

Teacher Resource Bank

GCE Geography

Additional Sample Questions: GEOG2



Introduction

The Skills Checklist on Page 16 of the GCE Geography Specification is the basis for the skills examination in Unit 2. The theme for the paper, through which these skills are examined, is either the Core Physical Section found on page 7 of the specification or the Core Human Section on page 8. The second part of the examination is based upon investigative skills gained through experience of fieldwork.

Core Physical Section

Rivers, floods and management

Sample Questions

1. A group of AS Level students collected primary data in a local river survey, investigating the changing characteristics of the channel. They gathered data on the velocity of the river at 12 sites along the river's course and also recorded the distance from the source at each site. The null hypothesis states the following: -

There is no relationship between distance from source and velocity of the river.

- (a) Using the table below, complete the calculation of the Spearman's Rank Correlation (r_s) co-efficient.

(6 marks)

Distance from source	Distance	Velocity (metres per second)	Velocity	Difference between ranks (d)	d ²
500m	12	0.28	7	5	25
800m	11	0.31	6	5	25
1.4km	10	0.68	2	8	64
1.6km	9	1.12	1	8	64
1.9km	8	0.34	3.5	4.5	20.25
2.5km	7	0.34	3.5	3.5	12.25
3.1km	6	0.25	8	-2	4
3.6km	5	0.24	9		
3.7km	4	0.12	12		
4.2km	3	0.33	5		
5.1km	2	0.20	10		
6.8km	1	0.18	11		

$\Sigma d^2 =$ _____

Now substitute in the formula to complete the Spearman Rank Correlation

$$r_s = 1 - \left[\frac{6 \Sigma d^2}{n^2 - n} \right]$$

$$r_s = 1 - \left[\underline{\hspace{2cm}} \right]$$

$$= 1 - \left[\hspace{2cm} \right]$$

- (b) Referring to the result in part (a), describe the relationship between distance from source and river velocity found in this river study.

(4 marks)

Core Human Section

Population Change

Sample Questions

2.

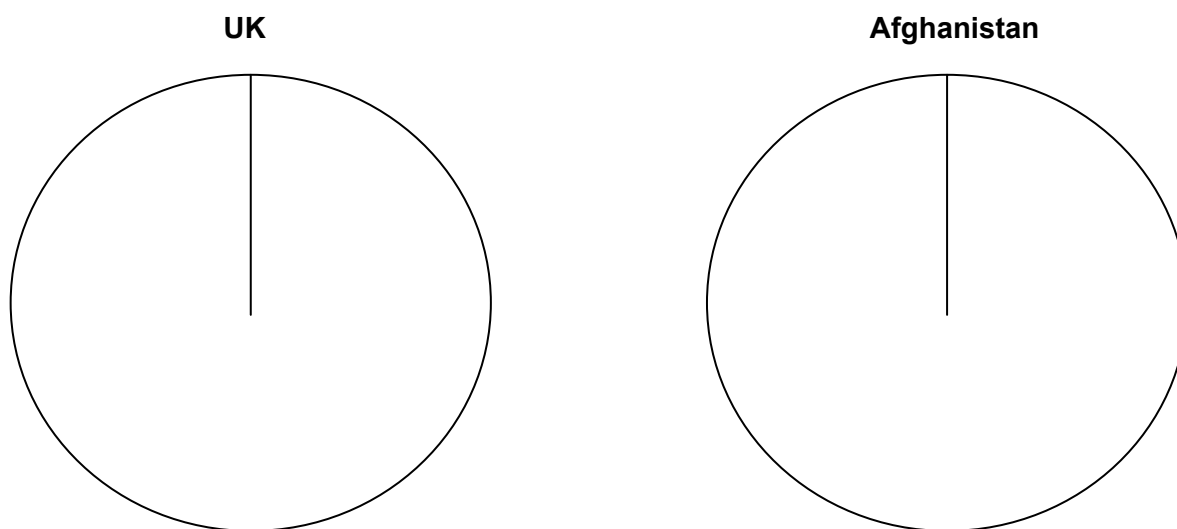
- (a) Study **Figure 1** which shows the contrasting age structures of the UK and Afghanistan populations in 2007.

Figure 1

	0-14 years	15-64 years	65 years and over
UK	17.2%	67%	15.8%
Afghanistan	44.6%	53%	2.4%

Complete **Figure 2**, the pie charts for the UK and Afghanistan, using the information in **Figure 1**.

Figure 2



(4 marks)

- (b) Describe and suggest reasons for the differences between the two population structures.

(6 marks)

Fieldwork Questions

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

3. Outline the aim/s of your enquiry and state **one** hypothesis, research question, issue or problem you investigated. *(4 marks)*

4. Describe one method used for presenting data collected in question 3. *(5 marks)*

5. Summarise the findings of your enquiry. *(5 marks)*

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General Certificate of Education

Geography 2030

GEOG2 Geographical Skills

Specimen Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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As required by QCA, the marking scheme for this unit includes an overall assessment of quality of written communication. There are no discrete marks for the assessment of written communications but where questions are "Levels" marked, written communication will be assessed as one of the criteria within each level.

Level 1: Language is basic, descriptions and explanations are over simplified and lack clarity.

Level 2: Generally accurate use of language; descriptions and explanations can be easily followed, but are not clearly expressed throughout.

Level 3: Accurate and appropriate use of language; descriptions and explanations are expressed with clarity throughout.

Marking – the philosophy

Marking should be positive rather than negative.

Mark schemes – layout and style

The mark scheme for each question will have the following format:

- a) Notes for answers (nfa) – exemplars of the material that might be offered by candidates
- b) Mark scheme containing advice on the awarding of credit and levels indicators.

Point marking and Levels marking

- a) Questions with a mark range of 1-4 marks will be point marked.
- b) Levels will be used for all questions with a tariff of 5 marks and over.
- c) Two levels only for questions with a tariff of 5 to 8 marks.
- d) Three levels to be used for questions of 9 to 15 marks.

Levels Marking – General Criteria

Everyone involved in the levels marking process (examiners, teachers, students) should understand the criteria for moving from one level to the next – the “triggers”. The following general criteria are designed to assist all involved in determining into which band the quality of response should be placed. It is anticipated that candidates’ performances under the various elements will be broadly inter-related. Further development of these principles will be discussed during Standardisation meetings. In broad terms the levels will operate as follows:

Level 1: attempts the question to some extent (basic)

An answer at this level is likely to:

- display a basic understanding of the topic
- make one or two points without support of appropriate exemplification or application of principle
- demonstrate a simplistic style of writing perhaps lacking close relation to the terms of the question and unlikely to communicate complexity of subject matter
- lack organisation, relevance and specialist vocabulary
- demonstrate deficiencies in legibility, spelling, grammar and punctuation which detract from the clarity of meaning.

Level 2: answers the question (well/clearly)

An answer at this level is likely to:

- display a clear understanding of the topic
- make one or two points with support of appropriate exemplification and/or application of principle
- give a number of characteristics, reasons, attitudes (“more than one”) where the question requires it

- provide detailed use of case studies
- give responses to more than one command e.g. “describe and explain..”
- demonstrate a style of writing which matches the requirements of the question and acknowledges the potential complexity of the subject matter
- demonstrate relevance and coherence with appropriate use of specialist vocabulary
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which do not detract from the clarity of meaning.

Level 3: answers the question very well (detailed)

An answer at this level is likely to:

- display a detailed understanding of the topic
- make several points with support of appropriate exemplification and/or application of principle
- give a wide range of characteristics, reasons, attitudes, etc.
- provide highly detailed accounts of a range of case studies
- respond well to more than one command
- demonstrate evaluation, assessment and synthesis throughout
- demonstrate a sophisticated style of writing incorporating measured and qualified explanation and comment as required by the question and reflecting awareness of the complexity of subject matter and incompleteness/ tentativeness of explanation
- demonstrate a clear sense of purpose so that the responses are seen to closely relate to the requirements of the question with confident use of specialist vocabulary
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which contribute to complete clarity of meaning.

Question 1 – River, Floods and Management

<p>1(a)</p>	<p>For the completion of the table:</p> <p>1 mark for the correct differences (d) column: -4 -8 -2 -8 -10</p> <p>1 mark for the completion of d^2 16 64 4 64 100</p> <p>1 mark for the correct $\sum d^2$ 462.5</p> <p>Note: Even if $\sum d^2$ is incorrect, provided the data is substituted correctly into the formula, 3 marks can still be scored in this part of the calculation:</p> <p>$6\sum d^2 = 2775$ (1 mark)</p> $r_s = 1 - \frac{2775}{1716}$ (1 mark for $n^3 - n$ calculation) <p>$r_s = -0.62$ (1 mark for final calculation)</p>	<p>(6 marks)</p>
<p>1(b)</p>	<p>Relation appears to be negative (1 mark) suggesting that velocity decreases downstream e.g. 3.7 km from source, the rank is 12 i.e. river flow is at its slowest (1-2 marks with use of results from part a). This is not in agreement with theory and as there are no critical available it is not possible to attach statistical significance to the findings (1-2 marks with detail), suggesting results may be unreliable (1 mark).</p>	<p>(4 marks)</p>

Question 2 – Population Change

<p>2(a)</p>	<p>2 x 1 per accurate construction of pie chart.</p> <p>For candidates who have not used a protractor / ruler, allow 1 mark if general shape matches expectations.</p>	<p>(4 marks)</p>
<p>2(b)</p>	<p>Notes for answers</p> <p>For description there should be acknowledgement of the markedly different population age structures between the two places. Use of</p>	<p>(6 marks)</p>

	<p>data to support answers should be expected. More sophisticated may manipulate data as further analysis of difference.</p> <p>For reasons candidates are likely to focus on ageing population ideas for the UK, including references to medical care prolonging life as well as education and diet. For the relatively low % at 0-14 expect to reference to birth control and other aspects of family planning.</p> <p>For Afghanistan there is likely to be some element of reversal i.e. poor diet, lack of education and healthcare shortening life resulting in low proportion of over 65's. For 0-14 age groups expect reference to cultural issues whereby large families are custom combined with a lack of family planning. Some may refer to large families being needed to support rural life, particularly farm work.</p> <p>Level 1 (1-4 marks) Basic description. May be partial. Reasoning suspect, perhaps only focused on one age group or one country.</p> <p>Level 2 (5-6 marks) Detailed description including use of data to support. Detailed reasoning, clearly relevant to the age group or country in question.</p>	
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Fieldwork Questions

Question 3

	<p>Aim should be capable of being investigated by an A Level student. Hypothesis should be realistic in timescales and geographical scale.</p> <p>Max 3 for outline of aim e.g. We were investigating the extent to which the Bradshaw Model could be applied to our local river x (1 mark). We were particularly interested in investigating how the discharge and velocity changed downstream (1 mark). I wanted to see if distance downstream impacted upon either discharge or velocity (1 mark).</p> <p>Max 1 for hypothesis, research question or issue for investigation e.g. I proposed this hypothesis: There is a positive relationship between distance from source and velocity. (1 mark).</p>	<p>(4 marks)</p>
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Question 4

	<p>Notes for answers: Candidates should describe how they used the used a technique to present data. Technique must be appropriate for data collected. Any technique is acceptable as long as it is linked to the theme of the enquiry. A sketch of some sort may also feature.</p> <p>Level 1 (1–3 marks) Simplistic identification / description of a technique, which may contain obvious errors (such as labeling axis for graphs) and or omissions. Description lacking in detail. Techniques which do not clearly link to the theme of the enquiry should be held to level 1.</p>	<p>(5 marks)</p>
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	<p>Level 2 (4–5 marks) Detailed description of the method allowing replication from information provided. Description could clearly be followed with no aspects missing.</p>	
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Question 5

	<p>Notes for answers Responses should clearly summarise using some aspects of data obtained from the study. Generalised statements are likely to be a feature of a Level 1 response. The summary should bring together different aspects of the enquiry. May also offer conclusions.</p> <p>Level 1 (1-3 marks) Generalised and vague statements which give a sense that the candidate has not engaged with study. Lacks supporting data/material gained through the enquiry. Obvious error or omission at the bottom end.</p> <p>Level 2 (4-5 marks) Specific summary statements clearly linking to the theme of the enquiry. Offers detail and draws upon evidence from the study itself.</p>	<p>(5 marks)</p>
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