

Cambridge International Examinations

Cambridge International General Certificate of Secondary Education

CANDIDATE NAME					
CENTRE NUMBER			NDIDATE MBER		

3881700850

ENVIRONMENTAL MANAGEMENT

0680/12

1 hour 30 minutes

Paper 1 October/November 2014

Candidates answer on the Question Paper.

Additional Materials: Ruler

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.



1 (a) Explain the statement, "a forest is an ecosystem where all the living things rely on the Sun", by referring to the living things below.



oak tree



oak caterpillar (an insect)



insect-eating bird

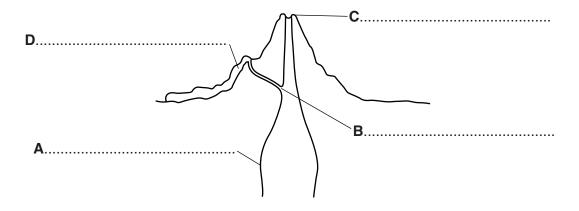


woodlouse eating dead leaves

	•••••	
		[4]
(b)	(i)	Forest ecosystems are some of the most biodiverse in the world. Explain what this means.
		[2]

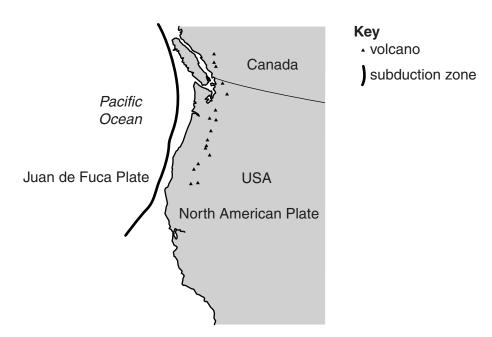
(ii)	What human activities are leading to a reduction in biodiversity?
	[2]
(iii)	Suggest why biodiversity should be conserved.
	[2]

2 (a) (i) Look at the diagram below of a volcano. Name the features labelled A to D.



(ii) The map below shows the Cascadia subduction zone in the north western part of North America.

[2]

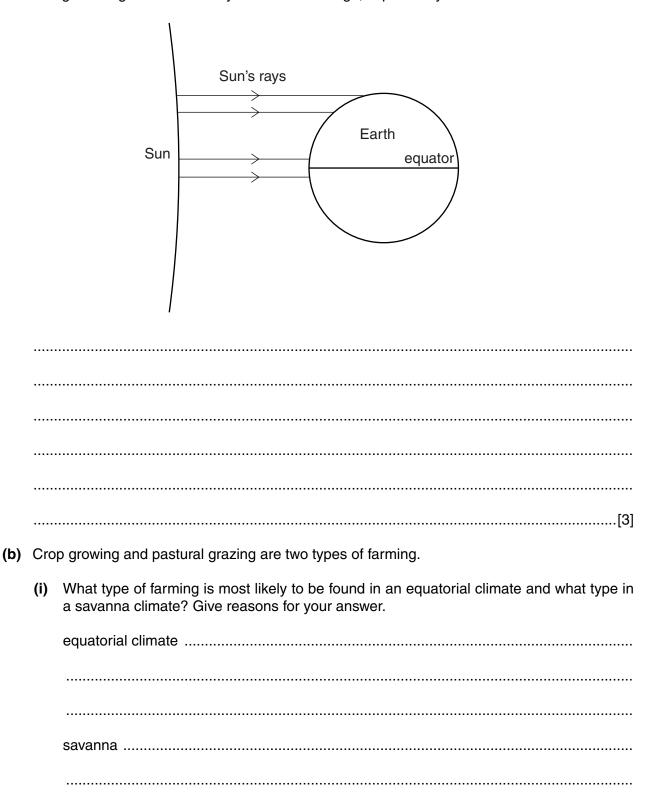


Explain the distribution of volcanoes shown on the map.

(b)	(i)	In 1995 the Soufrière Hills volcano on the island of Montserrat began erupting. Since then the people living in the southern part of the island have been evacuated. This part of Montserrat is still dangerous and is an exclusion zone (it is illegal to go there). The population is currently estimated at 5028, before the eruption it was over 11000.
		Suggest how the 1995 eruption affected the following people who still live on the island:
		a farmer
		a taxi driver
		an hotel owner
		[3]
	(ii)	Why is the number of deaths from earthquakes usually much greater than those from a volcanic eruption?
		[2]

3 (a) Tropical climates are hot and near the equator. Cold climates have low temperatures and are far from the equator.

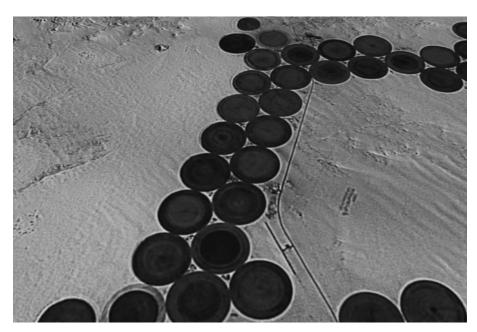
Using the diagram below and your own knowledge, explain why this difference exists.



(ii) Climate is a very important factor in determining what might need to be done to make farming possible.

Study the aerial photograph below of crops growing in a desert region.

Name the requirement for plant growth that is being added to the ground **and** name the strategy that is providing it.

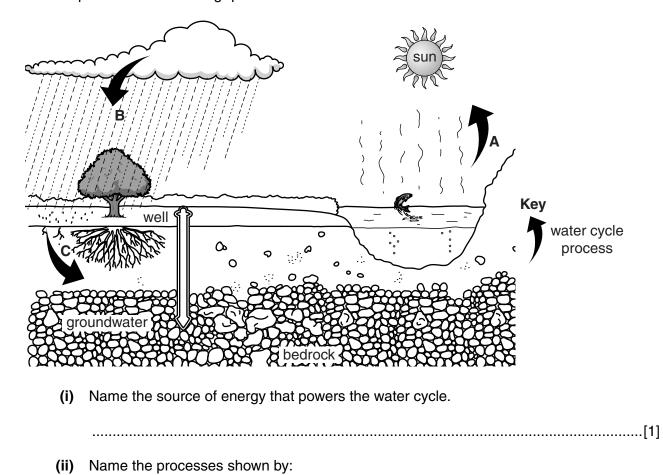


	name of requirement	
	name of strategy	[2]
(iii)	Name one other plant requirement which farmers may add to desert soil to improve	∕e crop
		[1]

4	(a)	(i)	Complete the following passage about rocks using words from the list below. The words
			may be used once, more than once or not at all.

erosion	igneous	pressure	sediment	sedimentary	tectonic
	Igneous and .		rocks can	both be changed	into metamorphic
	rocks by the	action of heat and		All	three rock types
	may be uplift	ed and then		will lead to	the formation of
		and then,	after compaction	on,	rocks. [2]
(ii)	Describe how	a named rock is used	in industry and	farming.	
	name of rock .				
	use				
					[3]
(b) (i)	Describe how	producing energy from	coal causes e	nvironmental probl	lems.
					[3]
(ii)	Suggest ways	in which an individual	might help to co	onserve fossil fuels	S.
					[2]

5 (a) The diagram below shows the water cycle and human involvement in it. Use the diagram to help answer the following questions.



	arrow A	
	arrow B	
	arrow C	[2]
(iii)	There are other water cycle processes which are listed below. Add labelled arrows to diagram to show these.	the

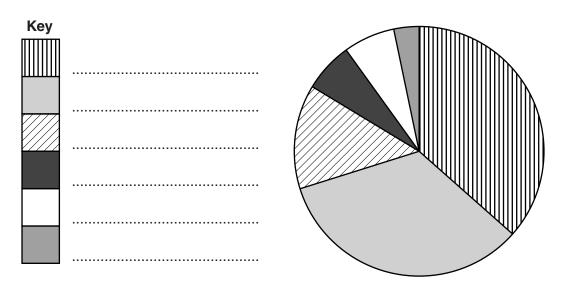
interception	run-off	transpiration	
			[2

(iv)	The diagram shows one way in which humans obtain safe clean water for domestic use. This method is used mainly in rural areas. State one other way in which humans in rural areas might get safe clean water.
	[1]

(b) (i) The table below shows how one person in a developed country uses on average 150 litres of water each day.

use	volume of water / litres per day
car washing	5
dish washing	10
drinking	10
laundry	20
personal washing	50
WC flushing	55
TOTAL	150

These figures can be put in a pie graph, as shown below.



Complete the key. [2]

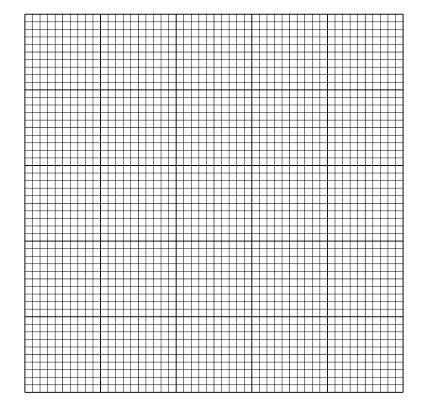
(ii)	Providing safe clean water is expensive. Water that has been used for washing dishes is suitable for re-use in several ways. Suggest one such use, from the table, for this water. Explain your answer.

6 (a) Human population growth needs to be managed. One way of managing growth is by family planning.

Study the following table.

method of family planning	millions of couples		
modern	660		
none by choice	300		
none available	140		
traditional	80		
TOTAL couples	1180		

(i) Plot these data (not the TOTAL) as a bar graph on the grid below.



(ii)	Suggest other strategies for managing population growth.					
		ارع 				

[3]

(b)	Another im	pact of increa	sing numbers	of peop	ole is incr	eased tourism.

Here is what some people said about tourism.

Tourism causes increased air travel and pollution of air and the water.

Tourism causes vegetation to be badly trampled.

A lot of people are doing poorly paid jobs and our local traditions and cultures are dying.

One way of managing this is by ecotourism. Tourists pay money to spend time in ecosystems, observing and learning about living things. Some of this money is used to protect the ecosystem and some goes to local people.

Discuss to what extent ecotourism may reduce the impacts of tourism quoted above.
[4]

Copyright Acknowledgements:

Question 3a © Google Maps

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.

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.