

GEOGRAPHY 9-1

<p>Paper 0976/12 Geographical Themes</p>
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Key messages

In order for candidates to perform well on this paper they should:

- Follow the rubric correctly, answering only three questions, one chosen from each of Sections A, B and C.
- Answer all parts of the three questions they choose in the spaces provided, not overlooking questions which involve the completion of maps or graphs, e.g. **Questions 1(a)(ii)** and **6(a)(i)**.
- Know how to respond to command words and instructions used in questions, along with words which indicate the focus and context of each part, ensuring that irrelevant material is not included.
- Learn geographical terms and use them correctly in answers or define them as required.
- Use appropriate words to either compare or describe differences between features or data shown in source material of various types.
- Consider the mark allocations and space provided in the answer booklet in order to write answers of an appropriate length.
- Write clearly and precisely, qualifying or elaborating in order to avoid vague words or statements (e.g. pollution, overcrowding, facilities).
- Attempt to link or develop ideas when extended writing is required in those questions worth five or seven marks.
- Interpret various types of graphs and diagrams accurately to support ideas expressed in answers, using accurate statistics (with units) where requested in questions to support statements made.
- Interpret diagrams, photographs and various types of maps carefully and use relevant evidence from them.
- Have a wide range of case studies and choose them with care to fit the questions selected, including only relevant information to answer the question set.

General comments

Able and well prepared candidates performed very well across the paper and showed excellent geographical knowledge and understanding, writing answers of a consistently high quality. As always, however, there was a wide range of marks and most candidates, while not performing consistently across the paper, did make an attempt at many parts of their chosen questions, enabling the paper to differentiate effectively between candidates of all abilities.

There was a small number of rubric errors. Some candidates answered all six questions, while others answered three or four questions from the six, selecting two from the same section (often **Questions 1** and **2**) rather than correctly answering one from each section.

The presentation of answers from candidates was generally acceptable and most answers were in an appropriate amount of detail. Occasionally, answers worth a small number of marks were of excessive length and answers to questions worth more marks were too brief. Most candidates however were guided by the mark allocations and space provided, with the best responses being concise, yet detailed and accurate in content. Some candidates made use of the continuation sheets at the back of the question-and-answer booklet. However, some needed to do so only because they had included too much irrelevant material in their answers, particularly in the **Section C** questions which were not always well focused.

Questions 1, 4 and **5** were the most popular questions, with **Question 2** being rarely answered. Good answers were seen to all questions, including those requiring extended writing, particularly to the **part (c)** questions on concerns about the impact of tourism on the natural environment, problems caused by dependent population, and management of flooding and earthquakes. There appears to be an increasing

trend to include unnecessary general introductions to these questions with irrelevant information about the topic being tested. However, the best of these answers were well focused, with developed or linked ideas and some place specific information. Weaker responses were sometimes poorly focused, with brief lists of simple points, sometimes in bullet points, not all of which were relevant. Some candidates did not score marks consistently across the paper as they did not respond correctly to command words (e.g. 'describe' in **Question 4(a)(ii)**, 'describe the distribution' in **4(a)(iii)**, 'explain' in **5(a)(iv)** or 'compare' in **3(b)(i)**) or key words such as 'natural environment' in **Questions 2(c)** and **6(c)** or 'global' in **6(b)(ii)**. Sometimes key words are emboldened, as was the case with 'local' in **6(c)** and 'global' in **6(b)(ii)**. This is done to draw candidates' attention to a significant word which should not be overlooked.

The following comments on individual questions will focus on candidates' strengths and weaknesses and are intended to help centres prepare their candidates for future examinations.

Comments on specific questions

Question 1

- (a) (i)** A lot of candidates just mentioned the number in each age group rather than the percentage or proportion and many did not give full definitions as they omitted reference to general make-up of the population, or age or gender.
- (ii)** Although quite a large number of candidates did not attempt this question and some may not have seen it, many candidates plotted the segments accurately and in the correct order. A common error, however, was to reverse the order of the segments, despite having two other pie graphs to match and a key to confirm the order. More time should be given to questions such as this as easy marks can be lost. Pencils should be sharp to ensure greater accuracy and care is needed with the presentation.
- (iii)** Most candidates understood exactly what the question was asking and achieved the 3 marks by making three short points showing that Africa was higher for 0–24 years, and Asia higher for 25–49 years and 50 years and over. A comparison was essential for the marks and most candidates realised this. However, some just used statistics with no attempt at written comparison and others used words like 'only' rather than giving descriptive comparisons. A few candidates did not compare the two continents but made comparisons within Africa or Asia, e.g., 'Africa has mostly young dependents'.
- (iv)** Many candidates answered well and gained high marks. Common ideas referred to improvements in health care, medication, diet, sanitation, and water supply. Some candidates referred vaguely to standard of living and quality of life which were not acceptable, while others mentioned education but did not refer to aspects of it which have increased life expectancy, e.g. education about healthcare or diet.
- (b) (i)** Where candidates answered appropriately by referring to the population structure, they usually scored 2 marks for reference to old and young dependents. A few made valid comments about the economically active population or the even gender balance which is typical of MEDC populations. Many, however, incorrectly referred to the shape of the pyramid or suggested explanations by referring, for example, to birth and death rates.
- (ii)** The question was well answered by candidates of all abilities. Most candidates answered from the perspective of the LEDC, but credit was awarded if the candidates approached it from the other direction and discussed why the percentage of young dependents would be low in Japan. The most perceptive answers made relevant comparisons between Japan and LEDCs.
- (c)** A wide variety of countries were identified as having a large dependent population, such as Japan, Italy, Gambia, or the UK, but some answers then focused on overpopulation which resulted in many answers being largely irrelevant. Candidates choosing inappropriate examples of countries usually did not clearly differentiate between overpopulation and difficulties relating to high dependency rates. The best answers concentrated on either young or old dependents, with emphasis on the cost of supporting them, the impact on the workforce and economy, along with the consequent burden on individuals and governments. Many candidates whose answers were correctly focused did attempt to develop their answers or link ideas to achieve Level 2 marks, but place details were absent from many otherwise high-quality answers.

Question 2

As is often the case with **Question 2**, it attracted more than its fair share of weaker responses, a significant proportion of which were due to rubric errors. There were a few reasonable responses to it, but these were in the minority as many of the more able candidates were attracted instead to **Question 1**.

- (a) (i) Most candidates identified the residential land use zone.
- (ii) A significant number of candidates misinterpreted the question, giving detailed descriptions of activities shown in the photograph rather than the land use. Those who did focus on the land use generally recognised that most of it was used for shops.
- (iii) Many candidates correctly identified the CBD, some referring to evidence such as the large number of people, high density of buildings and shops to justify their choice. Some did not suggest a location and/or did not give appropriate reasons for their choice, giving generic ideas about the CBD rather than referring to what could be seen in the photograph.
- (iv) The most common suggestions referred to space, cost of land and access to a large population for a customer base or workforce. Many answers were brief and rather vague with many referring to 'easy access' but not specifying for whom or by what type of transport. Some answers showed little knowledge of the rural-urban fringe as their answers appeared to relate to the CBD.
- (b) (i) This discriminated well with high scoring answers correctly selecting changes such as the express metro system, the inner ring road and new towns. Weaker answers either selected other answers which would have little or no impact on traffic in Paris or suggested changes of their own which were not shown on **Fig. 2.4**.
- (ii) While there were several very perceptive responses, many others were weak and low scoring. Some candidates appeared to be confused about the new airport with many wrongly assuming that it would be a replacement for an existing airport in the city centre. Therefore, many candidates focused incorrectly on the benefits of removing an airport from within the city.
- (c) Where candidates read and understood the question there were some good answers, many developing or linking ideas to score marks within Level 2. Atlanta was a commonly identified city with relevant answers, and other good quality answers used examples local to the candidate, discussing relevant issues such as deforestation and loss of habitat along with the consequent impact on ecosystems and biodiversity. Some, however, did not show a clear understanding of the term 'urban sprawl' and a common error was to focus on problems for people, not the natural environment. Some answers focused on squatter settlements around named cities in Africa but even these candidates focused incorrectly on the problems of living in these squatter settlements rather than on the natural environment. Many answers included far too much background information about the chosen settlement at the expense of writing detailed and relevant answers.

Question 3

- (a) (i) Most candidates correctly identified 'north-east'. The common incorrect answer was south-west.
- (ii) This was generally well answered with candidates of all abilities knowing the names of the two instruments. There were some references to weather gauge, windsock and barometer.
- (iii) Most candidates scored marks for stating where the instruments should be located, on a roof and away from buildings and trees being popular answers. The weakest point of many answers was the reasoning, where terms like 'disturbance' or 'obstruction' were commonly used without reference to the wind, or vague statements such as 'so the result is accurate' or 'so you can clearly see the wind direction'. One poorly thought-out answer seen occasionally was 'in a Stevenson Screen'.
- (iv) Generally, candidates scored well with the impacts of various forms of damage, e.g., to houses, roads, or crops, along with human lives being lost. Some weaker responses did not focus on people in the affected area but also wrote about environmental effects and referred generally to 'flooding' rather than its impact on communities. Some candidates wrongly referred to tsunamis in their answers.

- (b)(i)** Many answers made clear comparisons of rainfall and relative humidity, though answers about temperature comparisons were not as frequently seen as many candidates did not specify maximum or minimum temperatures or temperature ranges. A significant minority of candidates misinterpreted the question and tried to compare within the three month time frames, i.e. comparing January to March rather than between them.
- (ii)** The question discriminated well between good candidates, who knew the correct instrument and how it is used, and weaker candidates who named an incorrect instrument, such as a maximum-minimum thermometer or barometer, or did not name any instrument. However, most candidates tended to gain 1 or 2 marks by mentioning daily checking of them and/or at the same time of day. Many candidates included irrelevant details of the methodology used to work out a monthly average.
- (c)** The most commonly chosen rivers were the Nile, Indus, Amazon, Elbe and Ganges, though others selected rivers within their own country. High quality answers referred to ideas such as dams, artificial levees, afforestation, dredging and straightening of rivers with appropriate development which explained their effectiveness, e.g., afforestation increases infiltration/reduces surface run-off so less water reaches the river, dams control the flow of water, etc. Some included place detail but many responses remained generic. Place detail tended to consist of names and locations of dams, e.g. the Aswan Dam, or references to source areas, e.g. the Himalayas.

Many candidates included much irrelevant detail about the causes and/or effects of flooding before writing about its management. Another common error was the focus on how water could be used for irrigation. Many candidates stated what could be done to manage flooding but did not explain how the measures would be effective, so the answer remained at Level 1. Weaker candidates used terms such as walls, barriers, and drainage without further description and many wrote about the use of water, particularly for irrigation, rather than the management of flooding.

Question 4

- (a)(i)** Most answers were correct.
- (ii)** Most candidates correctly identified the type of plate boundaries. A common mistake was to reverse the two plate boundary names and some candidates suggested one boundary was conservative.
- (iii)** The question differentiated well. Many candidates scored marks for reference to plate boundaries, and some linked them to volcanoes. Better answers also included terms such as linear and clustered. Weaker answers listed plates or referred to a single boundary but did not specify that the earthquake zones were between specific plates. Other incorrect statements frequently seen referred to them being the coasts and in the middle of plates.
- (iv)** Many candidates wrote descriptions of the effects of earthquakes but failed to gain credit because they did not refer to volcanoes, so not making the required comparison. Answers which gained credit usually compared the difference in predictability, the relative size of areas affected, and the speed of impact, enabling evacuation when volcanoes erupt but not from earthquakes which cause immediate destruction.
- (b)(i)** Most candidates did not follow the instruction to 'describe the location'. Many wrote an answer which was applicable to **(b)(ii)**, referring to processes occurring there. The most common correct response was its location on the Caribbean plate, although some thought it was on the North American plate. Some candidates ignored the instruction to refer to plates and wrote about other islands. Others attempted to give a direction and distance from the plate margin but few were correct or accurate. The use of 'near to...' is never an appropriate description of a location when a scale and compass directions are provided.
- (ii)** The question differentiated well. Knowledgeable candidates gave a clear explanation of the process occurring at subduction zones causing a volcanic eruption. Weaker answers focused too much on plates 'hitting each other' or 'colliding' or explained why earthquakes occur, while others wrote about diverging plates.
- (c)** Many different examples were used, with Kobe, Christchurch and Haiti being particularly popular. Several used 'Japan' but did not give a more precise location. Various ways to strengthen and

make buildings ‘earthquake-proof’ were referred to, as well as evacuation procedures and emergency drills. Many candidates simply described these measures at Level 1, with better answers at Level 2 explaining how such measures were designed to reduce the impact of earthquakes. Many candidates wrote long introductions, including details of damage caused by the earthquake before they mentioned measures to reduce the damage. Such answers tended to be low scoring, as the section which answered the question tended to be too brief as much time had been spent writing irrelevant details. A common error from many candidates was to suggest that accurate prediction of earthquakes results in evacuation from threatened areas. Monitoring of fault lines is, of course, being done in many areas. However, they cannot be predicted anywhere with such certainty as to enable evacuation from an affected area.

Question 5

- (a) (i)** Most candidates identified the correct number of arrivals. A few wrongly gave 14.75 million for September 2016, while others inexplicably answered 1.5 million.
- (ii)** High quality responses compared summer and winter or referred to changing numbers during the Autumn and/or Spring. Most candidates did attempt to describe the variation, but many only gave half the required answer by referring to one season, usually summer, or they simply compared individual months rather than seasons. Other candidates used statistics rather than describing the variation, while some went through the variation month by month. Some candidates suggested reasons for the variation which was the answer to **(a)(iii)**.
- (iii)** Answers which precisely linked temperature or rainfall to the variation in the number of tourists were high scoring. However, there were many weak or irrelevant answers. Some suggested reasons which did not relate to changes in seasonal variation or referred vaguely to the weather as ‘better’, ‘suitable’ or ‘favourable’ at certain times of year. References to holidays from work were not credited as most employees can choose when to take these rather than school holidays which tend to be fixed. The idea of price fluctuation was often referred to but not well understood as answers referred to people choosing to go on holiday when prices are low; however, this coincides with periods of low demand.
- (iv)** The main benefits suggested were jobs and earning for local traders, sometimes with examples. Also common was the idea about learning new cultures. Few candidates expanded their ideas to explain how these benefits could help local people. Some candidates referred to the ‘infrastructure’ but most did not elaborate on this to display their understanding of the term. Many cited ‘foreign currency’ and how the country could ‘develop’ without reference to the benefits for people.
- (b) (i)** Most candidates identified three attractions, some doing so through including the attraction within an activity, e.g., walking in the mountains.
- (ii)** There were many good answers about the problems caused by tourists. Many different answers were seen, in particular references to traffic congestion, culture dilution, noise, and litter. Some of these were developed for further credit. A common error was to refer to air or water pollution but not suggest how these would impact people. A significant number of candidates over-emphasised problems caused by crime, disease, and vandalism, while others wrote about impacts on the natural environment rather than on people.
- (c)** The most common case studies focused on Jamaica, Victoria Falls, Seychelles, and the Maldives. There were many answers about damage done to coral reefs and the ecosystem, the impacts of litter and water pollution on wildlife, habitats, and food chains. There were also more general answers about the impacts of deforestation in order to build new hotels and tourist attractions. Many candidates simply described these concerns at Level 1, with better answers at Level 2 explaining them more fully by developing and/or linking ideas. Some candidates seemed to be confused by the question and focused on how the concerns could be managed while others focused on the impacts on people rather than the natural environment.

Question 6

- (a) (i) Most candidates drew the bar accurately.
- (ii) Most candidates chose two appropriate types of renewable energy, although some named solar and wind power which were shown on the graph.
- (iii) There were some high scoring answers, but many candidates found the question difficult. Weaker responses displayed confusion over which sources to include as renewable and non-renewable, with many wrongly classifying nuclear power as renewable.
- (iv) The question differentiated well. Stronger respondents suggested ideas which focused on atmospheric pollution/global warming, resource depletion and the development of new technology in the operation of renewables. A significant number of able candidates considered international treaty ideas and public/political pressures, which showed sophisticated understanding of the issue. Many candidates put all their emphasis on environmental issues, omitting economic ones, and a common error was to use vague terms such as 'cheap/free', 'green', 'clean' and 'environmentally friendly'. Some answers wrongly considered why Germany would need more energy overall rather than the move towards renewables.
- (b) (i) Many candidates identified the positive relationship between GDP and energy usage, and some candidates followed this up by referring to anomalies. Many also illustrated the positive relationship between two countries by giving accurate statistics.
- (ii) Many candidates were able to explain why there are concerns about the impacts of electricity generation by using fossil fuels, referring particularly to issues such as global warming and acid rain. Many developed their ideas well, explaining in some detail how global warming is impacting the global natural environment. A few also referred to issues caused by the generation of renewable energy and nuclear power, though in many cases these tended to be local rather than global issues. Indeed, answers at the local scale and answers about people rather than the natural environment were common from weaker candidates. Another error was reference to ozone depletion; some candidates continue to confuse this with global warming.
- (c) The open nature of the case study caused problems for some candidates who did not identify a local economic activity. Mining at Hwange and tourism at the Victoria Falls were popular successful choices. However, many wrote about 'industry' or 'power production' in general and at a national scale and so found it difficult to develop ideas with clarity. The best answers focused on a specific activity in a smaller area, such as a specific power station, factory or tourist area, or an area where logging is taking place. They were then more able to deal with environmental management. Many weak candidates spent most of the answer giving background information and/or describing the risks rather than how they were managed.

GEOGRAPHY 9-1

Paper 0976/22
Geographical Skills

Key messages

- Candidates should look at the number of marks available for an individual question in order to avoid writing too much or being repetitious. For instance, **Question 1(d)** was worth 7 marks and therefore required seven physical features to be described.
- It is important to understand the key to maps, but this should not be used to answer questions in isolation of the map itself, for example in **Question 1(c)** to avoid naming features which do not appear on the map itself.
- Candidates should avoid listing several different features in short one word answer questions, especially in **Question 1(a)**, since if one is incorrect this can lead to the mark being lost.
- Candidates should practise making distance calculations and providing compass bearings for questions such as **1(b)(i)** and **(ii)**.
- Candidates should spend time at the end checking over their work to make sure that their responses to short answer questions are correct. For example, some candidates wrote 334 metres instead of 344 metres in answer to **Question 1(a)(v)**.
- More practice is needed in responding to command words. For instance, **Question 4(a)** asked candidates to describe and not explain the physical features in **Fig. 4.1**. When asked to compare, for example in **Question 2(a)(ii)**, candidates should be prepared to use words such as 'higher' or 'more' rather than writing many single sentences where the comparisons made are less direct. Notice should be taken of text in bold print, for instance **Question 3(b)** asked candidates to 'Suggest three different reasons', not one reason which is developed in three sentences.
- Candidates should practise their understanding of key geographical terms in order to avoid misconception of the question, such as 'distribution' in **Question 1(a)(iii)**. Other key terms should be learnt, for example the difference between 'tributary' and 'distributary' in **Question 1(d)**.
- When writing on the extra pages, make sure the question part is clearly stated.

General comments

Candidates approached the paper positively and there were few token gestures to answer questions. There was a wide range of marks, but few in the fifties. Although there were few very weak scripts, many candidates wrote at length, but their effort was not always effectively directed to answer the question set.

Although very good responses were seen for all questions, candidates tended to perform well on **Question 2** but found **Question 6** more challenging. This also applied to **Question 1(b)** testing mapwork skills. There was little evidence that candidates ran out of time to finish the paper since there were relatively few question parts which were not attempted.

Comments on specific questions

Question 1

- (a) Candidates were able to score high marks on this section, demonstrating an ability to find features on the map and identify them. Feature **A** was a *main road*, and **B** was a *footbridge* (Examiners also allowed *buildings* or *non-coniferous trees*). The river at **C** was the *Kel Burn* which needed careful attention not to be confused with Kelburn Glen. The land use at **D** was *coniferous trees* and the height above sea level of the spot height at **E** was *344 m*.
- (b) Although there were many correct answers, some candidates found **part (b)** challenging. The distance measurement in **(i)** was *3100 m*, and the bearing in **(ii)**, *100°*. In **(b)(iii)**, the term

'*distribution*' was not well understood. Many candidates struggled to describe the exact location of the trees and lost time trying to distinguish between the different types of forest. The best responses gave an overview stating that there was '*more in the west and south-west*' or '*less in the east or south-east*', and that the distribution was uneven and linear along slopes. Many said that it was mainly found on steep slopes and along rivers and valleys. Kelburn Glen or grid square 2256 was often highlighted as having the densest area of forest.

- (c) Many candidates were able to list the services provided for the population of Largs, with many choosing three from *school, hospital, place of worship, police station, fire station, library, parking* and *public conveniences*. Some candidates ignored the command in the question and included tourist attractions, while others read off the key and named services such as a bus or coach station and a sports centre which did not exist in Largs. Some mistook the police station as a post office.
- (d) A full range of marks were seen here, although many answers were rather short, especially in the valley section. With 7 marks available, candidates should have worked on the premise that seven different physical features of the River Gogo Water and its valley were required. Most credit was given in the river section with many candidates referring to the *waterfalls, meanders, tributaries* and pointing out that the width *varied*. However, many candidates thought that the river flowed from east to west or from the coast and stated that '*Tributaries split off from the main river*' rather than joining it. Some candidates also used the term 'distributaries' when they meant tributaries; it is therefore important that they can define each of these different features. Candidates found it harder to describe features of the valley, but its *steep slopes* which had some *cliffs or rock outcrops* were often stated. Others noted that it was *V-shaped*, had some *interlocking spurs* and that it *meandered* just like the river itself. Many candidates referred to human features, such as footbridges, as well as the land use, such as the types of forest, which were given no credit.

Question 2

- (a) (i) Most candidates studied **Fig. 2.1** carefully and listed the four countries in the correct rank order of decreasing growth rate.
- (ii) The best responses were able to express an overview such as '*Africa has a higher growth rate than North America*', and then further developed their response with use of comparative statements, for instance, '*Africa's population growth rates are more varied than North America's which tend to be similar*', or '*One area in Africa has a decrease in growth rate which North America does not*'. Some very long responses located parts of each continent with different growth rates but without making any direct comparisons. Others erroneously tried to explain why there were differences in the growth rates. Many responses included statistics which were specifically not required.
- (b) This question was well answered. The key concept was recognising that there was change over time. Statements such as '*The population growth rate is high as the death rate and infant mortality rate are decreasing and the life expectancy is increasing*' scored the 3 marks available. Some candidates also recognised that while the birth rate was high, the death rate was relatively low, which contributed to a high population growth rate. Points not directly derived from **Fig. 2.2**, which tried to explain the high growth rate, for example the lack of availability of contraception, were not credited.

Question 3

- (a) (i) Most candidates achieved 1 mark for the idea of the houses being clustered. However, they found the second mark hard to achieve by not focusing on the actual housing, but on the surrounding roads, gardens or vegetation instead. Therefore, observations such as '*The houses look old*', '*Have sloping or tiled roofs*', '*Have two or three storeys*' or '*Are of similar design*' were also given credit.
- (ii) There were only a few who scored the full 3 marks available. Candidates needed to identify a feature of the site from the photograph, **Fig. 3.1**, and say why the site would have grown. Many candidates named the features such as *flat land, the river* or *available space*, but then failed to give a reason, such as '*The river provides a water supply*' or '*The flat land makes building easier*'. Conversely, some candidates suggested a reason such as accessibility but did not link it to the road network. Some candidates gained credit for reference to the '*Trees which could have been used for fuel*' and the '*Grassland that could be used for grazing animals*'. '*Fertile land*' was often mentioned but candidates needed to explain why it was fertile with reference to the lush pastures.

The fact that the main settlement was above the valley floor and thus above the level of flooding was missed. Some candidates looked at reasons why one would move there today, such as for the scenery, peace and quiet and being away from industry, but the thrust of the question was on past growth.

- (b) This was well answered with responses primarily focusing on rural to urban migration and/or giving a range of push and pull factors often related to jobs, health care and education. The idea of a low birth rate was well understood and creditworthy. However, it was not always explicitly stated, but was instead replaced by several reasons for why it had declined, such as couples marrying later. Candidates did not always note that the question referred to MEDCs and gave reasons which would be more relevant in an LEDC, such as a high death rate. Answers relating to a better life or standard of living also needed to be more explicit.

Question 4

- (a) (i) Those candidates who described accurately what they could see in **Fig. 4.1** and employed appropriate geographical terminology relating to coasts were able to score well. Credit was given for points relating to features such as the *cliff* or *headland*, *the natural arch*, and *the wave cut platform*. Marks were also given for the relative *abundance of vegetation*, together with some identification of its type, such as *bushes*, *trees* or *scrub*. Those who recognised that the water was relatively *shallow* were also given credit, although not for stating that it was clear or blue. Some candidates were clearly not familiar with coastal scenery and described the scene as ‘a river with a bridge going over it’. The arch, often incorrectly spelt ‘arc’, was referred to as a cave, which was not credited. Those who lost focus on the question tried to explain the landscape features, referring to the processes needed to answer **Question 4(b)**. Reference to tourists in the question stem seemed to encourage some to write about the advantages of the area for tourists.
- (b) Most candidates understood Feature **A** was likely to collapse in the future, and many reasoned that this was as a result of the arch widening and losing its support due to the processes of erosion, such as hydraulic action and corrasion. Some suggested that weathering may also play a role. However, weaker responses did not always link the processes of erosion to waves or the sea, using the term ‘water erosion’. Some incorrectly referred to the road above Feature **A** and the effect a huge number of tourists might have.

Question 5

- (a) (i) Most candidates correctly read **Fig. 5.1**, stating that the amount of cereal crop production in 2014 was *550 million metric tonnes*.
- (ii) Many candidates recognised the overall increase in both cereal production and fertilizer use, a positive correlation. Many also recognised the three stages in the graph: from 2004–2008 when both increased, 2009–2014 when fertilizer production continued to increase, but the increase in crop production slowed down or fluctuated, and finally 2014–2016 when fertilizer usage reduced, and crop production increased at its highest rate. However, most only gained credit for the first and last stages since some incorrectly stated that, between 2009 and 2014, crop production had decreased. Credit for data was seldom gained since either the units were missed out, dates were not stated, or the graph was read incorrectly. The answers with the greatest clarity tended to use the terms ‘*increased*’ and ‘*decreased*’ rather than ‘*higher*’ or ‘*lower*’ when comparing the changes in both parameters.
- (b) (i) Most candidates demonstrated a very good understanding of what was meant by sustainable agriculture in the context of the text in **Fig. 5.2**. Three of the four salient points were readily identified directly from the passage: that *fertilizer consumption had been reduced* and that *this saved money* which could be spent on other projects. In addition, this reduction in fertilizer usage *decreased fertilizer runoff which prevented water pollution*. At the same time, *crop yields increased and would be enough to feed China’s increasing population*.
- (ii) Almost all candidates offered a suitable reason why LEDCs would find it difficult to undertake such an agricultural project. Most felt that they would not ‘*Have sufficient funds to afford it*’. Others pointed out ‘*The high cost of the research and training*’.

Question 6

- (a) Many read the triangular graph in **Fig. 6.1** accurately, giving 24 or 25 per cent for secondary employment and 45 or 46 per cent for the tertiary industry employment in 2019. The former was more often answered correctly than the latter; however, many did not realise that in combination with primary employment at 30 per cent, the column total for middle income countries should add up to 100 per cent. Some responses were quite a long way out, which suggests that candidates need more practice in reading and interpreting this type of graph.
- (b) Many candidates found this a very challenging question and seemed more used to describing the changes in employment structure rather than explaining why these changes occur. Nevertheless, some very good responses were seen, although the majority made no more than two valid points, despite writing relatively long answers. Most points centred around *the increase in education and skill level of the workforce* as a country develops. There was also comment on *the provision of more services in the tertiary sector as people have more disposable income to afford them*. The reduction in primary sector employment was linked to *the increase in mechanisation* and *the ability to afford the import of food crops* rather than grow them themselves.
- (c) A wide range of valid answers were seen. Many answers concentrated on trade with increased imports and exports, an increased choice of goods for consumers which tended to cost less, and an increase in foreign currency and GDP. Many suggested that there would be *'More jobs available'*, and others, *'Higher levels of international tourism'*. However, some advantages needed to be comparative, for instance globalisation leads to *'More foreign currency'* rather than *'Foreign currency comes into the country'*. General points such as *'The country is richer'* or *'Gets more economic growth'* were considered as too vague. Other weaker answers did not always focus on economic benefits, for instance a greater mixing of cultures or greater communication between countries.

Geography 9-1

Paper 0976/03
Coursework

General comments

This report refers to the performance of centres in the November examinations, however, the comments made here are equally applicable for centres that make their entries for the first time in June and November 2023. Please note that the key messages and comments on specific assessment criteria below are derived from the analysis of centres who entered coursework for either of the June and November 2022 examinations.

The original entry for the November 2022 session was very similar compared with the IGCSE Geography Coursework Paper in November 2021. Although many schools have returned to a relatively normal routine since the COVID-19 pandemic, there are still centres where restrictions have made it difficult to conduct their fieldwork. There were also some centres who withdrew at the last minute.

The range of Topics undertaken is broadly similar to the November session in 2021. From the table below it can be seen that coursework submissions on human geography topics vastly outnumbered those on physical geography.

	Topic	Number of centres
Human	Environmental risks of economic development	1
	migration	1
	population	1
	tourism and recreation	3
	urban settlement	2
Physical	rivers	1

The centres who entered candidates were all able to conduct their fieldwork 'in the field' without relying solely on past secondary data or online questionnaires which was necessary during the COVID-19 pandemic. Whilst some used the nearest urban area, others went much further afield such as from Gaborone 178 km across country to the Jwaneng Diamond Mine, or from Italy to Northern Ireland to conduct fieldwork on the parks of Derry.

It is expected that data is collected in groups. This is then collated by a teacher and redistributed to the candidates for them to work on their individual hypotheses. However, where candidates collected their own data in small groups this does not tend to work so well. For safety reasons CIE would **not** endorse candidates being allowed to collect data on their own, 'in the field'. Should a candidate need to add extra data for their own study to that which has already been collected as a group, it is expected that they are accompanied by an adult, especially when administering questionnaires or for instance collecting data on a river.

While the data collection must be a collaborative exercise, individuality is key to achieving the highest marks. Centres should avoid candidates using the same computer-generated graphs in every study. Individuality can be enhanced by candidates researching their own background information, and attempting at least one hypothesis which is not attempted by other candidates. In addition, candidates should be encouraged to take and use their own photographs as well as graphs, maps and field sketches.

It is stressed that this report focuses on points where the moderation process could have been a little smoother or where candidates could improve their coursework in order to access the higher grades. Where there were problems, it usually stemmed from centres whose staff had not received training on how to run and/or mark the coursework option. There is training available online for teachers who are new to the coursework option. There is also the Coursework Handbook available from CIE which includes examples of coursework which are annotated to show how they should be marked.

It is strongly urged that centres read and take note of this report's content together with the *Moderator's Comments on School-Based Assessment of Coursework* which each centre receives. These are the main vehicles for feedback to centres.

Key messages

- Most, but by no means all, candidates possessed a clear understanding of the Route to Geographical Enquiry and this was reflected in well organised studies which invariably contained the five sections outlined in the syllabus.
- Most candidates displayed a very good background knowledge of their chosen topic, although this was not always well linked to the stated aims of each study. Geographical models outlined in the introduction were often given no or only cursory attention in the analysis and conclusion. Some geographical theory should appear in all introductions and often forms an important part of the justification of the hypotheses.
- It is important that enough primary data on any one parameter is collected to allow candidates to exhibit a depth understanding in their analysis. Not all data collection exercises produced enough data to allow the identification of clear trends and anomalies, as well as the opportunity to perform statistical analysis. Adequate data also means that candidates can comfortably focus on a maximum of three hypotheses.
- Most candidates described the methods of data collection well, however, there was an almost universal lack of attention to sampling procedures and detailed justification of the selection of sites for data collection. All relevant primary numerical data should be included in tabular form, but this was absent in some studies.
- An impressive range of data presentation methods was utilised with many demonstrating the complexity required to score well. However, a large number were rendered ineffective by the absence of correctly labelled axes (to include units), especially on bar graphs.
- To be worthy of credit at a high level, photographs should be well annotated. A large single paragraph in a text box or one or two word labels, do not count as annotations.
- The best responses gave well-reasoned explanations to support their findings; however, many reasons given e.g. for anomalies, were far too speculative.
- Most studies clearly confirmed or rejected their hypotheses in the concluding section. The best responses backed this up with key numerical data and valid explanation.
- Most evaluations demonstrated a clear grasp of the limitations of the study undertaken. However, more attention could be paid to what went well and why. Plausible suggestions for improvement or extension should the study be undertaken again, often lacked detail.
- Most centres should be congratulated for making sure their candidates adhered to the word limit of 2 000 words. Where this is an issue, it is expected that a word count is declared in order to get the candidates to concentrate on this issue. Once again it was pointed out that the best studies were those that were concise. Text placed in tables, counts towards the word limit.
- The Moderators would like to compliment the majority of centres for the conscientious and copious comments made on scripts to justify the marks awarded. This certainly made the moderation process a lot smoother.
- The Generic Mark Scheme for Coursework Assessment was used by every centre. The marking done by many centres was accurate, and there was almost always agreement regarding the order of candidates. Where there were disparities, it was usually the result of undermarking of Organisation and Presentation and over-marking of the Analysis and Conclusion sections. The larger changes, if any, frequently occurred at the top and/or lower end of the mark distribution and where the centre only entered one or two candidates.

Comments on specific assessment criteria

Since each centre will receive a separate coursework report on their own submission, which will refer to both particular strengths, and weaknesses, it is points that are common to several centres which are reported below and are based on each of the assessment criteria in turn.

The criterion of *Knowledge with Understanding* tended to be assessed accurately. Where disparities occurred, it was often because the marker seemed to only take the candidate's introduction into account. This is largely the knowledge element, whilst the level of understanding can be demonstrated throughout the study. For instance, a judgement can be made on how well the theory has been applied such as in the provision of reasoned explanation in the Analysis or how perceptive the candidate has been in stating the

limitations of the study in the evaluation. Knowledge can also be introduced at a relatively late stage such as to explain trends or anomalies in the data. This can be highlighted by markers in their comments made on the scripts.

Most enquiries were well organised with clearly stated aims and hypotheses and positive use of geographical terminology. These were often accompanied by the expected outcomes which were often related to theory. Nevertheless, there is still work to do to ensure candidates introductions are not too long compared with the rest of the study. Many followed some initial aims with a prolonged background information section. There are still some candidates who write all they know on a topic. Extended paragraphs of the history of the locality are often irrelevant, and there are still centres who insist their candidates write a glossary of geographical terms, many of which are not mentioned again. Too many candidates place the theory before their hypotheses, rather than the other way round, which encourages greater selectivity. On the other hand, some candidates tend to be far too brief in their use of theory; this was common using Bradshaw's Model or urban land-use models, where once having scanned the diagram(s), just a few simple sentences (if any), to explain the relevance to the hypotheses were written. It should be noted that in the better studies these theories proved a focal point throughout, with good comparisons made to the data collected.

The wording of the hypotheses is important. Nearly all those that were stated were plausible. The most successful formula seemed once again to encourage candidates to use two core hypotheses and a third chosen by the candidate him/herself. This resulted in a more focused study with greater evidence of individual work. The use of four or five hypotheses or a generic guiding question was usually associated with a superficial analysis. Furthermore, it is questionable whether some candidates understood the nature of a hypothesis. Some expressed their hypotheses as questions rather than statements and this seemed to result in a failure to fully explore the findings, with a brief 'yes' or 'no' in the concluding section.

Most candidates include at least one map in their introduction. These maps are gradually improving with most including a scale and orientation. This is viewed as being essential if the map is to be effective. However, it is also expected that any map, from whatever source, is utilised. Its function is most often to show the location of the sites of data collection and/or the relationship between the data collection area and its region, albeit a drainage basin or a city, for instance. The better examples are usually well annotated and possess clarity, in order that relevant detail is easily accessed. However, there are still candidates who include a plethora of maps at different scales with little or no customisation to the study sites. The quality of the scanning is such that much of the detail is illegible for example, the scale. This seems to be most common when Google Maps are downloaded. It should be noted that where candidates have taken the trouble to hand-draw maps, they are invariably worthy of credit.

The criterion *Observation and Collection of data* was accurately assessed by the markers and very few adjustments had to be made. Not all, but most data collection strategies were well organised and resulted in enough data to ensure the opportunity for sufficient depth of understanding and detail to be demonstrated in the analysis. Most centres managed to collect questionnaires from at least the recommended 50 respondents. Bi-polar analyses assessing the ENVQ, also managed to achieve enough locations in the area of study. For river studies 10 locations is ideal, although this was not always achievable due to constraints of candidate safety or of time. In any event, in river studies there is no shortage on the different parameters on which data can be collected, allowing a range of hypotheses, in order that each study is more individual. Where the number of sites is under six, a centre might consider measuring each site at three different cross sections each a minimum of 100m apart.

A common weakness, particularly for those undertaking questionnaires was the failure to discuss the sampling strategy. Even if respondents were accessed on an opportunity basis, then it needs to be stated, and justified. It appears that methods of sampling are poorly understood. More candidates attempted to justify the sites sampled for studies taking place in an urban environment or a tourist resort, but again explanation was very brief. Even if sites for a river study are chosen by the teacher, the candidate needs to justify why they were chosen. This also applies to traffic surveys and pedestrian counts.

The time given over to data collection is another issue, especially when the time available on the school timetable is limited. A surprising amount of data can be collected in a relatively short space of time when a large number of candidates are divided into small groups to cover a large area, each coordinated to do similar activities at similar times, such as a pedestrian or traffic count. On return to school the data is then coordinated centrally and then shared. Even so centres that allocated more than half a day for data collection almost inevitably achieved much better results than those who attempted to collect data in one or two hours.

It is now common for candidates to write up their data collection methodology in tabular form. These are usually well set out, and positively, even include a link to the hypothesis to which the technique being described relates. However, many include some evaluation of each data collection technique. This is best left for the concluding section of each study in order to prevent repetition and avoid a waste of wordage. It should be made clear that all wordage in such tables counts towards the overall word count. Where a group data collection exercise on a large number of different parameters has taken place, candidates need only describe those methods that are relevant to their own hypotheses. This avoids using up wordage which could have been utilised elsewhere.

The use of secondary data can play a valuable role. Having recognised the problems that some centres might have in collecting data during the COVID 19 Pandemic, CIE advised that numerical data could be utilised from secondary sources such as weather stations or censuses. Once again as was the case in June 2021, this option was not taken up. In addition, there was the opportunity to compare data collected at the present with that collected on the same topic in the past. This idea was taken up by a few centres. It must be noted that the use of secondary data does not extend to synthesising written information culled from the internet, teacher's notes or textbooks and putting it together in essay format. This would not gain any credit for Organisation and Collection of data or Data Presentation or Analysis.

Finally, the best studies placed all their relevant data in tables and usually integrated it with the methods of presentation or analysis. Since it is likely that parts of the data will be referred to in the text of the study, candidates should avoid placing it in an appendix. However, there were a large number of studies where tables of data were completely absent and it is hoped that all centres will address this weakness in the future.

Moderators were in agreement that *Organisation and Presentation* was the criterion where on average candidates scored the most marks. However, it was also the criterion which resulted in the greatest disparity between Markers and Moderators especially at the lower end of the mark distribution. This was similar to the November 2021 submission, and the reasoning is exactly the same. Some studies which scored higher marks were overmarked due to the lack of complex methods of data presentation and/or the absence of location maps which had either not been utilized by the candidate, or did not possess both scale and orientation. Meanwhile, some lower scoring studies which used at least three different simple techniques or included one complex technique tended to be undermarked. These techniques must be effective in portraying the data; for instance, there were examples of line graphs used for discrete rather than continuous data which meant they were inappropriate. It should also be noted that different sorts of bar graphs only count as one technique. Furthermore, the same data presented in a number of different ways only count once. Since the emphasis must be on positive marking, when assessing the data presentation, only the three most complex and effective graphs should be taken into account by markers. There is no place in the Generic Mark Scheme for Coursework Assessment to deduct marks for other ineffective or inappropriate graphs.

A large range of skills was demonstrated by candidates in the representation of their data. There is clearly a drive in some centres to get their candidates to produce more complexity and this was largely successful. Where this was not the case there is still a reliance on basic bar charts, line graphs, pictographs and pie charts. These techniques were can be located on maps to make the technique more complex. Scatter graphs with appropriate lines of best fit, divided and stacked bar graphs and radar graphs are other techniques used by candidates which have the appropriate level of complexity. Cross-sections produced in river studies are considered a higher level skill, although these must be created carefully to the same scale order to facilitate ready comparison. There were also some excellent field sketches which were clearly linked to one of the hypotheses and very well annotated; however, at times, others were rather scruffy where the relevance was difficult to ascertain and features difficult to identify. Few candidates used statistical techniques such as Spearman's Rank Correlation. These can count as a complex presentation technique, if the candidates demonstrate the complete working themselves and not just rely on the press of a computer key to get the result.

The most common flaw which was particularly prevalent this session was that bar, line graphs and scatter-graphs were rendered ineffective, by the lack of or incomplete labelling, particularly on the Y axis. Such labelling should include the name of the parameter along with the units of measurement. On some occasions, titles were also missing. Since the majority of graphs are produced by using computer programmes, all centres should advise their candidates that having inputted the data, they should inspect the results carefully and make any necessary changes.

There were some centres where the annotation of photographs, graphs and maps could best be described as impressive. Anomalies on graphs for instance, were highlighted by a circle leading to an arrow and

relevant comment. However, this was not the case in many studies where photographs for instance, had no annotations and were not referred to in the text. Many others had just a title and/or simple labels. These served little purpose. Centres should make sure that their candidates know exactly what is expected by annotations; a paragraph written underneath the photograph for instance, would not count.

Another increasing trend is for hand-drawn graphs and diagrams to be scanned into the study, albeit at an appropriate place. These become more difficult to read, especially when they are scanned in monochrome. Moderators, would expect to see the original and candidates are reminded that each graph should be drawn by themselves and not by one person in their original group with the rest scanning it.

Most candidates followed the route to geographical enquiry and therefore produced studies with an appropriate structure. Thus, little comment is required on the *Organisation*. Most candidates are integrating their graphs and diagrams with the text of the Analysis. This helps to ensure candidates analyse the data shown by each graph/diagram/map in turn, making sure that none are redundant. Candidates should be discouraged from lumping all their graphs together in one section, whether it is before the Analysis or in an appendix at the end. This also includes statistical tests. It is good practice to provide a table of contents with page numbers at the beginning of the study. However, with amendments being made the original page numbers are not always accurate. Candidates should check this as one of the last jobs before submission of their studies. More candidates are including risk assessments which undoubtedly demonstrates their organisation. However, few mentioned undertaking a pilot study, for example conducting trials for questionnaires on selected adults or candidates before the main survey.

The *Analysis* continues to be overmarked by quite a few centres, especially at the top end of the mark distribution. The requirement for reasoned explanations at Level 3 is still being overlooked by markers when reasons given are very short and tenuous. Some of the marker comments on the scripts revealed that the higher marks were being given for explanations which were far from being developed.

Although still one of the weakest criteria for many candidates there are undoubted improvements being made. Candidates seem much more able to interpret their data rather than just describe it, with few achieving only Level 1 marks. Descriptions are also much more thorough with some good use of data as support, drawn from either tables or graphs. More able candidates manipulated some data, producing averages for instance. The quality of explanation was a little better than in previous sessions with some reasoning able to lift candidates in to Level 3. The more able candidates used one or more of geographical theory, secondary data or personal observation to support their explanations. In addition, they clearly identified anomalies from graphs, using numerical values to show why they are anomalies and explained them with reasons that were credible. However, it is still too often the case, that explanation is speculative with no firm foundation. Some identified anomalies but blamed errors in data collection. Once again, it is worth stating that phrases such as 'The reason might be/could be/may have been', should be avoided when attempting an explanation.

The analysis section is where candidates can really demonstrate their level of understanding. However, the depth of analysis can be severely limited by the lack of a sufficient amount of raw data on any one variable for interpretation purposes. Here the onus is on the centre to make sure their candidates have enough data at their disposal to achieve their potential.

Although many conclusions were a little short, most candidates summarised their findings well with clear references to the hypotheses which were either confirmed or rejected. The best enquiries quoted key data, trends or made reference to figures (usually graphs or maps) used earlier in the study, as well as providing some explanations. Unfortunately, many responses lacked the evidence to support their assertions, explanation was rather superficial, and in particular, any models or theory quoted in their introduction was not mentioned. This particularly applied to urban land-use models, and the Butler Model, although Bradshaw was an exception, albeit rather cursory in many cases. Most common was the lack of key data which limited progression to the higher Level 3 marks. The *Conclusion and Evaluation* was marked accurately apart from the highest scoring studies. Here too much credit was given for accounts which lacked this key data. The key data should be either examples of numerical data or stated characteristics shown on graphs, maps and tables which are clearly referenced; for example 'On Fig. 1 it can be seen that.....'.

An evaluation section is an expected part of the conclusion, although markers should take in to account comments made in the methodology section, which usually refer to the effectiveness of the equipment they used. Candidates tended to make some valid criticism of their data collection strategies and many came up with one or more realistic improvements, with better candidates stating the implications of their suggestions. It was interesting that very few candidates wrote in any depth on the restrictions posed by COVID-19 in carrying out their enquiries. Once again sampling procedures received very little attention. In addition, there

were a plethora of generic improvements which needed some development e.g. 'We needed more time' or 'We should have sampled more sites'. Most of the evaluation is still reserved for negative comments rather than stating what went well and why it was effective. The evaluation sections are often a good gauge of a candidate's level of understanding of the topic undertaken and whether he or she enjoyed the fieldwork experience. Occasionally, some evaluations are rather focused on a candidate's own personal development and interaction rather than the effectiveness of the study in a geographical sense.

Administration

Centres must be praised for the hard work of their markers and their accuracy in utilising the *Generic mark scheme for Coursework assessment*. In nearly all centres it was applied consistently with the order of candidates remaining unchanged. This made making adjustments relatively easy. For some centres this led to no change to the marks awarded being recommended. For those that were adjusted this was not always across the whole mark distribution. There seemed to be a pattern of negative adjustments at the top end and more positive ones at the lower end. Those centres which had a large negative adjustment applied, were generally relatively new to the moderation process; the reasons would be detailed in the document *Moderator's Comments on School-Based Assessment of Coursework* which each centre receives.

Moderators also appreciated the conscientious approach of most markers in adding comments to their candidate's scripts to justify the marks awarded, as well as those who added a cover sheet with some overall comments. These generally used the wording from the Generic Mark Scheme for Coursework Assessment and facilitated the smooth running of the moderation process. On the very odd occasion, it highlighted when a marker had misinterpreted the mark scheme. If your centre has not done so, it would be very much appreciated if markers make these comments (in pencil) on the scripts for your next submission

Please note that CIE accepts only one piece of coursework for each candidate. Where two different fieldwork exercises have been carried out, it is up to the centre to see that only the one attaining the highest marks according to the Generic mark scheme for coursework assessment is sent. The centre must also make sure that coursework based on different topics are of equal value in giving the opportunity for candidates to achieve their potential.

Please make sure you check the latest documentation from CIE to ascertain the exact number of scripts that should comprise your centre's sample. For centres outside of the UK, at present this as follows;

- 0 – 10 candidates – all scripts
- 11 – 50 candidates – 10 scripts
- 51 – 100 candidates – 15 scripts
- 100 – 200 candidates – 20 scripts

Almost all centres got their coursework sample submissions to CIE on time, before deadline, with the appropriate paperwork completed. The latter consisted of the candidate summary assessment form together with the MS1 or the Internally Assessed Marks Report. Please make sure that an Individual candidate record card is attached to the front of each script and not sent in the overall package in one pile. In addition, please make sure that candidates are listed in candidate number order on the Coursework Assessment Summary Form.

Most of the paperwork was completed accurately and included with the sample. In almost all cases the sample included an appropriate number of scripts representing a fair cross section of the marks awarded (to include the top and bottom of the mark distribution).

Please continue to double check the paperwork to make sure there are no mathematical errors. Very few errors were detected this time round. However, it is worth restating the following:

Errors usually take place in one of the following instances;

- Most commonly where the addition of the assessment criteria marks on the individual candidate record card was incorrect and this was subsequently transferred to the Coursework Assessment Summary Form and then the MS1's.
- Transcription errors from the Coursework Assessment Summary forms to the MS1 forms. Occasionally, this may occur where an internal moderation has taken place, and the candidate's original marks have been entered instead of the changed mark.

Although, Moderators do correct these errors whenever they are found, it is recommended that all centres should have their candidate's marks double checked.

Where a centre has more than one marker it is essential that an internal moderation takes place. There is evidence that these have been conscientiously carried out by most centres and marks changed accordingly. However, the change for an individual candidate is not always reflected in the change in marks for individual assessment criteria, only the overall total out of 60. This information is essential for the Moderator's job to be carried out effectively. There have been occasions when one marker's marks from a centre has differed markedly in standard from the remainder of the markers and an internal moderation is the best way to resolve this problem.

GEOGRAPHY 9-1

Paper 0976/42
Alternative to Coursework

Key messages

- When answering hypothesis questions that ask whether you agree or not, always give your opinion first before any supporting evidence. This will usually be *Yes*, *No*, or *Partially / To some extent*. Make your decision after weighing up the evidence and then state it at the start of your answer. Some candidates provide the correct evidence but seem to forget to write down a decision. If you agree with the hypothesis, do not just repeat the wording of the hypothesis; you need to make a decision about it and then state it. No credit is given for just repeating the hypothesis word for word.
- When giving data in answers, always give the units if they are not stated for you, e.g., m/sec. If data is provided in a table, then candidates are expected to use the exact data, not make references to ‘*about*’ or ‘*around*’ a general figure.
- Take care when adding plots to graphs and use the key provided. Any numerical answers should be clear, for example a 4 often looks like a 9, a 2 like a 5, a 0 like a 6, a 1 like a 7. On this paper, the answer to **Question 2(d)(ii)** was 7, but some looked like a 2 or 5.
- Read questions carefully and identify the command word, e.g. *Describe*, *Explain...* and also the key words. For example, if asked for *data* then statistics are required, whereas being asked for *evidence* could involve description as well as statistics. It might be helpful if candidates underlined the key command words in a question.
- When asked to compare or describe differences, make judgements, e.g. *higher*, *lower*, rather than just listing comparative statistics. If comparing statistics, it is important to use paired data rather than one set on its own. It is also important to indicate which statistics relate to which sites if appropriate.
- Check that you are using the resources that a question refers you to for evidence or data, for example **Question 1(e)(iii)** referred candidates to Table 1.2, but some candidates gave an answer that took information from Table 1.3.
- Remember some resources will be in the Insert and not on the examination paper. If you are referred to a map or graph and a table, use statistics from the table rather than try and judge them from the map or graph which can cause inaccuracy.
- Attempt all completion tasks on graphs, tables or diagrams – not all the answers are on lines and in writing. Many candidates are missing out on relatively easy marks this way; in this session, this was particularly the case with **Questions 1(d)(i)**, **1(e)(ii)**, **2(d)(iii)**, **2(e)(iii)** and **2(f)(ii)**. Note that where there is a completion task, the instructions are now **emboldened** to try and avoid candidates missing them out. It is better to use a pencil when completing graphs or diagrams so that errors can be erased and corrected; candidates who need to correct answers in ink often make their answer difficult to read/credit.
- Use a ruler and a bold, sharp pencil to improve accuracy and presentation where required. This was particularly the case with the bar graphs, pie graphs, flow-line map and graphs that required a cross to be plotted. Freehand poorly executed irregular lines were often noted on **Question 2(f)(ii)**.
- Consider the marks awarded. Examiners do not expect candidates to be writing outside of the lines provided, so do not write a paragraph when only two lines are given as this wastes time.
- As all scripts are scanned for marking, it would be preferable for candidates to write in black ink, and make sure any plotting and shading of graphs stands out clearly.
- If you have to write more than the lines allow, there are additional lined pages that you can use at the back of the examination paper. Indicate this with a phrase such as (*continued on page 15*). This is very helpful to the Examiner in finding the rest of your answer. Also make sure you have indicated the correct question number on the extra pages; in this session, a few candidates gave an incorrect question reference which made it difficult to match it to the correct answer earlier in the booklet. There should be no need for you to request additional booklets.
- Bear in mind that if an Examiner cannot read your writing, a mark cannot be awarded. Make sure all your work is legible. It was also noticeable in this session that candidates often crossed out an answer – which was sometimes correct – and replaced it with an incorrect answer. A little more thought before making the decision might have prevented the change from the right answer.

General comments

Most candidates found this examination enabled them to demonstrate what they knew, understood, and could do, and both questions proved equally demanding, equally accessible and equally successful in the answers produced. The overall range of marks was from 0 to 56/60 with weaker candidates scoring on the practical questions, such as drawing graphs, and those of higher ability scoring well on the more challenging sections requiring explanation, comparison, and judgement, especially regarding hypotheses and supporting statements backed up by data.

There is less general advice to be given on areas for improvement with this paper than with others. As there are no choices to make, it is difficult to miss out sections (though many candidates still do) and on this paper there were a few sections that indicated a high percentages of *No Response*. These were especially noticeable where graph or table completions were required. If there is a graph or map on the examination paper, candidates should expect to have to complete one; it would be very unusual if a graph or map on the examination paper was already completed. All the instructions for completing graphs and diagrams are **emboldened** so candidates should not miss these.

There may have been a few time issues as there were some *No Response* answers at the end of **Question 2**, but the booklet format does not allow or encourage over-writing of sub-sections and not many candidates needed to write more than the lines allowed for. Most points for teachers to consider, when preparing candidates for future examinations, relate to misunderstanding or ignoring command words. Here, plenty of practice using past papers to ensure they read the instructions carefully and complete graphs and other practical activities within the time allowed would improve performance. Particular questions where candidates do not score well often relate to them not taking time to thoroughly read and understand the resources referred to. Such failings mean that some candidates do not obtain a mark in line with their geographical ability.

Particular issues that stood out on this paper included the lack of knowledge and understanding about employment sectors in **Questions 1(f)(i)** and **(ii)**, and a lack of basic understanding of different sampling techniques in **Question 1(b)(i)** and **Question 2(e)(ii)**. These are two areas that centres could focus on which would benefit candidates in both the short and long term. The continuing concern of candidates failing to attempt straightforward graph, map and diagram completion remains.

Centres should also realise that, although this is an *Alternative to Coursework* examination, candidates will still be expected to show that they know how fieldwork equipment can be used and how fieldwork methodology, demonstrated in the *Route to Geographical Enquiry* in the syllabus, is implemented even if they have only limited opportunities to carry it out in and around the centre.

Comments on specific questions

Question 1

- (a) (i)** The majority of candidates made a good start to the question by correctly stating that international migration involved the movement of people '*from one country to another country*' or similar definition. A few read the question as '*internal migration*' so they wrote about movement within a country, and others stated that it was movement between continents which is not necessarily true.
- (ii)** While most did this well, it was important that their definition of pull factors could not be read as also covering push factors. For example, an answer such as '*what makes a person move to another country*' could be pull or push, so gained no marks due to these ambiguities. A key term used by many candidates was the expression '*attracts to*' which could only be a pull factor. A few gave examples which, while valid, were not credited as the question asked what was meant by a pull factor, not give an example of one.
- (b) (i)** Candidates should have a sound knowledge of the three sampling techniques required in the syllabus – systematic, random and stratified. '*Asking every 10th person...*' is an example of a systematic method, yet too many thought the answer was random or gave a description of a sampling technique that is not in the syllabus e.g., pattern sampling or quota sampling. A large minority did not attempt this question.

- (ii) Most did this well. Common responses for not answering the questionnaire were the fact that they may be busy, that they did not want to do it, they were not migrants, there could be issues with literacy and language barriers, and that they might be illegal or have issues with trusting how the information might be used by the candidates. All these were valid points. Suggestions that they might not have been asked politely or that the candidates were aggressive and rude to them did not gain credit.
- (c) A large majority came up with several reasons why people might migrate to Kenya. By far the most popular involved moving there for work or for higher wages or for specific services such as better health care or educational opportunities or moving to live with family. Most answers were pull factors, but credit was also given to push factors such as escaping war or persecution. Vague answers such as moving for a better climate, avoiding flooding, a better environment, or even answers that were more relevant to visitors or tourism e.g., to look at the wildlife/scenery or move to a friendly atmosphere were not credited.
- (d) (i) Many of the arrows were too wide to gain a mark, especially the India one. It was important that the arrows started in the correct country and were in line with Kenya although, due to the many arrows focussing there, they did not need to end in Kenya. Most candidates drew two correct lines within tolerance; however, a large percentage did not attempt adding the arrows at all. A few just wrote the number of migrants in the respective countries.
- (ii) It was important that candidates referred to the arrows indicating direction and also to the width of the arrow indicating the number of migrants. Most candidates did not refer to the arrows at all; they just stated that the map showed where the migrants were coming from and the number of them for a 1-mark maximum credit.
- (iii) It was important that the candidates carefully read the hypothesis. Far too many added up the Africa figures to 44 and decided that the hypothesis was true, but this was not the case. The other countries listed added up to 56, so the hypothesis was incorrect. It appeared that candidates compared the 44 to the highest other country, which was India at 25, and so decided the hypothesis was true. What was allowed though was a decision that the hypothesis was true if candidates used the continent data listed in the first column where Africa's 44 was higher than the 12 for Europe, 10 in North America and 31 in Asia. There was also some very loose use of the term 'majority' which is not the same as 'most'. Candidates need to be aware of the definition of 'majority' to use it correctly.
- (e) (i) Almost all candidates did well and chose the three correct problems for 3 marks.
- (ii) The pie graph was completed well by most candidates. Some of the plotting was outside of the tolerance allowed and there was some careless shading: quite often the vertical line shading was at an angle and on occasions even close to 45 degrees.
- (iii) Most candidates agreed with the hypothesis and did support that decision by recognising the main problem of crime and security in Europe/North America and usually the high cost of living in Somalia. Paired data was also present with the majority comparing the 56%/40% difference between Europe/North America and India. Overall, paired data was missing, and qualitative answers were given. It was surprising that some candidates thought the main problems were reasons why the migrants had left their home countries – not the main problems on arrival. Some also listed in detail which problems a country was **not** facing rather than the main problem they were facing. Others just listed all the problems in a country, not the main problem as required. Another issue was that the candidates were referred to Table 1.2, but a few correctly agreed with the hypothesis and then compared the jobs of migrants from Table 1.3.
- (f) (i) There was a general lack of knowledge and understanding about employment sectors. Fewer than half the candidates identified the market trader as tertiary and the IT consultant as quaternary with most choosing these two jobs as primary or secondary which did not bode well for their judgements of job types in the next sub-section.
- (ii) Candidates who did well on this question made overall judgements about the differences in jobs rather than comparing incorrect employment sectors. Popular answers compared high/low wages, high/low skills and high/low qualifications which gained credit. There were too many incorrect statements such as '*most jobs in Somalia were primary and secondary*' which was incorrect:

almost all jobs were tertiary. A few answers just made lists of the different jobs with no overall judgements at all.

Question 2

- (a) Although the occasional candidate did not attempt the table completion, most candidates did add the three river characteristics in the correct boxes. However, as well as adding the three required terms, many added a few more of their own for good measure from the Bradshaw model. They were not penalised for this as long as the three terms needed were in the correct columns. The main error regarding the three terms they should have added was putting '*slope angle*' in the left-hand column.
- (b) Almost every candidate added the arrows in the correct place, although a few did not attempt this.
- (c) Popular factors to consider when choosing the fieldwork sites of the river were accessibility, its width, depth, and velocity along with the chance of encountering dangerous animals (usually crocodiles) or pollution. All these were credited. Several candidates gave one-word vague answers which needed some detail for credit, e.g., *safety*, *danger*, *distance*, *water temperature*. Overall, not many gained the 3 marks available and generally this question was not answered well by most.
- (d) (i) Giving the candidates a list of processes to put into the correct order certainly helped them choose the right sequence and this was done well by the vast majority. A small number did not gain credit as they either repeated the '*Use the tape measure...*' statement or put the '*Record...*' row before the '*Stop the stopwatch...*' row. A few tried to write the statements in their own words which was not necessary.
- (ii) This was quite well done by most candidates who correctly chose the rejected measurement number of 7 and explained that it was rejected because it did not follow the trend or was an outlier/anomaly. It was important to explain the choice with a comparative statement referring to the other measurements, i.e., just saying it was '*too high*' or '*took too long*' needed the addition that this was '*...compared to the others*'. Several candidates answered with 47 seconds which was the correct time at number 7, but the question asked for the number not the time. As this was the correct time, it was not given credit but the reason for choosing it was. Common incorrect choices included numbers 2 and 11.
- (iii) Many candidates did not attempt this plot for 1 mark; almost all those who did added the bar correctly at 0.38. A small number misread the scale and added the bar at either 0.37 or 0.39.
- (iv) Most candidates made the correct hypothesis choice that the velocity increased at two sites, and they identified that the increase was 0.29 m/s to 0.38 m/s from Site 1 to Site 2. A few just gave the data without including the fact that the speed increased. Those who gained no marks usually decided that the hypothesis was false; more care should have been taken with a good look at how the data changed between the sites from Table 2.2. Plotting the bar in (iii) at 0.38 would have helped those who did not plot it or ignored the table, thus leading to an incorrect hypothesis choice. A few candidates were confused about upstream/downstream and wrote that the velocity increased upstream from Site 1 to Site 2.
- (v) The vast majority of candidates decided correctly that the third choice that would improve their fieldwork and make their results more reliable was '*do their fieldwork at six sites along the river*' rather than the three used. Measuring just 20m between sites or only measuring the velocity once at each site would be poor choices that would hardly improve the results' reliability.
- (e) (i) The question stated that the candidates had measured the longest axis with a ruler, so similar measuring instruments were not credited, e.g., measuring tapes, string, clinometer, quadrat – some even repeated using a ruler. There were three more accurate measuring tools that were credited: callipers, pebbleometer, and a micrometer, (also known as a screw gauge). All of these would give a more accurate measure of length than the other basic tools. However, the measuring tape dominated answers. A significant minority did not suggest any tool and missed out the question.
- (ii) This sub-section proved to be the least successful, with most candidates unable to suggest any valid weaknesses in selecting pebbles randomly from the river. The few acceptable answers given included that they might not be representative, that candidates might be biased in their choices – either by picking attractive or coloured pebbles or the largest. Equally, they may just have picked

them from the same site without trying to cover other sites that may have different sizes. As mentioned in **Question 1**, the strengths and weaknesses of all sampling techniques is a topic that appears to not be very well understood by many candidates.

- (iii) Plotting the cross and average line were not attempted by very many candidates; these should be straightforward marks which lead on to the more demanding questions that follow. Those who did attempt it plotted the numbers well providing they read the scale on the left correctly. A few plotted 12.8 at 12.6 but most gained credit; there was less success in plotting the site average line at 8.3. A small number plotted a cross instead of a line.
 - (iv) Even if candidates did not plot the two numbers in (iii), they still had Table 2.3 with all the data needed to make a hypothesis decision about whether the load particle size decreased downstream. Overall, the right decision was that the size was bigger downstream, making the hypothesis incorrect, and candidates should then have used the average figures for the three sites as evidence of this as they all increased from 6.8 to 8.2 to 8.3. While most made the correct decision, a few chose the size of individual pebbles as supporting data which was not appropriate as Site 3 may have had the longest individual pebble, but it also had the shortest too, so the average size was the key to deciding that the length increased downstream. There was a little confusion in some cases with the use of upstream/downstream in answers.
- (f) (i) A relatively large minority did not attempt this question and those who did showed limited understanding of problems with judging roundness using the Powers Scale of Roundness. The best answers understood that candidates were making subjective decisions and that their opinion was a judgement which may differ from that of other candidates, and that one solution was to do it together and work out the most common judgement of roundness. Some also noted that the classes were similar, so any pebble could appear to fit into two different classes. Inappropriate suggestions included using a magnifying glass, only choosing pebbles that looked exactly like those on the chart or having more classes on the chart.
- (ii) About 10 per cent of candidates did not attempt completing the divided bar chart worth 2 marks. This was the highest 'No response' on the paper. The large majority that did attempt it added the two plots correctly at 10 and 11 and used the key to shade the bars the correct way. There were a few that plotted the bars from the base of the axis instead of above the existing bars, thereby making it far too short, and some shaded the cross-hatching in the opposite direction to that in the key. Overall, it was a very successful question for those who did complete it.
 - (iii) While most candidates correctly recognised that the pebbles would become more rounded downstream or from Site 1 to Site 3, not so many could provide supporting statements about changes between sites of the specific pebble shapes that headed each column in the table. An example of a good answer would be: *'There were no very rounded pebbles at Site 1 but there were most/more at Site 3, with 0 at Site 1 and 7 at Site 3'*. A few did this and gained credit, but the majority just wrote out all the data from the table again with no comparison between the sites downstream or they simply described the changes across the table rather than down the columns.