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Cambridge IGCSE

**Cambridge International Examinations**
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

*4421145298*

**GEOGRAPHY** **0460/21**

Paper 2 **October/November 2015**

**1 hour 30 minutes**

Candidates answer on the Question Paper.

Additional Materials: Ruler
Protractor
Plain paper
Calculator

1:50 000 Survey Map Extract is enclosed with this Question Paper.

**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 **all** questions.

The Insert contains Photograph A for Question 3 and Photograph B for Question 5.
The Survey Map Extract and the Insert are **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.

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 **16** printed pages, **4** blank pages and **1** Insert.

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CAMBRIDGE International Examinations

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**1** Study the map extract for Essexvale, Zimbabwe. The scale is 1:50 000.

Fig. 1 shows some of the features in the west of the map extract.

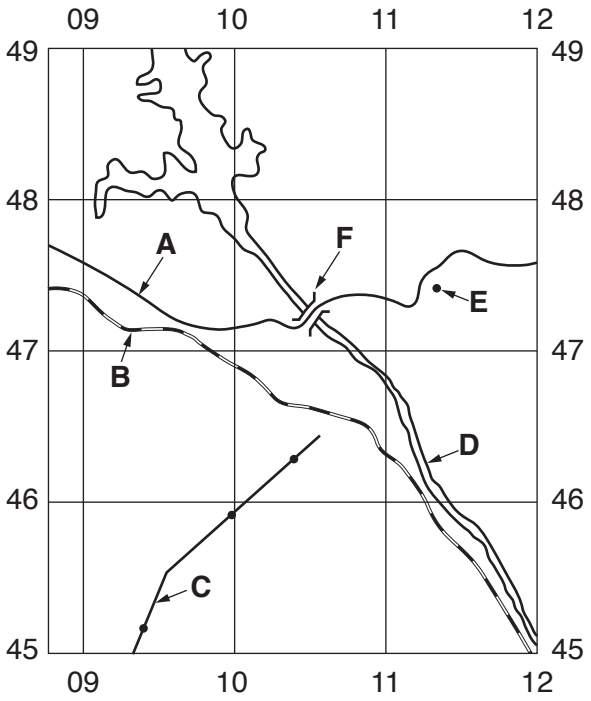



**Fig. 1**

**(a)** Using the map extract, identify the following features shown on Fig. 1:

**(i)** the type of road at **A**;

.....[1]

**(ii)** feature **B**;

.....[1]

**(iii)** feature **C**;

.....[1]

**(iv)** the name of river **D**;

.....[1]

**(v)** the height above sea level at spot height **E**;

.....metres [1]

**(vi)** feature **F**.

.....[1]

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**(b)** Fig. 2 shows the area around the Kudu Asbestos mine.

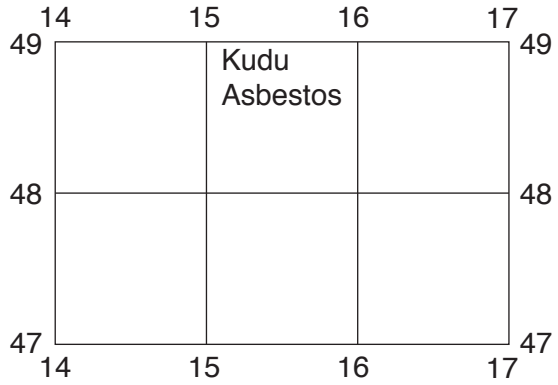



**Fig. 2**

Describe the relief of this area.

.....

.....

.....

.....

.....

.....

.....

.....[4]

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**(c)** Fig. 3 shows the area of settlement and cultivation in the south west of the map extract.

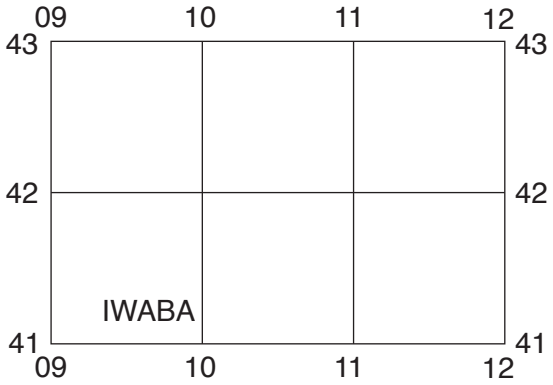



**Fig. 3**

Describe each of the following features of this area:

**(i)** transport;

.....

.....

.....

.....

.....[2]

**(ii)** water supply and drainage.

.....

.....

.....

.....

.....[2]

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**(d)** Find the Inyankuni river on the map.

**(i)** What is the direction of flow of the river? Tick **one** correct statement below.

| | Tick (✓) |
|---|---|
| north to south | |
| south to north | |
| east to west | |
| west to east | |

[1]

**(ii)** Give **one** reason for your answer to **(d)(i)**.

.....

.....[1]

**(e)** Find Shazha hill and Mbalani hill in the east of the map extract.

**(i)** Measure the distance between the tops of the two hills. Give your answer in metres.

..... metres [1]

**(ii)** Measure the compass bearing **from** the top of Mbalani hill **to** the top of Shazha hill.

..... degrees [1]

**(iii)** What is the six figure grid reference of the top of Shazha hill? Tick **one** correct answer below.

| | Tick (✓) |
|---|---|
| 251471 | |
| 251475 | |
| 252475 | |
| 471255 | |
| 475251 | |

[2]

[Total: 20 marks]

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**2** Fig. 4 shows the population distribution in Mali, West Africa. Fig. 5 shows the main towns and cities, rivers and rainfall in the country.

**Distribution of population in Mali**

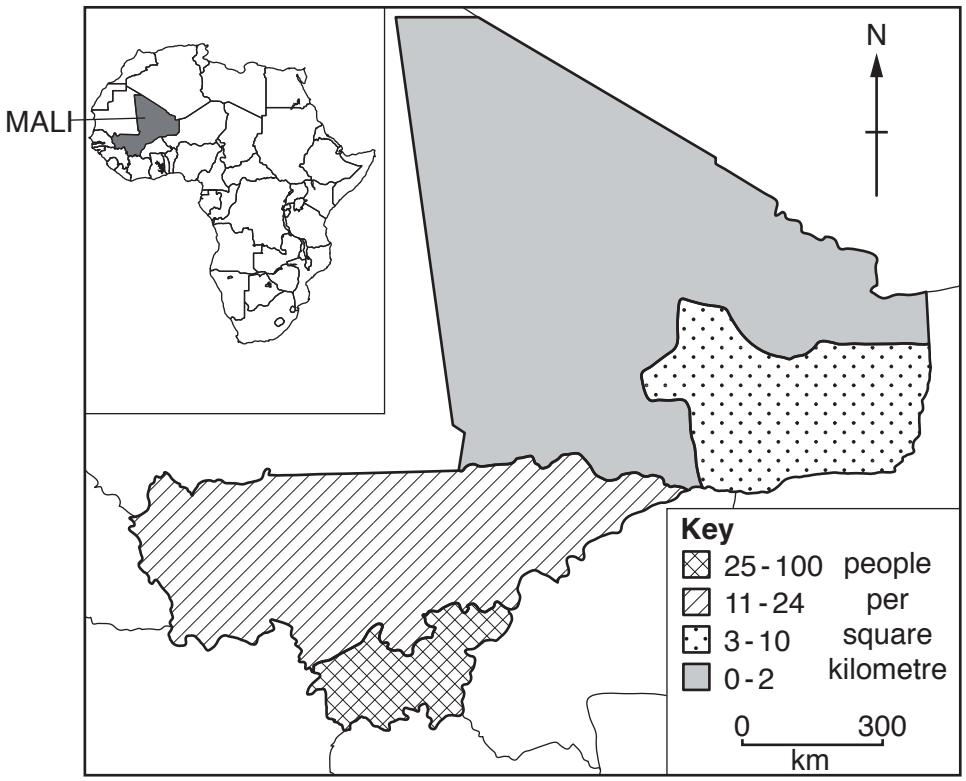



**Fig. 4**

**Towns and cities, rivers and rainfall in Mali**

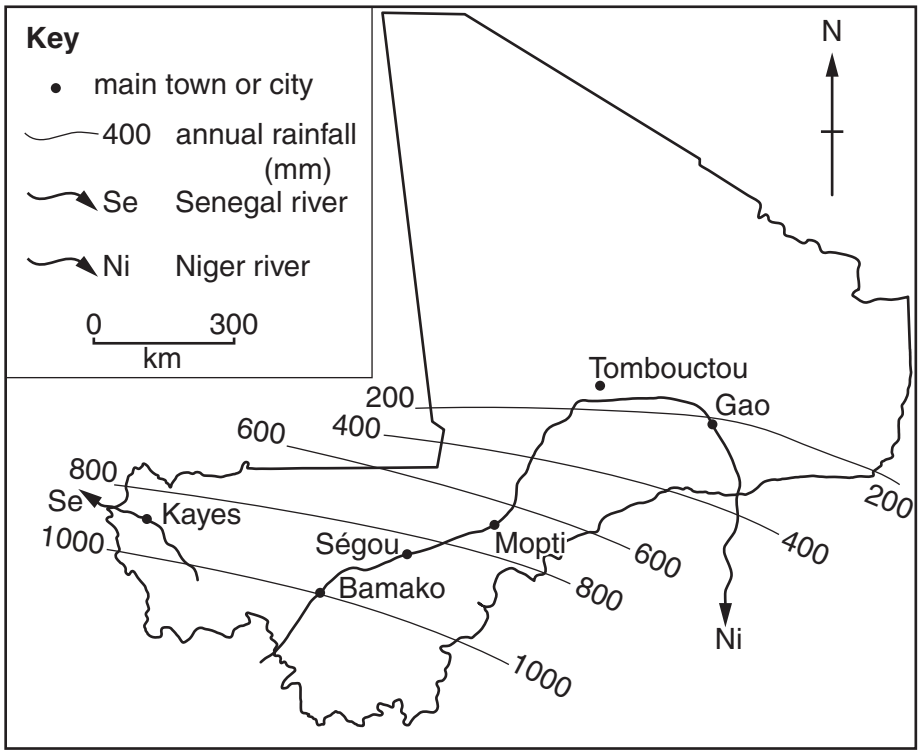



**Fig. 5**

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**(a)** Describe the distribution of population in Mali shown on Fig. 4.

.....

.....

.....

.....

.....

.....[3]

**(b)** Describe the relationship between population distribution shown on Fig. 4 and annual rainfall shown on Fig. 5.

.....

.....

.....

.....[2]

**(c)** **(i)** Using Fig. 5, describe the location of the main towns and cities in Mali.

.....

.....

.....

.....[2]

**(ii)** Using Fig. 5, suggest **one** reason for the location of towns and cities that you have described in **(c)(i)**.

.....

.....[1]

[Total: 8 marks]

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**3** Study Photograph A (Insert), which shows Mount Teide, a volcano in Tenerife, Canary Islands.

**(a)** Give **one** piece of evidence seen in Photograph A which suggests that this is an area with a dry climate.

.....

.....[1]

**(b)** Describe the features of the volcano seen in the photograph.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[5]

**(c)** Give **two** hazards of volcanoes that cause risk to human life.

1 .....

2 .....[2]

[Total: 8 marks]

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**4** **(a)** Fig. 6 shows the output of four areas which are important for the production of high technology goods.

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**(i)** Using Fig. 6, state the value of Japan's output of high technology goods in 2000.

..... billion US$ [1]

**(ii)** How has China's output changed between 1998 and 2010 compared to the other three areas?

.....

.....[1]

**(iii)** How has Japan's output changed between 1998 and 2010 compared to the other three areas?

.....

.....[1]

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**(b)** Fig. 7 shows the location of some of the world's important producers of high technology goods.

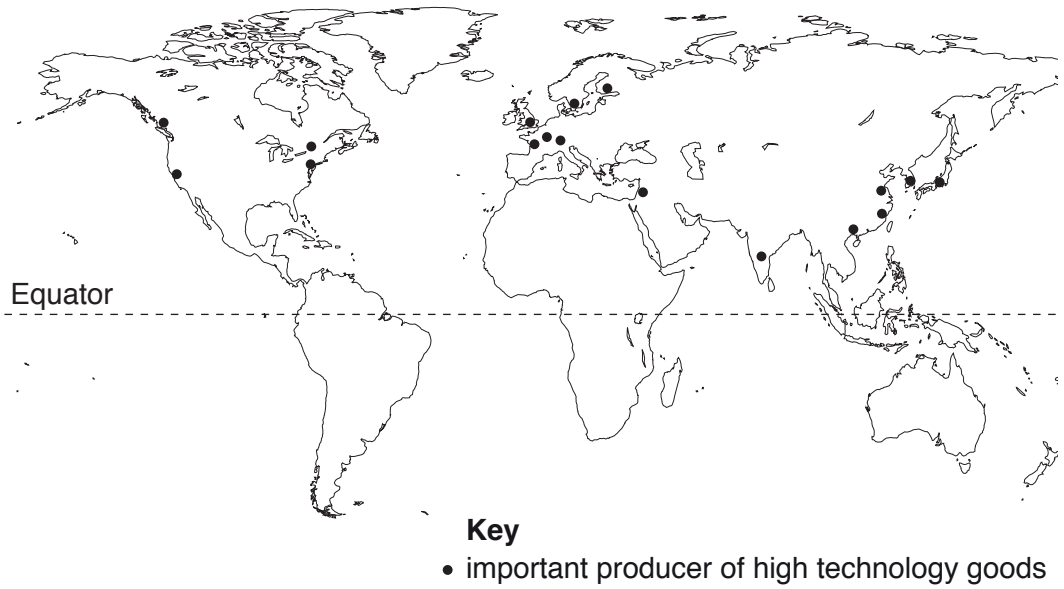



**Fig. 7**

Describe the distribution shown on Fig. 7.

.....

.....

.....

.....

.....

.....

.....

.....[3]

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**(c)** The table below shows some of the factors which can affect the location of industry. Which **two** of these factors have been important in the location of **high technology** industries? Tick only **two** boxes.

| | Tick (✓) |
|---|---|
| raw materials | |
| energy supplies | |
| research facilities | |
| cheap labour | |
| unskilled labour | |
| railway links | |
| water supply | |
| links to other high technology industries | |
| waste disposal | |

[2]

[Total: 8 marks]

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**5** Photograph B (Insert) shows a weather station in Spain. The box on the left of the photograph is old and the instruments inside the fence on the right of the photograph are newer.

**(a)** **(i)** Identify the name of the box on the left of the photograph.

.....[1]

**(ii)** Name **one** of the instruments seen inside the fence on the right of the photograph.

.....[1]

**(b)** Using evidence from the photograph, suggest why this might **not** be a good location for the weather station.

.....

.....

.....

.....[2]

**(c)** Using evidence from the photograph, how is data from the instruments on the right recorded?

.....

.....

.....

.....[2]

**(d)** The box on the left of the photograph has been replaced by instruments inside the fence on the right of the photograph. Suggest why.

.....

.....

.....

.....[2]

[Total: 8 marks]

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**6** Study Figs 8 and 9, which give information about the Aral Sea, an inland sea in Asia. Answer the questions on the opposite page.

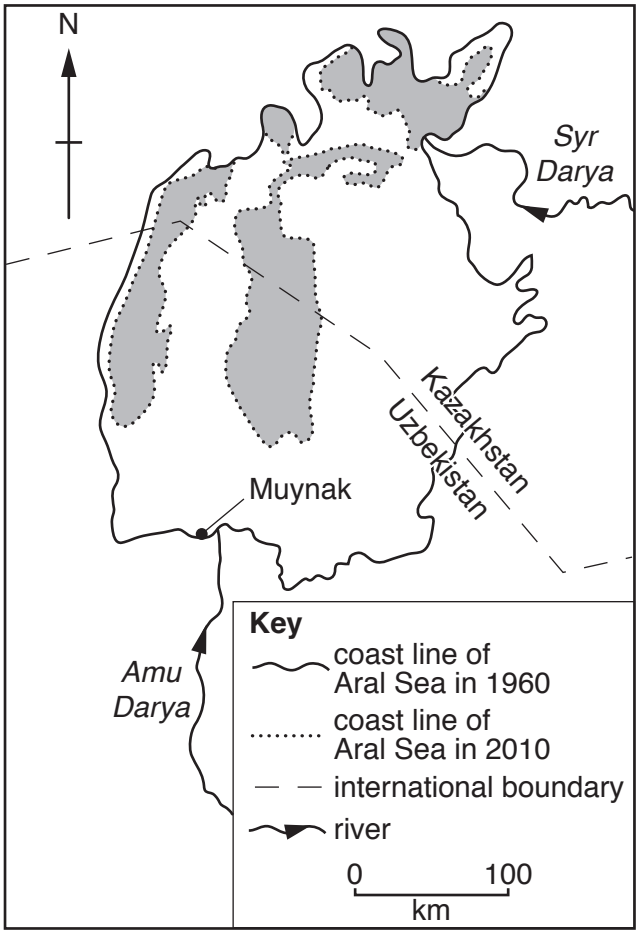



**Fig. 8**

**The Aral Sea**

The Aral Sea is located in a desert on the border of Uzbekistan and Kazakhstan. In 1960 it was the fourth biggest inland sea in the world. Two rivers flowed into the sea, the Amu Darya and the Syr Darya. Muynak (population 12 000) was a busy fishing port on the shore of the Aral Sea.

The surrounding desert was developed for growing cotton, a non-food crop. The waters of the Amu Darya and Syr Darya were diverted and used for irrigation. This created an environmental and human disaster. Water evaporated and brought salt in the soil to the surface making it infertile. Salt now covers the old sea bed.

Drinking water is heavily polluted with salt, fertilisers and pesticides. Aid organisations have begun to bring food such as rice, flour and oil to the poorest people. Cancers, lung disease and infant mortality are 30 times higher than they used to be in this region. The immune systems of local people have become weak due to poor nutrition and people are vulnerable to lung diseases such as tuberculosis. Big families live in very poor conditions and tuberculosis spreads very quickly.

The Uzbekistan and Kazakhstan governments are trying to find solutions to the problem.

**Fig. 9**

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**(a)** **(i)** Using Fig. 8, how has the Aral Sea changed between 1960 and 2010?

.....

.....[1]

**(ii)** Using Figs 8 and 9, suggest how the economy of Muynak has changed between 1960 and 2010.

.....

.....[1]

**(b)** Using Fig. 9, explain why the people of the area have food **and** health problems.

.....

.....

.....

.....

.....

.....

.....

.....[4]

**(c)** It has been suggested that stopping irrigation would help the situation in the Aral Sea and surrounding area. Suggest **one** advantage and **one** disadvantage of doing this.

Advantage .....

.....

.....

Disadvantage .....

.....

.....[2]

[Total: 8 marks]

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## 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.

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