepape.rs/