Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
TOTAL	

General Certificate of Education
Advanced Subsidiary Examination
June 2011

Geography GEOG2

Unit 2 Geographical Skills

Tuesday 24 May 2011 1.30 pm to 2.30 pm

For this paper you must have:
- a pencil
- a rubber
- a ruler
- a protractor
- compasses

You may use a calculator.

Time allowed
- 1 hour

Instructions
- Use black ink or black ball-point pen. Use pencil only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information
- The maximum mark for this paper is 50.
- The marks for questions are shown in brackets.
- You will be marked on your ability to:
  – use good English
  – organise information clearly
  – use specialist vocabulary where appropriate.

Advice
- Where appropriate, credit will be given for the use of diagrams to illustrate answers and where reference is made to your personal investigative work. You are advised to allocate your time carefully.

Answer **all** questions in the spaces provided.

1 (a) (i) Rainfall variation in a location over a 12 year period is being investigated.
A standard deviation calculation has been started in **Figure 1**.

Complete **Figure 1** and then use the formula below **Figure 1** to complete the standard deviation calculation. Do all calculations to two decimal places.

Figure 1

Year	Rainfall in mm (x)	$x - \bar{x}$	$(x - \bar{x})^2$
1	618.7	85.11	7 243.71
2	499.3		
3	605.7	72.11	5 199.85
4	467.6	–65.99	4 354.68
5	697.6	164.01	26 899.28
6	667.4	133.81	17 905.12
7	603.3	69.71	4 859.48
8	360.4	–173.19	29 994.78
9	420.7	–112.89	12 744.15
10	554.1	20.51	420.66
11	409.9		
12	498.4	–35.19	1 238.34
	Σx = 6 403.1		$\Sigma (x - \bar{x})^2$ = 127 335.07
	$\bar{x}$ =		

$$\sigma = \sqrt{\frac{\Sigma(x - \bar{x})^2}{n}}$$

σ = Standard deviation
x = Individual value
$\bar{x}$ = Mean
n = Number in the sample
Σ = Sum of

Show your working in the space below.

σ =

(6 marks)

1 (a) (ii) What does your calculated standard deviation value suggest about rainfall variation at this location?

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(2 marks)

Question 1 continues on the next page

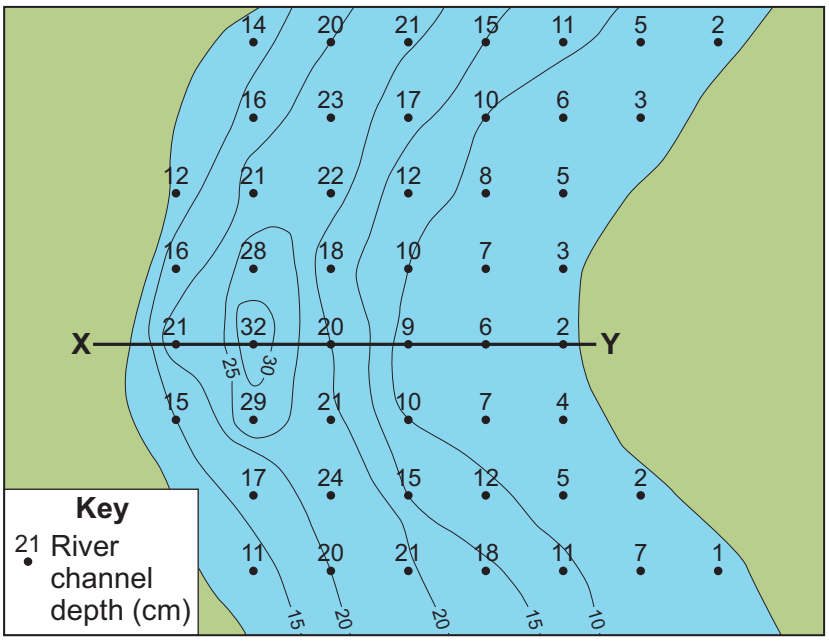
1 (b) (i) Study **Figure 2**, a sketch plan of a meander showing river channel depth.

Add the following information:

- an isoline to represent the river depth of 5 cm
- a label which clearly locates the deep pool.

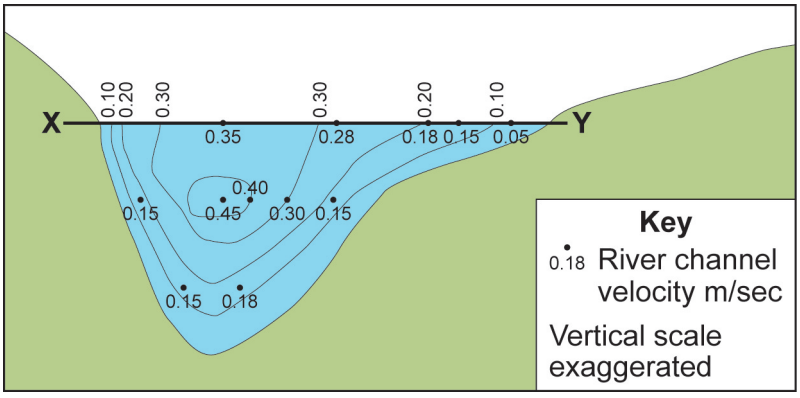
(3 marks)

Figure 2



1 (b) (ii) Study **Figure 3**, a sketch cross-section showing velocity along line **X—Y** in **Figure 2**.

Figure 3



1 (b) (ii) Identify with a labelled arrow the fastest part of the river and describe the relationship between the information shown in **Figure 2** and **Figure 3**.

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(4 marks)

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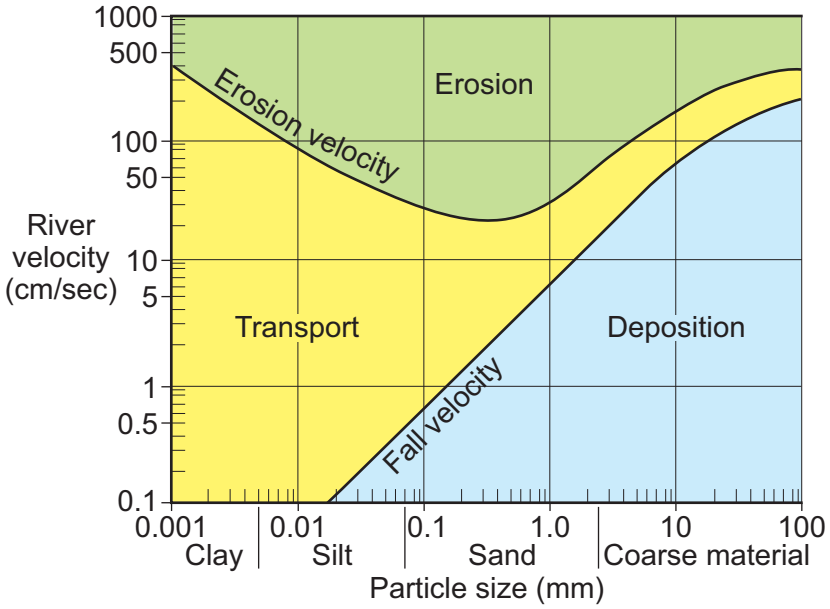
Question 1 continues on the next page

1 (c) Study **Figure 4**, the Hjulström curve.

Figure 4



1 (c) (i) Plot and label the following data on **Figure 4**.

	Particle size (mm)	**Velocity (cm/sec)**
Particle 1	0.02	200
Particle 2	25	7.5

(2 marks)

1 (c) (ii) Name the river process from **Figure 4** that is affecting each particle in the box provided below.

	Process
Particle 1	
Particle 2	

(2 marks)

1 (c) (iii) Using **Figure 4**, explain how velocity and particle size affect the deposition process.

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(6 marks)

Extra space .....

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Turn over for the next question

2 (a) You have experienced geographical fieldwork as part of the course. Use this experience to answer the following questions.

2 (a) (i) Outline the purpose of your enquiry.

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(5 marks)

Extra space .....

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2 (a) (ii) Using specific examples from your fieldwork, describe the risk assessment you undertook in relation to your enquiry.

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(6 marks)

Extra space .....

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2 (b) Evaluate **one** of your methods of data collection.

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(5 marks)

Extra space .....

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Question 2 continues on the next page

2 (c) (i) Summarise the main findings of your fieldwork enquiry.

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(4 marks)

Extra space .....

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2 (c) (ii) How far did your findings reflect your expectations at the start of the enquiry?

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(5 marks)

Extra space .....

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END OF QUESTIONS

There are no questions printed on this page

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ANSWER IN THE SPACES PROVIDED

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