

Surname	Centre Number	Candidate Number
Other Names		2



**GCE AS**

B110U20-1



**TUESDAY, 21 MAY 2019 – MORNING**

**GEOGRAPHY – AS component 2  
CHANGING PLACES**

1 hour 15 minutes

**ADDITIONAL MATERIALS**

- a Resource Folder for use with question 3
- a calculator.

**INSTRUCTIONS TO CANDIDATES**

Answer **all** questions.

Use black ink or black ball-point pen.

Write your name, centre number and candidate number in the spaces at the top of this page.

Write your answers in the spaces provided in this booklet.

If further space is required you should use the continuation pages at the end of this booklet. The question number(s) should be clearly shown.

**INFORMATION FOR CANDIDATES**

The number of marks is given in brackets [ ] at the end of each question or part-question; you are advised to divide your time accordingly.

**This paper requires that you make as full use as possible of appropriate examples and reference to data to support your answers. Sketch maps and diagrams should be included where relevant.**

A plain page is available at the end of each section for you to add any relevant sketch maps and diagrams you may wish to include. The question number(s) should be clearly shown.

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	20	
2.	20	
3.	20	
4.	10	
5.	10	
<b>Total</b>	<b>80</b>	

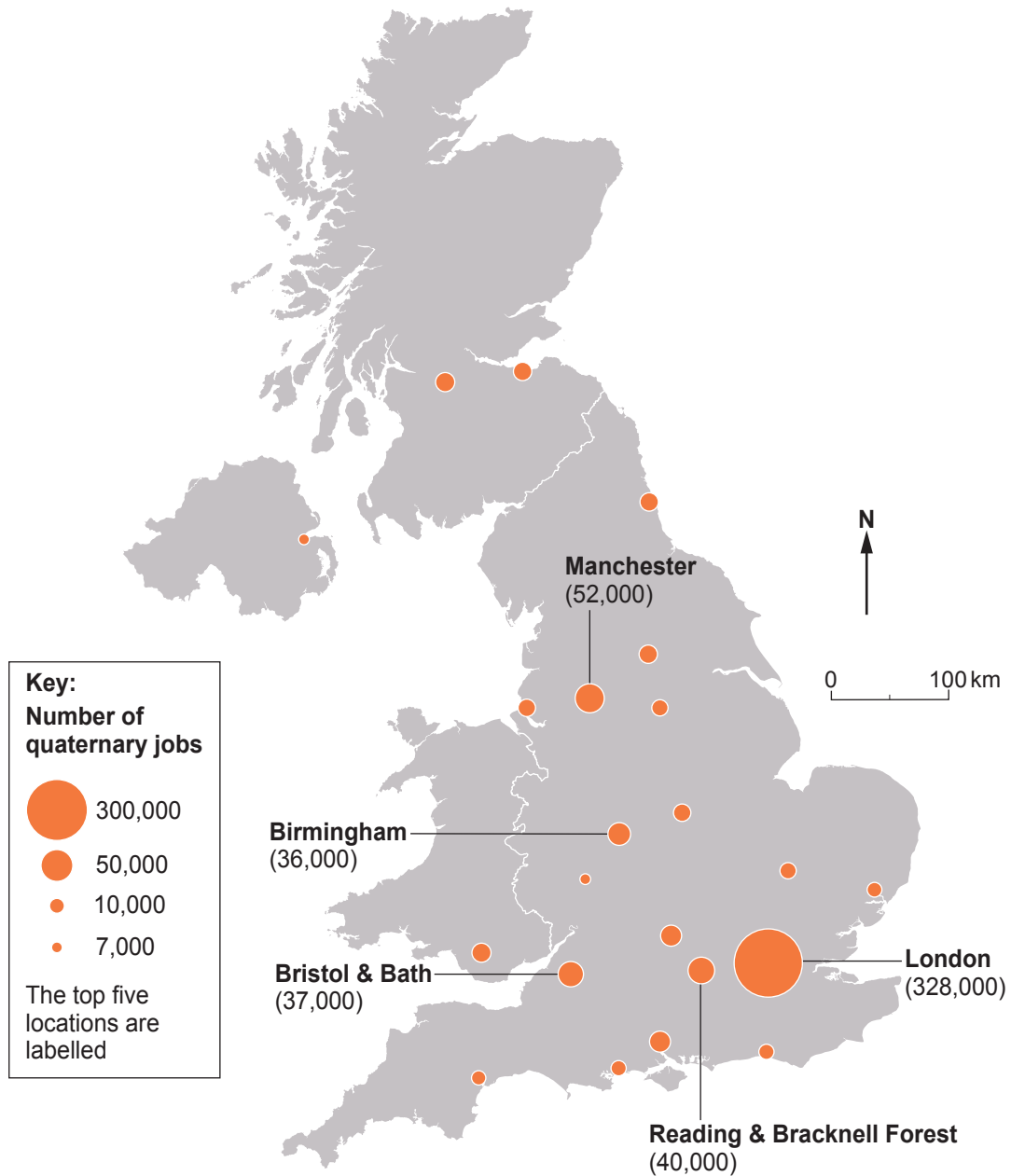
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### Section A – Changing Places

Answer all questions.

Make the fullest possible use of examples and data to support your answers.

**Figure 1: Locations in the UK with at least 7,000 quaternary jobs, 2016**



Source: <http://www.bbc.co.uk>

1. (a) (i) Justify the choice of the cartographic technique shown in **Figure 1** for displaying these data. [3]

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(ii) Explain why government support is an important influence on the distribution of quaternary jobs shown in **Figure 1**. [4]

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(b) Outline **one** social change experienced in central urban places undergoing re-urbanisation. [3]

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**Figure 2: Average journey to work travel times in selected rural districts in the UK, 2016**

Rural district	Average journey to work travel time (minutes)
Copeland	22
Cotswold	27
Denbighshire	22
Forest Heath	15
High Peak	28
Monmouthshire	19
Moray	17
North Norfolk	26
Orkney Islands	10
Oswestry	22
South Oxfordshire	32
Suffolk Coast	24
Wear Valley	31
West Dorset	21
West Somerset	25

Source: <https://www.ons.gov.uk>

2. (a) (i) Using the data in **Figure 2**, calculate the range of journey to work travel times in rural districts. Show your working. [2]

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- (ii) Suggest **one** reason why the range is a useful measure to analyse the data shown in **Figure 2**. [1]

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(iii) Describe how you would calculate the interquartile range for the data shown in **Figure 2**. [4]

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(b) Examine the consequences of the loss of traditional industries in urban areas. [13]

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Additional space for question **2(b)**: .....

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**Section B – Fieldwork Investigation in Physical and Human Geography**

*Answer all questions.*

*In your answers to Section B you should include evidence from **your** fieldwork investigations in **physical geography and human geography**.*

3. A group of A level Geography students visited Cambridge to investigate the impacts of quaternary industry clusters on people and places.

- (a) (i) Using **Figure 3** in the **Resource Folder**, state the distance from the centre of Cambridge Science Park (marked by centre of **X** at 464617) to Cambridge North Station (475606) giving your answer in km to 1 decimal place. [1]

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- (ii) Calculate the area occupied by Cambridge Science Park giving your answer in km<sup>2</sup> to 2 decimal places. Show your workings. [3]

During the visit, the students investigated the geographical question:

**What is the impact of Cambridge Science Park on local people in Milton (4762)?**

- (b) Outline the sources of secondary data and information that could be used to support the investigation of this hypothesis. [5]

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The students carried out a bipolar survey asking 20 Milton residents to rate their opinions of factors affecting their daily lives. The results are recorded below:

**Figure 4: Results from bipolar survey**

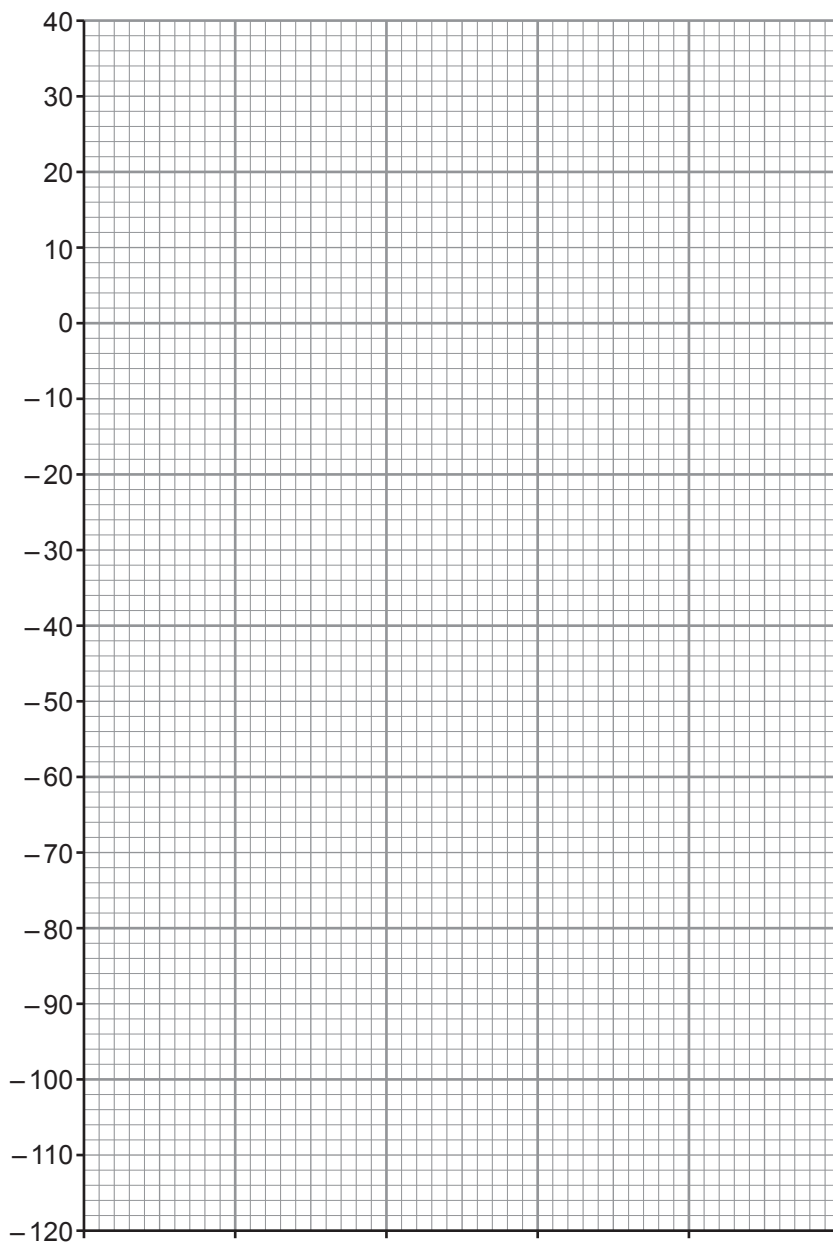
	-2	-1	0	+1	+2	
Heavy traffic	✓✓✓✓✓ ✓✓✓✓✓	✓✓✓✓✓ ✓✓		✓✓	✓	No awareness of passing traffic
High level of pollution from vehicles	✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓	✓✓✓✓	✓	✓✓		Low level of pollution from vehicles
Journey to work travel times over 30 minutes	✓✓✓✓✓ ✓✓✓✓✓ ✓✓		✓✓	✓✓✓✓	✓✓	Journey to work travel times less than 10 minutes
House prices rising beyond incomes	✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓✓ ✓	✓✓✓✓				House prices stable
Long wait for GP appointment	✓✓✓✓✓	✓✓	✓✓✓✓✓		✓✓✓✓✓ ✓✓✓	Short wait for GP appointment
Totals	-112	-17	0	8		

(c) (i) Calculate the total score for column '+2'. Insert the total in **Figure 4**.

[1]

- (ii) Using an appropriate graphical technique, draw a graph in the box below to present the data in **Figure 4**. [3]

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(iii) Outline **one** strength and **one** weakness of the graphical technique you chose in (c)(ii). [4]

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The same 20 residents were also asked 'how many of your neighbours do you know?' The results are shown in **Figure 5**.

**Figure 5: Answers to the question 'how many of your neighbours do you know?'**

Respondent	Number of neighbours known
1	3
2	15
3	4
4	4
5	2
6	1
7	6
8	0
9	0
10	0
11	8
12	4
13	2
14	11
15	0
16	2
17	3
18	7
19	5
20	0

(d) The students were told to use **one** measure of central tendency (mean, median, mode) in analysing the data in **Figure 5**. Justify which of these measures would be most appropriate. [3]

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5. With reference to your initial aim, evaluate the success of your fieldwork investigation in **human geography**. [10]

*You should state clearly the title of your **human** geography investigation.*

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Additional space for question 5: .....

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**END OF PAPER**





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