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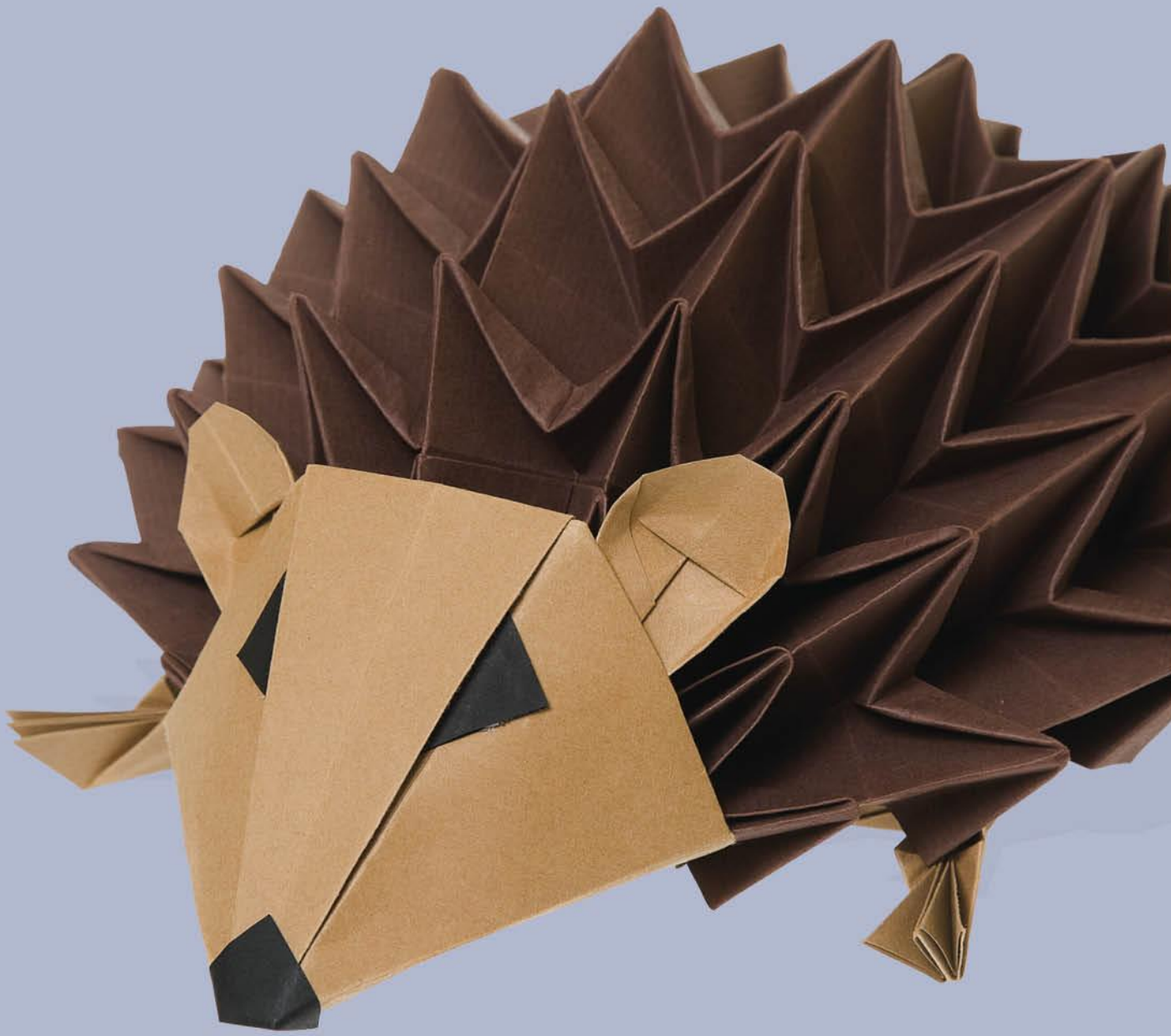
Paper 3 Examiner Marked Student Responses



GCSE (9-1) Geography A

Pearson Edexcel Level 1/Level 2 GCSE (9-1) in Geography A (1GA0)

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Contents

Introduction

This guide has been put together to help you understand the requirements of the UK Challenges question in Paper 3: Geographical Investigations and it includes examiner marked student responses to the sample assessment materials (SAMs).

Question 5 UK Challenges (Paper 3, Section C) will always draw from one or more of the four themes in Topic 8 UK Challenges:

- 8.1 The UK's resource consumption and environmental sustainability challenge.
- 8.2 The UK settlement, population and economic challenges.
- 8.3 The UK's landscape challenges.
- 8.4 The UK's climate change challenges.

Please see our Getting Started Guide for advice on the topics that these themes relate to. In Topic 8 students are required to draw on their knowledge and understanding of the physical and human characteristics of the UK from Components 1 and 2, and use their geographical skills to investigate a contemporary challenge for the UK. It is within this topic that students can really apply their geographical knowledge and understanding from across the specification and to 'think like a geographer'.

The resources for Question 5 will include geographical information about a UK challenge. Question 5 will be a structured question that ramps in demand, starting with low tariff questions that require students to use the resources and show knowledge and understanding of the related specification content, culminating in a 12 mark extended response question that uses the command word 'Discuss'.

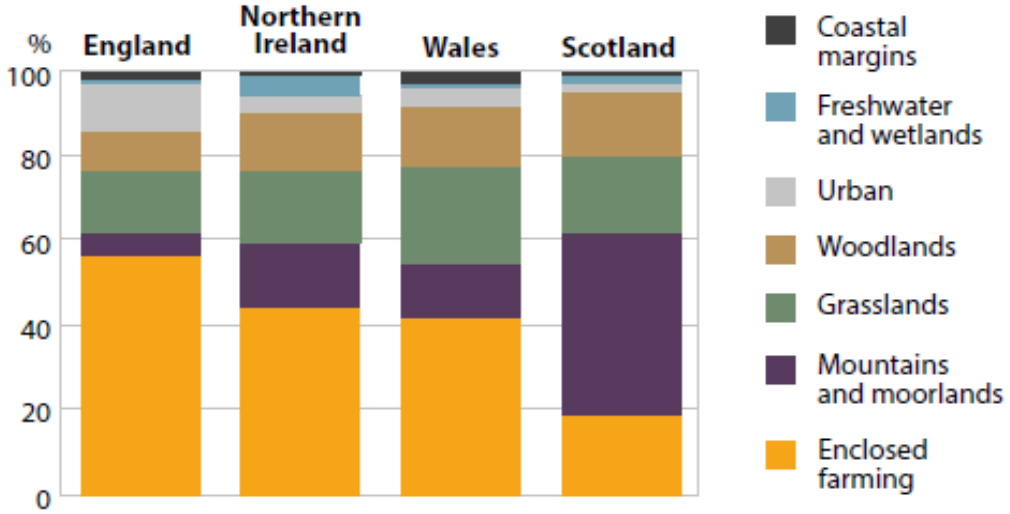
The final 12-mark extended response question will assess students' ability to investigate the different sides of an issue affecting the UK. Students will be required to use information from the resources and knowledge and understanding from the rest of their geography course of study to support their answer. There is an equal emphasis on AO2, AO3 and AO4 in this question. Students are assessed on their ability to demonstrate understanding of the issue (AO2), application of understanding to provide a balanced, well-developed argument leading to supported judgements (AO3) and using geographical skills to obtain accurate information that supports their argument (AO4). 4 marks will also be available for spelling, punctuation, grammar and use of specialist terminology.

Paper 3: Section C - UK Challenges

Question 5d

The UK faces social and political challenges from its increasing population growth. This growth, including that from migration, will lead to an increased demand for housing and competition for land resources and space. This may have a negative impact on UK habitats and ecosystems

Ecosystems across the UK
Land in each nation broken down by ecosystem



(Source: UK National Ecosystem Assessment)

Figure 5a

Proportions of different ecosystems within the UK.

(d) Use information from the Resource Booklet and knowledge and understanding from the rest of your geography course of study to support your answer.

Discuss the view that UK population growth and net migration will create pressures on the UK's ecosystems.

(16)

Mark scheme

Question number	Indicative content
5(d)	**AO2** • The UK's population has been increasing over the past 50 years and particularly in the last 15 years. • One of the main causes of the UK's population growth has been the large net migration (more people moving to the UK to live compared with the number of those leaving to live in a different country). • Population growth will lead to social, political, economic and environmental challenges. • The term 'environmental' can be defined to include aspects of both natural and man-made features. • The demand for resources, in particular land to build homes, of a growing population which exerts ever-increasing pressure on the ecosystems and their goods and services. • Development can threaten ecosystems by disrupting the cycling of nutrient and interdependence of biotic and abiotic conditions they need to function. • Other factors, such as climate change, can also contribute to the increased pressure on the UK's ecosystems. • Distribution and characteristics of the UK's main terrestrial ecosystems means that they are not all in suitable locations/land for development. **AO3** • Many of the UK's most valuable ecosystems are already heavily protected from development and new housing, so the impact of population growth will vary across the UK. • Many of the migrants to the UK are economic migrants and will therefore only be attracted to certain parts of the country where employment opportunities exist. This means that the demand for resources and the resultant pressure on UK ecosystems will be unevenly distributed. For example, more economic migrants will be attracted to London and the surrounding area compared to northern Scotland. • Population growth may have indirect impacts on UK ecosystems. For example, a rise in the population in one area may increase levels of noise and air pollution and exasperate waste disposal challenges – which can have a knock-on effect on local ecosystems. • The UK's ecosystems are not wholly natural: they are part of a managed landscape; it is possible to adapt approaches to managing ecosystems in response to our growing population and the associated pressures and challenges that this brings. However, the capacity to manage an ecosystem to completely mitigate the threats posed by population growth vary across the UK and are often dependent on funding available from local councils,

Question number	Indicative content
	the presence of conservation groups and discussions linked to cost-benefit analysis. • The future trends of population growth and net migration are unknown, as are trends of natural increase. This may lead to different scenarios in terms of how much land is required for new housing. Also, figures for inbound and outbound migration are very unreliable so more secure data on this issue is required for the modelling and planning for different scenarios to be accurate. **AO4** • Figure 5a shows that England has the largest percentage of people living in urban areas already; England also has the smallest percentage of woodland (only about 10%). • Figure 5b shows that population growth is uneven: the largest population increases are in London (13.8%), SE England (8-9%), SW England (7.4%) and Northern Ireland (7.3%), whereas Wales (4.9%), Scotland (5.1%), NW England (4.2%) and NE England (2.8%) experience a smaller increase. • Figures 5a and 5b together indicate that highest levels of population growth are in England and Northern Ireland where farming is the largest ecosystem. Also, Figure 5e indicates that a large proportion of these farming areas are unproductive, e.g. 8.5% of farmland in SE England unproductive. • Figure 5c shows that the areas of high population growth (5b) are also areas with highest levels of greenbelt. For example, SE England has 2 520 ha and the SW has 2 780 ha. • Figure 5d does not provide evidence that net migration will continue to increase in the future.

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–4	• Demonstrates isolated elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (A04)

Level 2	5–8	• Demonstrates elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	9–12	• Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Marks for SPGST		
Performance	**Marks**	**Descriptor**
SPaG 0	0	*No marks awarded:* • Learners write nothing. • Learner's response does not relate to the question. • Learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.
SPaG 1	1	*Threshold performance:* • Learners spell and punctuate with reasonable accuracy. • Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall. • Learners use a limited range of specialist terms as appropriate.
SPaG 2	2–3	*Intermediate performance:* • Learners spell and punctuate with considerable accuracy. • Learners use rules of grammar with general control of meaning overall. • Learners use a good range of specialist terms as appropriate.
SPaG 3	4	*High performance:* • Learners spell and punctuate with consistent accuracy. • Learners use rules of grammar with effective control of meaning overall. • Learners use a wide range of specialist terms as appropriate.

Student answers to 5d

Over the last 50 years the UK population has increased due to a combination of natural increase and migration to give a population of over 64 million in 2015. If the population continues to rise at the same rate, by 2050 it is estimated the population will be approximately 77 million. This projected trend will inevitably put increasing pressure on the UK's ecosystems. This is supported by Figures 5a and 5b showing that where farming is the largest ecosystem, population growth is at its highest. For example, in England farming accounts for 58% and population increase is at 7% and above. This will put pressure on the ability for these farms to provide the required increase in food production. Also, it may lead to an increase in a need for more farms which could lead to the reduction in natural habitats. Furthermore, the population increase across all of the UK along with migration will inevitably mean there will be a need for more housing. This potential impact

is supported by Figure 5e identifying that the UK has a projected shortfall of 3 million homes. This will have a negative impact on the UK's ecosystems because there will be more pressure to build on greenfield sites. This will have an impact on wildlife habitats and will also increase air and noise pollution. If more houses were built this will potentially increase the likelihood of flooding, put pressure on local water systems and increase the use of fossil fuels, which will put further pressure on UK ecosystems. In conclusion, the estimated population growth will have an impact on UK ecosystems but the extent is unknown.

Examiner´s comments
This response is awarded 8 marks.

In order to fully discuss the view, students must consider the different impacts that population growth and immigration might have on UK ecosystems and establish a clear argument about whether the long-term impact will be good or bad.

Students are assessed on their ability to demonstrate understanding of the pressures of population growth on the UK's ecosystems (AO2), application of understanding to provide a balanced, well-developed argument leading to supported judgements about the view that UK population growth and net migration will create pressures on the UK's ecosystems (AO3) and using geographical skills to obtain accurate information from the resources to support their argument (AO4).

There is no preferred view – credit is awarded for the depth, breadth and balance of the discussion.

In this response, the candidate has provided an imbalanced argument about the impacts of population growth and net migration on UK ecosystems. The focus of the answer is mainly on the view that pressures will be placed upon UK systems, with little consideration about the other side to this argument.

Despite the response being somewhat imbalanced in terms of the argument about the impacts of population growth and net migration, the candidate has developed their ideas and used the resources effectively to support the points they have made – this has successfully lifted the answer to the top of Level 2. However, to move this answer into Level 3, a greater understanding of the interrelationships of places, environments and processes is needed, which would provide a more balanced answer; for example, a consideration about how ecosystems can be managed in a sustainable way to withstand the pressures and negative impacts of population growth and net migration.

The population of the UK has increased dramatically in the last 20-30 years and is expected to reach 77 million by 2050. This will have a significant impact socially, economically and environmentally. For example there will be a need for more housing which may have to be built on greenfield sites leading to impacts on natural habitats. The extent of this impact will vary across the UK because as shown by Figure 5b the rate of population increase varies with increases as high as 13.8% in England compared to 5.1% in Scotland. This supports the view that whilst population growth may have an impact the degree of this will be experienced differently along the UK's ecosystems. Alongside this the contribution of international migration may not be a serious contributor in the long term because Figure 5d indicates that the rate of net migration is levelling out at a rate of between 200-300 thousand per year. Also the areas of the UK where farmland is least productive is where population

growth is expected to be the highest. This means that the use of this greenfield land may only have a limited impact on the ecosystems because the land is already unproductive. Also, most migrants are attracted to areas of the UK where employment opportunities exist. Therefore the demand for resources will vary and the subsequent impact on UK ecosystems will occur at an uneven rate. To conclude, whilst UK population growth and net migration will lead to pressures on the ecosystems of the UK the evidence I've presented from the resources and my own knowledge suggest that these pressures will vary.

Examiner´s comments
This response is awarded 12 marks.

Crucially for Level 3, the candidate has provided a well-written response that contains a balanced and well-developed argument that discusses both sides, demonstrating accurate understanding of the concepts and processes related to the question.
The candidate has developed their points in depth with a counter argument that is accurately supported through the use of the resources. The conclusion summarises the candidate's thoughts towards the view set in the question and the answer is well structured with the use of paragraphs and geographical terminology.
A common Level 2 answer will often focus on the negative impacts on UK ecosystems that will arrive as a result of population growth and net migration; this is quite a one-sided approach, and it is encouraging to see this candidate consider the counter-argument (even though they reach the conclusion that pressures will increase in the final sentence). This approach has lifted the answer into Level 3, and the use of geographical skills to obtain accurate information from the various resources to support the argument has moved the answer to the top of band.