GEOGRAPHY

Paper 2217/12
Geographical Themes 12

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, avoiding the use of vague words and terms 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 rather than just including general information about the topic.
- 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 their 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

Most, but not all, candidates followed the rubric by selecting a question from each of ***Sections A***, ***B*** and ***C*** as required and lack of time did not appear to be an issue. Some rubric errors were seen, mainly from weaker candidates, either by selecting two questions within one section, usually ***Section A***, or when random parts of all questions were attempted. The presentation of answers from candidates was usually acceptable and most were legible. A significant number of candidates made use of one or more of the additional pages and most, but not all, carefully indicated the question numbers of those answers which were being continued.

The examination was considered appropriate for the full ability range and it differentiated well between candidates of all levels. As always, excellent Geography was seen from the most able and well prepared candidates and good answers were seen to all questions. Most candidates attempted all parts of their

chosen three questions; however, their degree of success, measured either in terms of correctly interpreting the questions or in producing detailed, accurate answers, was variable. Success on the paper overall depended on producing consistent quality across the paper, especially when answering higher tariff questions which required detailed answers. High quality answers in these sections were characterised by ideas being expressed with clarity, incorporating geographical terminology and developed or linked as appropriate. In contrast, weaker responses tended to be vaguely expressed, often in brief bullet lists, and not always relevant.

Questions 1, **4** and **6** were the most popular questions. Whilst choice of questions was fairly balanced in ***Sections B*** and ***C***, within ***Section A*** **Question 1** was far more popular than **Question 2**. Overall performance was best in ***Section A***, particularly on **Question 1**, whilst it was weakest in ***Section B***, particularly on **Question 4**.

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

Comments on specific questions:

Question 1

(a) (i) Most candidates correctly identified 11 million but a few read off the birth rate, whilst others saw that the death rate was halfway between 10 and the next number without looking carefully at the scale and gave 10.5.

(ii) This discriminated well with many weaker responses only stating the change in the birth rate (or just using data for birth rate). Stronger answers understood the importance of the relative changes in both birth and death rates and that, for a decline, the death rate must be higher than the birth rate. Some candidates made good use of data in their answers; others, however, only quoted a limited amount or were inaccurate. Candidates tended to be more successful in answering the second part of the question rather than the first part by referring to birth rate being lower than death rate. However, a common error was to state that both birth rate and death rate decreased, or death rate decreased more rapidly which will not always result in population decline.

(iii) Many candidates gave the correct answer and included their calculations, but some weaker responses used an incorrect formula whilst others read incorrect figures from the graph. The latter at least gained some credit for knowing that natural increase is calculated by subtracting death rate from birth rate. Some candidates multiplied the values read from Fig. 1.1 by a thousand, so did not understand the concept of a rate.

(iv) Many candidates answered this well and gave detailed explanations of low birth rates. There were many good answers covering the ideas suggested in the mark scheme, especially references to female emancipation, the use and knowledge of contraceptives, low infant mortality rate and working women. Some candidates lost marks by being too vague, for example by referring to 'people' generally or 'they' instead of women.

(b) (i) Many candidates correctly completed the pie graph, although some lost marks by careless plotting of the dividing lines or incorrect shading, particularly for Turkey. Weaker responses plotted the segments in the wrong order and did not follow the order of the key. Occasionally, weaker responses showed a complete lack of understanding and plotted all three segments by starting at zero or drew them in a part of the graph where data had already been plotted. There were significant numbers of omissions for this question.

(ii) This question differentiated well. High scoring candidates suggested a range of problems facing migrants, many scoring full marks. All ideas suggested in the mark scheme were seen in candidates' answers especially references to unemployment, lack of housing, discrimination, language difficulties, and the difficulty of affording basic needs. Weaker responses tended to just focus on one or two issues, gave inappropriate answers such as 'lack of healthcare, schools or food' or incorrectly focused on problems for the receiving country or its residents rather than the migrants. Simplistic references to migrants not liking the food or weather or getting lost were not credited.

(c) A range of routes were identified, the most popular examples were Mexico to the U.S.A., Syria to Germany and Zimbabwe to South Africa or the U.K. Many answers focused on jobs, the impacts of war and persecution, natural disasters, education and health care. The strongest answers gave specific details about the benefits of the destination country, with the most perceptive candidates elaborating their ideas to give developed answers.

The best answers focused on migration between two specific countries, giving candidates opportunities to include place specific information and/or statistical information. Statistics are helpful in answers such as this providing they are integrated into the answer to illustrate points being made rather than just being included in isolation. For example, literacy statistics may well illustrate that the education is of better quality in the destination country which is a reason for migration; however, if quoted without any context they are of no value. Weaker responses were often lengthy but contained little more than lists of undeveloped simple ideas, e.g. 'country X has more jobs, is safer and has better education and better health care whilst country Y has few jobs, has high crime rates, poor/few schools and a lack of health care'. Such answers only gain credit at Level 1. Answers using words or phrases such as 'services, facilities, resources, standard of living and quality of life' needed to be qualified for any credit.

Question 2

(a) (i) Most candidates correctly identified the squatter settlement, the most common incorrect answer being 'rural settlement'.

(ii) Answers were variable as some candidates did not follow the instruction to use evidence from the photograph; therefore there were some irrelevant answers about issues such as poverty, disease and service provision. Correct answers tended to focus on lack of space/privacy, specified types of pollution, flimsy building materials and specified problems caused by the adjacent body of water.

(iii) Many candidates described inequalities rather than suggesting reasons for them as the question required and some simply referred to issues which they had described in the previous question. Simplistic references to 'better quality of life, housing and living conditions in Y' did not answer the question. Better answers focused on variation in access to named services or essential items as a consequence of differences in levels of education, employment, wealth or income of residents of the two areas. Occasional answers referred to the fact that occupants of settlement X are likely to be more recent migrants than those of settlement Y, a likely contributor to the inequality.

(iv) Many candidates scored high marks by correctly suggesting two types of pollution and explaining why each may occur. Water pollution was the most common response, though air pollution and land/ground pollution were also mentioned in many answers. Reference to household waste disposal was the most common explanation for most of the pollution types, though other answers referred to sewage, vehicles and industries as appropriate to the type of pollution.

(b) (i) Many candidates correctly explained that if people used the Metro, it would reduce the number of cars on the road. The more discerning candidates expanded their responses to consider the greater carrying capacity of the Metro as well as the use of an independent track. Common incorrect responses tended to describe advantages to users of the Metro rather than focussing as required on why it reduces congestion. Some wrongly wrote about other methods of reducing traffic congestion rather than the Metro, then going on to repeat their ideas in the following question.

(ii) The question discriminated well with better answers describing a range of strategies, some of which were developed. The most popular ones suggested were to widen roads, build flyovers/underpasses/bridges, make specified improvements to public transport and install features such as traffic lights or roundabouts. Some more sophisticated answers also referred to park and ride systems, congestion charging and carpooling. Weaker responses tended to just identify one or two valid ideas, some using vague colloquial terms such as 'spaghetti roads' and 'robots'.

(c) Most candidates identified an appropriate urban area, though some wrongly wrote the name of a country. The most popular case studies were Gaborone, Johannesburg and Harare, examples of candidates using local urban settlements; however, other examples were seen including popular textbook examples such as Mumbai and Lima. Many candidates knew the reasons for the migration, but did not fully develop their ideas, thus not scoring higher than Level 1. The better candidates developed ideas about unemployment, education, health care; however, in general,

answers were less focused than those given by candidates to **Question 1(c)** as they tended to be too general and lacking in place detail.

Question 3

(a) (i) Many candidates identified south-west, though common incorrect answers included south-east, north-east or 'from X to Y'.

(ii) Whilst significant numbers of candidates scored both marks, more candidates located the mouth of the river correctly than the confluence. A few confused the mouth with a river's source and marked their 'M' at the watershed/source of a river, and some confused confluence with tributary since their 'C' was halfway along one and not on a confluence. Some seemed to guess wildly or located both labels next to the HEP site symbols, showing no knowledge of the topic. Others placed their symbols fairly close to the mouth and a tributary but not precisely enough for credit. When candidates drew very small letters, they were able to more accurately locate them rather than placing their larger letter in a sufficiently large white space vaguely in the vicinity of the feature. Those who used arrows to the exact spot also were able to effectively mark a precise location.

(iii) Most candidates who answered the question correctly were able to identify the differences in width and steepness. A few answers referred to gradient but few if any to the valley's long profile. Many candidates incorrectly wrote about differences in the river itself rather than the valley. A common error amongst those candidates who did compare differences in the valleys was to describe the valley at 'Y' as U-shaped. Whilst 'X' can correctly be referred to as V-shaped, it is not U-shaped at 'Y' in the lower course of a river as the sides are likely to be gently sloping. U-shaped valleys are found in glaciated upland areas.

(iv) The question differentiated well. Good answers focused on river discharge and velocity and a constant water supply whilst weaker ones typically referred to 'lots of water' or the process of HEP generation rather than focussing on the attributes of the marked sites. Only the most perceptive candidates recognised that the sites were at positions in the valley which could easily be dammed.

(b) (i) The question differentiated well between candidates. Weaker responses tended to focus on features such as the mountain or the vegetation which were not part of the waterfall or tried to describe its formation, the latter then going on to repeat the points they made in the following question. Discerning candidates usually identified the turbulent water, steepness of the land and loose rocks in some way. Others identified layers or steps in the waterfall and how it was split in two. Too many candidates focused incorrectly on how the waterfall was formed with frequent references to typical features of a waterfall such as plunge pool and overhang, neither of which are visible in Fig. 3.2.

(ii) There was a full range of quality of response from very detailed and accurate explanations of the processes forming a waterfall to vague misconceptions about cliffs and soft rocks in the river course with no mention of hard rock. The key to a good answer was to refer to hard rock overlying soft rock, and then the rest tended to logically follow. Some reversed the hard rock overlying the soft rock and what followed tended to be very vague and confused. The best answers explained the formation sequentially and many included a named erosional process, whilst the weakest showed such a lack of knowledge that it appeared this type of landform may not have been studied.

(c) As in the previous question, there was a large difference in quality between answers. High quality answers related erosion and deposition within the meander to both river velocity and the inside/outside of the meander, developing and linking their points in a sequential manner to explain the process clearly and, in most cases, concisely. Many candidates, however, showed little, if any, knowledge about oxbow lakes, especially their formation. Basic knowledge such as deposition on the inner bend and erosion on the outer bend of meanders was lacking and diagrams in many cases showed nothing of relevance, simply confirming their lack of understanding. Those diagrams which did seem to show what an oxbow lake was like were very often so poorly drawn and labelled that few gained credit, with labels sometimes being added but no annotation to either describe the oxbow lake or explain its formation as required.

Question 4

(a) (i) Whilst many candidates identified the correct statement, there were significant numbers who chose incorrectly, most either selecting 'the landscape consists only of sand dunes' or 'climate is the same all year round'. There were a few omissions and some candidates selected two or more options.

(ii) Whilst perceptive candidates scored one or both marks with correct ideas from the mark scheme, many others missed the key word 'location' and gave irrelevant answers, for example about the size of the deserts or features such as the ocean current or prevailing wind. Also, many candidates did not use directions with many references to 'above the Tropic of Cancer' and 'on the left hand side of Mexico', both of which are unacceptable in any Geography examination.

(iii) The question discriminated well. Good answers gave a clear explanation of the temperature difference, identifying the lack of cloud cover and its impact on day and night temperatures. Some candidates tried to explain the difference by referring to ocean current and prevailing wind which showed no understanding and had no relevance to the question. Many candidates thought the difference was due only to the sun shining in the day and not at night, and there were few correct references to heat escaping at night due to lack of cloud cover.

(iv) Very few candidates scored marks for this question. The common valid ideas given were references to the Tropic of Cancer, high pressure and prevailing winds being dry, but these were not in the majority. References to the Tropic of Cancer rarely showed any understanding of how the circulation of air produced cooler, sinking air and high air pressure which results in dry conditions. References to the prevailing winds rarely showed an understanding that these were blowing from land to sea and would therefore not pick up moisture.

Many who did refer to prevailing winds and the ocean current showed no understanding of their significance, many suggesting confused ideas such as 'the prevailing winds blew away the rain from the desert' or 'the cold ocean current doesn't blow across the desert'.

(b) (i) Answers varied in quality. Better candidates answered succinctly by identifying thorns, waxy surface and thick/fleshy stem. Many candidates suggested features like roots rather than identifying features not shown in the photograph. Many went on to give irrelevant explanations as to why they had these features.

(ii) This question discriminated well. The best answers included detailed descriptions of root systems, lack of stomata, widely spaced plants and plants growing near an oasis. Weaker answers repeated ideas from the previous section despite the emphasis on 'other' methods in the question. Many candidates again focused incorrectly on explaining the features.

(c) Answers varied in quality from detailed, high quality answers about the climate of areas such as the Amazon, which linked description and explanation well, to the many answers inexplicably describing the 'hot desert' climate rather than the 'equatorial' climate which was clearly emboldened in the question. Weaker answers with the correct focus were typically vague and tended to score up to three marks for simple descriptive points. Many candidates wrote about the vegetation and other aspects of a rainforest ecosystem at the expense of focussing on climate, especially an explanation of it.

Question 5

(a) (i) Most candidates correctly identified New Zealand. Other answers were selected by a small number of candidates, with no obvious pattern.

(ii) Many candidates gave the correct order. A few candidates mixed up the order of China, Tanzania and India or reversed the order of all four countries.

(iii) This question differentiated well. Most candidates stated that literacy was higher in North America and many gave accurate statistics to support this statement. Fewer answers referred to the variation in the range of literacy levels within the two continents. Some weaker answers wrongly referred to 'the percentage of people over 65' rather than literacy percentages.

(iv) The question differentiated well, with successful answers identifying measurable development indicators. Many candidates who gave correct indicators gave valid explanations of how they showed level of development, usually in simple but acceptable terms such as 'the higher the GDP/HDI/percentage employed in the tertiary sector, etc., the more developed the country'. Some good answers gave more detailed explanations of how indicators such as life expectancy showed development by reflecting levels of health care in the country. Many weaker answers were seen, including those which were far too vague (and therefore not measurable) such as 'education', 'standard of living' or 'jobs'. Another common error was to refer to literacy since the question asked for 'other development indicators'.

(b) (i) The question provided clear differentiation. Good answers used the graph to compare employment sectors in 1970 and 2020, particularly the primary and secondary sectors. Some used statistics, despite the instruction not to. Some weaker responses misread the triangular graph, but some were still able to identify how the highest and lowest sectors changed between the two years.

(ii) Answers varied in quality. Many candidates gave details about changes in technology but did not link them to employment structure, for example 'machines take over from people which means more unemployment'. Others repeated ideas from the previous question that there was less primary and/or secondary employment but did not explain how changes in technology resulted in such trends. The most common correct responses referred to the impact of mechanisation and automation on the percentages employed in the primary and secondary sectors. However, there was little valid reference to tertiary or quaternary sectors.

(c) Generally this case study was not well answered. Most candidates, however, were able to select a valid example and the most popular ones were Apple, Toyota, Nokia, McDonald's, Walmart and Nike. Many were able to achieve Level 1 for simple descriptive ideas, but only the most perceptive were able to develop their ideas beyond that or link ideas together. Some focused incorrectly on benefits and disadvantages to the countries and employees rather than developing their descriptions of the characteristics and global links of the TNCs.

Question 6

(a) (i) Answers were mainly correct.

(ii) Answers were generally weak and many candidates did not describe distribution accurately, instead doing little more than referring to specific countries. Relatively few candidates referred to the distribution being linear or clustered or uneven. Many answers were vague in reference to lines of latitude and areas of Africa, such as 'North Africa', which were not precise enough. Better candidates did refer to specific coastal areas, though significant numbers used the word 'edge' rather than 'coast'.

(iii) This question differentiated well. Most candidates were able to acknowledge that the risk of desertification was higher in Nigeria and some recognised the greater variation in levels of risk in Angola. Good answers consisted of detailed comparisons between the different levels of risk in the two countries. Marks were lost, however, when candidates failed to make comparative statements.

(iv) Many candidates answered the question well. They linked problems to agriculture and lack of food and water supplies, and some referred to consequences such as famine and migration. Some candidates mixed up desertification with deforestation or simply wrote about the effects of increasing temperatures. Others did not make it clear that they were writing about impacts on the people rather than the natural environment, for example by referring to 'plants and animals' rather than 'crops and livestock/farm animals'.

(b) (i) Many candidates scored three marks by correctly interpreting the graph and referring clearly to two changes with accurate statistics. Weaker answers mixed up the greenhouse gases or gave incorrect figures with a tendency to use words such as 'almost' or 'just over' rather than reading the scale precisely.

(ii) The question was a good differentiator. Strong answers gave detailed explanations, with reference to specific greenhouse gases and their sources and the build-up in the atmosphere which prevents re-radiation of the sun's rays. Surprisingly large numbers of weaker responses confused ozone layer destruction with global warming and referred incorrectly to increased heating through more UV light entering the atmosphere. Many also often expressed the wrong idea that it is the gases

which are trapped in the atmosphere rather than the long-wave radiation from the Earth's surface being trapped by the gases.

(c) Answers varied in quality and the question differentiated well. Whilst weaker answers either wrote about the causes of global warming rather than the impacts or focused on ozone depletion, air pollution and acid rain, all of which were irrelevant, others briefly mentioned relevant issues such as ice melting and climatic issues such as drought or flooding, typically at Level 1. The many good answers described a variety of impacts in detail, developing or linking ideas such as melting ice caps, rising sea level and lowland or coastal flooding. The effects on habitats and ecosystems were often described well. Common place references were the Maldives, various Arctic regions, Bangladesh and the Great Barrier Reef.

GEOGRAPHY

Paper 2217/22
Geographical Skills 22

Key messages

- Candidates should not read the key in isolation from the map itself in **Question 1**. In **part (c)**, for instance, several candidates identified features from the key under 'Tourist and Leisure Information' that were not present on the map. Similarly, in **part (d)(ii)** the main road on the map extract is the A735, not the exemplar given in the key, the A30.
- Many candidates showed that in **Question 1** they needed more practice on distance calculations, bearings using the 16-point compass, and identifying features on and completing a cross section.
- It is important to read questions carefully. For example, candidates should take note of any emboldened words, e.g. in **Question 1(e)** the word 'not' specifically excluded comments on Dunlop and Stewarton, and in **Question 3(a)** 'only' meant that candidates should only refer to features they can see in **Fig. 3.1**.
- Candidates should study the command words in each question carefully. For instance, in **Question 1** candidates were required to 'describe and explain' and not just 'describe'. **Question 4(b)** requires the candidate to 'compare' rather than describe two variables separately.
- Candidates should practise their understanding of key geographical terms to avoid misunderstanding the question, for example, 'pattern of rural settlement' in **Question 1(e), '**threshold' in **Question 3(a)(ii)**, and 'site' in **Question 4(c).**
- Many candidates should be more precise when using geographical terminology. Terms such as 'infrastructure', 'pollution' and 'multiplier effect', all used in responses to **Question 6(c)**, needed further amplification.
- Geographical descriptions should be used when describing map distributions. For example, in **Question 5(b)** 'north' and 'south' should be used and not 'above' and 'below' the equator.
- It is important that data is read off graphs and maps accurately. For instance, the highest peak in **Fig. 5.1** (**Question 5(a)**) occurred in 1931. Furthermore, candidates should use data given to them and not change it, for instance, in **Fig. 4.5** (**Question 4(b)**) the categories given in the key should be used, for example, the range of 3–5 m/s, not just 5.
- When writing on the extra pages, candidates should make sure the question part is clearly stated.

General comments

The paper, as a whole, discriminated well between the candidates, with a wide range of marks attained. High quality responses were seen for all questions, although weaker candidates seemed to struggle on the longer written answers. The better candidates were given opportunity to demonstrate their ability and made good use of geographical terminology. Weaker responses showed some geographical knowledge and understanding, but also gave some rather vague responses: the use of geographical terminology, for instance, could have been more precise. All candidates demonstrated an ability to successfully interpret maps and photographs, but the interpretation of graphs was rather variable in quality. Candidates performed equally well across most of the questions, with **Questions 1(a)** and **4(c)** being done particularly well and **Questions 1(e)** and **5(a)** less so. Although there was little evidence that candidates ran out of time to finish the paper, some did not attempt one or two question parts, especially **Question 1(d)(iii)**. Most candidates made good use of the space available for their answers and only used the additional pages when some or all of an answer had been crossed out.

Comments on specific questions

Question 1

(a) Candidates generally scored well on this question demonstrating an ability to find features on the map and identify them using the key. The type of road at **A** was 'a road generally more than 4

metres wide' and the land use at **B** was coniferous trees. Some candidates needed to go beyond stating just 'vegetation' in the latter. The feature at **C** was a school and since 'Sch' was clearly marked on **Fig. 1**, just 'buildings' or 'important buildings' was not accepted. The height above sea level of the contour at **D** was 150 m.

(b) Some candidates found parts of **(b)** challenging. The distance along the railway line between the stations at Dunlop and Stewarton was 3.7 kms; responses between 3.6 and 3.8 kilometres were credited but a wide variety of answers were given, with some being out by a factor of ten or more. The compass direction from the railway station at Dunlop to the one at Stewarton was SSE; since it is expected for candidates to know the sixteen-point compass, SE, which was commonly stated, was not credited. The 6-figure grid reference in **part (iii)** was 417460 but given the fact that this was difficult to judge, 417461, 418460 and 418461 were, on this occasion, all accepted.

(c) This question was well answered with the majority of candidates correctly identifying three tourist facilities shown on the map extract such as picnic site, walks or trails, leisure centre, public houses or hotels. Most errors occurred where candidates used the key for 'Tourist and Leisure Information' and identified some features at random that were not present on the map, for example, boat trips, caravan or camp site and museum.

(d) This question, based on a cross-section, proved difficult for many candidates, with a significant number omitting **part (iii)**. In **part (i)**, some candidates identified the track correctly but then failed to associate it with the railway as per the key. Other candidates transposed this response with **part (ii)** and identified the feature at **X** as the main road and the feature at **Y** as the railway, instead of the other way round. In **part (iii)**, although many drew a gently sloping line downward towards the 400475 vertical axis, it finished incorrectly at 110 m or above. The line was expected to hit this axis at approximately 105 m, although a generous tolerance was applied either side of this figure.

(e) This question was a good discriminator, with better responses paying due attention to the need to 'explain' as well as 'describe' the pattern of rural settlement on the map extract. Many noted that the rural settlements were dispersed and others noted that they occurred on gentle slopes which were easy to build on. The fact that some were found along rivers, which served as a water supply, along roads to serve as access to main towns, and around woodland for fuelwood were often seen. Some suggested that most settlements were just farms or hamlets which were found throughout the map area. However, weaker responses tended to note features such as rivers and roads but did not clearly link them to settlements. There was much reference to linear and nucleated settlements which received no credit, as did comments on both Dunlop and Stewarton and their services, which candidates were specifically asked not to comment upon in the question.

Question 2

(a) (i) The identification of the type of graph, a population pyramid or age/sex pyramid was not especially well known. Too many responses suggested just a bar chart or a population graph.

(ii) and (iii) The correct answers of 3 per cent and 12 per cent proved no problem to well-prepared candidates. The use of a ruler dropped to the X axis would help them confirm the accuracy of their responses. For **part (iii)**, some neglected to add the male and female percentages together and thus their answer of 6 per cent was incorrect.

(iv) The fact that West Africa had more young dependents and fewer old dependents than Western Europe was stated by most candidates. However, the economically active group was often described in terms of West Africa decreasing and Western Europe increasing rather than the direct comparison that Western Europe had more economically active than West Africa. Those who described the shape for each of the three sections of the pyramid in terms of wider, narrower, etc. needed to state how this related to the percentage of the population.

(b) The better responses focused on economic problems and referred to the lack of education for the young dependents or the cost of paying for more schools or more resources such as books, or more teachers. Others suggested that there was a strain on medical services or a need for more maternity care. Some also referred to the cost of increasing food and water supplies. Many candidates failed to identify problems of an economic nature, referring to social problems as an increase in crime, while others lacked the context of the wider society and described economic problems associated with individual families, such as the need to pay more taxes, or there being not enough wage earners. The need for the active population to support the young dependent

population was often mentioned but without specific economic problems. The problem of a lack of jobs needed to be focused on the future rather than the present.

Question 3

(a) (i) Candidates engaged well with this question, with the best responses stating how the features of the shopping centre seen in **Fig. 3.1** were advantageous for those shopping there. Most referred to the variety of shops, the availability of quality branded goods, and the provision of places to eat or take a drink. Others referred to the spacious nature of the place, the escalators (so easy to get from floor to floor), and the fact that it was clean. Some weaker responses seemed to rely on personal experiences of shopping centres they had visited and referred to features which could not be seen or ascertained from the figure, such as better security, easy parking, public toilets, and leisure activities. Others tended to make similar points, particularly relating to the variety of goods such as comparison shops and everything being in one place or shops being near each other.

(ii) Many gained credit for stating that the range of goods was smaller in **Fig. 3.2**, the local neighbourhood clothes shop. However, some neglected to use a comparative since they were asked to compare it with the clothing shop in **Fig. 3.1**. A minority of candidates also referred to the quality of the goods rather than the range. The term 'threshold population' was poorly understood and therefore few stated clearly that it was lower for the local neighbourhood clothes shop. Some candidates seemed to think it was the shop's size and thus capacity to hold customers that was being judged, while others suggested it was the fact that fewer people lived nearby.

(b) This question was generally answered well. Many candidates referred to the shop's proximity to home and therefore lower transport costs in getting there. Others suggested that it helped support the local businesses, ensuring they stayed open and/or that it fostered a sense of community with a familiarity between the shopkeeper and the customer. Many said that the goods would be cheaper, but this is not necessarily true.

Question 4

(a) Most candidates scored the two marks available for this question. The most common error was for **Fig. 4.1** where many candidates did not recognise the barometer and suggested the instrument measured sunshine hours.

(b) This question discriminated well with the full range of marks credited. For many candidates the resource was too complex, despite only having to compare the SSW with the North. The best responses identified that the wind was stronger and more frequent from the SSW and were able to select an appropriate example of data to back up the comparison. In many responses, however, the distinction between wind duration and strength was not clearly expressed and data for per cent and m/s were confused. This was compounded by a general failure to compare whole wind speed bands rather than just the higher end. This would have been acceptable for the highest bands in each of the two directions if the term 'maximum' was used; for example, 'The wind from the SSW reached a maximum of 16 m/s whilst that from the N reached only 8 m/s'. Many quoted the data inaccurately with some giving values that were too high, since they mistakenly aggregated the data, especially for the percentage figures.

(c) This question was answered well since the siting factors for a Stevenson Screen were well known. The descriptions tended to be better than the explanations. The commonest responses suggested it should be away from trees and/or buildings and/or in an open area. In addition, it should be sited on grass and off the ground to minimise ground radiation. In the latter, some unrealistic heights off the ground were sometimes given. Many also stated that it should be in a fenced area to avoid interference from both humans and animals. Weaker responses spent too much time describing what the Stevenson Screen was made of and what it looked like, for instance, 'It is made of wood, painted white with louvres'.

Question 5

(a) This question was answered poorly**.** Many candidates approached a rather complicated line graph by giving a year-by-year account or in 20-year blocks using the dates on the X axis. This was not required and was inappropriate. Instead they should have focused on trends, since the question asked for 'A description of the **pattern** of global deaths from natural hazards'. The best responses noted that there was a general fluctuation during the whole time period, that the number of deaths

was declining over time, and that most years had few deaths. Those who quoted actual years tended to be inaccurate. Credit was given for recognising the highest peak in 1931 and that there were no major peaks from 1966 (1970s) onward. The lowest number of deaths was from 2011/12 to 2019 and therefore was creditworthy. Some candidates quoted the number of deaths on certain dates but the question specifically excluded the use of statistics.

(b) This question discriminated well. For two of the marks available, most were able to describe the areas of the globe with the highest and lowest numbers of deaths from natural hazards. Some added that North America (100–1000 deaths) was also high as was Central Africa (500–1000 deaths). The best responses focused on the whole globe rather than considering one continent at a time and giving the distribution (high, low, etc.) within a continent. The latter led to considerable repetition. Having been invited to use statistics in the question, a number of candidates quoted only single figures, usually the lowest points of the ranges from the key instead of the whole range. This led to some incorrect statements such as 'Europe had no deaths'. Since the question was testing the skill of only using the information provided in the resource, the names of individual countries such as China and Mexico could not be credited. Many did, however, recognise South Asia (instead of India) as having the highest number of deaths (100–10 000).

Question 6

(a) Most candidates answered this correctly with most suggesting a bar graph and some a pie chart.

(b) In **part (i)**, many candidates correctly stated Europe as the continent that has the most countries in the top ten of visitors to the Dominican Republic. However, a large number said North America or the USA which suggests they may have misread the question, mistaking 'most countries' for 'most visitors'. Most candidates stated Asia and Australasia in response to **part (ii)**. However, there were some who incorrectly wrote Africa instead of Asia, and Australia (name not shown on the map) instead of Australasia.

(c) A wide variety of valid points were seen on both the advantages and disadvantages of increasing the number of tourists for the people and the economy of the Dominican Republic. Most candidates were well prepared and remained focused on both people and the economy, and thus only a few responses incorrectly commented on the environmental effects. The main weakness was that some candidates did not respond to the 'increase' in tourists when referring to the economic advantages and therefore suggested that it would bring money into the country rather than a higher amount of income or foreign currency. Some more vague answers referred to infrastructure, crime, and pollution without mentioning the specific types, and the term 'overpopulation' needed to be more precise, for example, linking it to overcrowding of streets or traffic congestion.

GEOGRAPHY

Paper 2217/32
Alternative to Coursework

Key messages

A few tips to pass on to candidates for future examination sessions.

- 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, 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 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, e.g. 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 answers to **Question 1(d)(ii)**, **Question 1(c)(i)** and **(ii)** were not always clear for these reasons.
- 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. This was especially relevant to most hypothesis questions where comparisons were needed, e.g. **Question 1 (e)(ii)**, **Question 2(d)(iv)** and **Question 2(e)(ii)**.
- Check that you are using the resources that a question refers you to for evidence or data. For example, **Question 2(d)(iv)** referred candidates to Figs 2.3 and 2.4 and Tables 2.2 and 2.3, but some candidates gave an answer that took information from Fig. 2.5 and Table 2.4.
- Remember that 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)(i)**, **1(g)(i)**, **2(b)**, **2(d)(iii)** and **2(e)(i)**. Note that, where there is a completion task, the instructions are now **emboldened** to try and avoid them being missed. 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, a pie graph and a graph that required a cross to be plotted. Freehand poorly executed irregular lines were often noted in **Question 2(e)(i)**.
- Consider the marks awarded. Examiners do not expect candidates to be writing outside 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 stand 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 16*). 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 to the correct answer earlier in the booklet. It is also not helpful just to state the page number that the extra work relates to. 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.

General comments

Most candidates found this examination enabled them to demonstrate what they knew, understood and could do, especially in **Question 2**. The overall range of marks was from 1 to 57/60 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 for areas for improvement with this paper than with others. As there are no choices to make, it is difficult to miss sections out (though many candidates still do) and on this paper there were a few sections that indicated a high percentage 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 exam 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 given a few *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 questions, 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. This may then result in some candidates not obtaining a mark in line with their geographical ability.

Particular issues for attention that stood out on this paper included a lack of knowledge and understanding about coastal processes, especially regarding longshore drift in **Question 1(f)**, wave action in **Question 1(g)(iii)** and measuring a beach profile in **Question 1(h)**. These are areas that centres could focus on when teaching the coastal part of the syllabus. **Question 2** was more accessible with no major areas of concern. Overall, the physical geography question proved more difficult for candidates than the human geography question in this examination series.

Centres should recognise 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) Many could identify the beach as being made of shingle or pebbles (not sand) but beyond that, apart from the gentle slope being recognised by some, candidates tended to describe what was in the photo not the beach. Consequently there were references to the cliffs, the groynes, waves, longshore drift and vegetation which are not part of the beach. The best answers referred to the shape and slope of the beach as well as the pebbles or shingle.

(b) It is always important to read the question; in this case, candidates were asked to suggest one different precaution that the students (not the teachers) could take to reduce the risk of each danger. A few put forward the idea of cancelling or postponing the fieldwork, which is not a valid precaution. Checking the forecast regarding heavy rain had already been done; they needed to wear raincoats or waterproof clothing or even take an umbrella. Avoiding the high cliffs and not working at the back of the beach were sensible ideas; taking climbing gear, helmets or getting two students to stand beneath the cliffs to warn others were not valid ideas. If powerful waves are breaking on the beach, the sensible idea would be to do the work well back from the waves, not ‘make sure you can swim’ as some candidates suggested. If the beach is covered by high tide,

then better to do the work at low tide instead of using a boat or wearing a life jacket. Note the question asked for a different precaution for each possible danger, not the same one as repeated by a few candidates. Taking a mobile phone or working in groups were common but inappropriate answers.

(c) (i) A degree of tolerance was allowed to cover for any inaccuracy with the ruler provided on the question paper. This allowed most candidates to measure and give width and depth figures that were acceptable. The most accurate answers were 65 mm width and 28 mm depth; the tolerance allowed data from 65–66 mm for width and 28–29 mm for depth. Most responses obtained 2 marks. Common errors included 67 mm width and 27mm depth. Some gave data in cm instead of mm despite the latter being stated in the box.

(ii) No marks were awarded for showing any working as candidates can use a calculator, so if the answer is correct, they obviously knew how to work it out. To prevent error carried forward from **(c)(i)**, a range of answers from 54.6–55.3 mm was allowed that considered the tolerance allowed in the previous question. A few showed part-calculations such as adding their measurements together but not dividing by 3 so there was no final answer, and a small number left it blank.

(d) (i) Many candidates did not attempt this question. Those who did plotted it accurately, but a few did not and plotted at 50 and 54, but most gained a mark.

(ii) Almost all correctly chose beach material number 2, whilst some picked 12 (which was the second largest) and some chose 18 which was the number they had just plotted.

(e) (i) This was another graph completion question. Some were incorrect in plotting the cross at 90 mm or 92 mm or slightly off the 20 m distance line. Some plotted 91 m against 20 mm instead of 91 mm against 20 m. 5 per cent of candidates did not attempt this question. Some drew a thick pencil cross which made accuracy of the centre hard to judge. Some candidates joined up the points or drew a best-fit line which was not required.

(ii) It was important for candidates to look carefully at the graph and data in the table before they made their hypothesis decision. Although the graph shows a negative correlation, it cannot be completely true that beach material gets smaller from north to south between the groynes because there are examples where it gets larger than at the previous site. Consequently, while the negative trend is true, there are exceptions, which is why the correct decision which was made by most candidates was that the hypothesis was ‘generally true’. Most candidates did make this choice but then gave qualitative statements about the size getting bigger or smaller instead of using the data to support their choice. The best answers referred to the sites or a distance and compared the sizes showing that, in some cases, it increased whilst in others it decreased.

(f) Candidates’ knowledge and understanding about longshore drift and the processes related to it tended to be weak. This is an aspect of coastal activity that should be taught within the coast’s topic of the specification. A significant number did not attempt the question whilst others just described wave movement up and down the beach. Only a few could produce an answer that linked prevailing winds, swash angles, backwash angles and pebble movement along the beach. A few drew the standard longshore drift diagram but could not describe what was happening, and often prevailing wind direction was shown at a different angle to the swash direction. A few described in detail how they would measure longshore drift using painted pebbles, but this was not required. Although a number of candidates drew a diagram, the labels were not annotated with explanation about how longshore drift took place, so few marks were gained from it.

(g) (i) The question stem clearly stated ‘complete the histogram’; however, many did not attempt this question leaving the last two columns blank on the Site 3 graph. Those that did usually plotted 6 and 9 accurately, though some plotted other numbers for 76–100 and >100 – usually 5 and 8. Most did well and gained two marks.

(ii) Most candidates made the correct choice by agreeing with the hypothesis and gave some accurate evidence comparing Site 1 at the front of the beach with Site 3 at the back. Site 2 information was irrelevant to the argument as the comparison was from the sea towards the back of the beach. A common error, however, was to state that in Site 3 the majority or most of the material was over 100 mm. This was not true as the majority or most was from 76 mm to over 100 mm. Candidates should be careful in their use of the word 'majority' which means more than half. The best answers compared Sites 1 and 3 or gave the 10 m/50 m distances and compared the number of pieces of different sizes that matched the hypothesis.

(iii) The best answers referred to the swash and backwash and their capability to move different size material to particular locations on the beach. Powerful swash waves leaving heavy material at the back and smaller material fetched down the beach by backwash were common and accurate reasons were given. Cliff falls were rarely seen but can explain why large materials may be found at the back of the beach. Candidates did show some knowledge of different wave and erosional processes but not how they affected the distribution of beach material. Suggestions that people moved material around the beach were not accepted.

(h) Candidates were limited to three pieces of equipment to use as shown in the Insert which were two ranging poles, a clinometer, and a tape measure. They were asked how they would measure a beach profile in much the same way as previous river questions have asked about gradient or velocity, both of which use similar equipment and techniques. Many decided they would put a ranging pole at the edge of the sea and back of the beach without explaining why or linking it to the creation of a transect. They then used the same ranging poles either at breaks of slope or at equal intervals (not both as some candidates stated), put each pole in the sand at one end, measured the distance with the tape measure, then used the clinometer sighted from one pole to the other one to read an angle (not the gradient). After that, they repeated the method up the beach to get the whole profile. A few did this and scored well whilst others added new pieces of equipment to help with the fieldwork. Some did not know what the equipment was used for, especially regarding the clinometer which was often incorrectly put forward as a tool for measuring distance or to measure the size of pebbles.

Question 2

(a) (i) The majority of candidates correctly judged that quarrying was a primary activity, though some gave the incorrect alternatives with 'secondary' being the highest incorrect choice. A small number missed it out completely.

(ii) Most candidates could make a simple observation that the quarry was large or deep or wide, which would gain 1 mark, but few could provide a second descriptive point such as it was on a hillside or there was a road around the edge. The better responses mostly identified the stair-like layers on the quarry sides; others tended to give relative locations that were irrelevant, e.g. it was close to a factory or it was surrounded by vegetation or it was in a noisy area close to housing. As with **Question 1(a)**, candidates needed to describe the specific feature required, not describe all they could see in the photograph.

(b) A few candidates did not attempt the pie graph. Of those who did, most candidates completed it accurately. There were a few that did not follow the order of the key and drew the plot in the wrong place but, if they shaded the two sections correctly, they still gained a shading mark. A common shading error included the vertical lines being far too diagonal for credit.

(c) Rows 3, 4 and 6 were the correct features of a good questionnaire and most candidates gained marks here. Row 6 was the most popular correct choice, but row 2 was often wrongly selected ahead of row 3.

(d) (i) A large majority chose the benefit as *'The quarry owner supports the local community'*. The most common incorrect answer was *'It provides employment for local people'*.

(ii) Although a majority chose the correct problem, the number was lower than those getting **(d)(i)** correct. The right answer was '*Lorries are too big for local roads and damage the pavement'*. The most common incorrect choice was the reference to dust covering houses and cars along with the noise from blasting, which does not really relate to being dangerous in the same way as the pavement damage.

(iii) There was 1 mark here for plotting 119 and 139 correctly, 1 mark for plotting 156 correctly and a third mark for shading the sections correctly in the order of the key. Many candidates did all three requirements correctly, but a few did not plot the 156 line as they wrongly assumed that the whole bar had to be shaded up to 160. A few plotted the data in the wrong order, thereby making it hard to credit shading marks. 9 per cent of candidates did not attempt this question and so missed out on 3 marks. At the top of the page the stem clearly says '… *Use the results in Table 2.2 to* ***complete Fig 2.4***' and, comparing the graph with the completed one, it is clear to see a large space to add the plots and shading.

(iv) Accurate decisions were made by most candidates who judged the hypothesis as incorrect and gave good data evidence as to why there were more problems than benefits. One common error was to say that 156 people thought there were problems and 99 people thought there were benefits, but the numbers related to the number of answers given, **not** the number of people. Candidates also needed to be aware that just quoting two comparative figures is meaningless if they are not being used to support a statement, e.g. '37 per cent of answers were good and 63 per cent of answers were bad' needed to support a comparative statement saying there were more answers about the quarry causing problems than benefits.

(e) (i) Almost all candidates plotted the two bars correctly and shaded them in according to the key for two marks. However, a significant minority did not attempt the plotting. Many plotted the 30 figure correctly but fewer judged the 19 line accurately, often drawing the plot at 18. Hardly any candidates produced inaccurate shading, but a few did draw the diagonal in the wrong direction.

(ii) As with the previous hypothesis question, many candidates made a correct judgement and provided supporting evidence. Most recognised that the hotels and restaurants were most affected badly by the quarry compared with shops that were least affected. A comparison of farming with transport was acceptable, but with transport figures being relatively high, that was not the best or most obvious choice. A few used the data for the least affected columns such as shops with 28 per cent not affected and hotels 12 per cent not affected. Whichever data they used, both would equally support the hypothesis being correct. A small number just listed comparative data with no judgement made about the hypothesis. Copying out pairs of data is a meaningless exercise unless it is used to support a statement.

(iii) It was important for candidates to read the question carefully as they should have focussed their responses on the stated impacts of the quarry on the businesses listed and not just described an impact. For example, regarding hotels, an answer that said it would be noisy whilst eating their meals needed to add something like the fact that the noise might put them off coming again and the hotel would lose business. Air pollution was often stated referring to the effect of dust, but how would that affect the farming business? Being late for school, for example, as an effect of congestion would not be an effect on business nor would more accidents or people deciding to walk. It was noticeable that several candidates stated that the farm or the hotel would be 'affected' but never elaborated on how or why it was a positive or negative effect. Overall, most candidates could suggest ideas that by implication would affect business.

(f) Four photos were provided as stimuli to get candidates to consider how these types of development in a disused quarry might benefit local people. Candidates were not credited with marks for just describing what the photos showed or copying the captions. They needed to show some insight with elaborated responses as to the benefits for local people with the emphasis on the local people not people from outside the local area. The best answers suggested, for example, that the trail could be used for walking or hiking which would improve fitness and provide exercise, and that local people might gain employment as tour guides.

The caravan site would be bringing outsiders into the area (not foreign currency though) and local people could benefit by renting out sites or selling local products such as farm eggs to the visitors. Many candidates thought the local people would benefit by taking their caravans to the quarry, but this is unlikely as by definition they lived there. Mountain biking could encourage worthwhile fitness and exercise, especially for young people, and might bring visitors for events, thereby benefitting

local people running hotels or restaurants or even a bike equipment shop. Bearing in mind the candidates were told at the start of **Question 2** that the quarry was in the Peak District in northern England (an MEDC), the idea that people would fish and gain income by selling the fish or would be fishing for food was not appropriate. As the fishing photo shows, the benefit would be for a relaxing hobby and local people could set up a fishing tackle shop or local cafes would benefit too.