

GEOGRAPHY

Paper 0460/12
Geographical Themes

Key messages

To perform well on this paper candidates should:

- Bring a pen, ruler, sharp pencil and a calculator to the examination.
- Follow the examination rubric by answering three questions, selecting only one from each section.
- Choose their three questions with care. Read them through and study the resource material provided with them before making a choice.
- Attempt all parts of the questions which they select, including those which involve the completion of graphs, diagrams and maps.
- Read the questions carefully, taking note of command words and words which indicate the context of the question, for example 'describe'; 'identify'; 'explain' and 'compare'.
- Take note of the focus of all questions and the context – this could include causes or effects, problems or benefits, people or the natural environment, and local or global.
- Learn the definitions of geographical terms in order to define and accurately use them. When defining terms, candidates should not repeat any part of the word being defined in their definition but use completely different wording.
- Consider the mark allocations and answer spaces provided in the question to ensure that answers contain the required detail and number of points.
- Express ideas with clarity and using geographical language where appropriate e.g., north and south rather than above and below.
- Give detailed and relevant answers especially in the final two parts of each question, elaborating on or linking ideas to answer the question set.
- Be familiar with using graphs of different types, tables of data, photographs, written extracts, diagrams and maps, making use of keys, scale and compass directions as appropriate. Graph and map completion tasks should be done with great care, using a ruler and sharp pencil to produce the required precision.
- Note whether questions ask candidates to use statistics in answers. If they do so, full marks can only be obtained if they are used effectively to justify and support points made. If a question states that statistics should not be used, no credit will be awarded for their use.
- Be able to select appropriate case studies and include place specific information in answers, avoiding including too much general information about the topic at the expense of relevant detail. If statistics are used in case studies, they should be relevant and integrated with points made, not simply quoted in isolation.
- Be able to explain processes, using labelled diagram(s), geographical terms and correctly sequenced ideas.

General comments

The general performance continues to improve and an increased number of candidates performed consistently well across the paper, with some producing answers of very high quality throughout. As always there was a wide range of marks, but most candidates did make a good attempt at many parts of their chosen questions, enabling the paper to differentiate between candidates of all abilities.

There was a very small number of rubric errors, though it was rare to see scripts where all six questions had been answered. Those few candidates making rubric errors tended to answer three or four questions from the six, selecting two from the same section rather than one from each section.

The presentation of answers from most candidates was acceptable or good and answers were usually in sufficient detail. Occasionally answers were of excessive length and contained irrelevant details whilst others were too brief. However, most candidates were guided by the mark allocations and space provided, the best

responses being concise, yet detailed and accurate in content. Some candidates made use of the additional page at the end of the question paper booklet; however, in some cases this was because they had included too much irrelevant material in earlier parts of their answers. In particular, candidates need to ensure that in their responses to the 7 mark **part (c)** questions they take note of the command words, context and key terminology used.

Questions 1, 4 and 5 were the most popular questions. There were good answers seen to all questions, including those requiring extended writing. Many excellent responses were well focused, with developed or linked ideas and relevant place specific information. Weaker case study responses included generic comments rather than focusing on the actual example used. Candidates need to include development or linking of points to enter Levels 2 and 3 of the mark scheme.

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

Comments on specific questions

Question 1

(a) (i) Many candidates gave an acceptable answer, but weaker answers wrongly defined 'sparsely populated', or just referred to numbers of people being small with no reference to area.

(ii) Many candidates identified two resources from the photograph. Some weaker candidates did not follow the instruction to use evidence from the photograph and wrongly suggested resources like soil, whilst others did not refer to 'resources' and so suggested features such as a road or bridge.

(iii) Many candidates suggested three valid reasons why the area is sparsely populated: the most common correct references being relief, access, and lack of jobs. Some weaker responses referred to the lack of services such as schools, hospitals, and shops; this is a consequence of the sparse population and not a cause.

(iv) Only the most perceptive candidates showed a good understanding of the requirements of the question. Candidates needed to identify a factor that would cause a concentration of population within a larger area where very few people live. For example, an oasis in the desert or a limited area of flat, habitable land within a mountainous and otherwise hostile landscape. Many candidates simply focused on why some areas are densely (or sparsely) populated without considering the question as a whole.

(b) (i) Many candidates described the distribution of population well. They referred to the coast or inland and used compass directions to state where there was high or low population density. Many candidates supported their description by naming appropriate parts of Australia. In addition, some candidates correctly used the terms 'uneven' or 'clustered' to describe the distribution.

(ii) Many candidates successfully related population density to rainfall distribution or the presence or absence of mineral resources. The question differentiated well. Many candidates did not develop their ideas but others did so by explaining the importance of rainfall by referring to agriculture and/or water supply and the importance of mineral resources, especially coal, by referring to employment, fuel and power and industrial development.

(c) The case study most used by candidates was Australia, but Canada and Russia were other appropriate examples seen. Higher level answers contained developed ideas about the lack of markets or labour and the closure of businesses resulting in a lack of economic growth, some including relevant place specific information or accurate statistics. Typically, weaker candidates briefly identified lack of resource exploitation, lack of labour and lack of people for the military but did not develop these ideas. Many candidates incorporated unnecessary detail about the causes of under-population whilst a few did not read the question carefully and wrote about over-population.

Question 2

(a) (i) Most candidates correctly read the bar graph.

(ii) Most candidates identified the correct continents.

(iii) Many candidates suggested appropriate reasons, mainly linked to lack of jobs, lack of hygiene and lack of food. Some candidates also referred to poor provision of health and education facilities. Many weaker candidates referred to 'lack of services' or 'lack of resources' which are too vague for credit.

(iv) Many high quality responses were seen. The most common problems referred to were a lack of working people, shortage of skills and the closure of businesses or services. Other responses correctly referred to the effect on the family of young people (or men) migrating, including increased dependency of an ageing population, gender imbalance and the need for women and children to work.

(b) (i) The question discriminated well. The best answers described what could be seen in the photograph and focussed as required on the buildings. Weaker answers gave irrelevant descriptions of the surrounding environment or made vague statements or value judgements about the buildings rather than describing what they could see.

(ii) Many candidates described the problems fully, developing the points they made and scoring high marks. Common problems which were described included: lack of sanitation, spread of disease, stagnant water, poor access to homes and poorly built houses which were susceptible to storms. Weaker responses ignored the instruction to only use evidence from the photographs and focussed on irrelevant ideas such as employment, electricity, services and overpopulation.

(c) Most candidates correctly named an urban area, usually in India, although only a minority referred to appropriate strategies and developed them with the inclusion of place detail. Candidates needed to describe in detail how improvements to sewage disposal, water supply, electricity and building structures could be made. Candidates could also have considered other responses; few answers were seen which referred to self-help schemes or site and service schemes, for example. Whilst some answers appeared to be detailed as they referred to how the strategies improved living conditions, the descriptions of the actual strategies lacked the development required to achieve higher than Level 1 in the mark scheme.

Question 3

(a) (i) Many candidates correctly referred to a tributary joining the main river, but weaker candidates were mistaken in saying that a tributary 'came from' the Sacramento.

(ii) Many candidates gave a distance which was within tolerance, along with the correct compass direction. Some candidates made errors by measuring the straight-line distance, thus quoting a figure which was too low, whilst a few gave a compass bearing rather than a compass direction.

(iii) Many candidates labelled the three features correctly. A common error was to label the source of the Bear River at the lake in its course and some candidates identified the wrong lake.

The question required the use of arrows to locate the features with precision. Candidates need to ensure that they take care to label the features clearly and accurately with an arrow and a letter. A small number of candidates omitted the question.

(iv) The question differentiated well. Stronger answers identified the change in characteristics such as width, depth, velocity, volume and load using comparative statements. A common misconception was that velocity decreases downstream. Weaker candidates described the change in the route of the river, identifying where two rivers joined and where the river flowed through a lake, but did not understand the term 'characteristics'.

(b) (i) Many candidates correctly identified impacts on houses, businesses, transport, bridges, and commented on the potential for loss of life. Some candidates referred to 'buildings' which was too vague to credit whilst others focused on possible impacts on rural areas, such as on vegetation or soil, rather than on the built-up area shown in the image.

(ii) The question differentiated well and there was a full range of responses. Stronger answers referred to ideas such as heavy or prolonged rainfall, melting snow and ice near the source (often developed by linking it to global warming), deforestation (with development linked to the lack of interception), urbanisation or impermeable surfaces (with development linked to the likelihood of rapid overland flow). Weaker answers were characterised by brief lists of bullet points and misconceptions, such as flooding being caused by opening dam gates, the river being 'blocked' by pollution through rubbish and unqualified references to global warming and sea level rises.

(c) The question differentiated well, and some excellent answers were seen which referred to erosion and deposition at the correct points on a meander and the consequent changes to its shape, with the eventual straightening of the channel producing an oxbow lake. Such answers were well developed and sequential, supported by a valid diagram or sequence of diagrams which served to enhance the written explanation. Weaker answers were vague or inaccurate and lacked any detailed reference to where exactly the erosion and deposition occurred, although most candidates knew that an oxbow lake was formed from a cut-off meander. Most candidates included diagrams. Candidates should remember to use their diagrams to explain processes.

Question 4

(a) (i) Most candidates drew correct diverging arrows. Some wrongly showed the arrows as converging whilst a few others put them in the wrong place. A small number omitted the question.

(ii) Many candidates gained two marks by referring to plates separating and magma rising through the gap. Weaker candidates confused the process and wrote about processes at a convergent plate boundary.

(iii) This was answered well by many candidates. They explained the sequence of processes which occur at a destructive margin. Again, some candidates mistakenly explained constructive or conservative boundary processes.

(iv) When candidates had given correct answers to the two previous sections, they were usually able to go on to describe the processes occurring at the conservative boundary which result in earthquakes. Other candidates were vague or inaccurate in their description of plate movement or referred to other causes of earthquakes rather than those which occur at conservative plate boundaries. In all of **parts (ii), (iii) and (iv)** there were frequent references to the plate boundaries 'moving'. It is the plates which move not the boundaries.

(b) (i) Answers varied in quality. Better answers gave clear descriptions by referring to the lava flowing west, going as far as the coast and naming appropriate settlements. A few candidates also gave accurate measured distances of the length and width of flow. Weak answers contained vague references to forest, lowland, buildings, and lava flowing in the ocean.

(ii) Many candidates scored well. They described problems such as deaths, health problems caused by ash, and damage to homes, roads, public buildings, and workplaces. Some also referred to pollution of water supplies, loss of electrical power, and disruption to air travel. Some candidates also described potential problems for agriculture.

(c) Most candidates correctly identified a volcano. Common examples included Mount Merapi, Etna, Soufrière Hills and Eyjafjallajökull. Weaker answers consisted of a list of reasons with little development, often in brief bullet points. Better answers included more detail in their reasoning, developing each of their ideas and/or linking them together. As with other case studies there were many examples where candidates gave unnecessary details, such as the precise location of the volcano, the reasons for its eruption and its impacts before they then explained why people live there. In answering this question, candidates should avoid unnecessary details as they are not relevant to the question.

Question 5

(a) (i) Most candidates correctly identified Bangladesh.

(ii) Candidates need to understand that when asked to define a term they should not repeat the words they are defining. Many re-used the word 'female' rather than referring to women or girls and some

reused 'literacy'. Those who were successful equated 'literacy' to the ability to read and write, whilst many weaker responses linked it vaguely to the idea of education.

- (iii) Most candidates correctly ranked the countries for all three indicators. A mistake made by some was to include Panama in one or more their lists.
- (iv) Most candidates correctly identified the appropriate development indicators, usually GNP and female literacy. The reasoning varied in quality and answers discriminated well. High scoring answers referred to production or output (GNP) and equality or access to education (female literacy).

(b) (i) Most candidates correctly identified the photographs showing the different employment sectors.

- (ii) Answers varied in quality. Most candidates who understood the term 'employment structure' identified the difference between LEDCs and MEDCs in terms of primary and/or tertiary employment. Weaker candidates, who did not appear familiar with the idea of employment structure, produced vague responses about jobs being important for economic development. Many candidates, whilst being able to state changes in employment structure, did not explain them. More perceptive candidates referred to ideas such as mechanisation, skills or education, mineral exhaustion and change in demand for services.

(c) Most candidates named a TNC. Many candidates described advantages and disadvantages in simple terms, commonly referring to ideas relating to employment and exploitation. Better candidates developed their ideas often linking employment to increased wealth and its benefits, describing exploitation in detail, and describing the effects of various specified types of pollution on the local population or environment.

Question 6

(a) (i) Most candidates correctly identified Botswana.

- (ii) Answers varied in quality and accuracy. Good answers referred to countries on or near the Tropic of Cancer, in North Africa, the Middle East and South Asia. Some candidates also correctly described the distribution as 'clustered' or 'uneven'. Weaker answers merely named continents and all three lines of latitude labelled on Fig. 6.1.
- (iii) Many candidates scored well with references to lack of rainfall, absence of natural water sources and/or an adequate water supply infrastructure, along with polluted water sources being unusable. Some answers focussed too much on the inability to afford water and it being too expensive.
- (iv) Again, many candidates scored well. Many problems were suggested, especially crops or farm animals dying, lack of food for people, lack of drinking water and water for various domestic needs. Some candidates referred to people having to travel long distances to get water, along with disputes or wars over water supplies. Many of these ideas were linked to the deaths of people.

(b) (i) Most candidates identified three differences and made appropriate comparisons. A few used statistics which were not credited.

- (ii) Strategies B and D were the most common choices of candidates who wrote high scoring answers as both could be justified in terms of providing clean and plentiful water in all parts of the country. Strategies A and C were seen as being advantageous in providing large amount of water but only in limited parts of the country, ideas which were quoted by many candidates as disadvantages. Many candidates wrote about reasons for rejecting Strategy E and were able to explain their rejection of it on the basis of it not being sustainable as it involved dependence on other countries and/or it produced large amounts of plastic waste.

(c) The question differentiated well. High quality answers gave detailed descriptions of the various methods of energy supply in their chosen country, usually India or Iceland, but weaker answers were simply lists of different types of energy sources, often presented as bullet points. Some candidates who did develop their ideas referred to the benefits of the energy source for the country rather than developing their descriptions of the strategy to supply the energy.

GEOGRAPHY

Paper 0460/22
Geographical Skills

Key messages

- Candidates need to read all questions carefully; for example, **Question 3(a)** asked candidates to describe the coastal landforms and not explain them, whilst **Question 4(c)** asked for economic benefits and problems and not cultural and environmental ones.
- Candidates should ensure that they understand key geographical terms to avoid misunderstanding the question. For instance, **Question 1(e)** required the candidate to write about relief, not land use, and **Question 1(g)** required the candidate to describe the 'site' of Royat, not tourist attractions and places of interest. Furthermore, **Question 6(b)(ii)** asked candidates to suggest physical not human factors.
- Candidates should study the scale of maps more closely. They should, for instance, consider the size of the area covered by the map: the map used in **Question 1** was 8 km by 5 km yet distances in **Question 1(d)(ii)** were stated by some candidates in thousands of kilometres or even less than a metre. These answers often had the correct numerals, but the wrong decimal place.
- Candidates should study the map key and link it to the map. For example, in **Question 1(c)** there is not a ski lift on the Puy de Dôme since the small white square on the peak is not connected to any lines. In addition, there is no signposted trail from the summit of the Puy de Dôme as stated by some candidates.
- Candidates need to practise providing six-figure grid references and compass bearings as well as calculating distances from 1:25 000 maps.
- Units of measurement must be included in answers in order to gain credit, where they are not written in the relevant section of the answer booklet. For instance, in **Question 1(e)** the height of the Puy de Dôme is 1465 m.
- Candidates should look at the number of marks awarded for each question part to avoid writing too much. More focus on the question and precision in answers would make for a more effective use of time.

General comments

The paper was answered well with candidates using a range of skills to answer the questions appropriately. The better candidates demonstrated a high level of understanding and applied this in questions requiring some evaluation. Weaker candidates were able to show some geographical knowledge and understanding. If there was a general weakness, it was that more focus was needed on the command words in each question. There were very few problems in completing the paper in the allotted time. **Question 1(a)** and **Question 4** were generally well answered, but many candidates found **Question 3** difficult.

Comments on specific questions

Question 1

(a) Candidates were able to score high marks on this question and showed good skills in finding features on the map and identifying them using the key. Feature **A** was a golf course and feature **B**, a powerline. The land-use at **C** was deciduous woodland and feature **D** was an entrance to underground excavation although museum was also accepted. The type of road at **E** was a regional road, the D68, and not a main road, as was stated by a very small minority of candidates.

(b) The six-figure grid reference of the Puy de Couleyras at **F** was 991690 which was identified by many of the candidates, although 993690 was a commonly seen incorrect response from the five choices given.

(c) All candidates successfully located the Puy de Dôme in the South-west of the map, and many correctly identified two ways tourists could descend from its peak. Paragliding or hang-gliding were the most common responses, but those who gave both and no other response could only score one mark since they could not be distinguished from each other in the key. Other correct responses included use of the tourist train, walking (using the footpath) and driving (using the other road).

(d) Although the two peaks of le Cliersou and Puy Pariou were clearly located by candidates, in (i) the compass direction of the former from the Puy de Dôme tended to be given as North-west rather than North or North-north-west. In (ii) more candidates calculated the distance between the peak of the Puy de Dôme and Puy Pariou correctly, at 2750 m or within 100 m lower or higher. In (iii) many calculated the bearing from the peak of Puy de Dôme to Puy Pariou at 12° or within an acceptable range.

(e) Most candidates were able to describe the relief of the Puy de Dôme well. Many described it as a mountain or hill with steep sides which scored the two marks available, while others referred to its height of 1465 m and that it was steeper to the south. A few referred to its conical shape and that the slopes tended to be concave.

(f) Candidates were able to compare the features of grid squares 0171 and 0271 well with the majority ticking the correct boxes for all four features.

(g) This question discriminated well between the candidates, with the better responses demonstrating that the candidates knew what is meant by the 'site' of a settlement. They referred to the settlement of Royat as linear in shape, as it grew in a valley or at the confluence of two valleys and thus was a route focus. Some suggested that it grew close to or along the river or roads and that it had a sloping site between the steep sides of the valley at between 500 and 600 m above sea level. Weaker responses were not so precise: for example, noting that a river was present, or focusing on a description of services such as the school and hospital.

Question 2

(a) Answers to (i) were often inaccurate with many stating 4%, rather than the correct answer at 3.8%. A small tolerance either side was allowed here. In (ii) most answers identified the group with the biggest change in population percentage as being 0–4 years. In (iii) many answers stated correctly that both the 15–64 age and 65+ age groups had increased. Some suggested that the former decreased or stayed the same at first before increasing slightly which was acceptable. For those aged 65+, an increase in life expectancy was also credited.

(b) Most candidates correctly added the percentages for young dependents and old dependents to reach a figure of 32.7%.

(c) Many candidates gained two or three marks on this question. Most stated that males were most likely to migrate, usually for jobs or better pay and sometimes education, whilst the women tend to stay behind to look after the family, the house or to take care of the children. Responses that suggested that men worked harder, have more dangerous jobs or that there were less males born, were not credited.

Question 3

(a) Most candidates named the landforms correctly. Candidates can improve, however, by ensuring that they describe the landform as the question asks them to. The landforms resulting from coastal erosion included a natural arch, a cave, a headland, a stump or stack, a cliff and a bay. No credit was given for a wave-cut platform which does not exist in Fig. 3.1. Some examples of simple description that would have been credited are references to the steep or white rock/chalk cliffs, the curved or wide bay, the short or isolated stump and the headland with grass on top.

(b) Many candidates misunderstood or mis-read the question and described a landform mentioned in their answer to (a) rather than a feature of the beach. The most common correct response referred to the sand and shingle, giving an explanation in terms of deposition by constructive waves or where there was a strong swash and weak backwash. Few candidates mentioned the curved nature of the beach, the fact that it was steeper at the front than at the back, or the line of seaweed or debris. Explanations regarding longshore drift tended to be out of context.

Question 4

(a) The line graph, Fig. 4.1, showing domestic and foreign tourist arrivals in Goa, India from 2012 to 2019, was interpreted well. Many candidates identified both the rapid growth of foreign tourists and the slow growth of domestic tourists with some noting that the trends evened out from 2017 to 2019. Other candidates recognised that foreign tourists were always higher than domestic tourists.

(b) Most explanations of how a bar chart would be drawn using the data in Table 4.1 were successful. Many candidates suggested using paired bars for each year and/or that years would be represented on the X axis and numbers of tourists on the Y axis. Some better responses referred to different shading or colours for each of the arrivals by cruise ship and by air and suggested that these would be placed in a key. Reference to divided bar graphs was equally admissible, but these tended to be poorly qualified in terms of either types of arrivals or years.

(c) This question differentiated between the candidates well, with economic benefits tending to be better described than the economic problems. The benefits that were often suggested were the increase in income, both for the local people and for businesses, the provision of jobs, improved GDP, and more tax revenue. Meanwhile the problems highlighted were related to the jobs which are often poorly paid and seasonal. Some suggested that businesses lacked revenue throughout the year and that tourist money was often paid to the cruise ship companies or foreign tour operators thus leading to economic leakage. Some poorer responses lost sight of the term 'economic' in the question stem, for instance referring to cultural exchange and environmental problems such as water pollution and litter. Others gave a more generic response which was not always relevant to the arrival of cruise ships: for example, suggesting that hotels benefitted by providing accommodation, when in fact the tourist arrivals would be staying on the cruise ships.

Question 5

(a) In (i) most candidates correctly identified the instrument shown in Fig 5.1 as a sunshine recorder or Campbell-Stokes recorder. Part (ii) was also answered well; the need for the instrument to be placed in an open space away from trees, buildings, or other obstructions so it can receive direct rays from the sun was clearly discerned from Fig. 5.1, as was its position on a raised platform high off the ground. The reading shown on Fig. 5.2, which was 12 hours, was read incorrectly by many candidates, suggesting that they were unfamiliar with such a measuring card. Those who stated 18 hours did not realise that the burn mark started at 6 hours.

(b) In (i) the graph is a wind rose but this was not known by many candidates. The prevailing wind direction in (ii) was from the North-west. In (iii) the percentage of days the wind blew from the north was 16–17.5%; the small tolerance allowed reflected the difficulty in reading the graph accurately. The most common wind speed when the wind blew from the North was from 10–19 km/hr. Overall, the candidates' ability to read the wind rose varied.

Question 6

(a) In (i) most candidates were able to describe the position of the rural urban fringe as being on the outskirts of an MEDC city. Between the urban and rural area was also credited. In (ii) most candidates were able to state a land-use that was found there with agriculture and residential being the most popular of many possibilities.

(b) (i) This evaluative question differentiated well between the candidates. Most wrote at length and made at least two valid comparisons between the land-use model (Fig. 6.1) and the land-use map of Dar-es-Salaam (Fig 6.2). For similarities, most recognised that both had a CBD in the centre and that this was surrounded by higher quality housing. In addition, both showed industry and services along transport routes. For differences, some candidates stated that in the land-use map there was also recent informal housing near the CBD and that the older informal housing was more scattered.

Since this was a model of land-use being tested against reality, no credit was given for the absence of coastline or wetlands.

(ii) This question was also a good discriminator. The better responses recognised that the presence of both a coastline and wetlands prevented a city like Dar-es-Salaam fitting the model of the LEDC city. The presence of mountains and steep relief could also have been a factor. Candidates need to remember to read the question carefully; some incorrectly mentioned human factors like the presence of agricultural land or roads.

GEOGRAPHY

Paper 0460/03
Coursework

There were too few candidates for a meaningful report to be produced.

GEOGRAPHY

Paper 0460/42
Alternative to Coursework

Key messages

Here are a few messages to pass on to candidates for them to consider in their preparation. These have been suggested by examiners based on scripts they have marked:

- When answering Hypotheses questions that ask whether you agree or not, always give your opinion at the start of your answer before any supporting evidence. This will usually be *Yes*, *No* or *Partly True/True to some extent*. Do not just copy out the Hypothesis if you agree with it. It is important to make a decision and state it as well as provide the evidence for your choice. Be clear in your decision – expressions such as '*might be true*', '*could be false*', '*true and false*' are too vague.
- When giving figures in an answer, always give the units if they are not stated for you e.g., data evidence in **Q1(b)(iii)** should have referred to distances in numbers and centimetres or metres. It is also important that your numbers are clear e.g., a 4 can look like a 9; a 7 can look like a 1; sometimes a 2 looks like a 5.
- When shading graphs, use the same style as that provided in the question and make sure a sharp pencil gives a good dark image. Check you understand the scales used and the importance and style of any plots already provided e.g., in **Q2(c)(i)** some candidates shaded the '*different types of shop*' slice in almost vertical lines that were way off the horizontal lines in the key and the other pie graph.
- When you think you have finished, go back and check that all graphs and tables have been completed; candidates still lose marks by missing out graphs such as **Q2(d)(i)** though, in this session, it was pleasing to see a very low percentage of omissions for any graph completion.
- Read the questions carefully and identify the command word e.g., *Describe...*, *Explain...* A question such as **Q2(e)(ii)** that requires you to '*Explain why...*' needs a reason or reasons to be given, not a description of what traffic congestion is.
- If a question asks for data e.g., **Q1(b)(iii)**, then you must use statistics from resources whereas evidence could be a qualitative answer or judgement based on data. If you do not provide data in your answer when the question asks for it, you cannot get full marks for that question.
- If there is a reference to using a Table that contains exact figures and a Graph that contains plots, the figures in the table should be the ones referred to in evidence rather than estimating from a graph which might cause errors in judgement.
- Take into account the marks awarded. Examiners do not expect you to be writing outside the lines provided, so do not write a paragraph when only two lines are given – this wastes time.
- It is important that, when you write the remainder of your answer elsewhere, that you signal it by writing something like '*continued on page 18*' to ensure it is seen. Note that some candidates gave the wrong sub-section number by their extra work which made it more difficult to match to their earlier answer and credit correctly.

General comments

The vast majority of candidates found this examination enabled them to demonstrate what they knew, understood and could do; the marks gained indicated a high-quality cohort this session. It appeared to be a positive experience for most candidates. Most attempted every question and there was no evidence of issues with time and, for once, just a very small minority omitted graph and table completion questions missing out on straightforward marks. The overall range of marks was from 11–58 out of 60 with a small number of weak candidates only scoring on the practical questions such as drawing graphs or diagrams and making choices from tables. Those of higher ability scored well on the more challenging sections requiring judgment and decision-making on Hypothesis choices with evidence and other written answers.

Question 1 was about fieldwork on a local coastline and **Question 2** was about students in Scotland visiting and studying a local manufacturing industry. Both proved almost equally accessible to candidates; **Question 2** proved to be slightly more accessible. The mean mark was 39.3 and the paper was judged as fair and appropriate for the 409 candidates whose scripts were submitted.

There is less general advice to be given for areas for improvement in this paper. As there are no question choices to make, it is difficult to miss sections out – though candidates do (especially completion of graphs) – and there were no reports of time issues as the booklet format does not allow or encourage over-writing of sub-sections. One question though was very poorly answered – that was **Q1(e)(i)**. Most candidates seemed to think that the bi-polar survey involved them asking people to complete the recording sheet when it was the students who should have been completing the survey. Very few candidates were aware of this. Bi-polar surveys is certainly one topic that centres need to focus on when teaching fieldwork methodology.

Most points for teachers to consider, when preparing candidates for future Paper 42 questions, relate to misunderstanding or ignoring command words, the use of equipment in fieldwork and the importance of experiencing fieldwork – even if it is only in the school grounds or simulated in the classroom. Particular questions where candidates did not score well often related to them not fully reading the question. This often means that some candidates do not obtain a mark in line with their geographical ability and is an area that centres should work on through such strategies as regularly using previous papers so that candidates get used to the style and demands of this paper.

Centres need to realise too that, although this is an *Alternative to Coursework* examination, candidates will still be expected to show that they know about fieldwork equipment, how it is used and fieldwork techniques. Some fieldwork experience is important even if there is only limited opportunity within the centre. Familiarity with maps, tables and the various graphs listed in the syllabus is also important for this examination.

Comments on specific questions

Question 1

(a) Most candidates identified Rows 3, 4 and 7 as being correct statements about longshore drift. Common errors included selecting statements 2 and 6 and not selecting statement 4.

(b) (i) Most candidates realised that painting the pebbles would enable them to be identified or easily seen against other pebbles. The majority also suggested appropriate reasons for repeating the method three times i.e., to get an average or to check for anomalies or student errors. Weak answers such as '*to be accurate*' were not credited.

(ii) Most candidates did plot the two points correctly. Common errors were to plot the average figure at 7.5 and to plot the number of pebbles at 20.5. Some plots were off centre and a few were plotted with a thick pencil making it hard to judge accuracy.

(iii) All the data provided evidence that longshore drift had taken place to the east of the starting point which most candidates agreed with although a few did not understand the information and disagreed with the hypothesis. The better candidates stated that most pebbles had moved east with the majority reaching 30.1-40m and a few going further especially if they were lighter. It was pleasing to see candidates note that the average pebble length decreased with distance from the starting point and quote paired data to support this observation. Some candidates did not give any data evidence to support their statements. Note that the question stated '*...Use Data to support your conclusion.*' So any answer without data could not be credited with full marks.

(c) There were some pleasing answers to the use of the cork to measure longshore drift although overall it proved challenging for some candidates. There were quite a few short answers without reasons for example '*The cork is too light...*' and '*They only did the test once...*' These descriptions, taken straight from the provided resource, needed developing with a reason why these points might produce reliable results e.g., the wind could blow a light cork off course, or doing it once could produce an anomaly or error. The best answers did develop these points. A few thought the cork might get confused with other corks but there was only one cork used in the test. The issue of the 5-minute test being too short or long was not credited.

(d) Most candidates knew that groynes were usually wooden structures: a few thought they were concrete walls though! Some knew that they were usually erected at right angles or perpendicular

to the coast however far less understood their function in trapping sediment coming in at an angle so that could not continue along the coast as longshore drift. Many seemed to think their function was to break up waves and affect or decrease the impact of swash and backwash down the beach.

(e) (i) This bi-polar survey was to be carried out by the students themselves by visiting the coast and making judgements about four different types of sea defences built along the coastline. The question clearly stated in the rubric that '*...the students filled in a bi-polar survey recording form as they looked at each type of defence*'. At no point was there any indication that the students carried out a questionnaire and interviews or used sampling techniques with local residents or tourists yet too many candidates went down this route. It is difficult to understand why. A few did suggest working as individuals or as a group, sharing judgments and completing the forms based on their work. A few also identified good practice by carrying out their survey the same day or same time.

(ii) Almost all candidates did plot the gabion attractiveness score at -1 and calculated the total score as +1. Some plotted correctly but gave an incorrect score; a small number plotted the horizontal bar below where it should have gone.

(iii) This was very well answered; almost all candidates looked carefully at the evidence and correctly decided that the hypothesis was true for some defences (groynes and gabions) and not true for the two others (revetments and sea walls). Most candidates also gave paired positive and negative data to support their judgements. A very small number made conclusions based on individual features of the bi-polar survey instead of the overall totals.

(f) (i) Almost 100 per cent of candidates accurately plotted the number 8 vertical bar correctly.

(ii) Good candidates gave detailed responses about the impact of each method, weaker candidates gave general and vague statements about the methods of looking after the environment. Candidates rightly stated that litter could be put in bins instead of being dropped on the ground. The use of car parks was not well understood as most candidates just stated that it would reduce air pollution when in fact it will concentrate it in less areas. The key was to protect the environment by making sure the cars could no longer be able to park on vulnerable environments or on grass verges or indeed anywhere. Forcing them to park in specific areas would concentrate the eyesore and pollution and prevent them spoiling the whole area. Regarding footpaths, the best answers referred to keeping people on footpaths so they would not trample anywhere in the area; a few thought footpaths would reduce cars and air pollution. The use of visitor information centres to educate or make visitors aware of the natural environment and what they could and could not do provided appropriate answers; just stating they would '*inform the visitors*' was not accepted.

Question 2

(a) (i) There are just three sampling methods that this syllabus requires candidates to know and have experience of – these are random, systematic and stratified. Most candidates could name one of these methods for a mark but not all could give descriptions of the method. Using the random method was often described as asking random people; systematic was better known though a few thought asking 1 in 2 people would work – that is hardly sampling a population. A few did try to apply the stratified sampling method but few referred to using age or gender to decide on the groups that were selected from the workers. Quota, area and point sampling were also inappropriate methods suggested by a few. Systematic sampling was the best answer with reference to asking at regular intervals such as every 10 people.

(ii) Most candidates identified the tally system or method used in the sheet and also that each stroke represented one worker and the strokes were grouped into sets of 5. A few were confused by the question and wasted time comparing the tables and totals of the two different groups of workers.

(b) (i) Almost all candidates completed the choropleth map correctly; the vertical lines on the Forth area were not always as vertical as indicated in the key. There were very few omissions as is sometimes the case with these maps.

(ii) A number of weaker candidates did not know that the type of map just completed was a choropleth map. Around a third of candidates chose an incorrect answer with isoline and flow maps being the most seen.

(iii) Many candidates gained a mark for stating that an advantage of the choropleth map was that it was easy to understand, read or interpret. Stronger candidates suggested that comparisons between areas was possible and gave a clear visual image of the different numbers of workers in each area.

(iv) Most candidates correctly judged that overall, the hypothesis was true. Some decided though that it was partly true and because the hypothesis was a little ambiguous, credit was given for any evidence that supported the **True** answer here but not for the incorrect decision. The candidates often focused too much on the anomalous areas rather than describing the overall pattern that clearly showed the two groups lived in different areas of the city. Stronger candidates identified that workers who developed products lived further away from the factory whereas the makers lived closer. They also identified and named areas where the discrepancy in numbers was greatest and supported this with accurate, comparative statistics.

(c) (i) A pleasingly high percentage of candidates plotted the pie graph accurately and shaded it in the correct order as shown in the key. A few candidates reversed the order of the advantages using the key but usually scored a mark for the correct shading i.e., larger slice had horizontal lines. Candidates need to be sure they use the same pattern as in the key; some of the lines drawn were more vertical than horizontal. Few candidates omitted this question which was pleasing.

(ii) Most candidates identified the correct advantages with the greatest difference between workers. A few gave the best two advantages for each group of workers e.g. 'Safe area...' and 'Local countryside...' for the developers and 'Affordable housing...' and 'Different types of shops...' for makers. A few paraphrased their answers which was accepted if the meaning was clear although it would have been easier to have just copied the two advantages from the table.

(d) (i) Nearly all candidates completed the divided bar graph accurately. A few did it the wrong way round but would have been given a shading mark if the larger area was shaded correctly. There were few omissions.

(ii) It was pleasing to see that most candidates correctly chose the hypothesis conclusion that '*It was True for one group of workers*' from the choices provided. Stronger candidates stated that it was true for those who developed the product; a few did not identify the group. However most did specify the two disadvantages of congested roads and overcrowded trains which caused the main problem. They also gave comparative statistics stating that 85 per cent of those who developed the product agreed that travelling was difficult compared to 13 per cent of makers who thought that 'social disorder' was a bigger problem for them with 34 per cent compared to just 3 per cent of developers. A few thought traffic noise and aircraft was a disadvantage when travelling to work.

(e) (i) Many candidates correctly stated two disadvantages of traffic congestion with air pollution and noise pollution being by far the most common answers. Accidents and lateness to work or school or delays in deliveries were other appropriate answers. Just being late was not enough.

(ii) Most could give a reason for why there was traffic congestion in urban areas; stronger candidates gave specific detail such as larger numbers living there, most could afford to own a car, the streets were too narrow or small and the preference to travel in their own vehicle rather than rely on public transport. Rush hours were mentioned as were accidents and temporary delays such as construction work. Lack of traffic police or traffic lights were not accepted as a cause.