



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

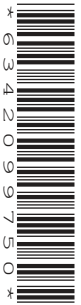
CANDIDATE  
NAME

CENTRE  
NUMBER

--	--	--	--	--

CANDIDATE  
NUMBER

--	--	--	--



**ENVIRONMENTAL MANAGEMENT**

**0680/21**

Paper 2

**October/November 2015**

**1 hour 45 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 **both** questions.

Electronic calculators may be used.

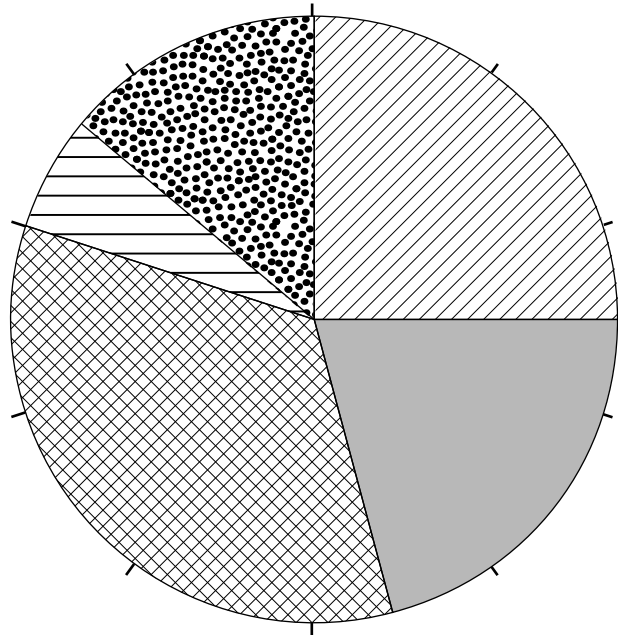
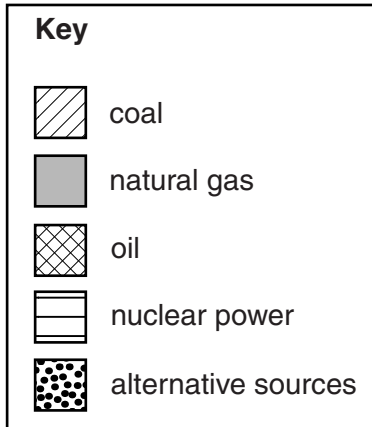
You may lose marks if you do not show your working or if you do not use appropriate units.

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 (a) Look at the graph below which shows the percentage of world energy that came from different sources in 2013.



- (i) State the energy source that was used most in 2013.

.....[1]

- (ii) Calculate the percentage of world energy that came from fossil fuels in 2013.

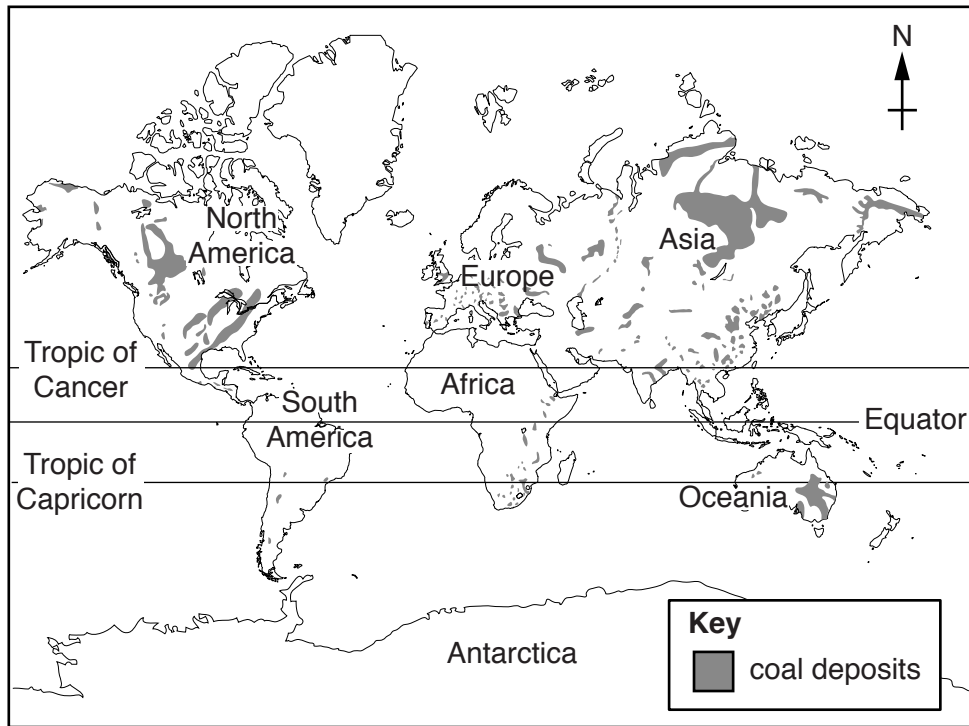
Space for working.

..... % [1]

- (iii) Using evidence from the graph, describe the contribution that alternative energy sources made to world energy in 2013.

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

(b) Look at the map, which shows where coal deposits are found in the world.



(i) Describe the distribution of coal deposits shown on the map.

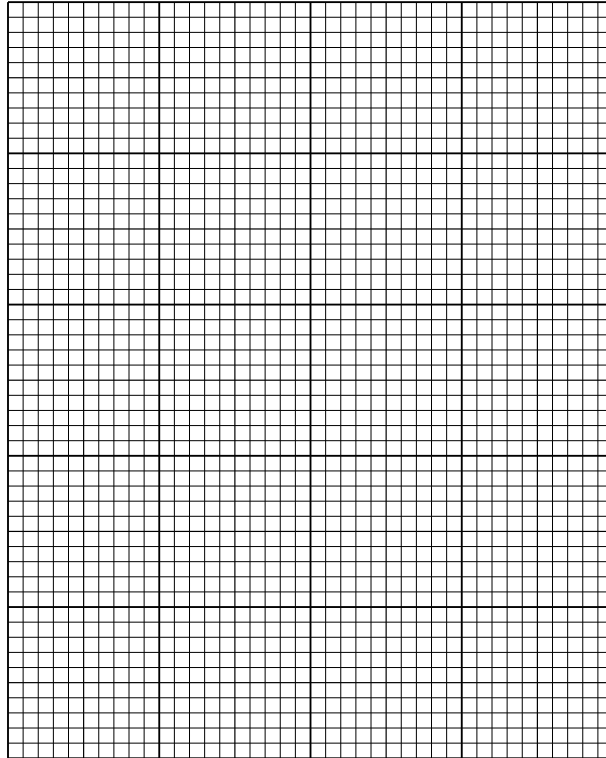
.....  
.....  
.....  
.....  
.....  
.....  
..... [3]

(ii) Explain how coal was formed.

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

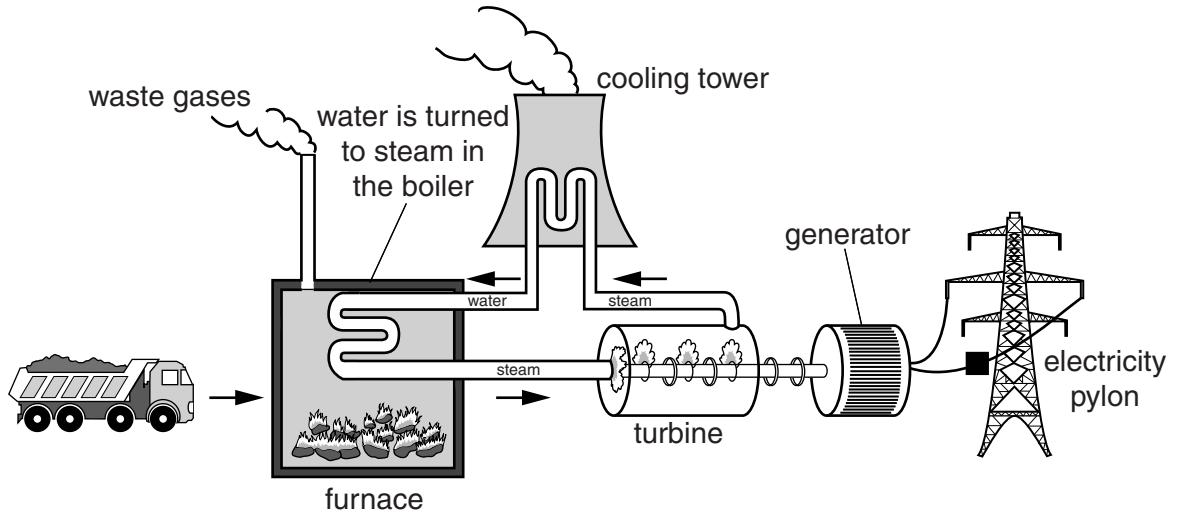
- (iii) The table shows information about how fossil fuels are used to generate electricity in the United States of America. Draw a bar graph on the grid below using the data in the table. Label your axes.

fossil fuel	percentage of electrical production
oil	2
gas	25
coal	42



[4]

(c) Look at the diagram, which shows a power station that produces electricity using coal.



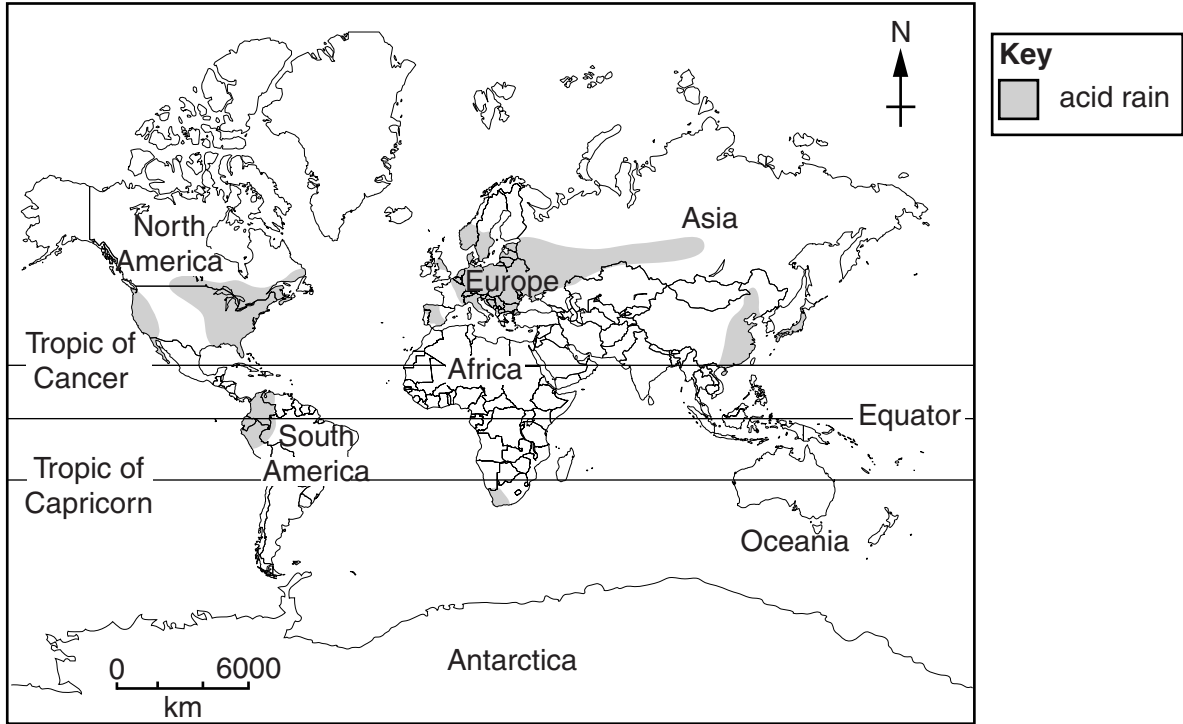
(i) Using the diagram, explain how electricity is produced in the power station.

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

(ii) Suggest the environmental impacts a power station that uses coal might cause.

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

(d) Look at the map below, which shows a world distribution of acid rain.



(i) Using the map, state the name of **two** continents which are affected by acid rain.

1 .....

2 ..... [2]

(ii) Using the map, identify **one** continent that is not affected by acid rain. Suggest a reason for this.

continent .....

reason .....

..... [2]

(iii) Explain how acid rain is formed.

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

(iv) Explain why international agreements are needed to solve the problem of acid rain.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

..... [5]

(e) Suggest why countries around the world do not use more alternative energy.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

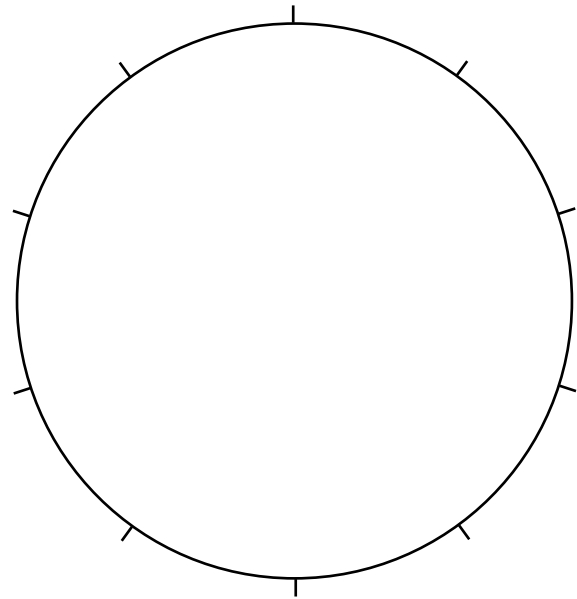
..... [6]

- 2 (a) (i) A student investigating soil types found out that a sample of soil contained the following particles.

soil particles	percentage composition
clay	70
sand	18
silt	12

Use this information to complete the pie graph and key below.

Key	
<input type="checkbox"/>	.....
<input type="checkbox"/>	.....
<input type="checkbox"/>	.....



[3]

- (ii) Suggest reasons why clay soils are often used as grazing land rather than for growing crops.

.....

.....

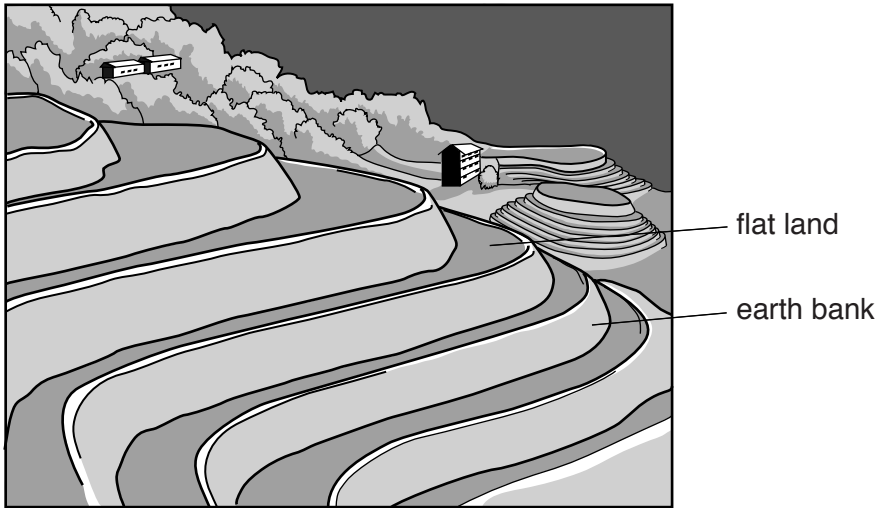
.....

.....[2]





(c) Look at the sketch below, which shows some terraced fields in Nepal.



(i) Suggest how the terracing shown in the sketch might help to prevent soil erosion.

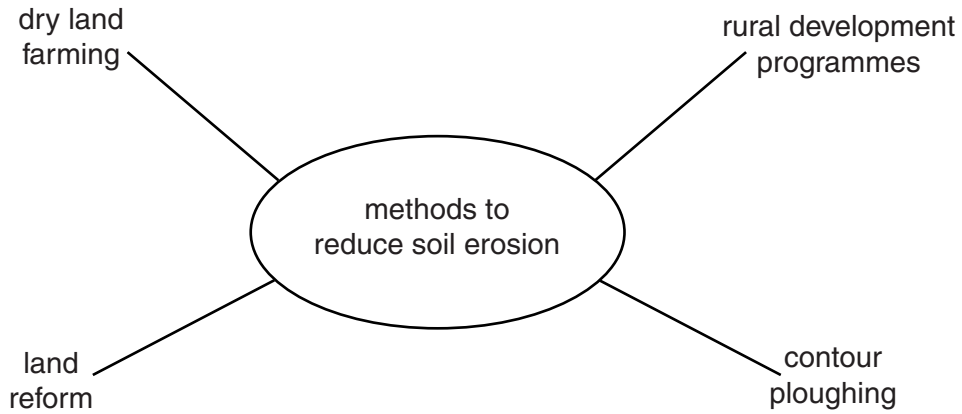
.....

.....

.....

.....[2]

(ii) Look at the diagram below, which shows other methods for preventing soil erosion.



Describe and explain how **two** of these methods help to reduce soil erosion.

method 1 .....

.....

.....

.....

method 2 .....

.....

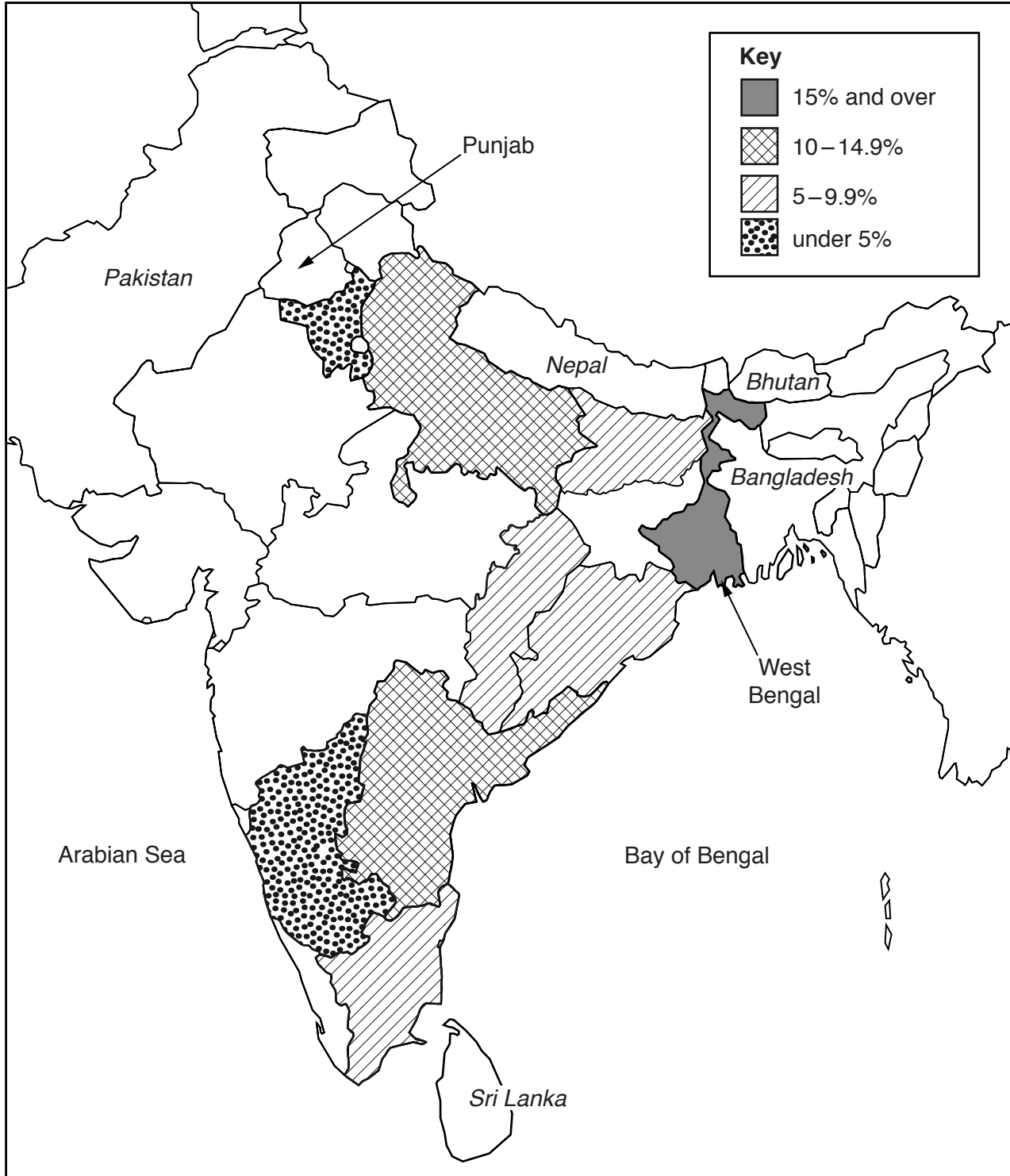
.....

.....

[4]

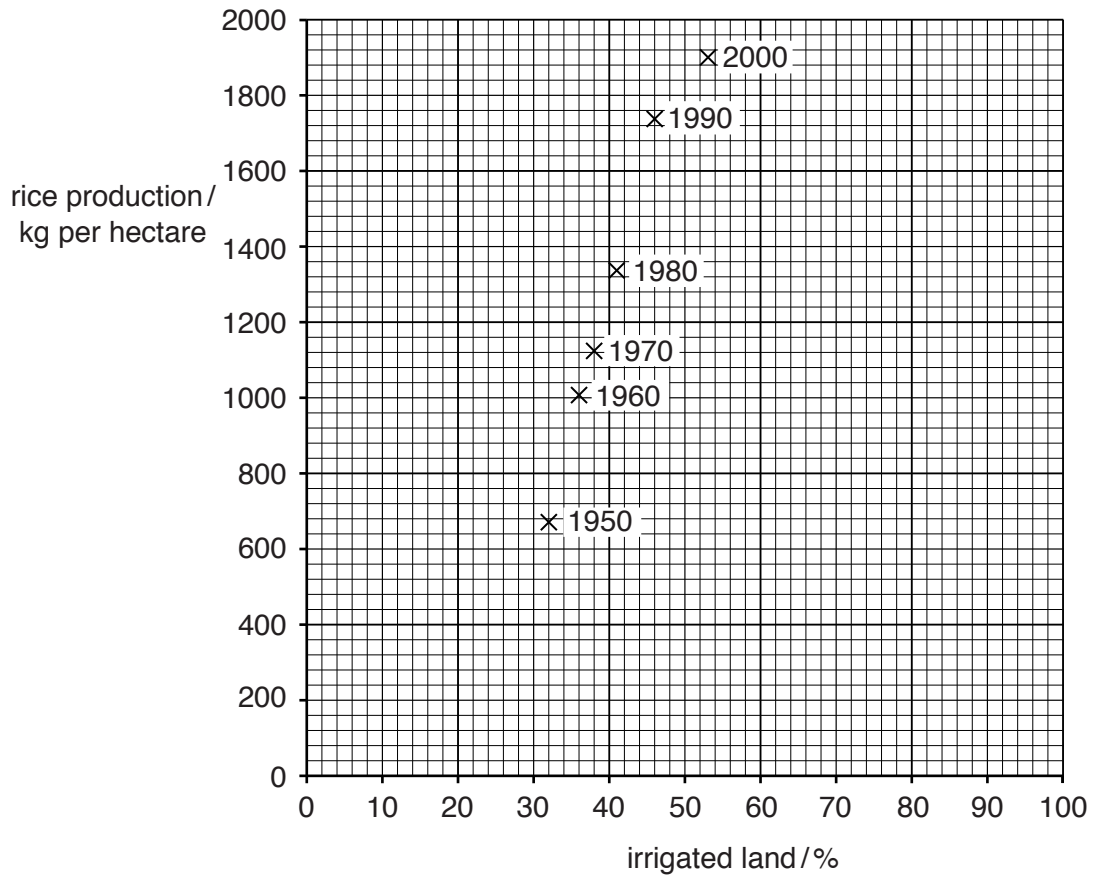
- (d) Many people in India and the Ganges Valley survive through subsistence farming. Farmers grow rice in flooded fields.

Look at the map below, which shows rice production for the major rice producing states in India.





(iv) Look at the graph below, which shows rice production and the area of irrigated land for another country.



Use the graph to complete the table below.

rice production in 2000	..... kg per hectare
irrigated land in 2000	..... %

[2]

(v) Calculate the increase in irrigated land from 1950 to 2000.

Space for working.

..... % [1]

(vi) Using evidence from the graph, describe the relationship between rice production and irrigated land. Suggest an explanation for the relationship.

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

(e) The Green Revolution was introduced to modernise agriculture. Describe the advantages of the Green Revolution.

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

