

GEOGRAPHY

Paper 2217/12

Paper 12

Key Messages:

In order for Candidates to perform well on this paper they need to be able to:

- Interpret a range of sources such as maps, graphs or diagrams in order to extract information, and sometimes analyse the data to show patterns or trends.
- Add data to a map, graph or diagram or complete a diagram by adding labels. Therefore in order for candidates to do this they must understand how pie charts, bar graphs, maps etc. are constructed.
- Use photographs or pictures to generate ideas, issues or to describe features such as a volcano.
- Provide full and accurate definitions of key geographical terminology e.g. what is meant by the structure of a population?
- Show understanding of key geographical terminology, processes and features by providing full descriptions and/or explanations of geographical themes, events or features.
- Refer to a range of case studies with place specific detail, statistics or other data, and apply this information to the question being asked. e.g. Explain the causes of a volcanic eruption. This requires information relating to causes only. Any detail on the impacts of the eruption are not required for this question despite the fact that the candidate would know this information.
- Write in depth and detail in a succinct manner and avoid repetition.

General Comments:

This was the second November examination in which candidates used a combined question and answer booklet to write their answers. This format is now familiar to Centres, therefore in the vast majority of cases candidates made effective use of the space provided. It was unusual to see many pages of extra writing as most seemed to use the additional page well. As question and answer booklets will continue to be the format used it is important that candidates are made aware that they should:

- write only on the lines provided, not underneath the final line or elsewhere on the page (e.g. in any area of unused space at the bottom of a page).
- continue any answers which they do not have space for on the lined page(s) at the back of the booklet. If they do this they must indicate that they have done so (e.g. by writing 'continued on Page XX') and write the number of the question at the beginning of the extra part of their answer. They should only use loose sheets of paper if this extra space has been used up.

The examination was considered appropriate for the ability and age range of candidates as there was a good response to the November 2012 examination paper. The majority of candidates were able to answer in full and even weaker candidates attempted most sections of their chosen questions.

A considerable number of candidates presented work of a very high standard which was pleasing to see. There were only a few candidates who did not fully comprehend what was required in the questions. Candidates also generally made good use of the resources provided.

Some candidates made use of the additional page at the end and all candidates should be encouraged to do this if they need extra space to write their answer rather than trying to squeeze it onto the same page when the lines have run out, or at the sides of the page, as it becomes difficult to read (see above).

The examination paper gave a wide spread of marks allowing for positive achievement for all but also allowed for sufficient challenge for the most able.

Those candidates who attempt all questions instead of following the rubric do not advantage themselves as this does not give them the opportunity to answer in the required detail. Fortunately this number is small.

There are still too many candidates who are learning case studies from previous mark schemes which is not really conducive to candidates' understanding of the geography involved. This stands out especially when an answer does not 'fit' with the question being asked. Candidates who tend to achieve well on case study questions are the ones who use local case studies because their knowledge and understanding really shines through and they score good Level 2 or high Level 3 marks. The use of local case studies that candidates can write about in detail with place specific information should be encouraged, as opposed to learning about distant case studies that have very little relevance to candidate's everyday lives. It is recognised that this is not always possible, for example when teaching about the impacts of a volcanic eruption a distant case study may have to be used – so teacher judgment is the key here to determining which case studies are most suited to their candidates and Centre. Also it is worth selecting, wherever possible up to date examples that may have been in the news recently. These tend to offer a wealth of information and resources that can be used in the classroom, and candidates tend to find them more interesting and relevant than many textbook examples, which inevitably are becoming somewhat dated.

The following items of general advice, which have been provided previously in this report, need to be given to future candidates who should:

1. make the choice of questions with care, ensuring that for each question they choose they have a named case study about which they can write in detail and with confidence.
2. answer the three chosen questions in order, starting with the one with which they are the most confident, and finishing with the one with which they are least confident (in case they run out of time).
3. read the entire question first before answering any part, in order to decide which section requires which information to avoid repetition of answers.
4. highlight the command words and possibly other key words so that answers are always relevant to the question.
5. use the mark allocations in brackets as a guide to the amount of detail or number of responses required, not devoting too much time to those questions worth few marks, but ensuring that those worth more marks are answered in sufficient detail.
6. consider carefully their answers to the case studies and ensure that the focus of each response is correct, rather than including all facts about the chosen topic or area, developing each point fully rather than writing extensive lists of simple, basic points. It is better to fully develop three ideas rather than write extensive lists consisting of numerous simple points. Candidates need to try to consider several issues and develop each one, rather than just focusing on one issue (e.g. drought in 6c).
7. study the resources such as maps, photographs, graphs, diagrams and extracts carefully, using appropriate facts and statistics derived from resources to back up an answer and interpreting them by making appropriate comments, rather than just copying parts of them.

The following detailed comments for individual questions will focus upon 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) Whilst many acceptable definitions were seen there were also many vague or inaccurate responses which made reference to age and/or gender but missed out the key reference to proportions of the population. In addition many candidates were preoccupied with referring to how the data was displayed (i.e. a population pyramid) rather than defining the term 'population structure'.
- (ii) Many candidates scored both marks, generally by referring to working and non-working populations.
- (iii) Many candidates identified all three pyramids correctly, or at least one, usually Pyramid C.
- (iv) Most candidates scored at least half marks by correctly describing the differences between the dependent population of the appropriate two pyramids. Common errors were to compare the shape of the pyramids and to focus on birth and death rates, and individual age bands. In a numbers of candidates' answers it was unclear whether differences within pyramids or between pyramids were being described. Marks were available for accompanying data but few candidates gave supporting data. Most of those who did so used figures for just one narrow age band (i.e. the length of a bar) rather than data about an entire cohort of dependent population (i.e. old dependent). Those few who attempted to total values of bars nearly always produced figures that were outside the acceptable tolerance.
- (b) (i) Many candidates scored two or three marks, either by giving correct data or making a comparison between the two countries in one or both years. Whilst some wrongly focused on the rate of increase between the two dates they still gained credit if the statistics for each year were correct.
- (ii) Many candidates scored well and seemed familiar with the reasons for an increase in the population of elderly people. Most answers focused on improvement in life expectancy, medical care, water supply, sanitation food supply and treatment of diseases. Some candidates incorrectly referred to inward migration of older people and there was sometimes confusion with an increasing birth rate and therefore overpopulation issues. A few candidates tried to compare Indonesia with Malaysia but still gained credit for relevant explanation.
- (c) Most case studies were taken from Western European countries, Japan and China. Others chose LEDC countries, generally India or examples in Africa, which were accepted, though many candidates who made such choices tended to give general, simplistic answers, and there was some confusion with overpopulation. The better quality answers focused on the cost implications of an ageing population, especially for the government, with increasing care costs and the need to raise taxes, some candidates using accurate statistics to exemplify. From some weaker candidates there was a tendency to exaggerate ideas, for example the suggestion of economic collapse brought about by there being 'no workers' as a result of an increase of older people.

Question 2

- (a) (i) Whilst many gave a correct percentage many other answers were inaccurate, presumably where candidates had looked at the wrong segment.
- (ii) Most answers did not score here because candidates did not indicate a comprehension of what the information in Fig. 3 was showing. Candidates must examine resources closely to see what information is being presented, in this instance the change in the proportion of the world's urban population in different categories of country (poor, rich, etc.). The question wording from part (i) could have been used as a model. Without more exact phrasing, including the use of the term 'urban population', answers were insufficient, inaccurate, or misleading, therefore common answers such as 'there were more poor countries' were inadequate. Credit was available for illustration with data from Fig. 3 but this was rarely attempted.
- (iii) Many candidates recognised the focus on pull factors and answered the question well. Only a small minority of candidates wrongly focused on push factors or urban to rural migration. Generally responses focused on the availability of jobs, better education, health facilities, and availability of water supply, electricity and sanitation.

- (iv) This question was well answered and most answers recognised the impacts of deforestation and air and water pollution on wildlife and food chains. Some candidates incorrectly included global warming in their impacts or referred to the impacts on people rather than the natural environment.
- (b)(i) Descriptions of three changes were generally accurate and the resource was well used. Some answers described each zone in turn without making an explicit comparison; however such answers were still credited.
- (ii) The answers to this question were wide ranging and most candidates scored some marks, but there was generally little development of ideas. The most common focus was on the availability and cost of housing, and the lack of jobs. Some answers explained the plight of new migrants in great and not all of the information was linked to the question set.
- (c) This was a well-known topic and there were some good accounts of self-help schemes, particularly in Brazil and India, which were well developed, sometimes with place specific detail. There were also many relevant answers with little detail, typically marked at Level 1 as statements were brief and simplistic. Answers usually focused on improvements in services and housing which, in the best cases, were attributed to government or another organisation such as NGOs. The question required descriptive detail so diversion into the effects of the improvements (i.e. explanation), which was often seen, was not relevant. Similarly those candidates who devoted much of their limited space to a long introduction about conditions in squatter settlements did not gain credit for this.

Question 3

- (a)(i) Most candidates gave an acceptable definition, although some lost the mark through poor expression which made the answer unclear.
- (ii) Few candidates seemed to score both marks because of lack of detail. Credit was usually gained by description of the cone, crater or lack of vegetation.
- (iii) Although few candidates scored full marks on this question most made the link with plate boundaries. Fewer candidates referred to the Mid Atlantic Ridge or the Pacific Ring of Fire and very few candidates named adjacent tectonic plates where there was a number of volcanoes. Weaker candidates referred to specific named regions or volcanoes rather than describing 'global distribution' whilst others referred simple to land and sea, volcanoes being found 'all over the world', or offered irrelevant explanation.
- (b)(i) Most candidates were able to extract the relevant information from the text and apply it to the answer. The most common answers identified the increase in tourist numbers and tourist income; fewer answers identified the increase in employment or named specific jobs.
- (ii) There were many excellent relevant answers, but a significant number of candidates incorrectly included references to tourism. The most common benefit was fertile soils, and many also referred to geothermal energy and mining activities.
- (iii) This was another familiar topic and was generally well answered, with some candidates successfully attempting to develop their ideas. The most commonly described problems were deaths and injuries, and effects on homes, livelihood and transport.
- (c) Many candidates did not seem familiar with the causes of eruption, particularly in relation to a specific volcano. Many wrongly described the features of a volcano or eruption or described the effects of an eruption. In many cases where answers focused on the effects they were often simplistic and/or unrelated to the named example. The most comprehensive answers tended to use Mt St Helens and developed ideas such as the direction of plate movement, subduction, pressure and the escape of magma, including place specific detail by naming the plates involved. There were some good diagrams though in contrast many were extremely weak and did little or nothing to add to the written text.

Question 4

- (a) (i) Most candidates ranked the countries correctly although a few candidates did not understand how the answer should be written and drew vertical bars in the table.
- (ii) Most candidates identified the two countries. Other candidates suggested Peru and Nigeria because they looked at the wrong part of the map key.
- (iii) Key words in this question were 'large amounts', not always noticed by candidates, but most did score some marks. Better answers focused on clearance of the forest to satisfy the demand for timber or to create space for settlement, roads or commercial agriculture. Candidates who wrote about traditional uses such as subsistence agriculture or hunting and gathering missed the point of the question.
- (b) (i) This was generally well answered with the most common ideas suggested being species lost when trees are cut down, loss of habitat, and disruption to food supply.
- (ii) Many candidates wrote about how the trees protect the soil and bind the soil particles together but some did not continue this idea through to explain how the loss of them may cause soil erosion. Nevertheless most did show some understanding here, the most common suggestion being that the soil is exposed to erosion by loss of the canopy, and the highest quality answers included appropriate terminology such as interception, infiltration and surface run off.
- (iii) Many candidates had few positive ideas about sustainable development. The two ideas most commonly suggested were afforestation and the implementation of quotas for logging. A lack of understanding was shown in many answers through an emphasis on 'not allowing' developments rather than suggesting how this might be achieved. Some candidates explained why sustainable projects were a good idea rather than suggesting how they could be done. Tourism was a common answer but with no explanation of ecotourism. Few candidates mentioned any sustainable logging methods.
- (c) Few candidates achieved full marks because of the requirement for both explanation and description. Explanation was the weakest part of most answers and there were some inaccuracies, such as 'low temperatures' and 'dry season'. Most candidates however referred to high temperatures, heavy rainfall and high humidity, if only in a simplistic way to achieve Level 1. Only the best candidates included figures to support their statements along with appropriate explanation. Whilst a good understanding of convectional rainfall was shown by well-prepared candidates, they were less successful in explaining reasons for high temperature or the small temperature range. Inexplicably many candidates across the ability spectrum digressed into adaptations of rainforest vegetation to the climate, which were not relevant.

Question 5

- (a) (i) Most candidates gave the correct definition including 'to sell' or 'for sale'.
- (ii) Most candidates scored both marks. An error seen was to identify woollen mills, grain market or sheep auction as a crop or animal product.
- (iii) Most candidates understood the idea of natural inputs although a minority included human inputs.
- (iv) Many candidates gave comprehensive answers and suggested machinery, fertilisers, pesticides, GM crops and selective breeding as the main ways to increase output. Weaker candidates had limited ideas such as getting people to work harder and employing more labour.
- (b) (i) Many candidates found the skill of describing features from the photograph quite difficult and some missed the key words 'of the farming'.
- (ii) This question was not generally answered well. Whilst most answers correctly focused on temperatures, water supply, soil and communication links there was little real development even in the best answers, and in the case of weaker candidates little or no understanding of the factors which influence agricultural land use. Whilst such candidates suggested climate as the main influence it was often too vague to be worth any credit at all.

- (c) This was thoughtfully answered by many candidates, responses falling into two broad categories - either explanations of why subsistence farmers do not become commercial farmers, or why people start out farming at a subsistence level. Both of these approaches were credited. Answers were well exemplified with a wide variety of case studies, including rice farming in the Asian sub-continent or shifting cultivation in the Amazon, or rural areas known by and local to the candidates. Most candidates did show some understanding of subsistence farming but weaker answers only defined the term or described the farming processes rather than explaining why farmers are subsistence farmers. The most common correct explanation suggested was poverty and subsequent inability to purchase machinery, extra land or fertilisers. Other ideas included the restricted area of available land and poor availability of capital for commercial farming.

Question 6

- (a) (i) Whilst a considerable number of candidates gave answers within the accepted range, others were inaccurate with the answers given.
- (ii) Many candidates gained two marks, however common errors were to repeat 'reservoir' and to identify 'the sea' rather than the desalination plant.
- (iii) This was well answered and many candidates scored three marks. Some candidates failed to give an appropriate industrial use and a few described the sources of the water rather than focussing on its uses.
- (iv) This was a familiar topic for many candidates and many wrote wide ranging answers, typically including ideas such as disposal of waste from factories, run-off of fertilisers, pesticides or other chemicals from farms, litter and human sewage. Some candidates wrongly focused on the effects of pollution, including eutrophication.
- (b) (i) The task of interpreting a photograph was again difficult for many candidates. There was some confusion between site factors and the advantages or disadvantages of a reservoir in the area. The most common suggestion was a lack of settlement in the area. Many candidates had difficulty explaining how the shape of the valley and its sides would help in dam construction. Many incorrectly referred to steep slopes.
- (ii) The candidates were asked to consider two sides of an argument and generally did, producing a balanced answer, but the arguments against were often more forcefully presented. Many candidates mistakenly linked their answer here to Question (b)(i) presenting arguments for and against siting factors rather than the more general benefits or problems of the scheme.
- (c) Many candidates gave good, detailed answers, some with place specific detail. They suggested a range of ideas including poverty, drought, infertile soil, overpopulation, lack of money and political reasons, though many candidates just focused on one issue (e.g. drought) without considering other ideas and developing them. Detailed answers were given about political problems and civil war in countries such as Zimbabwe, Sudan and Somalia. Another reason suggested was the use of more fertile soil for cash crops to export. A minority of candidates included irrelevant details of effects of the food shortages, however most scored marks, even if weaker candidates rarely got beyond Level 1 as their responses were brief and simplistic.

GEOGRAPHY

Paper 2217/13

Paper 13

There were too few candidates for us to be able to produce a meaningful report.

GEOGRAPHY

Paper 2217/22
Investigation and Skills

Key Messages for Section A

- Practical skills questions need to be completed precisely.
- Given data should be interpreted to show understanding.
- In **Section B**, careful analysis should be backed up with evidence.

General comments for Section A

This paper was comparable to previous sessions. **Question 1(e)(i)** and **Question 3(a)(ii)** were the easiest on the paper, with **Question 1(a)(ii)** and **Question 2(a)(ii)** being more difficult. In **Section B**, **Question 7** was less popular than **Question 8** by the ratio of about 1: 2 and several candidates had attempted at least parts of both questions.

The majority of candidates appeared to have had sufficient time to complete the paper and candidates should be reminded of the importance of checking their work, should there be spare time at the end of the examination. Fig. 2 could then have been studied more carefully, which would have enabled many to spot their error. Similarly careful checking would have alerted to omissions such as occurred with **Question 1(b)(ii)** particularly, but also with **Question 2(a)(i)** and **Question 4(b)** where the instruction at the bottom of the page was not immediately followed by a blank line for response.

Comments on specific questions

Section A

Question 1

- (a) The paper opened with two grid references. Firstly candidates had to find the Ox Bow lake, beside the Murowodzi river, and locate it by means of a four figure grid reference for the square containing the lake. Many had the correct answer of 8383. The most common error seen was 84, either for the easting or the northing, or occasionally both, as a result of reading the grid lines on the wrong side of the square.

Then, at a higher skill level, the candidates were asked for a six figure grid reference. Careful measurement of the position of the tank gave an answer of 827852 or 828852, either of which was acceptable, as the tank symbol went into both of these areas. It was very common to see 828853, the location of the word "Tank" rather than the site of the symbol on the map.

- (b) Fig. 1 highlighted a small section of the main map with features to identify. **W** was "track", "cut line" or "game trail", **X** was "staff quarters", **Y** was "quarry" or "excavation" and **Z** was the "power line". Almost all candidates got some of these right and a number correctly identified all 4. The most likely error was on **X** and/or **Y**, where candidates had either copied the whole line from the key or selected the wrong part to match the symbol.

In **part (ii)** candidates were asked to mark the route of the gravel road onto Fig. 1. There were two marks available here: the first for locating the road with a SW-NE line in 7487, and the second for accurate positioning of the line at both ends. Some candidates joined their road to the power line that they had previously identified in **part (i)**. The number of omissions for this question was high.

- (c) A pair of six figure grid references directed candidates to the wide tarred road running across the map and indicated the direction of travel for their description. For two marks it was necessary to mention both aspects of the direction, “south-east, then turning south”. Many had done this correctly. Others gave a more generalised answer involving just one of the directions.

The distance measurement in **part (ii)** was fairly straightforward with only one major curve to take into consideration. Answers between 9.6 km and 10 km were acceptable. Many candidates were within this range.

- (d) The Moores Grant map extract shows one main area of dense bush and several smaller areas. Some of the candidates set about naming all of the areas. This got them one mark for one of the smaller named areas: Boganga Hills, Worm Wood Estate or Sable Peak. Some candidates tried to describe everything in terms of directions. This was fine for saying that the main area was in the south (or the south-west) but was not really very helpful for locating the smaller areas. The best answers opted for a combination of both of these approaches, along with a further comment such as “on high land”, “above 1260m” or “on steep slopes”.

Some candidates tried to employ the grid lines to help them locate, particularly the largest area. Many just gave four figure grid references of the squares at the extremities of the dense bush, usually 7183 and 7783, but this was rather inadequate compared with something such as “between eastings 72 and 77 and northings 81 and 83”.

Some candidates tried to write about all of the types of bush shown on the map.

- (e) **Part (e)** focused on the Murowodzi river. Firstly candidates had to identify a way of crossing it. This had to be from map evidence only, so “boat” was not a valid answer. Most candidates easily spotted the clearly labelled “Foot Suspension Bridge”. Other acceptable answers were simply “bridge”, “ford”(815831) or “dam”.

Describing the physical features of the river was a little more difficult. Most candidates mentioned tributaries, meanders and the ox-bow lake. Some also spotted the rapid. There was a mark available for “flows east” but many had the direction of flow the opposite way. Other possibilities were “variable width”, “splits and rejoins”, “gentle gradient” and an indication of height range along the course.

Some candidates diverted onto features of the valley and a few wrote about human features, perhaps because they are easier to identify, often directly from the key.

Question 2

- (a) Fig. 2 showed percentage of river flow compared to average conditions for the first 6 months of 2010 and candidates were first required to complete the 100% line. Most did this correctly. Some candidates tried to avoid crossing sea areas, so took rather a diversion through Central Scotland, but still managed to maintain a correct line in relation to the sample points.

To answer **part (ii)**, candidates needed to appreciate that the map was showing flows as compared to the average, rather than absolute values. Thus “west has lower than average flow” and “east has higher than average flow” was a good answer. This could also have been expressed as “west is below 100% and east is above 100%”, so simply describing the map as seen, without needing to fully understand the significance of the figures. Candidates found this difficult.

Part (iii) simply required careful scrutiny of the map. There are 6 locations with record low flow but many candidates missed 2 of them.

- (b) As river flow reduces, depth and speed of flow both decrease. This leads to deposition. The river transports smaller sized load than previously and erosion is less. There were some interesting thought processes going on here. Most candidates said that depth would decrease, but some reasoned that it would increase due to deposition on the bed making water level higher. Many candidates attempted to write about erosion in some detail, while relatively few mentioned deposition and comments on transport were rare and often restricted to the names of processes. Some candidates argued for a faster flow, due to less water in the river.

Question 3

- (a) On Photograph A, the headland was at G and the harbour wall at F. Both A and E were areas of deposition and covered in water at high tide. Either was acceptable in each case. Route 2 provided access to the harbour at all conditions of the tide. Many candidates got most of the available marks. The most common error was with the headland, perhaps due to the lack of dramatic cliffs and classic erosional features.
- (b) Potential tourist attractions had to be sourced from the photograph only. Many mentioned the harbour with its boats, the beaches and the caravan park. Beautiful scenery was also an acceptable point but it was not enough to simply say “the view” since the view could be unattractive. “There is a park” was not enough since some assumed that the caravan park was just parkland while others took it to be something more like a theme park. The word “caravan” needed to be linked to the park, and this then scored the mark, no matter how it had been interpreted.

Question 4

- (a) Immigrants to Brazil came from Paraguay, Argentina and Uruguay, while emigration was to USA, Canada and Japan. In each case, one country was required and the most common error was to put “Europe” for either or both of the answers. A few assumed Brazil to be the shaded area only and thus used other regions of Brazil for their answers. However, most candidates answered correctly.
- (b) Completion of Fig. 4 required a dashed arrow from the NE region to Brasilia, with one mark for the position and direction of the arrow and the other for the type of arrow. Those who attempted this question usually scored at least one mark and many were completely correct. There were a number who did not attempt this, perhaps due to not noticing the instruction at the bottom of the page.
- (c) To describe the internal migration in Brazil, it was important to have the source linked to the destination and have this relating to the correct date. Thus “from the NE before 1980” or “from Sao Paulo to Parana” both lacked one element and failed to score, while “after 1980 they went from the area of high population density to Parana, Amazonas and the Centre West region” scored 3. Selecting something from before 1980 would then collect the 4th mark. There was plenty of scope here and many candidates had a systematic approach which easily scored them 4 marks.

Question 5

- (a) A generous tolerance on Fig. 5, compensated for the slightly tricky scale on the y-axis and many candidates scored 2 marks. As is usual with graph completion question a few candidates needed a little more precision. For example plots below 50 were not acceptable.
- (b) In **part (i)**, anything from 27 million to 28½ million was accepted, while in **part (ii)** the range for correct answers was 2½ million to 3½ million. Most candidates got at least one answer within the accepted range.
- (c) Here candidates were asked to describe the overall change in tourist numbers - a decrease. Figures alone, without description of the change, were not credited and neither was a consideration of each individual country: “France decreased, USA decreased...”, though there was a mark for pointing out that Italy’s figures stayed about the same for the two years, in contrast to the general trend. Most candidates noted the decrease and commented on Italy. A further observation was that the rank order of the countries remained unchanged.
- (d) Many candidates completed Fig. 6 correctly shading two-tenths of the pie chart, to show the proportion of France’s international tourists visiting the Disney resorts.

Question 6

- (a) Many candidates located Malaysia in the correct triangle on Fig. 7, a number of those with sufficient accuracy to score two marks. Those who were not sure how the graph worked, would often do 3 plots, one on each edge of the graph.

- (b) Highest primary employment was in Thailand, with highest tertiary employment in South Africa. There were quite a variety of answers here with China being a common error for the primary employment.
- (c) As a country develops, its primary industry decreases and secondary and tertiary industry increase. As time goes on, further mechanisation and development leads to a fall in secondary industry, with further increase in tertiary. Most candidates commented correctly on primary and tertiary industry, though secondary was not always covered. Some candidates did not consider “structure” and just wrote general comments about employment changing, such as “there will be more jobs”.

Section B

Key Messages for Section B

Every examination is different but there are usually a few generic tips and key messages that bear reiterating in the hope of improving candidate performance in future. Some of these points have featured in previous reports but the same issues are reoccurring. The following are a few key messages that the Examiners feel will benefit future candidates if they are passed on by teachers:

- 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. If you are asked to support your decision with data then statistics must be used from the resources referred to. Data is quantitative; evidence can be qualitative or quantitative.
- When giving figures in an answers always give the units if they are not stated in the resources provided.
- Read questions carefully and identify the command word e.g. *Describe, Explain...*
- When asked to compare, make judgements e.g. *higher, lower*, rather than just list comparative statistics.
- Check you are using the Resources that a question refers you to e.g. *Support your answer with evidence from Figs. 7 and 8.*
- Take into account the marks awarded for each question. Examiners do not expect candidates to write outside of the lines provided so do not write a paragraph when only two lines are given – this wastes time.
- If you have to write more than the lines allowed indicate this with a phrase such as (*continued on page 2*).
- When completing graph work use a dark-coloured pencil.
- When you think you have finished, check that you have not missed a question out. Some questions are located on pages with a lot of graphs or maps. Make sure you have answered the questions on every page. This applies especially to questions where you are asked to complete tables, diagrams, graphs or maps.

General Comments for Section B

Most candidates found this examination enabled them to demonstrate what they knew, understood and could do. Weaker candidates scored on the practical questions, such as drawing graphs, diagram completions and those of higher ability scoring well on the more challenging sections requiring explanation, comparison and judgement especially regarding hypotheses. .

There is less general advice to be given for areas for improvement with this paper as with others. As there are no choices to make, it is difficult to miss sections out – though candidates do. There were no reports of time issues as the booklet format does not allow or encourage over-writing of sub-sections. 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 improving and extending the fieldwork activities demonstrated in the examination. Particular questions where candidates do not score well also often relate to them not fully reading the question or taking time to thoroughly understand the resources referred to. Such failings mean that some candidates do not obtain a mark in line with their geographical ability.

It is important to note that, although this is an Alternative to Coursework examination, candidates will still be expected to show that they know how fieldwork equipment is used and appropriate fieldwork techniques even if they have only limited opportunity for fieldwork within the Centre. **Question 1** required candidates to have experience of, or know how to use, a barometer and anemometer, to know the difference between

primary and secondary data, and how to carry out a fieldwork investigation into temperature. **Question 2** required candidates to have experience of, or know how to map, land-use in a commercial area, carry out a pedestrian and vehicle survey and record such using tally charts and isoline maps.

Comments on Specific Questions

Question 7

- (a) Although it is true that many candidates find the study of weather and climate difficult, this was still a fairly basic question about the different characteristics of high and low atmospheric pressure conditions. Around half the candidates did this well but that was disappointing for a starter question; indeed 4% of candidates did not attempt it which, given there were only two choices for each type of pressure, was unfortunate. Many candidates indicated uncertainty by changing their answers.
- (b)(i) The insert illustrated the barometer that was being used to measure atmospheric pressure but many candidates decided to write about a different barometer. Those that wrote about the one shown did not appear to understand that the index pointer was set to the previous pressure (not the highest or average pressure) that was recorded at an agreed time – usually the same time on the day before - then the atmospheric pressure pointer was free to move as pressure changed. This would allow the pressure difference to be calculated at the same comparable times on each day. References to reading the pressure shown by the pointer on the dial were seen but not as often as expected. Many candidates wrote about siting the barometer in a Stevenson Screen and were clearly not engaged with the barometer illustrated.
- (ii) The answer of 1018 mb was given by the vast majority of candidates; incorrect answers included 1020 mb (frequent), 1030 mb and 1018.2 mb – decimal places were not required or possible to judge on the barometer shown. Some candidates took the reading from the index pointer.
- (iii) Knowing the full meaning of abbreviated units is a basic requirement and has been mentioned in many previous reports. While the majority knew that mb stood for millibars, there was a broad range of incorrect answers to this question. Megabytes was the most common incorrect answer. This was a fairly straight forward question but 16% of candidates did not attempt it.
- (iv) The key to taking the pressure reading at the same time each day was so that readings could be compared in a fair test and reliable judgements could be made. Some candidates took the 12 midday time as significant and explained that the temperature and pressure changed markedly at this time so that was why the readings were taken. What was required was an answer that explained why it was important to take these readings at the same time. Too many candidates referred to “*more accurate/accuracy*” which is rarely credited on this paper without some qualification.
- (v) Candidates had some idea about how to use an anemometer though many wrote about where it would be sited rather than how it would be used. Most referred to the cups or cones being turned or spun or rotated by the wind (not the anemometer as a whole), and the reading could be read off the meter in km/hour.
- (c)(i) The plotting was done well by almost all candidates; some found the 2nd plot at 7/1017 mb more difficult but overall most scored 2 marks. However 4% of candidates did not attempt this fairly straightforward plotting which is difficult to explain. Although candidates were not penalised, it was odd that some drew circular plots (as in the key for Jakarta) as they were for Manama, so they should have been crosses.
- (ii) The overall trend of the plots in Fig. 3 showed a positive relationship although, as this was fairly generous, no relationship was also acceptable however there is no indication overall that this Hypothesis could be true – any best-fit line drawn on these points would not support a negative correlation between atmospheric pressure and wind speed. The majority of candidates recognised this and declared the hypothesis as incorrect or false. They then supported this by demonstrating that, at the same atmospheric pressure wind speed varied, or used figures to show that, as atmospheric pressure increased so did wind speed. There were a few candidates who correctly disagreed with the hypothesis and then provided evidence and data that would support it being

correct. This was one of the more challenging questions on the paper but almost 1/3rd scored well on it.

- (d) (i) This was correctly completed by almost all candidates though a number reversed the methods completely by putting Primary data types under Secondary and vice versa. A few decided to put their own descriptions in the table and not use those required so scored no marks.
- (ii) Although a small number plotted the bars in reverse or did not attempt them at all, almost 90% scored well on the graph. A few plots were difficult to see once scanned; darker coloured pencils were needed!
- (iii) This was a challenging question but half of the candidates scored well on it. The Hypothesis was clearly true and most candidates gave data from Manama and Jakarta to illustrate the different pressures at both places. Not all scored a 4th mark for recognising that the differences were greater in Manama than in Jakarta but nevertheless they still existed in every case. A few candidates made the mistake of comparing January and July pressures between Manama and Jakarta instead of within the same city as required. Because the Jakarta figures were close it was agreed to allow a maximum of 2 marks for candidates who judged that the hypothesis was partly/to some extent true based on this data.
- (e) This question on possible weaknesses of the investigation were not answered particularly well. Suggestions relating to the short period of 10 days or the choice of just two months gained credit as did issues over taking just one pressure measurement, candidate errors at both schools and issues of being in different time-zones re. measuring and communication between schools. Taking climate data from a previous year for comparison seemed valid as physical characteristics are more likely to be consistent over time than human ones; equally using secondary data should be trusted. Many candidates thought it was not wise to trust secondary data collected by professionals at the local meteorological office which was not credited.
- (f) Many candidates gave sensible ideas here. It was important to realise that it was just the one school that was going to extend their fieldwork so it was not relevant to suggest ideas that would involve both schools. Most suggested using a thermometer in a Stevenson Screen and fixing a time/period to measure the max. and min. temperatures. Many however did not state an investigation or hypothesis, in other words they did not seem to know what they would do with the figures once obtained. Some did try to develop an investigation relating temperature to pressure or wind speed.

Question 8

- (a) (i) This was done well. Almost all candidates could use the key to recognise the Hardware and Professional services buildings. A few reversed their answers and a small number just gave examples of shops instead of types. A few just listed initials which was not accepted.
- (ii) Many candidates realised that, by classifying the individual shops into groups, it would make their fieldwork a lot easier and quicker plus the fact that in practical terms, writing the name/type of every shop and service on a land-use map would be tiresome and produce a clutter with no discernible pattern. A few candidates strayed down the low and high order goods route and also thinking that the sphere of influence could be worked out – rather odd answers given the question.
- (iii) Describing a location is a basic geographical skill which should include references to directions and/or distances using scales and other significant features. This question yielded disappointing answers such as *“they are all close together”* or *“in the central area.”* *“Near to housing”* was popular but not credited as it is too general and vague given the amount of housing on the map. Examples of the best answers included *“east of the market”* or *“north-west of the cemetery.”*
- (iv) The location of the supermarket was easier to locate with most answers referring to its location east of/near to the main road or the bus/petrol station or east of the CBD. Vague answers like *“in the east of the map”* were not acceptable.
- (v) Although many candidates wrote about avoiding competition, candidates needed to realise that the wholesale shops and general stores were likely to have been located in the central area before the supermarket so the only competition issue would be a reason for the supermarkets to be located away from the central area not the other way round. Answers that recognised the importance of

low order goods/everyday goods needing to be close to housing while supermarkets needed more space for parking and to attract travellers on the main road were credited. This question was not done well.

- (vi) The majority of candidates agreed with the hypothesis and then gave evidence for the proximity of the listed surrounding shops with especial reference to professional services and government offices being a function of the commercial Centre.
- (b) (i) This question was not answered well; indeed it scored the lowest marks on **Question 2**. The key was to note that the two points in the question related to using two working days and the time slot of 9.30-9.40 am. Consequently answers expected were that it would avoid the rush hour which might give a false impression of the “normal” traffic flows; many candidates thought this was the rush hour and was a good time to take the survey but they did not note the nature of the hypothesis. The 10-minute slot was regarded as enough for valid results and enough to retain concentration – but not to stop them getting tired! Two working days would give an average to compare the flows and would also be more typical of a working week than using a weekend day. The hypothesis and the question needed reading more carefully to gain credit here.
- (ii) The tally chart was done well; almost all could draw the correct “sticks” and put 18 at the bottom of the table though a few did not put the figure in. A small number used the figure 36 – possibly because the stem said there were “18 bicycles and mopeds” and they misunderstood that as 36 in total – 18 of each!
- (c) (i) Drawing isolines is a fairly basic technique to represent flows – rainfall and pressure isohyets and isobars are commonly used in weather and climate work at this level - yet only few candidates could interpolate the 100 pedestrians line outside the 102 plot and between the 110/93 plots and inside the 93 plot as required. This technique has been used on previous papers so the response was disappointing; many just joined the 100 line up or joined up the points. 4% of candidates did not attempt this task.
- (ii) Despite 5% of candidates not attempting this question, the vast majority of those that did gained the mark by shading the area inside the 100 vehicles line.
- (iii) This proved a challenging question. It was surprising how many candidates thought that, by separating out the vehicles into two groups, that they would know how many of each group there would be but that is already known from the survey table on Fig. 6 where the vehicles are separated into two groups. Some just thought that two maps would avoid the amalgamated map being cluttered despite Fig. 8 being an amalgamated map of all vehicles which is not cluttered. This question required some spatial awareness in that separating out the vehicles would allow one to see where they were in the area especially as mopeds and bikes can probably access areas that the larger 4-wheeled vehicles could not go. The maps could then influence policies in future e.g. where car parks or wider roads are needed.
- (iv) While most candidates correctly agreed with the hypothesis, they did not provide the correct data to gain further credit. Many focused on the 300 pedestrian isoline location but the area that matched the pedestrian flows should have been the commercial Centre which was embraced mostly from the 150 isoline upwards; in a similar way vehicles ranged from 25-50 in the commercial Centre - a more common answer seen and credited. It needed a mental match of the commercial Centre with the pedestrians and vehicle flows to get this right.
- (v) References to lack of car ownership or no need to own cars were credited regarding areas where pedestrian flows were high as were the nearness of housing to the CBD and market and the cost of petrol deterring people from using cars. The higher frequency along the main road between cities for commuting was credited as was any concentration near the supermarket or petrol station. Some candidates did make the point that there may be no access or parking space for cars in the Centre and that pedestrians could access anywhere without the need to worry about narrow roads or paths.

- (d) The best answers focused on how this investigation could have been improved and gave suggestions such as surveying for more working days or including a weekend day for comparison. Increasing the number of sites was also credited and increasing groups to 3 or more was allowed. Some suggested taking the survey at a different time but could not suggest or justify when; those that gave ideas of times e.g. afternoon or evening or even in the rush hour for comparison were credited. Surveying for longer than 10 minutes was not allowed as it would not necessarily lead to more accurate data as suggested as this length of time had already been set to avoid lapses in concentration and was enough for valid results.

GEOGRAPHY

Paper 2217/23
Investigation and Skills

There were too few candidates for us to be able to produce a meaningful report.