Please write clearly in block capitals.

Centre number | | | | | | Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____

AS
GEOGRAPHY

Paper 2 Human geography and the geography fieldwork investigation

Friday 19 May 2017 Afternoon Time allowed: 1 hour 30 minutes

Materials

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

You may use a calculator.

Instructions
- Answer **all** questions in Section A.
- Answer Question 2 in Section B.
- Answer Question 3 **or** Question 4 in Section B.

Information
- The total number of marks available for this paper is 80.

For Examiner's Use	
Question	Mark
1	
2	
3	
4	
TOTAL	

Advice

For the multiple-choice questions, completely fill in the circle alongside the appropriate answer.

CORRECT METHOD ● WRONG METHODS ⊗ ⊙ ≈ ✓

If you want to change your answer you must cross out your original answer as shown. ⊗

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. ⊗

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Section A

Answer **all** questions.

Question 1 **Changing places**

0 1 . 1 Which of the following data sources involves a qualitative approach to determine people's lived experience of a place?

[1 mark]

A 2011 census data from the Office of National Statistics showing the percentage of residents with higher education degrees. ⬭

B A local government survey on personal well-being based on residents' perceptions of crime in the local area. ⬭

C Data produced by a supermarket showing the average weekly spend of their shoppers. ⬭

D A population pyramid showing the age-sex structure based on data from the 2011 census. ⬭

0 1 . 2 Below is a list of quotes by people about the place where they live. Which quote best describes an exogenous factor affecting their sense of place?

[1 mark]

A "My village is prone to flooding by the River Severn, so it is difficult to get insurance. We have just had flood-gates installed to protect our home." ⬭

B "Our town is 'twinned' with a town in France. Twice a year we have a French market selling cheese, bread and wine. Some of the streets in our town have French names." ⬭

C "We often spend our evening wandering along the canal towpath, looking at all the derelict cotton mills. We think about how this area would have been during the Industrial Revolution." ⬭

D "Farming is a way of life here. My family has been dairy farming for generations. We live on a large farm built on rolling hills so you can't grow crops easily." ⬭

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0 1 . 3 Describe **one** way in which corporate bodies can try to influence or create specific place meanings.

[3 marks]

Question 1 continues on the next page

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Figure 1a is taken from 'The Pictorial Guides to the Lake District' by Alfred Wainwright. It is a hand-drawn sketch of the area north/ north-east of Skelwith Bridge.

Figure 1b is taken from the Ordnance Survey 1:50000 map of the same area.

Figure 1a

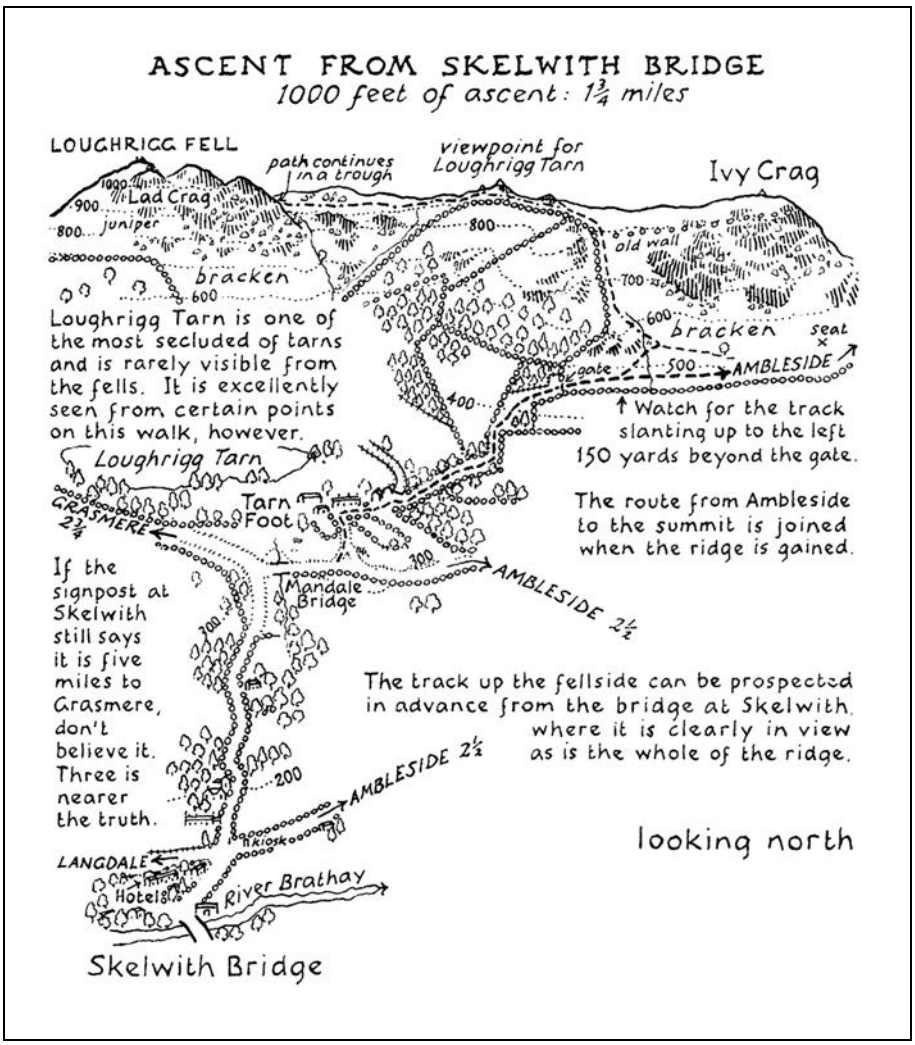

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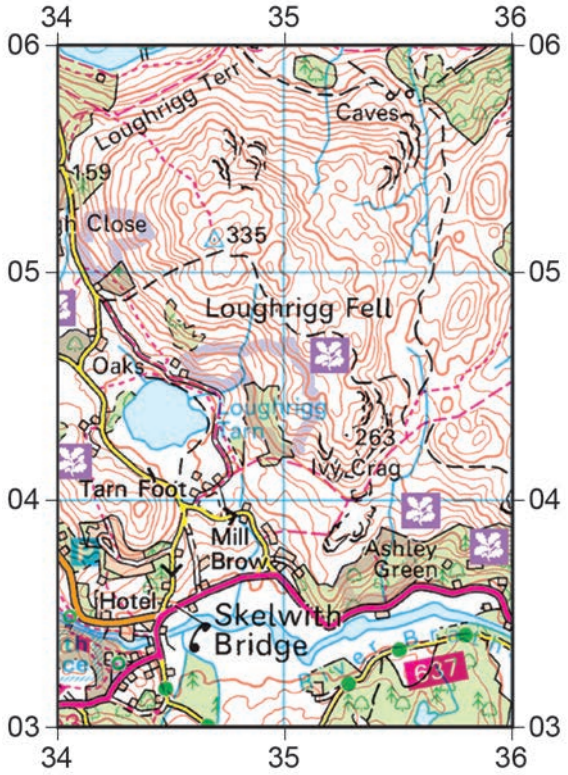
Figure 1b



0 1 . 4 Contrast the usefulness of **Figures 1a** and **1b** in representing the physical geography of the area north/north-east of Skelwith Bridge.

[6 marks]

Question 1 continues on the next page

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Figure 2 shows a regeneration scheme by the company Urban Splash at Park Hill Flats in Sheffield.

This information is taken from the Urban Splash website.

Figure 2

The upper floors at Park Hill have 263 new apartments. The development will also have a 'high street' of local services, e.g. butcher, newsagent, a doctor's surgery and a children's nursery. There are great bars, pubs and cafes to make the most of the great views over the city. There's also a village hall and a village green complete with oak tree, plus new workspace for businesses, artists or students. The scheme has been funded by several agencies including Sheffield City Council and English Heritage.

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0 1 . 5 With reference to **Figure 2**, assess the extent to which money and investment might change people's lived experience in this place.

[9 marks]

Question 1 continues on the next page

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0 1 . 6 You have studied a local and a distant place.

Assess the extent to which the demographic characteristics **or** patterns of social inequality are influenced by the built environment in both your local and your distant place.

[20 marks]

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40

End of Section A

Turn over for Section B

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Section B

Geography fieldwork investigation and geographical skills

Answer Question 2 **and either** Question 3 **or** Question 4.

Question 2

Study **Figure 3**, a photograph of a fieldwork location in the Peak District, England.

Figure 3

0 2 . 1 Annotate **Figure 3** to outline risks associated with undertaking fieldwork in this location.

[4 marks]

Do not write outside the box

0 2 . 2 Suggest how you could use a weather map to help minimise a likely risk in **Figure 3**.

[2 marks]

0 2 . 3 You have experienced geography fieldwork as part of your course. Use that experience to answer the following questions.

State the aim of your fieldwork investigation.

Explain how you used **one** method of primary data collection to achieve the aim of your fieldwork investigation.

[6 marks]

Question 2 continues on the next page

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0 2 . 4 Outline **one** data presentation technique used in your enquiry and assess its usefulness in helping you to interpret the data.

[9 marks]

0 2 . 5 Explain why statistical techniques are useful when students are analysing data for a geographical fieldwork investigation.

[2 marks]

23

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Question 3 **(If you answer this question do not answer Question 4)**

0 3

A group of students carried out an investigation into social inequality between two areas of their local town. They chose an inner-city area (X) and an outer suburb (Y). Their idea was that there would be a greater amount of social deprivation in the inner-city area than the outer suburb. They conducted both primary and secondary data collection methods. One measure they focused on was level of education. They tested the hypothesis:

'There will be a greater percentage of people educated to degree level in Area Y than in Area X.'

The students used the Office for National Statistics website to collect secondary data. They selected 10 Output Areas in both the inner city and the outer suburb. For each Output Area they recorded the number of residents with qualifications at degree level and converted this to a percentage of all residents.

The results are recorded in **Figure 4**.

Figure 4

% residents educated to degree level				
Inner city (Area X)			Outer suburb (Area Y)	
Output Area	%		Output Area	%
A	10.0		A	11.5
B	8.3		B	9.0
C	11.0		C	21.1
D	9.0		D	13.3
E	10.7		E	19.1
F	5.7		F	14.5
G	5.4		G	12.7
H	7.5		H	7.5
I	13.1		I	9.6
J	6.2		J	7.6

An Output Area is the smallest geographical area for which census data is provided. Output Areas are based on clusters of postcodes and have similar population sizes.

Question 3 continues on the next page

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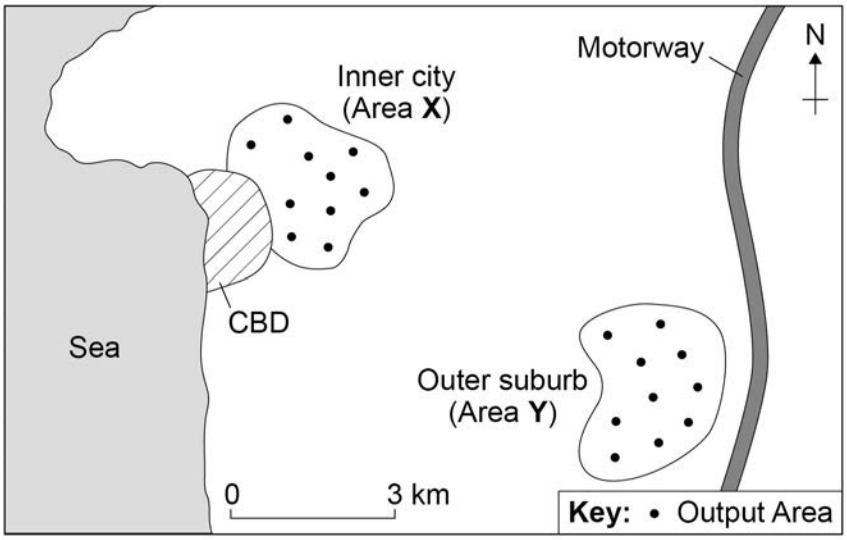
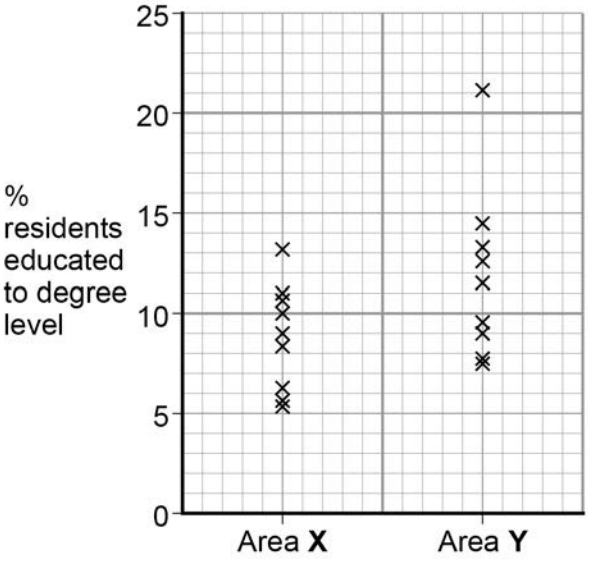
Figure 5 is a sketch map showing the locations of the Output Areas.

Figure 5



One of the students decided to present the data on a dispersion diagram to show the spread of data at each location. This is shown in **Figure 6**.

Figure 6



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0 3 . 1 Two values are missing from the dispersion diagram in **Figure 6**.

Plot the values from the table below on to **Figure 6**.

[2 marks]

	% residents educated to degree level
Area X	7.5
Area Y	19.1

Question 3 continues on the next page

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To analyse the data one student decided to calculate the mean values for Area X and Area Y. The student then decided to calculate the standard deviation for Area X. **Figure 7** shows how she set out the data and started her calculations.

Figure 7

% residents educated to degree level (x)	$x - \bar{x}$	$(x - \bar{x})^2$
10.0	1.31	1.72
8.3	–0.39	0.15
11.0	2.31	5.34
9.0	0.31	0.10
10.7	2.01	4.04
5.7		
5.4	–3.29	10.82
7.5	–1.19	1.42
13.1	4.41	19.45
6.2	–2.49	6.20
$\sum x = 86.9$		$\sum(x - \bar{x})^2 = 58.18$
$\bar{x} = 8.69$		

Key

x = Individual value

$\sum$ = Sum of

$\bar{x}$ = Mean

σ = Standard deviation

n = Number in the sample

Standard deviation formula $\sigma = \sqrt{\dfrac{\sum(x - \bar{x})^2}{n}}$

Show your working:

σ =

0 3 . 2 Complete **Figure 7** and calculate the standard deviation to **two** decimal places. Show your working in the space provided.

[4 marks]

The student then repeated the standard deviation calculation for the outer suburb (Area Y). The result is shown below.

Standard deviation for Area Y	4.39

Do not write outside the box

0 3 . 3 Use the standard deviation values to contrast the two data sets.

[2 marks]

0 3 . 4 Evaluate the usefulness of standard deviation and/or alternative techniques to analyse the data in **Figure 4**.

[9 marks]

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Question 4 **(If you answer this question do not answer Question 3)**

0 4

A group of students carried out an investigation into the direction of longshore drift on a shingle beach in South Devon. Their aim was to test the hypothesis that:

'Shingle size will be smaller at the eastern end of the beach than at the western end.'

Their theory was that the prevailing south-westerly winds would mean that the waves arrive at an angle, therefore transporting sediment along the beach. Shingle will get smaller due to the process of attrition (shingle crashing into each other, breaking off fragments) as it is moved along the beach.

The students collected one shingle sample from 10 different locations at each end of the beach and measured the long axis of the shingle using callipers.

Figure 8 shows the table of data that they produced.

Figure 8

Shingle size (mm) Western end	Shingle size (mm) Eastern end
23	3
56	4
21	34
18	14
3	17
17	11
12	21
22	16
21	25
32	8

Question 4 continues on the next page

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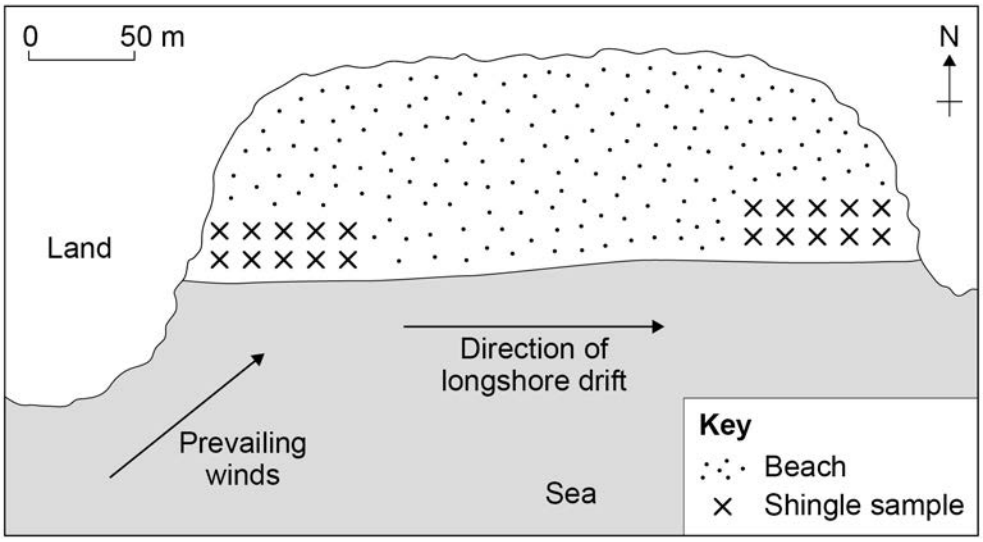
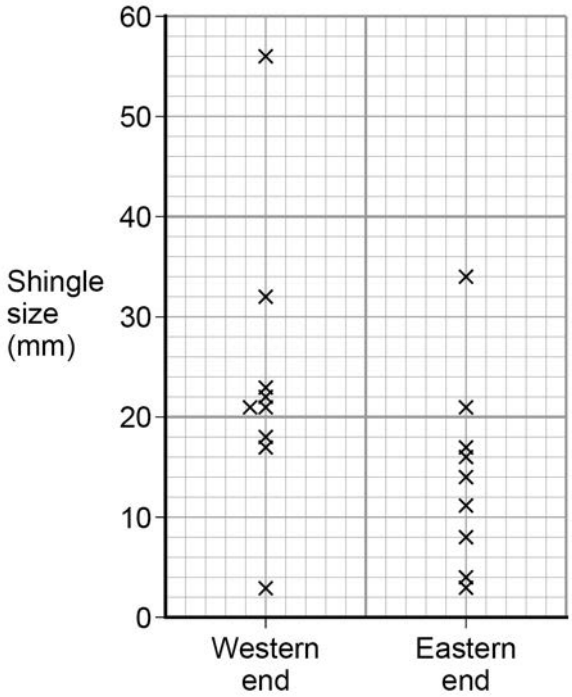
Figure 9 is a basic sketch map showing the locations of the shingle sample sites.

Figure 9



One of the students decided to present the data on a dispersion diagram to show the spread of shingle size at each location. This is shown in **Figure 10**.

Figure 10



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0 4 . 1 Two of the shingle sizes are missing from the dispersion diagram in **Figure 10**.

Plot the data from the table below on to **Figure 10**.

[2 marks]

	Shingle size (mm)
Western end	12
Eastern end	25

Question 4 continues on the next page

Do not write outside the box

To analyse the data one student decided to calculate the mean size for each end of the beach. The student then decided to calculate the standard deviation for the western end. **Figure 11** shows how he set out the data and started his calculations.

Figure 11

Shingle size in mm (x)	$x - \bar{x}$	$(x - \bar{x})^2$
23	0.50	0.25
56	33.50	1122.25
21	–1.50	2.25
18		
3	–19.50	380.25
17	–5.50	30.25
12	–10.50	110.25
22	–0.50	0.25
21	–1.50	2.25
32	9.50	90.25
$\sum x = 225$		$\sum(x - \bar{x})^2 = 1758.50$
$\bar{x} = 22.50$		

Key

x = Individual value

$\sum$ = Sum of

$\bar{x}$ = Mean

σ = Standard deviation

n = Number in the sample

Standard deviation formula $\sigma = \sqrt{\dfrac{\sum(x - \bar{x})^2}{n}}$

Show your working:

σ =

0 4 . 2 Complete **Figure 11** and calculate the standard deviation to **two** decimal places. Show your working in the space provided.

[4 marks]

The student then repeated the standard deviation calculation for the eastern end of beach. The result is shown below.

Standard deviation for the eastern end of the beach	9.12

Do not write outside the box

0 4 . 3 Use the standard deviation values to contrast the two data sets.

[2 marks]

0 4 . 4 Evaluate the usefulness of standard deviation and/or alternative techniques to analyse the data in **Figure 8**.

[9 marks]

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END OF QUESTIONS

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