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ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2013

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Centre Number
71
Candidate Number

Geography

Assessment Unit AS 1

assessing

Physical Geography

[AG111]



FRIDAY 7 JUNE, AFTERNOON

TIME

1 hour 30 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Section A: candidates must answer this section.

Section B: answer **all three** questions in this section.

Section C: answer any **two** questions from this section.

You should write your answers in the spaces provided in this question paper.

At the end of the examination your summary of fieldwork and table of data should be attached securely to this paper using the treasury tag supplied.

INFORMATION FOR CANDIDATES

The total mark for this paper is 90.

Quality of written communication will be assessed in **all** questions.

Figures in brackets printed down the right-hand side of the pages indicate the marks awarded to each question or part question.

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	

Total Marks	
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8099

Section A

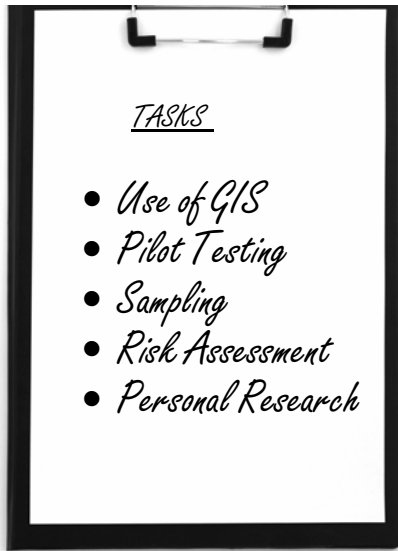
Answer this section

Submitted summary of fieldwork and table of data

At the end of the examination these should be attached securely to this paper using the treasury tag supplied.

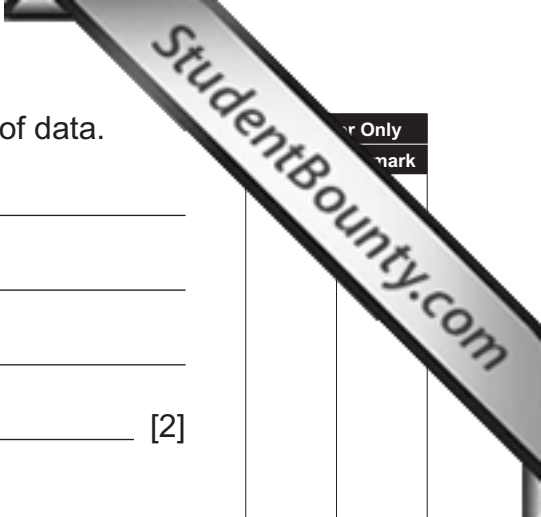
- 1 (a) Study **Resource 1A** below, which displays a list of tasks compiled by a geographer when planning a field study. Select **two** from the list and discuss how they were completed as part of **your** fieldwork.

Resource 1A



Source: Principal Examiner

[6]



For Only
mark

(b) (i) Distinguish between primary and secondary sources of data.

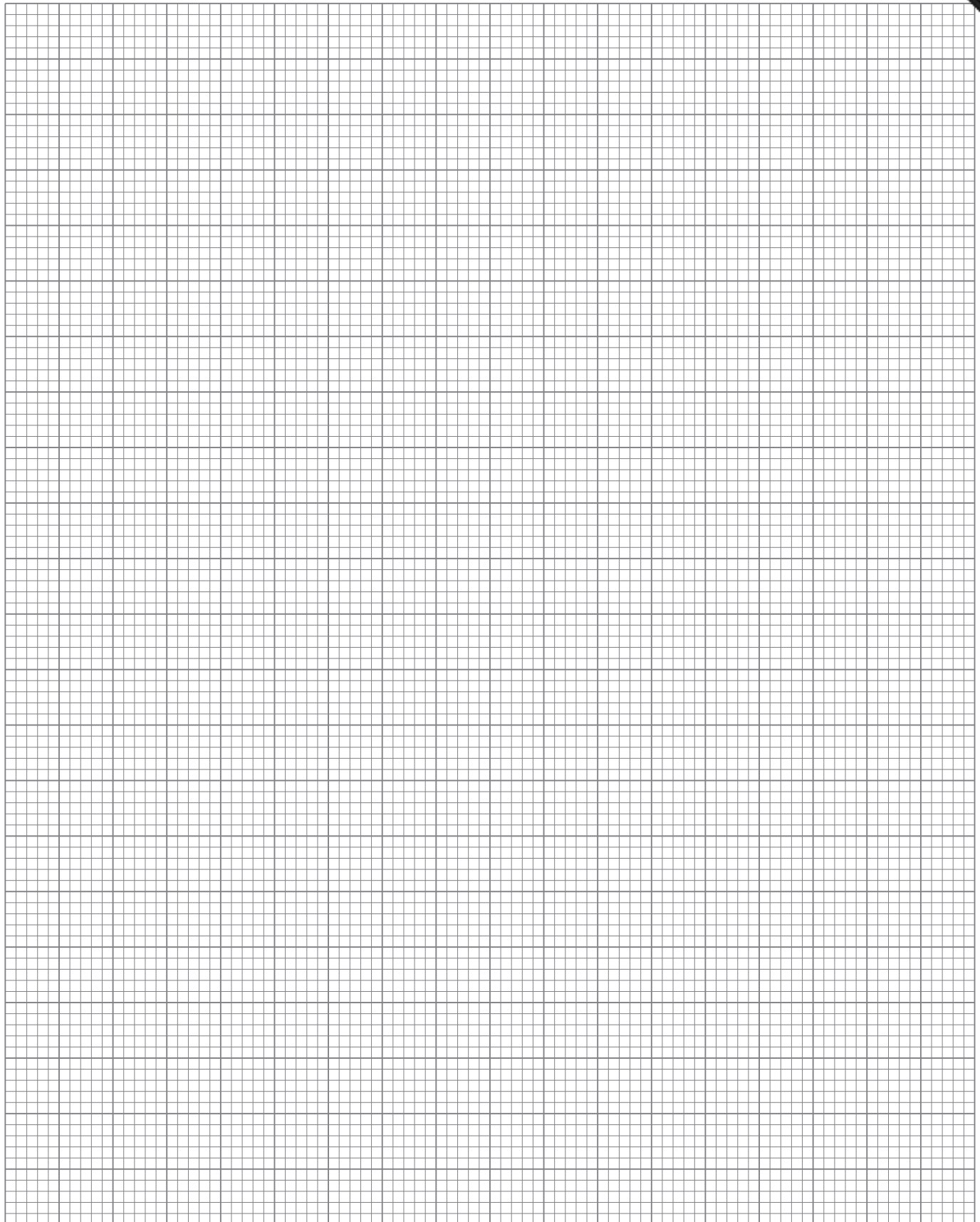
[2]

(ii) Describe and evaluate **one** of the primary data collection methods used to produce data displayed in your submitted table.

[5]

(c) (i) Using some, or all, of the data from your table, draw a graph relevant to the aim of your fieldwork. The graph should be presented with accuracy on the graph paper below. [7]

Title of Graph _____



(ii) Outline and explain **one** geographical factor which may have influenced the results displayed on your graph.

[4]

(d) Explain the purpose of statistical analysis in a fieldwork investigation and discuss why your chosen statistical method was selected as suitable for your fieldwork.

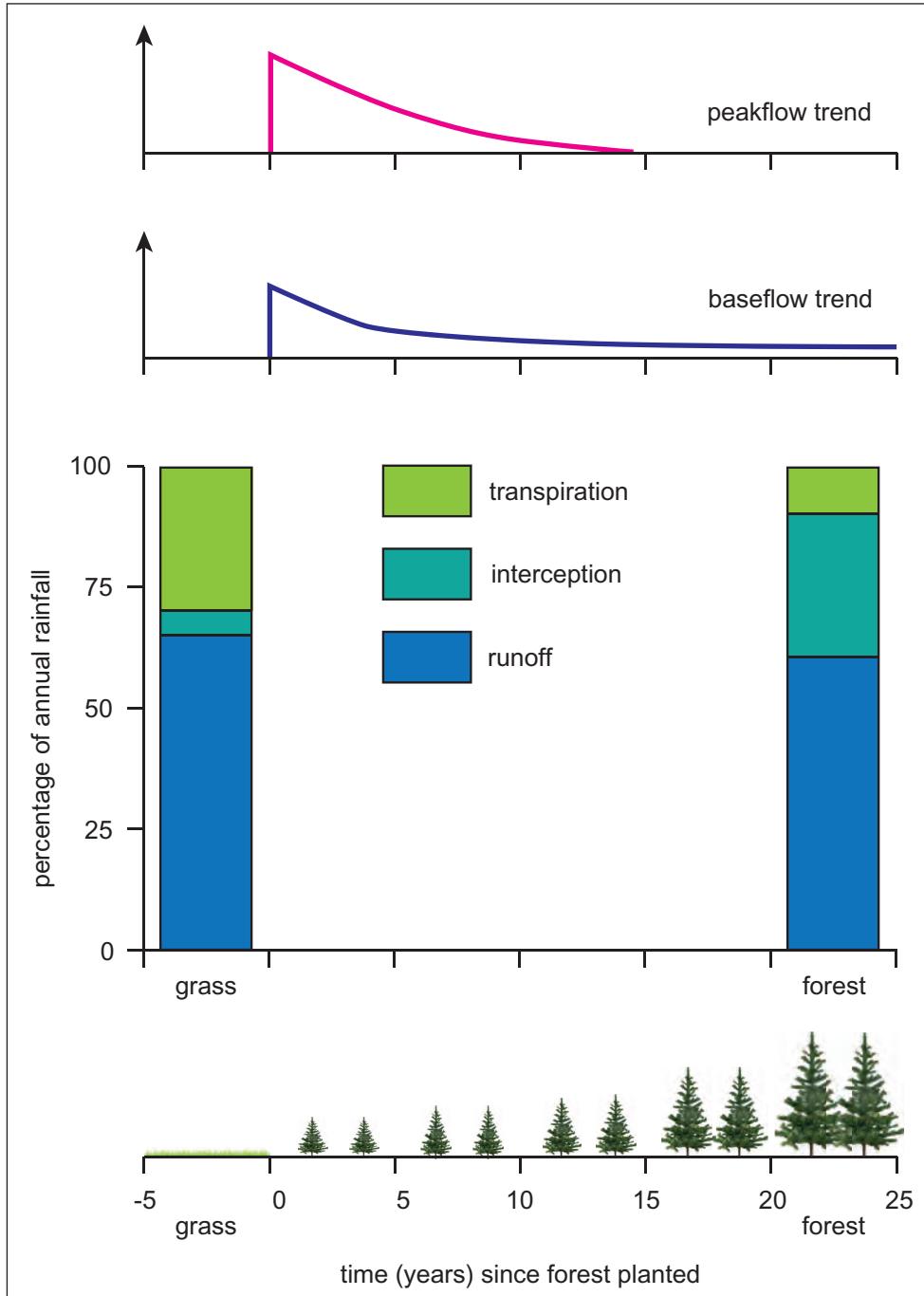
[6]

Section B

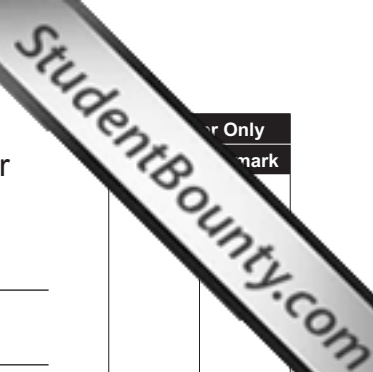
Answer **all three** questions in this section.

- 2 (a) Study **Resource 2A**, which shows the impact of land-use change in the River Coale drainage basin, north east of Carlisle in northern England. In this upland area, rough grassland was replaced with plantation forestry.

Resource 2A



© Institute of Hydrology Report Number 133 page 56 Fig. 26 by m Robinson, R E Moore, T R Nisbet & J R Blackie, 1998, published by the Centre for Ecology and Hydrology

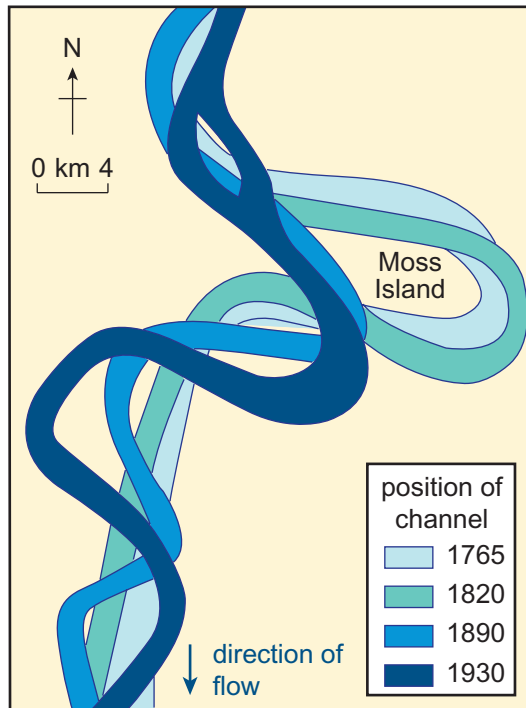


Using information from **Resource 2A**, describe and explain the changes in the **stores** and **transfers** within this drainage basin over time.

[6]

(b) Study Resource 2B which shows the changing meander patterns over time on part of the Mississippi River in the USA.

Resource 2B



Adapted from: © <http://projects.cie.org.uk/banglao/textbook/mississippimeanders/files/drainage.htm>
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Describe the changing pattern and explain the river processes which form these meanders.

[6]

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(Questions continue overleaf)

3 (a) Study **Resource 3A**, on page 11, which shows growing season precipitation and some of the soil conservation methods used in three provinces of the Canadian Prairies, a mid-latitude grassland ecosystem.

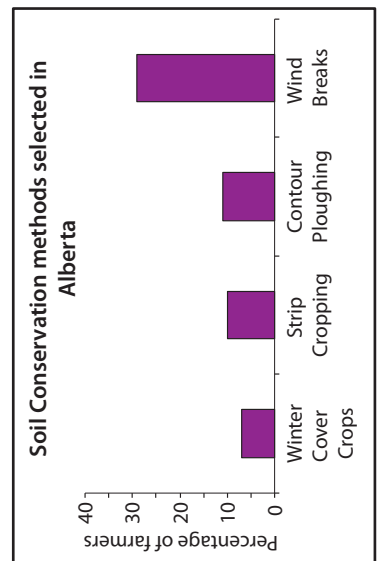
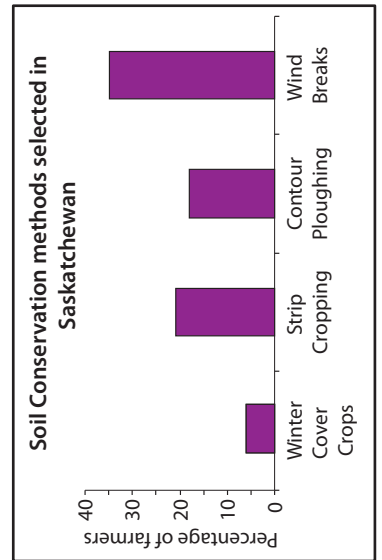
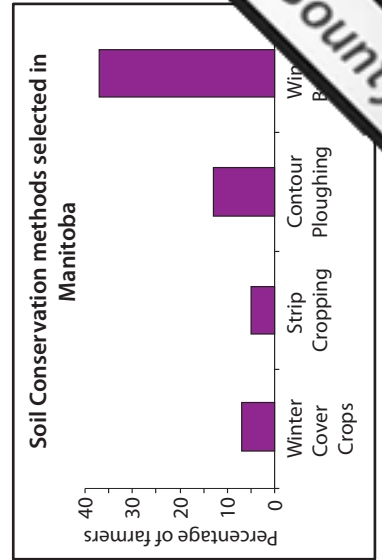
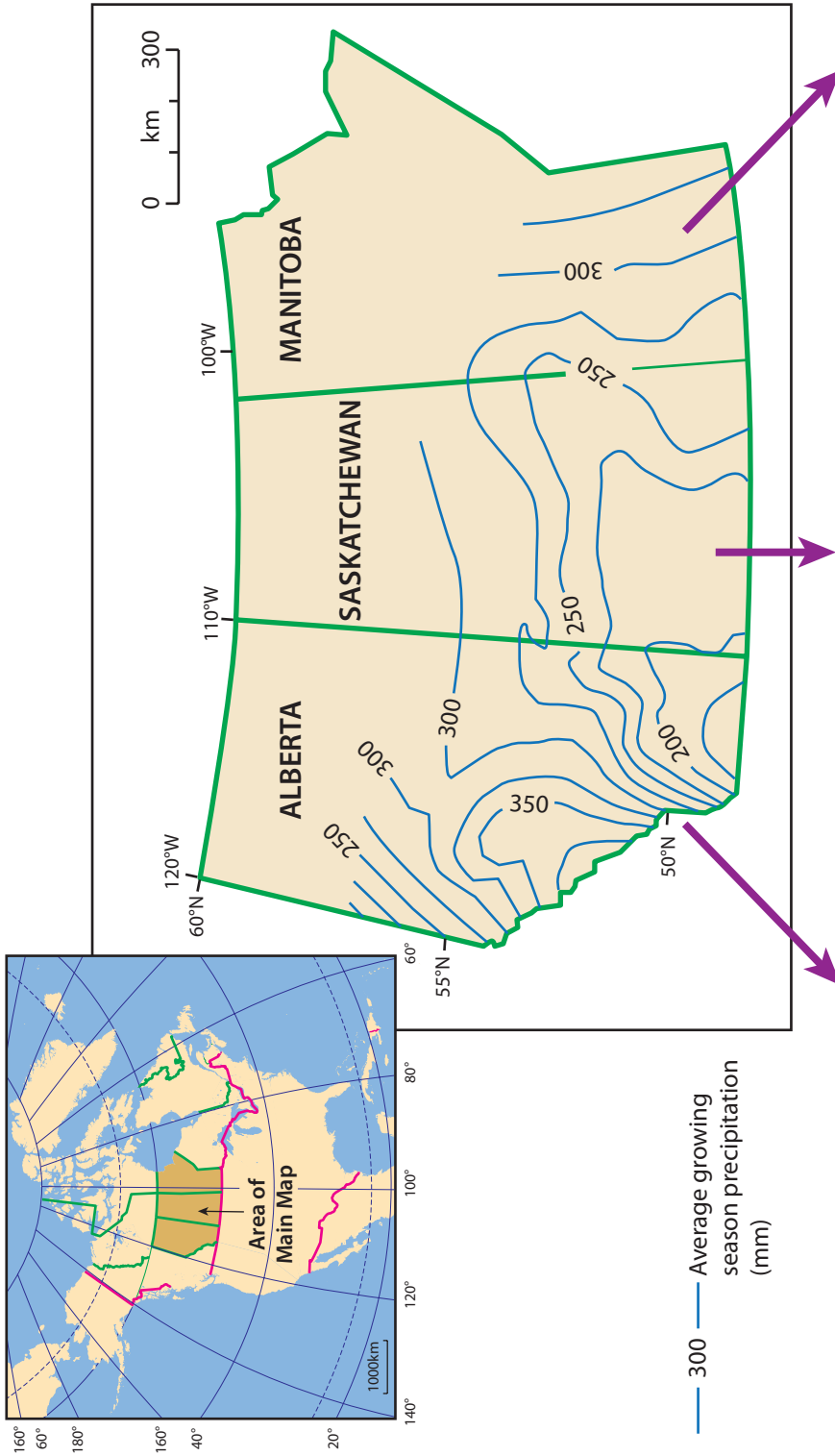
(i) Which province receives the highest amount of growing season precipitation?

_____ [1]

(ii) Compare the popularity of the soil conservation methods selected by farmers in any **one** province and explain why management of this ecosystem is necessary.

_____ [6]

Resource 3A

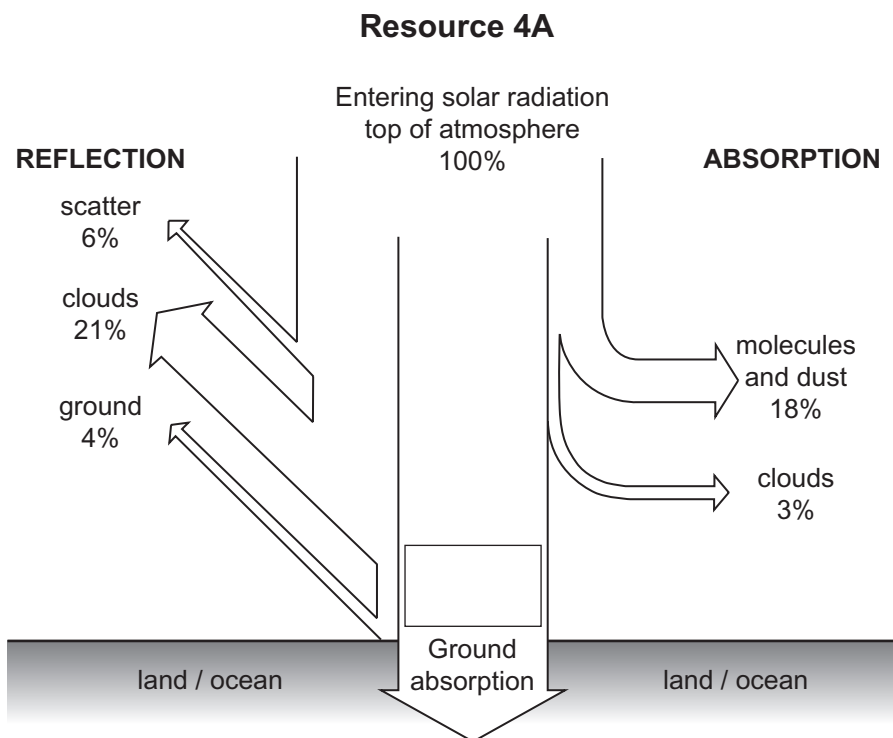


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(Questions continue overleaf)

4 (a) Study **Resource 4A** showing a **general** model for global solar energy in



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(i) Complete the box in **Resource 4A** to show the percentage of energy available for absorption at the ground surface. [1]

(ii) Outline **one** reason why the percentage of energy received at the ground surface may vary from one place to another.

[2]

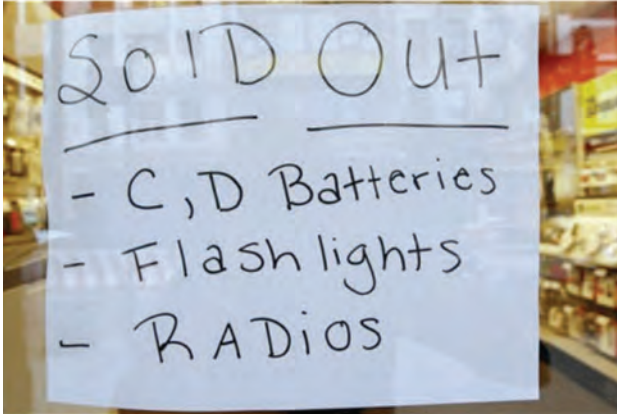
Examiner Only	
Marks	Remark

(iii) Distinguish between **horizontal** and **vertical** heat transfers in relation to global energy balance.

[3]

(b) Study **Resource 4B** which shows some of the protective measures used in New York in preparation for Hurricane Irene in August 2011.

Resource 4B



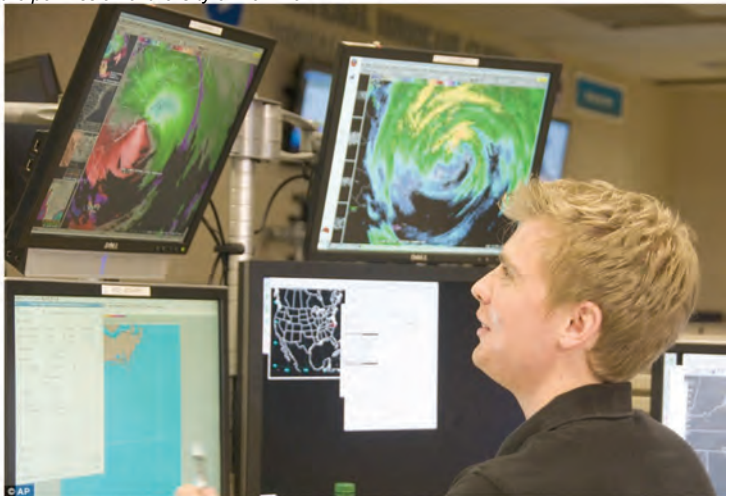
© Mario Tama / Getty Images



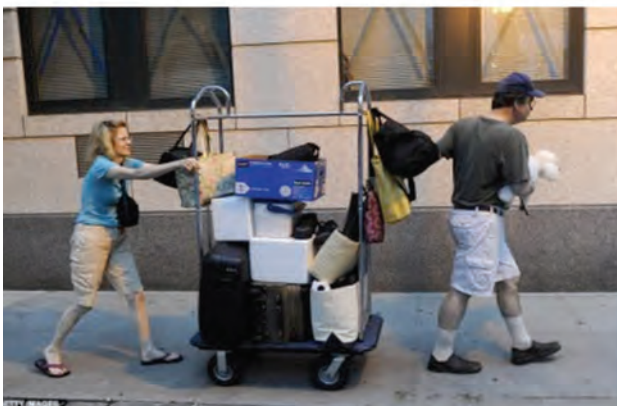
"2011 New York City Evacuation Zones Map" ©2011. New York City Office of Emergency Management. All rights reserved. "2011 New York City Evacuation Zones Map" used with the permission of the City of New York



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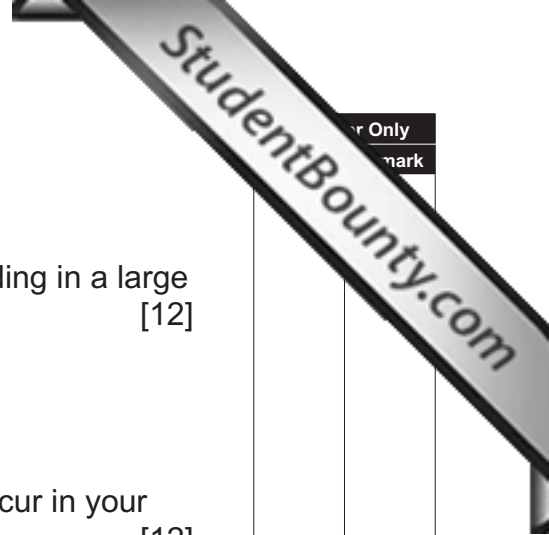
Section C

Answer **any two** questions in this section.

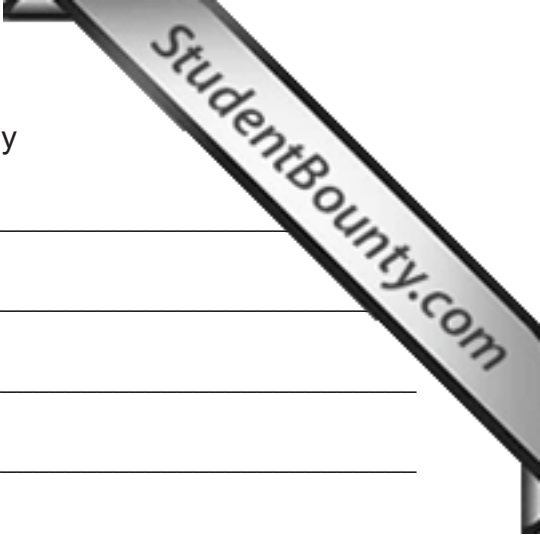
- 5 Describe and explain the physical and human causes of flooding in a large scale drainage basin or its delta. [12]

- 6 Describe and explain the biotic and abiotic changes which occur in your small or regional scale study of vegetation succession. [12]

- 7 Explain the formation of a mid-latitude frontal depression and use your case study to analyse its impact on people. [12]



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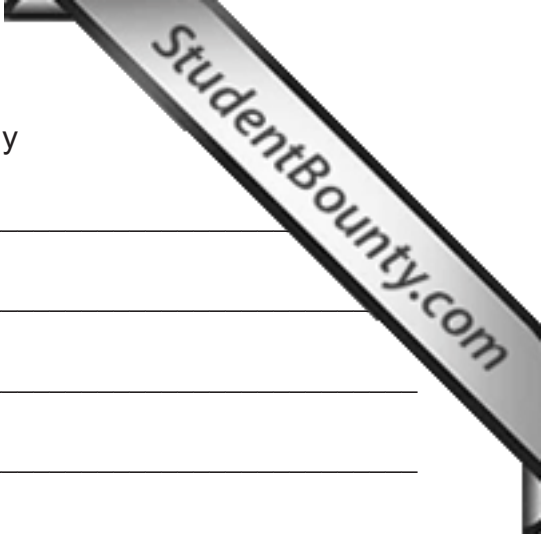
Number your answers clearly

Question
Number

A series of 20 horizontal lines for writing answers, spanning the width of the page below the instruction "Number your answers clearly".

Number your answers clearly

Question
Number



Number your answers clearly

Question
Number

Area with horizontal lines for writing answers.

THIS IS THE END OF THE QUESTION PAPER

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