GCSE EXAMINERS' REPORTS

GEOGRAPHY B
GCSE

SUMMER 2018
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GEOGRAPHY B

GCSE

Summer 2018

COMPONENT 1

The overall performance of the first non-tiered paper of the new specification was pleasing. The responses indicated that it was accessible to the full range of candidates, whilst proving sufficiently challenging to enable effective differentiation. There was no evidence that timing was a constraint and the vast majority of candidates attempted all sections of the paper.

THEME 1 Changing Places-Changing Economies

Question 1 explored the key ideas relating to global patterns of development, with a particular focus on trade and aid.

Q1. (a) (i) Nearly all candidates chose the correct definition of a NIC.

(a) (ii) This AO4-Skills question required the analysis of two population pyramids and many candidates achieved full marks.

(b) (i) (ii) Candidates were able to accurately calculate the percentage difference of literacy rates and identify that they had reduced.

(b) (iii) Some candidates did not identify the specific wording of this question which was testing AO2.1-Understanding, and referred to the benefits of improved literacy for individuals rather than the whole country.

(b) (iv) The majority of responses to this AO1-Knowledge question could identify an economic indicator used to measure a country’s level of development, such as GNP or GDP. A few candidates misinterpreted it and referred to social indicators such as life expectancy.

(c) (i) This question was generally quite badly answered with a considerable number of candidates lacking knowledge of an individual NIC. Several wrote about the UK or even MNC’s. To reach Band 2 responses had to show clear reference to specific figures/goods/countries of both imports and exports. Reasons were not required as this was an AO1-Knowledge question, indicated by the command word ‘describe’.

(c) (ii) This also produced a limited number of good quality responses and many lacked the detail necessary to reach Bands 2 and 3. Explaining why the UK needs to import and export goods was an AO2-Understanding question, but many reasons for exports were little more than ‘to make money’ or ‘to help the economy grow’. Good answers elaborated with details that referred to the UK’s lack of manufacturing industry and thus the need to import clothes/electrical goods or high demand items such as bananas and coffee because of a lack of suitable climate.
(d) The wording of this AO4-Skills question specifically required evidence from the resource only, which showed countries that export and import Fairtrade goods and therefore knowledge was not required. Credit was therefore not given to references to ‘rich and poor countries’ or ‘NIC’s and HIC’s’ or even named countries.

(e) Most candidates displayed a good knowledge of Fairtrade and were able to identify two features. This was a high scoring AO1-Knowledge question. The first of the 8 mark AO3-Application extended writing questions proved to be a good differentiator. Bands 3 and 4 both required a balanced appraisal of the statement ‘Long term development aid is more effective than short term emergency aid’. Many responses went into great detail about the merits of LTDA but barely mentioned STEA, which limited them to Band 2. The best answers discussed both elements using high level chains of reasoning to illustrate the key points and referring to the resources e.g. the education project in Fig 1.6 having long term sustainable social and economic benefits as children will access better paid jobs, which may bring in more money for the country and therefore enhance development. Weaker answers just talked about LTDA lasting a longer period of time than STEA or just quoted facts from the given resources.

THEME 2 –Changing Environments

The focus of Question 2 was on river processes and river floods.

Q2. (a) (i) The majority of candidates achieved full marks for this AO1-Knowledge heads and tails definitions of river processes.

(a) (ii) This was also an AO1-Knowledge question which scored highly, although some candidates confused v-shaped valleys and gorges when identifying features on the photograph of a waterfall.

(b) (i) This AO4-Skills question which simply required the completion of a simple bar graph was done well, although a significant number did not attempt it, throwing away an easy mark.

(b) (ii) The first of the two AO4-Skills calculations in this section was high scoring, although some did not include the value of 11 from the previous question, but were still able to get a single mark for demonstrating their working out.

(b) (iii) Labelling the features of a storm hydrograph was an AO4-Skills question which was generally successfully completed, with a minority mistaking baseflow for flood level on the diagram.

(b) (iv) The second AO4-Calculation was not as successful as the previous one, with inaccurate reading from the graph where candidates failed to identify the different scales for rainfall and discharge. A significant number did not show their workings, depriving themselves of a second mark.

(b) (v) This assessed AO2.2-Understanding, and required the identification of a physical factor, other than rainfall, which causes lag time to vary. The responses suggest that many candidates did not understand the term ‘physical factors’ and described the effect of urbanisation and
tarmac. A large number incorrectly thought that wind would be a factor. The question required a knowledge of hydrographs and an explanation of how their chosen factor such as vegetation or steep slopes would either decrease or increase lag time.

(c) This also assessed AO2.2-Understanding, and required candidates to explore the interrelationship between human activity and river processes by explaining how urbanisation can increase the risk of floods. There were some excellent responses which demonstrated a clear understanding of fluvial processes through the correct use of terms. However, for the full 6 marks, detailed chains of reasoning were required, and many responses only reached Band 2. Many were able to explain how increasing impermeable surfaces reduces infiltration and increases surface run-off and then relate this to rising river levels leading to floods.

(d) Responses to this AO3-Application question on the Lake District produced mixed results, and a significant number incorrectly referred to the importance of coastal defences, whereas the resources clearly indicated the event was related to river floods. Many candidates argued an excellent case for disagreeing with the point of view expressed, but the command word ‘evaluate’ required them to explore both sides of the argument. The best answers discussed the relative merits of both points of view from the given facts through comparative language and sophisticated evaluation, enabling them to reach Band 4. Again, the imbalanced nature of many responses meant they could not achieve higher than Band 2. The weakest responses simply quoted the facts, without any attempt at evaluation.

THEME 3 – Environmental Challenges

Question 3 examined the key idea of water supply and management, with the final section relating to ecosystems under threat.

(a) (i) The first question targeted AO1 and required filling in gaps in a paragraph relating to global pressures on water resources. Several candidates confused water footprint and water cycle but otherwise it was high scoring.

(a) (ii) This AO2.1 question was testing understanding of the concept of water security, and produced some good answers where schools had clearly covered the topic, but there were many responses which incorrectly referred to measures to stop water pollution and few were able to elaborate to achieve a second mark.

(a) (iii) Candidates were required to use their knowledge of a named place where water supply problems have been managed. Responses varied in quality with many only achieving 1 or 2 marks for simple statements. A significant number looked at the consequences of wells/pumps/dams which was not required in this AO1-Knowledge question with the command word ‘describe’. The best answers gave elaborated descriptions of methods of water supply management applied to locations such as Malawi and South Africa.

(b) (i) The majority of candidates were able to correctly identify Egypt from the table of data about water use.
This AO4-Skills question was tackled with varying degrees of success, as it required them to critically appraise different graphical techniques. Many were able to make comments about the use of percentage data in pie charts, or suggest bar graphs were easy to draw and show comparisons, but centres need to develop the skill of explaining which graphical technique suits particular types of data. A significant number described how to construct their chosen graph rather than comment on the reasons for the appropriateness of the technique e.g. line graphs inappropriate because the data given was not continuous.

The satellite image resource for this AO4-Skills question was quite challenging, as it required candidates to use measurements to describe the changes in Lake Chad. However, most achieved full marks by producing good estimations of the reduction in size and by referring to the greatest impact being on Niger and Nigeria. A minority tried to give reasons, such as evaporation, which was not required.

There were some excellent responses to this extended writing AO2.1 question on water abstraction, demonstrating a clear understanding of the impacts on both people and the environment. A balanced answer with elaborated chains of reasoning was required to reach Band 3, but many responses were at a more basic level with simple references to lack of water to drink or animals dying. Good answers discussed the impact on farmers of reduced supplies for irrigation leading to lower crop yields resulting in less food which could cause malnourishment. A small number of candidates were under the misconception that over abstraction means too much water and discussed the problem of floods.

The final AO3-Application question on the paper required candidates to consider the social, economic and environmental impacts of re-opening an oil pipeline in Peru. It was pleasing to note that the vast majority of candidates attempted this and showed a good understanding of the rainforest ecosystem. The highest scoring responses took examples from the fact box and then elaborated on why this was a reason to keep it either open or closed. Again, to reach Band 4, candidates needed to discuss all three elements through sophisticated analysis and elaborated chains of reasoning. The strongest answers came from points relating to short term and long term environmental and economic impacts, with social impacts being less well understood.

Candidates Performance in the Assessment Objectives
There were 24 marks awarded for each AO on this paper.

AO1-Knowledge
Candidates seemed to find those questions that targeted specific recall of places and processes the most challenging on the paper and the standard of responses varied, especially in the higher tariff sections. Knowledge of patterns of imports and exports of a named NIC in Q1 was particularly weak, as was the Q3 named water management scheme. Much more specific detail needs to be injected into responses in these questions. It was clearly evident where centres had focussed on the teaching of key terms that are referred to in the specification. In AO1 questions, they are not required to demonstrate understanding, a misconception that led to some unnecessary wasting of time though inclusion of irrelevant analysis.
AO2-Understanding
Questions that tested geographical understanding of concepts and interrelationships were quite successful and provided an opportunity for candidates to demonstrate their ability to use their knowledge to give detailed explanations e.g. in Q3 of the interrelationship between urbanisation and river processes. In the higher tariff questions that tests this AO, elaborated chains of reasoning are required to reach the top bands. The weaker responses only made simple points which lacked evidence of depth of understanding.

AO3-Application
The last extended writing section of each question tested the candidates’ ability to apply their understanding to synthesise information from resources provided. They will usually require candidates to make a judgement or decision and therefore require a balanced answer. In all three questions, there were many excellent responses which took evidence from the resources and developed sophisticated arguments either for or against the issue concerned. The majority of candidates made good use of the scaffolding provided by the resources, although weaker responses did not achieve higher than Band 2 as they lacked evaluation and were often a simple repetition of given facts.

AO4-Skills
These questions were generally answered well and many responses achieved full marks. It is important that candidates read the wording of the question carefully and target their response to the particular focus. It was disappointing that a significant number did not complete the bar graph in Q2(b)(i) and consequently lost an easy mark. The use of appropriate geographical terminology is important when describing location, such as ‘north and south of the Equator’ rather than ‘above and below’. Candidates seem to have been well prepared for numeracy questions, although a significant number did not show their workings and therefore only gained 1 mark for the correct answer.

Points for teachers to consider

- In the extended writing questions which test AO3-Application, candidates need to be more aware of the need to achieve balance in their responses and discuss both points of view, even if they have strong feelings for one particular side.

- Understanding of the command word is key to producing an appropriate response to the question. For example, ‘describe’ does not mean give reasons. ‘Evaluate’ means discuss all points of view and ‘map evidence only’ does not require knowledge.

- There are many areas of the new specification that require specific knowledge and candidates will be disadvantaged if they are not able to write in sufficient detail e.g. trade patterns of a named NIC and the UK, or water supply and demand in one country. Appendix A of the specification lists the types of skills and techniques that need to be covered. It was evident that many candidates were not adequately prepared for questions that required evaluation of statistical and graphical techniques, and perhaps greater emphasis should be placed on the ability to discuss the strengths and limitations of each technique.
This report provides feedback on each question throughout Parts A – C of the paper. The second part of the report considers student performance across the four assessment objectives. The report concludes with some suggested points for teachers to consider, as they prepare their candidates for the 2019 examination.

Question by question:

Part A

(a) A wide range of responses were seen in this opening question which targeted AO1-Knowledge. The majority of candidates were able to recall accurate information relating to the formation of weather associated with intense low-pressure systems, namely hurricanes, cyclones and typhoons. They recalled that such extreme weather originated in the tropics that unstable rising air caused low pressure to form. Only a minority of candidates were able to recall that sea temperatures needed to reach 27ºC and that warm, moist air moves in from surrounding areas.

(b) This question, targeting AO4-Skills, tended to elicit responses that were either very good or very poor. Weaker responses ignored the need to describe location in relation to lines of latitude, compass direction and named continents. A disappointing number of candidates used the space provided to explain why hurricanes formed at these locations. Some outstanding responses were seen.

(c) This question also targeted AO4-Skills. The majority of responses were within the higher band. Band 2. Successful candidates were very methodical in reporting the track of the hurricane from its origin through to the point where it decayed. They used a rich mixture of latitude / longitude co-ordinates, compass direction and distance travelled up to the point where the track changed direction. It was clear from the response from a significant minority of candidates that they did not know how to utilise co-ordinates using latitude and longitude.

(d) (i) In targeting AO1, candidates were required to recall key facts relating to aid programmes. For the most part, responses were strong particularly in relation to the knowledge of emergency aid as opposed to development aid. Candidates are urged to take care when completing heads and tails to match definitions. Some responses were very difficult to mark due to the number of corrections made on the exam paper and the poor handwriting. This made it difficult to decipher as to which number they had actually chosen to match with the letters A - D.
(d) (ii) To show ‘Understanding’ (AO2) the candidates were required to explain one way that donor countries might benefit from providing aid. Given that the command “one way” was shown in bold, and that the response was worth 3 marks, the expectation was that candidates should articulate one plausible starting point and then elaborate, then further elaborate beyond this. Many candidates were able to provide the starting point (e.g. forming political or economic ties), fewer were able to elaborate beyond this; only the most able to show a chain of reasoning for the third mark.

(e) (i) Assessing AO4 and linked to the next question, candidates were required to focus on data from a simple table to ascertain the length of the hurricane season. Most were able to state the correct answer.

(e) (ii) Also assessing AO4, the candidates were required to calculate the percentage of hurricanes that occur in the three peak months. Just over half the responses acquired all three marks through a clear process shown via their working. A small number struggled to accurately show the answer to two decimal places. A significant minority failed to attempt the question or had no understanding of how to achieve the answer.

(e) (iii) Responses to this AO2 question were polarised. Most candidates were able to show their understanding of the cause of seasonality though a clear and concise explanation relating to the temperature of tropical seas. Few were able to gain full marks as they missed the link to seasonality caused by the tilt of the earth and temperature patterns within the tropics. A small minority of candidates could not offer anything that would gain credit.

(e) (iv) Responses to this AO2 question were generally weak. Many candidates were unaware of the link between the track of the hurricane and the passage to cooler water / land surfaces.

(f) The candidates were required to show understanding through the application of photographic evidence. Although responses were quite strong across the cohort, a significant number of candidates wasted valuable time in describing the photograph before eventually answering the question. The most successful showed good exam technique by building two elaborations beyond a sound starting observation, to secure the three marks available.

(g) With a stimulus of two further photographs (showing hurricane damage), the candidates were required to show their understanding of the need for both short-term and long-term aid following a hurricane. Most responses were within the middle of the three bands to show levels of understanding. Some highly sophisticated responses were seen to gain full marks. A tiny minority failed to enter Band 1.

Part B

(a) (i) The vast majority of candidates could recall that sea walls are an example of hard engineering.

(a) (ii) The majority of responses gained one of the two marks available for this AO1-Knowledge question, i.e. that a rise in sea levels was a result of ice caps (and glaciers melting). Few were able to show recall of the second reason, i.e. thermal expansion of sea water.
Variable responses were seen for this question which targeted AO2-Understanding. With reference to the planned evacuation routes, all candidates were able to select two different groups that may / may not have been affected. Some failed to articulate a reasoned response as to why they may not benefit from such routes. Typical misconceptions referred to ‘business owners’ who would not benefit as they “wouldn’t want to leave their shop”. At the other end of the spectrum candidates selecting ‘those who live inland’ or ‘those without vehicles’, for example, gave a wide range of pertinent reasons to say why they may not benefit.

Most candidates were able to provide a pertinent reason why a spread of smaller shelters may be better than building one central shelter. The most articulate responses focussed on an explanation of range and catchment area in relation to emergency evacuation procedures.

Three bands were used to ascertain the degree to which candidates could apply their understanding relating to one of the options available to alleviate the impact of hurricanes. They were asked if they agreed with the idea proposed by some politicians, that insurance should be mandatory. In choosing yes, or no, they were asked to justify their choice. Only a small number of candidates were able to articulate responses worthy of band three. The most sophisticated chains of reasoning in band 3, in favour of compulsory insurance, focused upon the reduced need for state / national government aid. Those against compulsory insurance focused upon the fact that Floridians only have a 20% chance of being affected by hurricanes in their lifetime. A common misconception amongst weaker candidates is that insurance government funded.

Many candidates provided responses that matched the requirements for band two, the highest band. Both of the ideas they expressed were pertinent and sufficiently developed to show clear understanding of the limitations of using social media before, during and after a hurricane. The most common limitation they identified was based around the destruction of power lines and telephone masts.

Variable responses were seen for this question which targeted AO2-understanding. At one end of the spectrum successful candidates articulated a highly developed rationale as to why the national government of the USA should be responsible for funding research into hurricane forecasting. Weak responses failed to cross-reference to the information that such research is very expensive and / or that hurricanes affect many states across the country.

Part C

Parts A and B of the exam paper provided candidates with sufficient information to solve the problem identified in Part C. In this case they were asked to justify a plan that would combine three ideas that would work well together in order to alleviate the impacts of hurricanes in Florida. The candidates were asked to formulate their ideas within the context that their overall plan should have three strands, i.e. it should be affordable, involve individuals and the authorities, and prove to be effective in the short and long-term.

The candidates were required to build on all four elements of assessment objective 3 in order to justify their choice, i.e. interpreting, analysing, evaluating and making an informed decision. Those working in band 1 were able to provide a basic response where they selected pertinent evidence from the materials available to them in order to support their
three ideas. At this level no links were made to justify the plan as a coherent whole. In most cases there was no mention of the three requirements of the plan. As candidates progressed through bands 2 and 3, increasingly sophisticated responses were seen. Examiners were hugely impressed by the arguments put forward as to why the three choices made could form a cohesive package and that all three of the requirements of the plan would be met.

A tiny minority of candidates decided to offer their own solutions, beyond the nine available in the Resource Folder. Despite this tangential approach, the candidates still had the potential to match the criteria for band 4.

A brief reflection on the performance of candidates with reference to the four assessment objectives:

AO1–Knowledge: Whilst only 12 marks are awarded for knowledge on this paper, the most successful candidates showed strong recall in relation to aid programmes, climate change and extreme weather associated with intense low pressure systems, linked to the seasonal distribution of cyclones / hurricanes. These were in the minority. Many candidates failed to recall accurate information with regard to the targeted enquiry questions from the specification.

AO2–Understanding: 24 marks are reserved for questions that assess understanding on this paper. In all cases the candidates were asked, using varying degrees of challenge, to show understanding through elaboration and chains of reasoning. The full spectrum was seen, with the most successful candidates being able to show high levels of understanding in questions such as why hurricanes are seasonal and why both short-term and long-term action needs to be taken to alleviate their impact. Typical weak responses see the candidates failing to develop their response beyond an initial simple statement.

AO3–Application: 24 marks are reserved for questions that require candidates to show their ability to apply their knowledge and understanding to new / novel situations; in this case the cause and effects of Hurricane Matthew. With Part C playing the lead role in assessing this objective, the outcomes were, on the whole, very impressive. The most impressive candidates were able to show lots of joined up thinking in direct relation to the requirements of the question. The weakest responses stemmed from candidates who failed to articulate their thinking with reference to the wording of the set question. This was most noticeable in relation to part C where weak candidates failed to shape their response to the three strands required in the extended report. With a 94% completion rate across the cohort, Part C engaged the vast majority of the candidates.

AO4–Skills: Whilst only 12 marks are awarded for skills on the exam paper, the full range of marks was observed by examiners. Candidates generally performed well in the questions targeting numeracy, e.g. when working out the percentage of hurricanes that occur in the three peak months of the season. Weaker responses were seen in questions that targeted the use of maps to show location and also the direction of the track of Hurricane Matthew. Candidates tend to be descriptive without using the tools provided on the maps such as scale, co-ordinates, accurate use of compass points and named lines of latitude.

Points for teachers to consider:

- Where maps include co-ordinates for latitude and longitude, many candidates seem to have difficulty in using the co-ordinates to pinpoint accurate locations.
- Where candidates are told that only one example is required (in a question where the command word is ‘explain’), but where three or four marks are available, they should expect to build on an initial statement through elaboration and / or a chain of reasoning.
• In part C of the problem solving exam paper, candidates need to more carefully consider the context / requirements of the plan, before they shape their ideas. The context / requirements to shape a coherent plan may differ year on year.
• Where candidates wish to extend their answer, beyond the space provided on the exam paper, they should clearly indicate which question they are responding to when the writing is continues elsewhere.
This report provides feedback in 4 sections:
1. Overall comments
2. General structure of the paper
3. Assessment Objectives overview
4. Question by question

✓ Included in the report are specific points that teachers might like to bear in mind as they prepare candidates for the 2019 examination.

1. Overall comments:

- **Accessibility:** In general this paper was accessible across the ability range and provided the opportunity for all candidates to demonstrate their abilities, with most candidates fully engaging with the complete content of the paper.
- **Timing:** The time available did not seem a cause for concern and the majority of candidates finished the paper.
- **Own fieldwork:** It was obvious when schools had prepared their candidates well in terms of briefing/debriefing chosen fieldwork activities to match the pre-selected enquiry techniques given. It was very noticeable where candidates gave clear accounts of their use of transects/spheres of influence/secondary data through their own experiences. Many of the weaker answers failed to fully understand the technique being used and therefore just recounted surveys/counts/questionnaires done, without context. Many of these candidates described their own fieldwork, rather than applied their knowledge to the methods and concepts that they had used. However, it was encouraging to note the range of the fieldwork opportunities that many candidates had been given. Many students fieldwork terminology was restricted, which limited the quality of their answers.
- **Assessment of numeracy:** Numeracy skill questions (such as 1aii and 1bi) were answered correctly by most students. The shorter questions with graph completions, option choices and % calculation were done very well. However, it is worth bearing in mind that there is quite a range of challenging techniques in the specification which teachers will need to ensure coverage of and which will appear in future examinations.
- **Terminology:** Most candidates were able to comfortably express their understanding using technical vocabulary such as discrete and continuous data, quantitative/qualitative, trends, multiplier effect and social/economic/environmental impacts. But note the specific comment relating to fieldwork terminology.
- **Resource Folder:** There was generally a very good use of the Resource Folder, which was most obvious in the better quality responses to 3f, and also 3dii.

✓ Teachers would be advised to allow time for students to evaluate their fieldwork throughout all the parts of the enquiry cycle, as well as develop students specialist fieldwork terminology, including terms such as reliable and accurate.
2. General

Component 3 is worth 76 marks in total. Four of these marks are for spelling, punctuation and the accurate use of grammar and specialist terms (SPaG). The assessment objective breakdown is:

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This component assesses 15% of the total assessment weighting for AO3 and 10% of the total assessment weighting for AO4. AO1 is not assessed in this component.

3. Assessment Objectives:

Each individual question targets only one assessment objective. AO1 is not assessed on this component, therefore description is not creditable on AO2 or AO3 questions. Many candidates were not aware of this and therefore, many answers overlooked the main focus desired for a full mark response. This was most noticeable on the AO3 evaluation and AO4 select/judgement questions. Here candidates would use space on descriptions rather than answering what had been asked for.

✓ Teachers would be advised to remind candidates that in this component to read the question carefully, to determine the main focus of the question.

AO2: Demonstrate geographical understanding of:

- Concepts and how they are used in relation to places, environments and processes
- The inter-relationships between places, environments and processes

This AO is used to target understanding of aspects of the subject content. As such, questions typically ask candidates to either explain geographical concepts or explain the interrelationships between places environments and processes.

Only 12 marks are available for AO2 on this component and these all appear in Part C of the paper. These marks were covered by 2, 4 and 6 mark questions. Most candidates scored highly on the 2 and 4 mark question, and many candidates well into Band 2 on the 6 marker. In the 6 mark Question 3(d)(ii) candidates were asked to show their understanding by elaborating their reasons, some candidates successfully explained and expanded their reasons, by adding more detail and relating different points together to form a clarification.

✓ Teachers would be advised to ensure candidates are aware of how to write an explanation, including adding details and linkages, as well as using cause and effect language (e.g. because, if) to elaborate on the original statement.

AO3: Apply knowledge and understanding to interpret, analyse and evaluate geographical information and issues and to make judgements.
This AO is used to target **application** of knowledge and understanding. Questions targeting AO3 often require candidates to apply their understanding in order to interpret, analyses or evaluate either a geographical issues or information and in some cases, make a judgement/justify a decision.

In competent 3, 36 marks are available for AO3. In Part C, 12 AO3 marks are in the last question. This question asks candidates to develop lines of argument to evaluate and make a judgement. Some other AO3 questions were 1biii, 1c, 2aii and 2d. Candidates were varied in their abilities to evaluate, overall they were weaker on evaluating their own fieldwork (1c, 2d), rather than unfamiliar material (1biii, 2a).

- Teachers would be advised to ensure that candidates are able to evaluate all aspects of their fieldwork within the enquiry cycle. Evaluation includes the weighing up (for example the strengths and limitations) of information to come to conclusion. It could also include the drawing together of disparate threads of an argument or issue.

**AO4**: Select, adapt and use a variety of skills and techniques to investigate questions and issues and communicate findings.

This AO is used to target **skills** and techniques in the investigation of questions and issues. The emphasis is on the use of a variety of skills and techniques. As such questions often ask students to use maps, graphs or tables of data to investigate geographical questions or issues.

In this component 24 marks are given for AO4. Candidates generally performed well on these questions, with the weakest answers in relation to adapting a method/graph/technique.

### 4. Questions

#### 1ai AO3 2 marks

This question specifically asked about systematic sampling along a transect. This question was answered well by a minority of students. Only a few students recognised that systematic sampling along a transect gives uniform coverage of the line and therefore provides data that is representative and that would spot variations and anomalies. Students may not have been aware of the meaning of representative, as in the concept of a small quantity that reflects a larger quantity. A significant number of students focussed on the advantages of systematic sampling rather than **systematic sampling along a transect**. They tended to describe systematic sampling in the context of questionnaires.

#### 1aii AO4 2 marks

This skills question was accessible by most candidates and answered well by most, many gaining two marks.

#### 1bi AO4 2 marks

There was a wide variety of methods used to work this out, most students found it straightforward and were successful.

#### 1bii AO4 2 marks

This question assessed how a data presentation technique could be adapted so that the information is more clearly communicated. The marks were awarded for improvement of the diagram, not for an improvement of the data or enrichment of the data. Many students described an alternative method of presentation or an addition of data that could be collected. Many students who did grasp the question, focused on adding names of shops, showing sizing of shops or colour coding the diagram. Very few students suggested adding a North / South arrow. Teachers would be advised to ensure candidates are able to
differentiate between the various parts of the enquiry cycle, so that candidates are able to see clearly the differences between adapting:

- types and amounts of data or data collection methods
- or sampling strategies
- or presentation techniques
- or mathematical/statistical techniques etc.

1biii AO3 4 marks

This was a technical question that required precise and specific understanding of transects in order to access AO3 where candidates were applying their knowledge/experience of this fieldwork technique. The focus was on how transects could be used to investigate the impact of vacant shops in a high street. Whilst some candidates were able to directly utilise the photographs in the resource folder, there were a significant number of candidates who just made indirect reference to the photos, by placing the context of their answer in the high street. Many candidates effectively described how a transect could be used to investigate the correlation between vacant shops and the wider urban environment (often through footfall). However, many candidates simply described suitable methods of data collection that could be conducted without the need of a transect. The concepts of a spatial linear coverage of an area, conducted at intervals were not as readily referred to as the concepts of a correlation in the context of high street. A significant number of candidates gave generic statements expressing what the outcome would be, and what they would be looking for, at the expense of communicating ‘How a transect could be used?’

✓ Teachers would be advised to ensure candidates can apply the fieldwork method in novel situations and that the candidates are clear about the main features of the fieldwork methodology that they are using.

1c AO3 6 marks

This question was about the candidates own fieldwork. Candidates showed a wide variation in the quality of answers to this question, with one of the lowest attempt rates in on the paper. The question was signposted by the command word evaluate and then further clarified by using the phase ‘strengths and weaknesses’. Many candidates just described what they did along their transect, they described their sampling, their variables, their equipment, without saying whether it was a strength or a weakness. Many other candidates mentioned that they used a transect, but went on to evaluate their data collection e.g. pedestrian counts/noise levels not the actual use of a transect. Candidates that did attempt some evaluation, usually produced generic statements, for example it saved time, it only gave a snapshot etc. Few candidates reached Band 3.

✓ Candidates should be reminded to make explicit reference to strengths/weaknesses or advantages/disadvantages when answering evaluate questions.

2ai AO3 2 marks

Candidates performed well on this question, correctly ticking two of the boxes and identifying questions linked to a sphere of influence. This question received the highest candidate response rate.
2aii AO3 4 marks

This application question asked candidates to evaluate how useful a graph was in displaying data. Some candidates pointed out the weakness and strengths in the data, rather than the presentation of the data in the graph. Candidates would often only write one or two simple positive or negative comments without further evaluation. They would also often include a description of what the graph looked like rather than “how useful…” it was. Therefore common scores of 2/4 with very few Band 2 responses being seen.

2b AO3 2 marks

Most candidates performed well on this question, correctly identifying the two responses.

2ci AO1 4 marks

Most candidates were successful at this question, the candidates that were not often got the direction wrong, rather than the length.

2cii AO4 1 mark

This question was answered by almost all the candidates. Very few candidates choose a line graph.

2ciii AO4 4 marks

This question assessed the ability to justify the selection of the graph. This question differentiated well. Many candidates were able to justify the choice as being appropriate for discrete or categorical data.

2d AO3 4 marks

Most candidates seemed to make only very generalised comments in answering this question, the most common one being that ‘secondary data can back up your own data’. Some candidates were not sure of the definition of secondary data and referred to the work of class mates as secondary data, (the second source of data they used). Very few were able to give convincing and specific example of strengths or weaknesses from their own fieldwork, and many did not refer to sphere of influence at all in their answer. Some candidates were able to give a balanced appraisal, with detailed evaluation and scored the top of Band 2.

✓ Teachers would be advised to ensure candidates are aware of what secondary data and/or information sources are, and the strengths and weaknesses of using them to support stages of the enquiry cycle.

3ai AO4 3 marks

The majority of candidates scored full marks on this question.

3aii AO2.1 2 marks

The majority of candidates scored full marks on this question.

3aiii AO2.2 4 marks

On the whole most candidates were success in gaining 3 or 4 marks in this question. Candidates who took note of the ‘give two reasons’ command gained more marks, than candidates who gave one long response.

✓ Teachers would be advised to remind candidates, that to get full marks they should build their answers by giving a reason and elaborating, then giving another reason and elaborating.
3b AO4 1 mark

This question was answered correctly in the majority of cases.

3ci AO4 2 marks

This question was well answered, by those that did, but a few candidates reversed the direction of the hatching, resulting in no marks. This question received the most ‘not attempted’ of the whole paper.

3cii AO4 2 marks

Most candidates scored 2 marks on this question.

3di AO4 1 mark

This skills question was about adapting a diagram, to show the data more effectively. The focus was on the improvement of the diagram, not the reinvention of the diagram. Some students suggested that they would draw a different graph/diagram altogether, whereas many did suggest adding a scale or using even age group categories. This question challenged many candidates.

3dii AO2.1 6 marks

This question showed a range of scores, acting as a good discriminator for candidates. However, some candidates focused their response almost entirely on graph 3.2 and discussed the potential impacts on different age groups, which led to some quite repetitive reasoning (often related to health) which therefore limited the scope for students to score many marks. A small number of candidates moved into impacts upon environment and did not link these points back to impacts on group(s) of people. Band 3 answers were rare to find as students did not develop their answers to thorough and elaborated levels in relation to different named groups.

3e AO4 3 marks

For this question, either of the graphs could be justified as being appropriate for different reasons.

3f AO3 12 marks + 4 marks SPAG

This question used the material presented in Part C and the Resource Folder to justify a decision. The candidates were required to build on all four elements of the AO3. Candidates who were working in Band 1, were able to select information from the materials to support their decision. This question gave a wide scope of answers, allowed stretch and challenge at the top whilst still enabling weaker students to get a some marks. Most candidates attempted this question, with many going on to extra paper. A significant number of candidates made good use of signposting through question 3f. Effective signposts were used to flag up:

- Argument and counter-argument
- Social, economic and environmental impacts
- Sustainability implications
- Short term and long term impacts
Weaknesses in the answers were related to candidates just lifting material from the resource files without any interpretation, analysis, evaluation or justification. Many candidates used useful mnemonics such as Point Evidence Explanation (PEE).

✔ Teachers would be advised to ensure that candidates are using connectives to move them along from just lifting material directly from the Resource Folder without any further interpretation, analysis, evaluation and justification.