Surname	Centre Number	Candidate Number
First name(s)		2

GCE AS

B110U20-1

S23-B110U20-1

WEDNESDAY, 24 MAY 2023 – MORNING

GEOGRAPHY – AS component 2
CHANGING PLACES

1 hour 15 minutes

For Examiner's use only		
Question	**Maximum Mark**	**Mark Awarded**
1.	**22**	
2.	**18**	
3.	**20**	
4.	**10**	
5.	**10**	
Total	**80**	

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ADDITIONAL MATERIALS

A calculator.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

You may use a pencil for graphs and diagrams only.

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

Answer **all** questions.

Write your answers in the spaces provided in this booklet. If you run out of space, use the additional page(s) at the back of the booklet, taking care to number the question(s) correctly.

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.

JUN23B110U20101

Section A: Changing Places

Answer **all** questions.

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

Figure 1: Impact of gentrification on number of coffee shops in 12 London boroughs

Data were collected from 12 London boroughs to investigate if there is a relationship between extent of gentrification ('most gentrified' is ranked as 1) and the number of coffee shops per 10 000 people. The data were used to complete a Spearman Rank test shown in the partially completed table below.

Hypothesis: There is a relationship between the number of coffee shops and the extent of gentrification.

London borough (most gentrified to least gentrified)	Rank (x)	Number of coffee shops (per 10 000 people)	Rank (y)	d = x-y	d^2
Kensington and Chelsea	1	17.3	1	0	0
Richmond upon Thames	2	13.6	3.5	–1.5	C
Kingston upon Thames	3	13.6	3.5	–0.5	0.25
Westminster	4	13.2	5	B	1
Hammersmith and Fulham	5	16.9	2	3	9
Merton	6	6.0	11	–5	25
Hackney	7	10.8	A	1	1
Wandsworth	8	10.3	7.5	0.5	0.25
Bromley	9	7.6	10	–1	1
Newham	10	8.5	9	1	1
Tower Hamlets	11	10.3	7.5	3.5	12.25
Waltham Forest	12	4.9	12	0	0
					$\sum d^2 = 53.00$

Source: https://londonist.com/london/news/these-are-london-s-most-gentrified-boroughs-but-are-they-really

1. (a) (i) Calculate the values of the highlighted cells, A, B and C in **Figure 1**. Write the values for A, B and C in the box below. Give your answer correct to 2 decimal places. [3]

A =

B =

C =

Figure 2: Calculated r_s value and critical values for Spearman Rank Correlation Coefficient

Calculated r_s value = 0.815

Number of pairs (n)	**Significance (confidence level)**	
	95% (0.05)	99% (0.01)
11	0.527	0.700
12	0.504	0.671

(ii) Use **Figure 2** to interpret the result of the Spearman Rank calculation. [3]

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(b) Outline how heritage and event management help to diversify rural areas. [5]

(c) Examine how changing technology and government strategies influence the economic characteristics of places over time. [11]

Examiner only

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Additional space for Question **1**(c):

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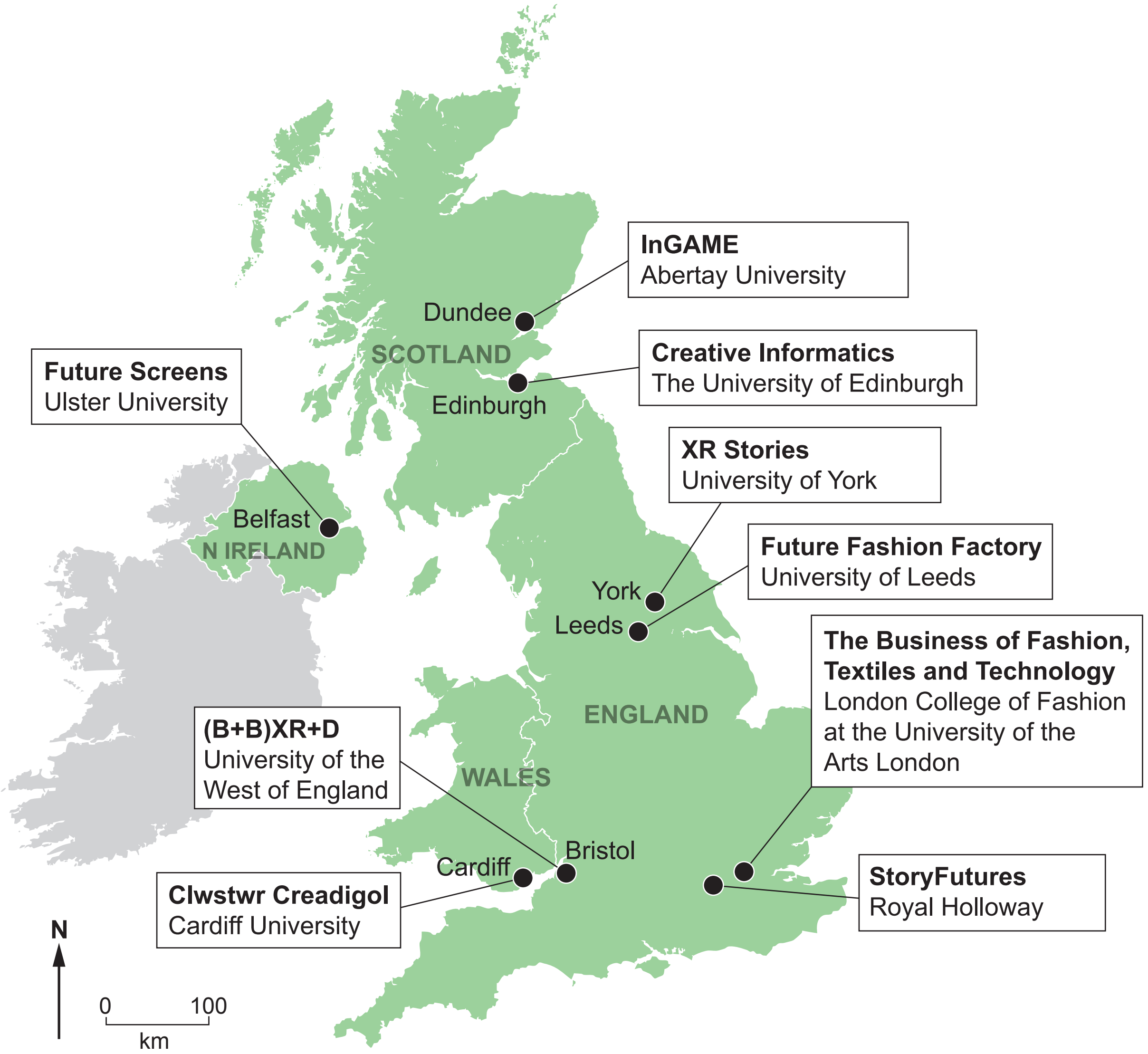
Figure 3: Location of 9 UK government-sponsored creative industry clusters



Source: https://ahrc.ukri.org/innovation/creative-economy-research/the-creative-industries-clusters-programme/

Examiner only

2. (a) (i) Use **Figure 3** to describe the distribution of creative industry clusters. [4]

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(ii) Suggest why proximity to universities is an important factor for encouraging creative industry growth. [3]

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(b) Examine the contrasting images of places portrayed by formal statistical and informal media. [11]

Additional space for Question **2**(b):

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Section B: Fieldwork 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) An AS Geography class planned to undertake a fieldwork investigation into differences in environmental quality between areas within the New Forest National Park boundary and areas outside of the New Forest National Park.

(i) Suggest a suitable research question for this investigation. [1]

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(ii) Describe the ethical considerations that the students needed to be aware of in planning their investigation. [3]

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(iii) Identify **two** potential risks associated with undertaking fieldwork in this rural area. [2]

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(b) To help plan their investigation, students researched secondary data relating to differences between amounts of National Park land in the 9 English regions.

Figure 4: Area of National Park land within the English regions.

Region	**Area (km^2)**	**National Park land (km^2)**
South East	19 095	1 941
London	1 572	0
North West	14 165	2 378
East of England	19 192	303
West Midlands	13 000	172
South West	23 829	1 729
Yorkshire and the Humber	15 420	3 903
East Midlands	15 627	862
North East	8 592	1 049
Total	**130 492**	

(i) Calculate the proportion of land in England that is designated as National Park land. Show your working. [2]

(ii) Suggest **two** cartographic (mapping) techniques appropriate for presenting the area designated as National Park land in each region. [2]

Suggestion 1: ....

Suggestion 2: ....

(iii) Justify the suggestions made in (b)(ii). [3]

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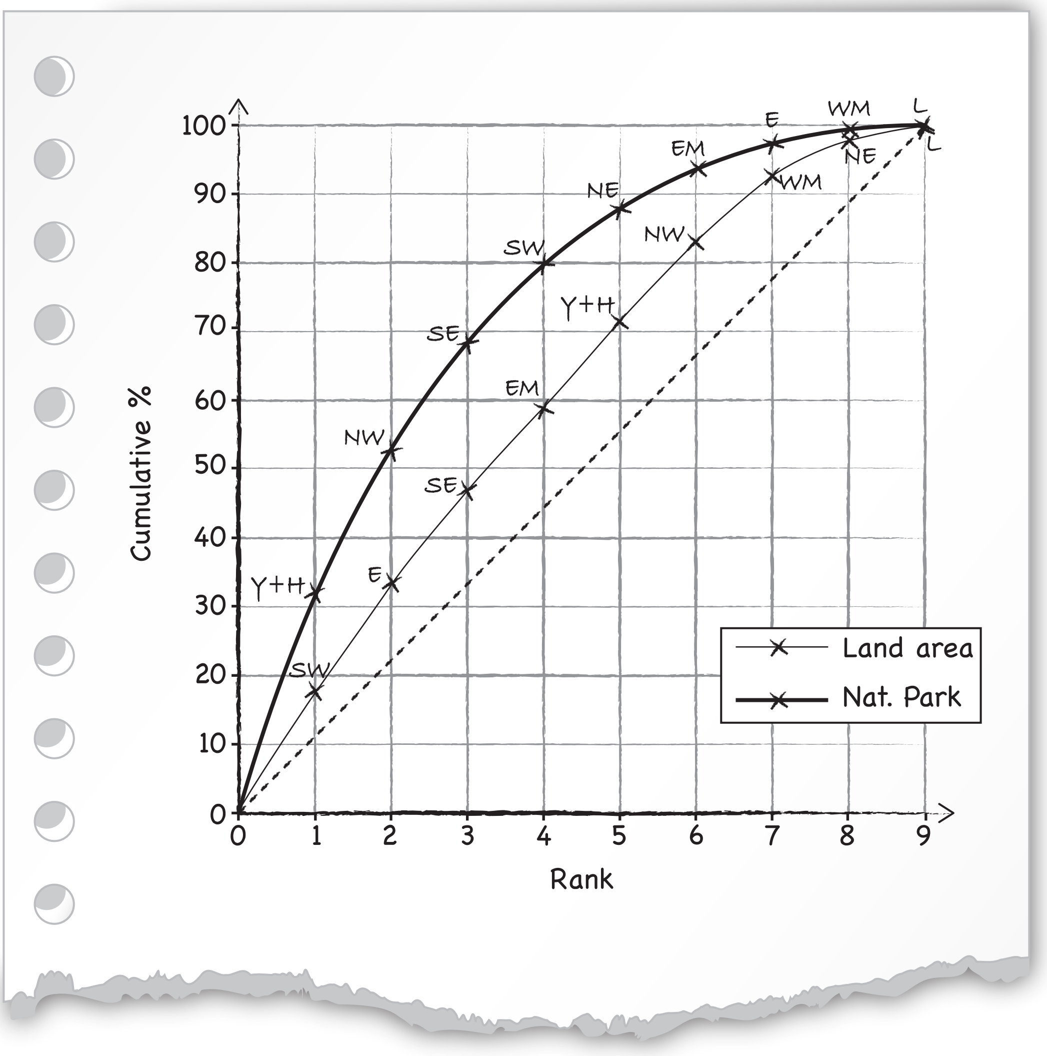
Figure 5: Lorenz curve drawn by a student to show the distribution of regional and National Park land in England



(iv) Suggest an interpretation of this Lorenz curve graph. [2]

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The students wanted to investigate why their local National Park was so popular with visitors aged 65+.

(c) Evaluate the suitability of interviewing for the collection of reliable data. [5]

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4. Justify the choice of location(s) for your **physical** geography fieldwork. [10]

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

Title:

Examiner only

Additional space for Question **4**:

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Examiner only

5. To what extent did your data collection methods ensure the reliability of your data in your **human** geography fieldwork? [10]

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

Title: ....

Additional space for Question **5**:

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END OF PAPER

Examiner only

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