



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

CANDIDATE  
NAME

--

CENTRE  
NUMBER

--	--	--	--	--

CANDIDATE  
NUMBER

--	--	--	--



**ENVIRONMENTAL MANAGEMENT**

**0680/12**

Paper 1

**May/June 2018**

**1 hour 30 minutes**

Candidates answer on the Question Paper.

No Additional Materials are required.

**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name on all the work you hand in.

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.**

Answer **all** questions.

Electronic calculators may be used.

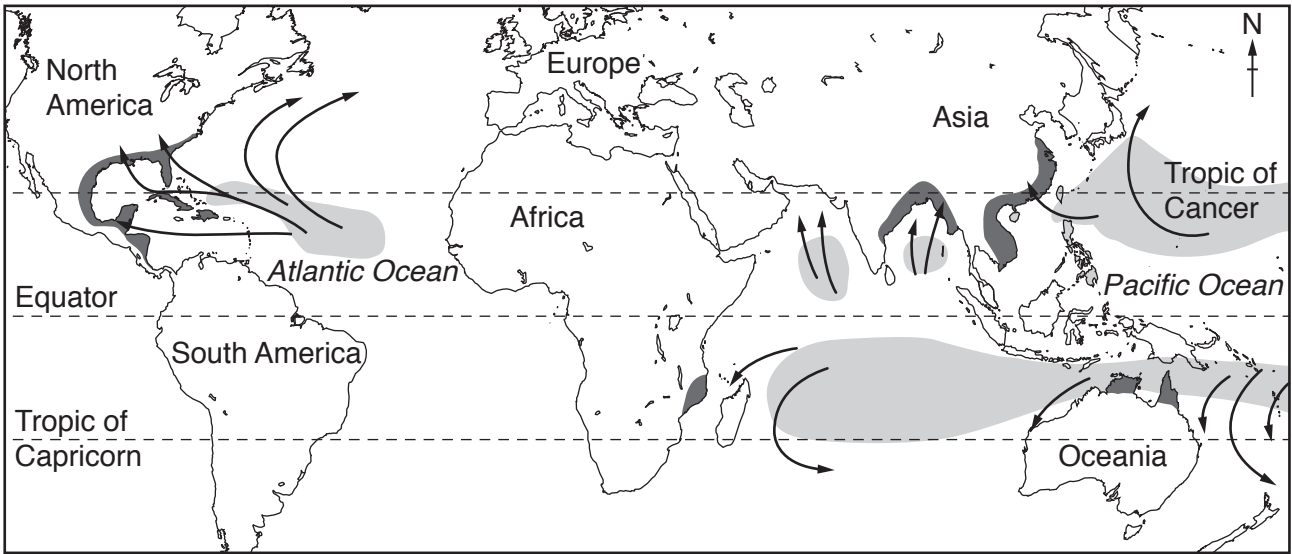
You may lose marks if you do not show your working or if you do not use appropriate units.

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.

This document consists of **16** printed pages.

1 The map shows areas where tropical cyclones occur.



**Key**

- typical tracks of tropical cyclones
- main areas of formation
- main areas affected

(a) Use the information on the map to complete the passage.

Cyclones form over ..... between the Tropic of  
 ..... to the north of the Equator and the Tropic of  
 ..... to the south of the Equator.

The tracks of cyclones generally move in a clockwise direction ..... of  
 the Equator and an anticlockwise direction south of the .....

The cyclones forming in the Atlantic Ocean affect narrow areas of land on the eastern side of  
 .....

[3]

(b) Describe ways in which tropical cyclones are a hazard to people living in the areas affected.

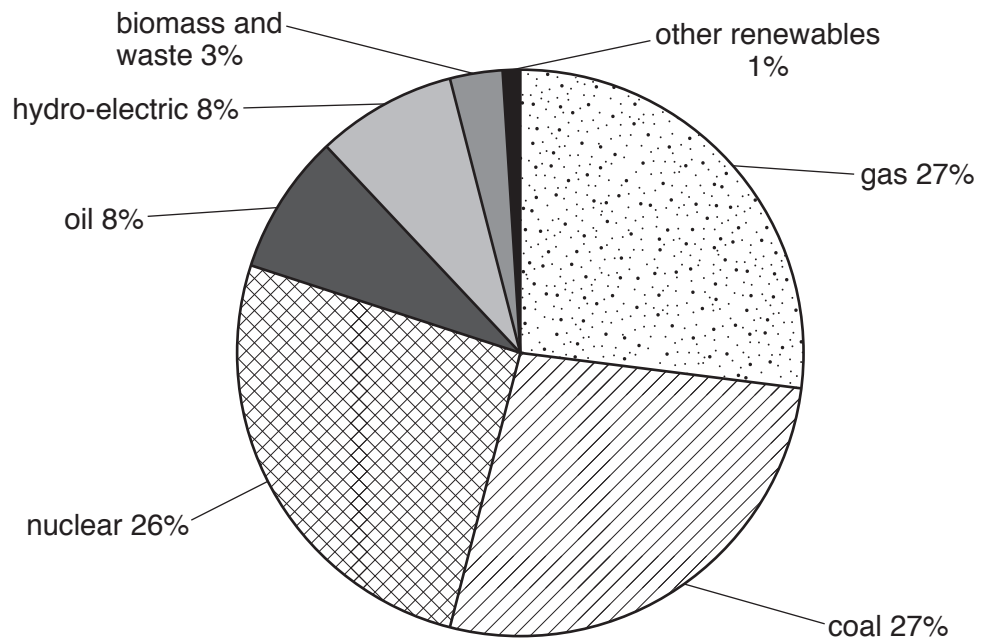
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [4]

(c) Suggest strategies to reduce the impact of tropical cyclones.

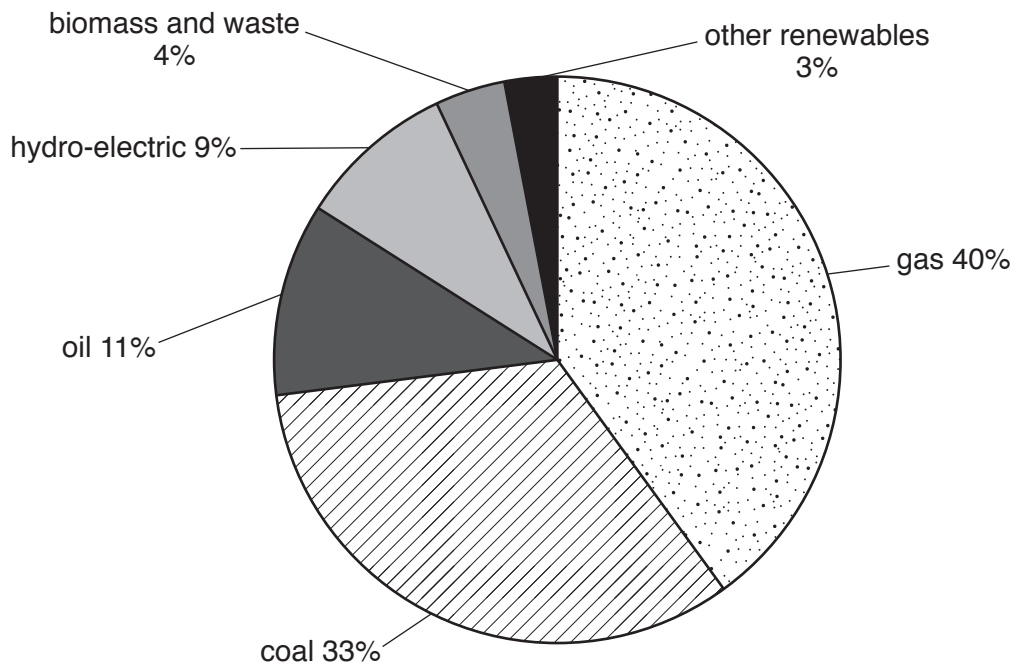
.....  
.....  
.....  
.....  
.....  
.....  
..... [3]

2 The pie graphs, **A** and **B**, show the sources of energy used in Japan in 2010 and in 2014.

**A: 2010**



**B: 2014**



- (a) In March 2011, a nuclear power station in Japan was badly damaged by an earthquake and tsunami.

State, using evidence from the pie graphs, **three** changes in the sources of energy used in Japan between 2010 and 2014.

1.....  
.....  
2.....  
.....  
3.....  
..... [3]

- (b) Describe **two** advantages of using nuclear power to generate electricity compared with coal.

1.....  
.....  
2.....  
..... [2]

- (c) Explain why some people do not want to live near nuclear power stations.

.....  
.....  
.....  
.....  
.....  
..... [3]

- (d) Suggest **two** strategies for conserving supplies of uranium.

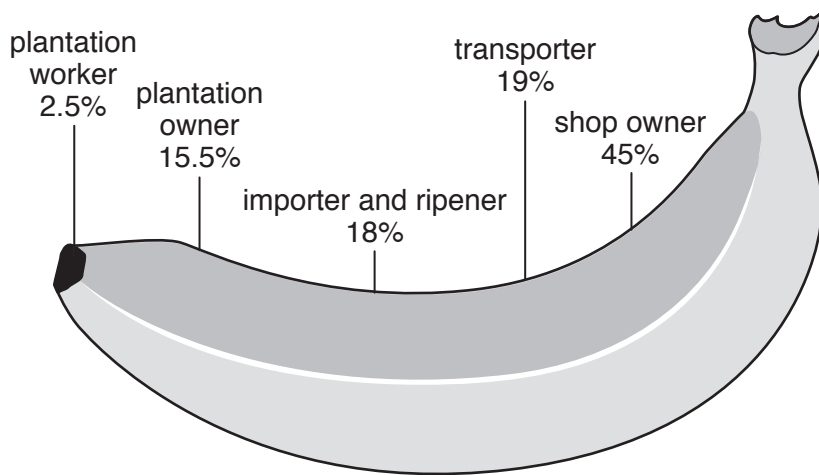
1.....  
.....  
2.....  
..... [2]

- 3 (a) Most bananas are grown on large commercial farms, called plantations, in developing countries.

State what is meant by the term *commercial farming*.

.....  
 .....[1]

- (b) The diagram gives information about the percentage of the final cost received by the people involved in producing a banana for sale.



The price of a banana is 0.20USD (20 cents).


Calculate how much of the price of the banana goes to the plantation worker. Give your answer in USD.

..... USD [1]

(c) The map shows the location of some banana plantations.



**Key**

 banana plantations

Describe the distribution of the banana plantations shown on the map.

.....

.....

.....

..... [2]

(d) Suggest reasons why most of the trade in bananas is from developing countries to developed countries in Europe and North America.

.....  
.....  
.....  
.....  
.....  
.....  
..... [3]

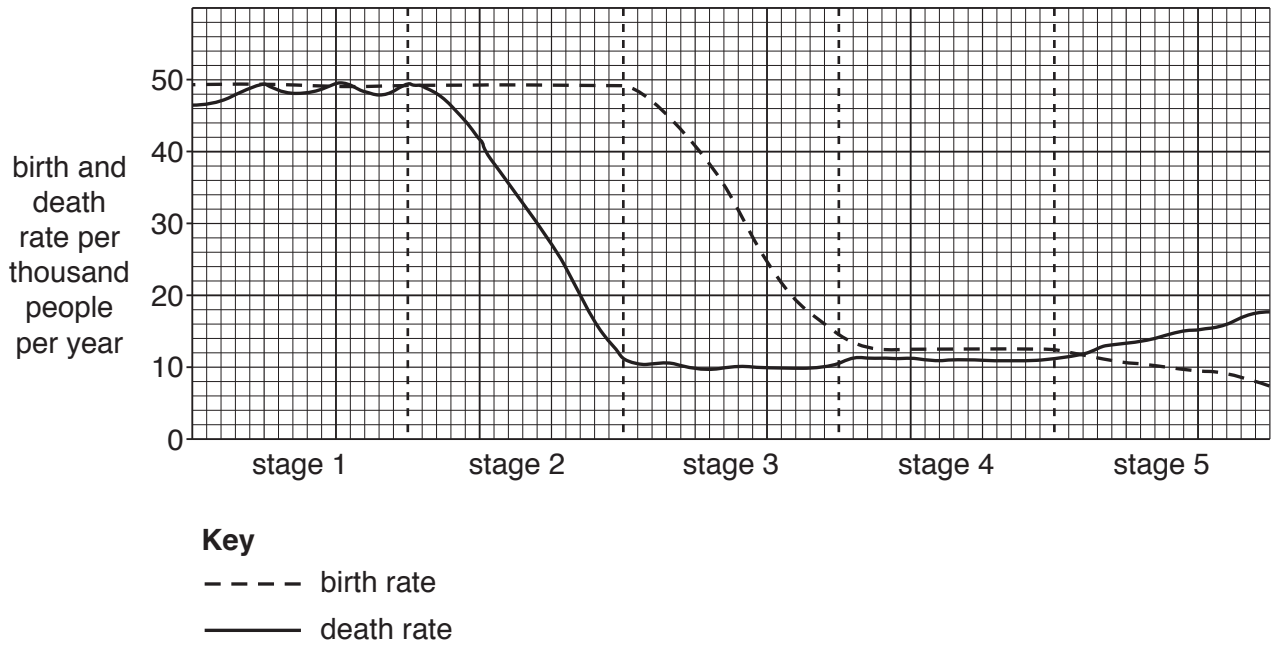
(e) Large quantities of pesticides are used on banana plantations.

Explain how pesticides can cause problems for the environment.

.....  
.....  
.....  
.....  
.....  
..... [3]



4 The graph shows the demographic transition model.



(a) Use the graph to complete these sentences.

Birth and death rates are both high in stage .....

Birth and death rates are below 15 per thousand per year in stage .....

The birth rate starts to decrease in stage .....

The death rate starts to decrease in stage .....

The population increases most rapidly at the end of stage .....

The death rate is higher than the birth rate at the end of stage ..... [3]

(b) State and explain **two** environmental problems caused by rapid population growth.

environmental problem one .....

explanation .....

.....

.....

environmental problem two .....

explanation .....

.....

.....

[4]

(c) Suggest **three** strategies for managing population growth.

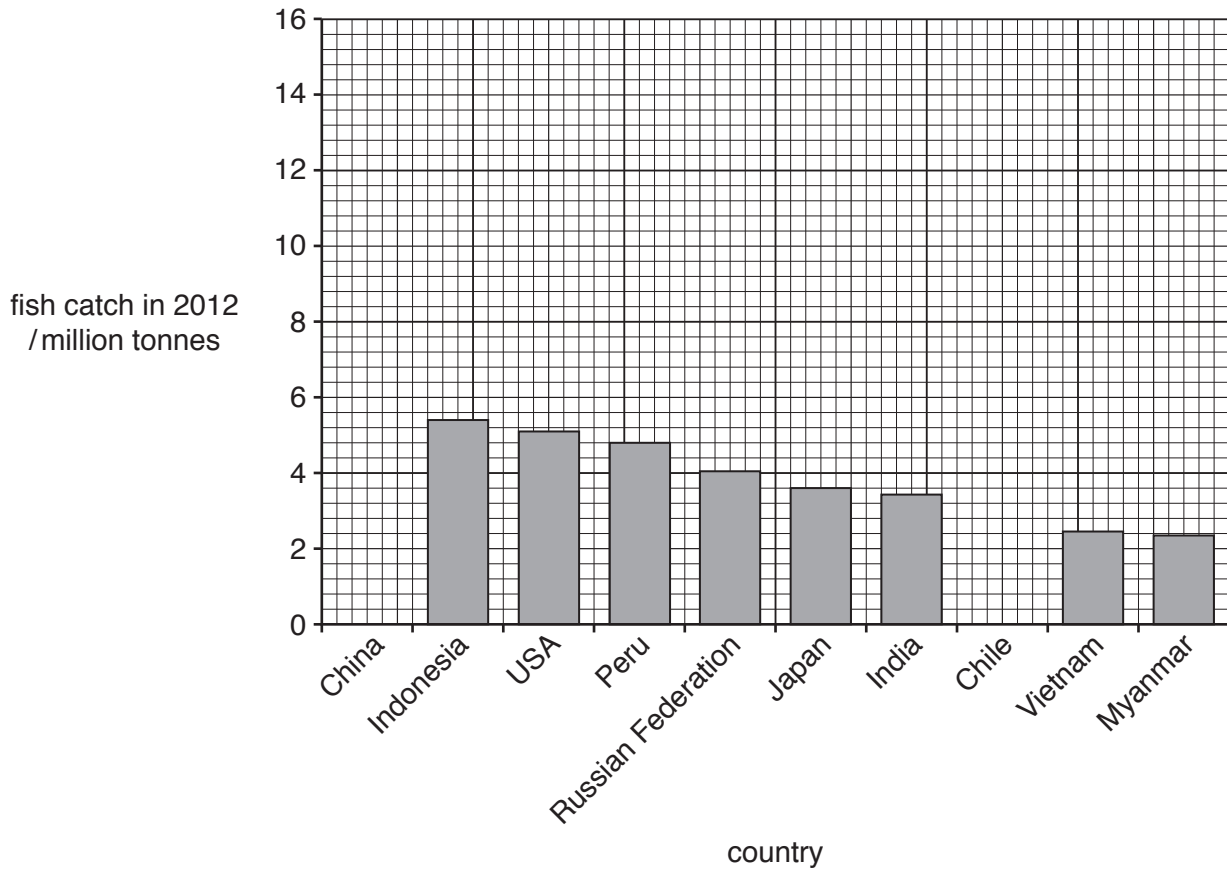
1.....  
.....

2.....  
.....

3.....  
.....

[3]

5 The bar graph shows the fish catch in ten countries in 2012.



(a) (i) Complete the bar graph using the data in the table.

country	fish catch in 2012 / million tonnes
China	14.0
Chile	2.6

[1]

(ii) The ten countries shown in the graph caught 47.6 million tonnes of fish in 2012. The world total of fish caught in 2012 was 79.7 million tonnes. Calculate the percentage of the world total caught by these ten countries.

.....% [1]

(iii) The fish catch in China, Indonesia, Myanmar and Vietnam is increasing.

Suggest **one** reason why the fish catch in these countries is increasing.

.....  
 .....[1]

(b) (i) Suggest **four** strategies for the sustainable harvesting of ocean fisheries.

1 .....

.....

2 .....

.....

3 .....

.....

4 .....

.....

[4]

(ii) Explain why strategies for the sustainable harvesting of ocean fisheries have had limited success.

.....

.....

.....

.....

.....

.....

.....

[3]

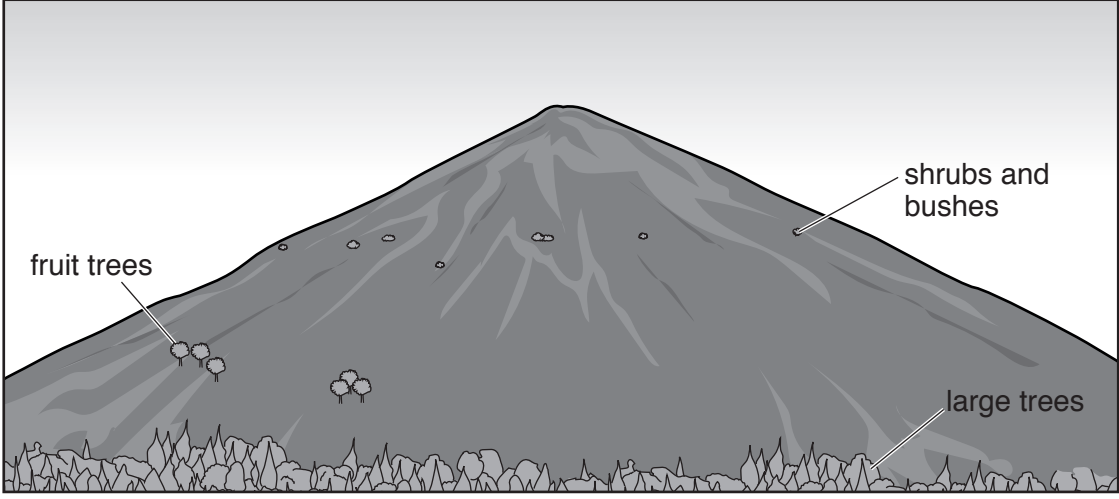
**Question 6 begins on page 14.**

- 6 The newspaper report is about waste rock from shaft (deep) mines being used for farming.

**WASTE ROCK FROM MINES USED FOR FARMING**

Mounds of waste rock near closed mines are being used for farming. The smallest rocks on the mounds have been worn away by the weather into black soil that holds the Sun's heat. The larger rocks provide good drainage.

Fruit trees grow well on south facing slopes of the taller mounds. Goats feed on shrubs and bushes that grow on the mounds.



- (a) (i) Use information in the newspaper report to explain why fruit trees can be grown successfully on the mounds.

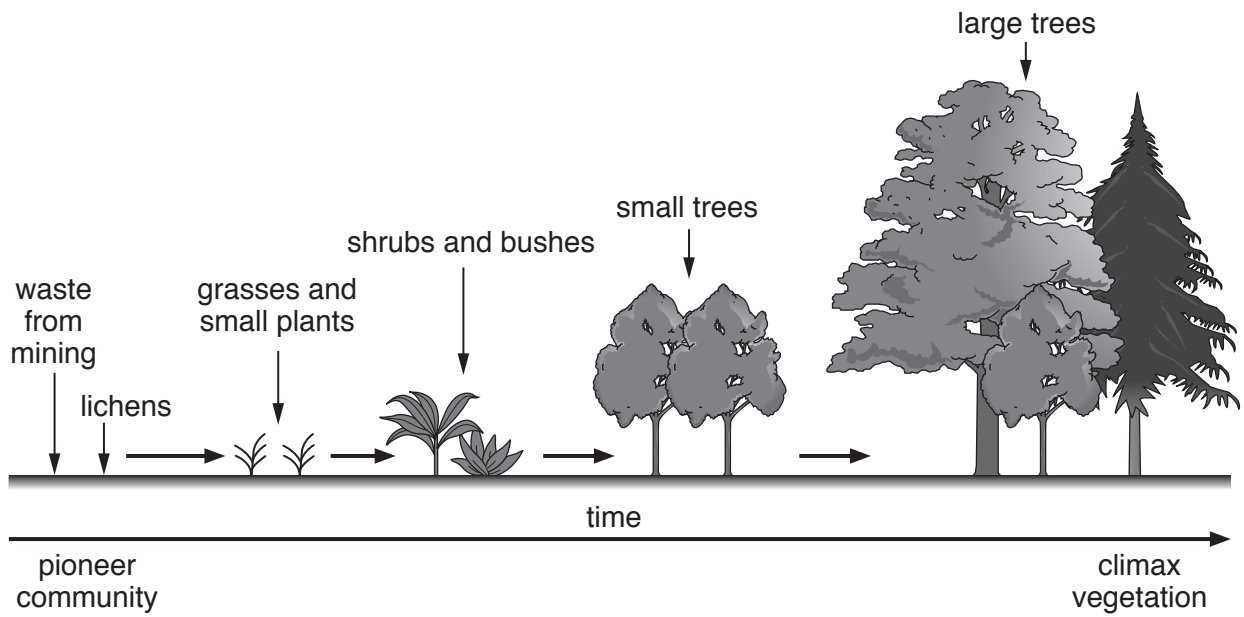
.....

.....

.....

..... [2]

(ii) The diagram shows how the natural vegetation would change over time if the mounds were not farmed.



Describe and explain how the natural vegetation shown in the diagram changes over time.

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

(iii) Explain how goats stop the development of climax vegetation on some of the mounds.

.....

..... [1]

(b) Suggest ways that mines can be used after extraction has finished.

.....

.....

.....

.....

.....

.....

..... [3]

---

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](http://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.