GCE EXAMINERS' REPORTS

GEOGRAPHY
AS/Advanced

SUMMER 2016

Grade boundary information for this subject is available on the WJEC public website at: https://www.wjecservices.co.uk/MarkToUMS/default.aspx?l=en

Online Results Analysis

WJEC provides information to examination centres via the WJEC secure website. This is restricted to centre staff only. Access is granted to centre staff by the Examinations Officer at the centre.

Annual Statistical Report

The annual Statistical Report (issued in the second half of the Autumn Term) gives overall outcomes of all examinations administered by WJEC.

GEOGRAPHY

General Certificate of Education

Summer 2016

Advanced Subsidiary/Advanced

CHANGING PHYSICAL ENVIRONMENTS

The paper was accessible across the ability range with little evidence of questions being omitted. It differentiated well and provided the opportunity for candidates to display the ability to appropriately apply their knowledge and understanding of the specification content.

- There was evidence of a sound knowledge of the concepts that form the basis of the specification. This knowledge does need to be applied more effectively and demonstrates the continuing need to engage in question analysis. The better answers did not just regurgitate information but applied it to the requirements of the question.

- Candidates are secure in their descriptions when presented with straightforward resources. However attention must be paid to the keys provided with graphs and maps to ensure a full understanding of their contents.

- Each 10 mark question in questions 1 and 2 provides the opportunity to use relevant and recent case studies and yet a number of candidates answered in generic terms. Case studies not only provide support for answers but also enable clarification in the development of points made.

- Quite a lot of 'data support' was creative or at the very least confused: centres should remind their students that (i) examiners are aware of the case studies; (ii) it is easy for examiners to check case studies on the internet.

- Candidates need to respond directly to the question's command word. In questions1a and 2a a number of answers tried to explain when the command was describe. Many ignored the comparison required in question 1b.

- The problem of poor handwriting persists for a significant number of candidates. It is easy to lose the thread of an argument or account when focusing on deciphering what has been written. Spelling, punctuation and grammar are included in the generic mark scheme but still provide an issue for a number of candidates

Q.1 (a) The resource showing vulnerability of cities in Asia to climate change was accessible to candidates across the ability range. Responses were generally of good quality with a very good interpretation of the graph showing exposure to vulnerability (A). The identification of the most exposed and least exposed cities, with supporting data, was achieved by the majority of candidates. Good answers also showed the ability to compare the graphs to identify differences in the vulnerability of the cities shown. These responses pointed out that some cities had a great exposure to climate change but the ability to adapt to vulnerability, e.g. Shanghai, whilst others like Dhaka had high exposure but were unable to adapt. However a common fault was a misinterpretation of the key for the second graph (B) with 10 being regarded as the most able to adapt. Candidates who tried to compare A and B often produced complex, difficult to follow answers, some of which did not show differences, partly due to the misinterpretation of B. Some candidates also drifted from the command to simply describe differences and developed possible reasons for the differences. This was not credit worthy and often took up time that could have been used more profitably in other parts of the examination.

(b) The question was accessible and good responses were able to take advantage of the opportunity to display their knowledge of the impacts of climate change in different regions. There was a good variety of approaches in the selection of the regions with a large number choosing to examine two countries whilst some chose to examine the impacts on river deltas/estuaries in regions of varying economic development. Another approach was to examine the impacts of climate change on two biomes with others taking the impacts of El Nino on different sides of the Pacific as their structure. There was evidence of the ability to organise information where candidates outlined the impacts in the form of economic, social, demographic and environmental consequences of climate change. Many candidates outlined the impacts in detail with good case study data support. Good answers focused on the command word which required the impacts in the selected regions to be compared. This was done in a variety of ways but commonly in the form of a comparison of impacts in regions at different levels of development which drew on the ability of different regions to manage impacts such as sea level change or extreme weather events. Other comparisons looked at differences in the scale of impacts in different regions or commented upon variations in the type of impact - economic, social, demographic and environmental. Examiners did report that a common failure was the ability to address the command word and so answers consisted of two accounts of impacts with no attempt at comparison. This approach did not completely satisfy the requirements of the question. The climate change context was not always clear, e.g. a change in frequency of monsoons/tropical storms or a rise in sea level. In these cases the answer often read as the impacts of flooding or tropical cyclones and climatic framework was missing. Conversely, some devoted a large portion of the response to the causes rather than the impacts.

2

Q.1   (c)   This question addressed how human activities influenced the processes leading to climate change and gave candidates the opportunity to examine the relative importance of human activity in this process. Good answers were able to identify and develop a number of human causes of climate change with the normal focus being on the production of greenhouse gases but there were answers that commented upon the removal of carbon sinks. Often candidates used appropriately annotated diagrams to explain the enhanced greenhouse effect and thus their answers link to climate change. The relative importance element of the question was addressed by a number of approaches. Some answers looked at temporal change and outlined the increase in production of greenhouse gases in recent history. These responses examined the increase in carbon dioxide outputs as a result of industrial development but also commented upon the importance of transport as a source of emissions. Reference to the changes in agriculture were also common with links between changing diet and methane production highlighted. Reference to the impacts of deforestation were usually made at this point. Some answers addressed the relative importance of humans by an examination of the global production of greenhouse gases with a focus on the importance of both industrialised and industrialising countries. There were some answers that tried to examine how humans were attempting to reduce the rates of climate change through mitigation strategies as encouraged by Kyoto and more recent conferences. Whilst most addressed the idea of relative importance by comparing relative gas amounts others discussed it by examining human and natural causes with sunspots and volcanic activity most commonly used as natural causes of change. The most common error was not addressing the reference to relative importance in the question. A number of responses failed to make use of case study material and others devoted too much time to process at the expense of an examination of the causes. Some answers referred to CFCs solely in terms of their effect on the ozone layer and omitting the impact on global warming which is the crux of the question.

Q.2   (a)   This was well answered by the majority of candidates who had been well prepared for photographic analysis. The destruction of buildings, infrastructure, industry and changes to the physical environment were well documented. A number of candidates gained credit for appropriate supplementary comments, e.g. linking homelessness to the destruction of housing or loss of income from the destruction of farms and businesses. Good responses located the impact well using reference points on the resource and a number commented on the scale of destruction using the scale. There were however some answers that described impacts that could not be discerned from the photographs such as reference to specific buildings such as hospitals or comments on the magnitude of deaths as a result of the tsunami. Those answers that reverted to generalised comments such as 'all flooded' did not score well.

(b)   This question provided the greatest range in the quality of answers. There were some good answers that recognised the various demands of the question and did not just regurgitate the impacts of the selected hazard. These responses identified a variety of groups affected by the hazard, usually government, family, aid agencies and residents, and established why they viewed the hazard negatively. For example families perceived a flood hazard negatively due to the trauma caused by loss of family members or belongings or governments viewed earthquake activity negatively due the cost of repairs to infrastructure. In the better answers there was good use of case study material such as the earthquakes in Nepal (2015), Balochistan (2013) and Tokoku (2011) or the floods of India (2013) and the Philippines (2011). There was still evidence of the use of well documented examples of earthquakes, volcanic eruptions and floods, some of which are becoming dated. Candidates seemed confident in their knowledge and understanding of the economic, social and demographic problems that result from hazards but were not always confident in their application to the question set. The most common error was a poor identification of groups which led to answers that were simply an outline of the effects of the hazard. Other limited answers displayed very generalised examples such as 'flooding in Bangladesh', a focus on the reasons why groups may have positive perceptions and an examination of both floods and tectonic hazards which cut down on the detail that could be provided.

(c)   This was a more straightforward question that was answered confidently by those who had learned their case studies. The better responses were able to identify the strategy and give some development on how it was intended to manage tectonic hazards. Some answers focused on a specific strategy such as the building of sea walls to manage the impacts of tsunamis. Others took a broader view and gave preparation as the strategy and then examined the variety of approaches that could be included in a geographical location. A few took a located strategy that contained a variety of elements that stretched across avoidance, absorption and alleviation of the effects, for example the Japanese earthquake preparedness system. Although the strengths were often dealt with in more detail than the weaknesses there was no need to have a balance to access the highest level, only to have addressed both elements of the question. Strengths were usually directed towards demographic advantages but there was also a consideration of the economic benefits of protecting buildings and infrastructure. In some responses there was a review of the benefits that accrued for communities and individuals. Weaknesses often revolved around costs but a number of responses did comment on how the strategy selected could not cope with the magnitude of the events. Few took the opportunity to compare the selected strategy with other locations with a different level of economic development. Where the response was less successful candidates offered little case study support and often took a generalised and simplistic approach.

Q.3 (a) The resource was accessible to candidates of all abilities. Good responses displayed an effective interpretation of the resource with an analysis of the spatial pattern of flows. This took the form of a description of the distribution of different flows for some responses but others adopted a regional analysis. Good use of evidence from the resource. Many of the good responses gave an overview of the general pattern with some support by naming rivers; they moved on to describing anomalies (high and low in Scotland) and reference to normal flow areas in central UK. Those that took a more regional approach to the description noted the variation of flows within and between the regions selected. Many also commented upon the absence of notably low and exceptionally low flow rivers. For some candidates it was a challenge to access all the information and use it to present 'patterns' These responses were rather generalised and usually only recognised a north/south split. Some answers displayed poor geographical knowledge of the British Isles and a lack of knowledge of where borders may be found between the different countries.

(b) Candidates often struggled to get to grips with this question and a large number did not understand its requirements. Thus many responses failed to address the planning stage of the enquiry method to identify factors that could be investigated to explain why a river has exceptional high flow. Many answers focused on methods of data collection and a large number confused velocity with flow. Only a few candidates showed awareness that the data they were being asked to consider was for January. As a result many answers displayed limited geographical knowledge and there was the common use of statements such as 'high river gradient means high flow' and 'upper courses have high flow'. The better responses commonly described background reasons that encourage high flow, such as vegetation cover, impermeable bedrock, channelisation. Some candidates made a point of linking these conditions to the flow conditions on the figure, thereby fully addressing the 'justify' command word. A number of answers linked antecedent conditions and recent rainfall to the flow levels and a few noted that snow melt may have occurred. Very few considered intensity of precipitation.

(c) Virtually all candidates identified their investigation and as a result it was easier to follow the arguments made. Studies of rivers, whether based on Bradshaw or flooding, were the most popular although there were a number of microclimate investigations. Weaknesses from any stage of the investigative process were acceptable and evident in the responses, although issues of data collection were the most common. Some answers identified two general weakness (e.g. 'data collection method' and 'preparation') followed by an analysis of several aspects of each and this approach was often successful. Some responses gave two types of data collection method weaknesses which was also acceptable as an approach. Diagrams were sometimes used, but were seldom effective. Many good responses gave a brief description of how the data was collected, then identified weaknesses with specific reference to the data being collected, e.g. floating orange got stuck in vegetation or pebble roundness was often interpreted by a number of different people and so lacked consistency. Weaker responses were often presented as the need for rather generic improvements, e.g. 'collect more data', 'return at other times of the year'. Indeed some weaknesses were inferred through the suggestion of improvements. A small number ignored the requirement to discuss weaknesses and addressed positive aspects of their investigations.

GEOGRAPHY

General Certificate of Education

Summer 2016

Advanced Subsidiary/Advanced

CHANGING HUMAN ENVIRONMENTS

The paper was familiar in style and content and provided candidates with an opportunity to demonstrate what they knew and understood. Many candidates found some questions challenging. The answers to the three skills questions varied in quality. For question 1a many candidates perceived the years on the map to be population figures for which little credit was forthcoming. In question 2a, identifying land uses from the photograph proved no issue to most, but many provided vague locational information together with generic land use terminology such as "green land". The Ordnance Survey map in question 3a was used accurately by many, but the full range of land uses and their locations was not achieved by the majority. Q1b answers ranged from good outlines of population characteristic changes to short and vague answers. A large minority of answers deviated from the theme to include economic implications and impacts with a lot of stress on jobs. Another popular digression was information about the changes brought about in the areas of in/out migration such as studentification and a third variant was impacts of migration on resources such as full schools and doctors' surgeries. So, many answers were off topic. Many Q1c answers contained good knowledge of demographic information. The answers ranged from competent, detailing with a broad range of factors influencing life expectancy, to shorter answers focusing entirely on repetitive healthcare issues with many simple inverse relationships. For Q2b, very few answers delved deeply into description. Sketch maps were extremely rare and descriptions were vague and general. Evaluations dominated, and these too were of a more generalised nature. In Q2c green belt pressures often turned into a description of green belt development and impacts. Many answers were location free which contrasted with good answers that maintained the theme of pressure using good case study detail. Q3b provided the most misinterpreted question on the paper. The question asked for "*outline two additional pieces of information*.........." but most candidates provided a method to collect information such as a questionnaire or environment survey. The question also went on: ".......*to further understand the human geography of the area shown in Figure 3"*. Most candidates did not refer to figure 3 in their answer, rather, their answers continued with the use to which the information collected could be put in a general way. For answers to Q3c the minority performed well, but the majority of answers lacked clarity, with no description of the methods of presentation, with no collected information referred to, with no diagrams and with very basic, short and repetitive evaluations.

- Time management did not appear to be an issue.

- Most candidates failed to take heed of the emboldened and capitalised instruction on the front of the paper referring to the use of examples, sketch maps and diagrams. Too many answers remained case study and location free, being quite vague and generalised, so credit for knowledge was limited. Ideal opportunities for sketch maps would have been in questions 2b and 2c and for diagrams in 3c.

- The three part (a) skills questions all demanded a description of different pieces of geographical information; a minority of candidates attempted reasoning within their answers and so wasted valuable time and forfeited credit.

- Geographical definitions and terminology could usefully be stressed. In question 2b the term *gentrification* appears to have morphed into meaning total redevelopment and/or renewal rather than its original meaning regarding the renovation and beatifying of an older residence, usually located in the inner city. In 2c the difference between rural, suburbs, total built up area, rural-urban fringe, inner city and CBD was often questionable. It was question 3c, however, where terminology was persistently misused. For example calling a land use map a choropleth map, a proportional circle map a proportional dot map and a land use map a dot map.

Q.1   (a)   This was a familiar style of question which the vast majority appreciated. The majority of the answers interpreted the map correctly to gain full credit, although a significant minority perceived the numbers on the map, which were years, to be population statistics and thus totally misinterpreted the data. Such misinterpretations often led to zero credit.

      (b)   The majority of the answers appeared to appreciate what the question required and proceeded to write about a variety of migrations, the majority featuring Polish migrants to Eastern England, changing the population characteristics of size, gender, age and culture backed up with a mini case study of dates and population statistics. Inverse population implications for Poland were also usually mentioned. A large minority of answers, however, deviated from this theme to include economic implications and impacts with a lot of stress on jobs. Another popular digression was information about the changes brought about in the areas of in/out migration such as studentification and a third variant was impacts of migration on resources such as full schools and doctors' surgeries. Such digressions limited marks.

      (c)   Impressive was the number of answers that included often correct statistical information on birth/death and life expectancy. There were two main approaches to the answers. Firstly, many used the demographic transition as a frame on which to hang the answer. The issue here was severe repetition. In every stage of the transition "healthcare" got better, but with very little qualification or other reasoning, so by the end of the answer there were five better *"healthcares"*. Secondly, an individual reason approach where two countries were chosen and contrasts between them were given. Once again, the issues of inverse relationships reduced credit such as "*sanitation in the UK is good, but sanitation in Somalia isn't"*.

Q.2   (a)   The vast majority of answers could identify at least three land uses, but often generalised terminology was used such as "*green land*", "*buildings*", "*rural land*", "*vegetation*". Similarly, locational directions were often vague such as "*left*", (bottom, middle or top left?), "*as we move from the centre...."* (where to and in which direction?).

(b)   Overall candidates had not learnt case studies in sufficient detail. Only a minority completed this question effectively using descriptions including locations, dates, sketch maps and specific named developments to describe a regeneration scheme. This was followed by a tight and specific evaluation which fitted and referred to the described scheme. The majority of answers did not produce a sketch map and often gave long explanations as to the decline in an area which were not creditable. Descriptions were often short and lacking in specifics: typical would be: "*the scheme provides 30,000 jobs*", but where and what in? "*The scheme provides 50,000 houses*" again, of what type, where and in what location? Evaluations similarly were very generalised and could equally apply to any regeneration scheme. Historical geography was well served here by schemes commencing long before the candidates were born. There have been plenty of schemes in the twenty first century which may engage the interest of candidates more effectively.

(c)   Pressures on green belts was answered quite effectively by many candidates who maintained the theme of pressure throughout and exemplified it by using case studies of housing developments. road construction, out of town shopping, airport construction and leisure and tourism sites, all pressurising the green belt to allow such developments. Chester was a very popular example. Once one development is allowed this often puts pressure on nearby green belt land to succumb to development. This last point was often neglected by many who simply either did not refer to any place whatsoever, or name dropped, or simply described green belt development and stressed impacts as pressures.

Q.3   (a)   Not many candidates managed to extract a wide range of land uses with their location to contrast the two squares. Most candidates didn't locate land uses effectively. Using top, bottom, left, right to locate on an Ordnance Survey map is perhaps not technically appropriate. Roads with numbers and names were visible and pit, cemetery, recreation ground and Priory were in evidence to mention and locate, but a large proportion of answers failed to specifically locate many of the land uses on display. Many answers mentioned the contour lines and the contrasting relief, an interesting point, but relief isn't land use.

(b)   The vast majority of candidates misinterpreted this question: a reminder:

*Outline **two** additional pieces of information that could be collected to further understand the human geography of the area shown in **Figure 3**.*

It was the piece of *information* that need to be outlined. Most candidates focused on the word *collected*, however, and proceeded to describe the method of collection of a questionnaire and/or an environmental survey for example. In fact many candidates simply used methods of collection that would be repeated as a basis for their presentation techniques in question 3c. The process of collecting the information was not asked for, so didn't generate credit. Many of the answers also contained a justification of how any collected data could be used, again this was not asked for unless, of course, the use was directly relevant to the area shown in figure 3, which was rare.

A minority of candidates, who didn't follow the method of collection route, relevantly identified census data, for example, as a piece of information, but then often didn't follow through by dissecting that data to see what might be useful within the areas shown by figure 3.

(c)   Methods of presentation was the topic. The better answers provided a good range of presentation techniques, described them, and stated just what information from the enquiry the techniques displayed. The best answers also included diagrams and sketch maps indicating what data was being displayed with good integrated evaluations using the enquiry information well. Many candidates, however, wasted valuable time by detailing the whole process of their enquires including much information about how data had been collected and: "*if I had to do this enquiry again I would....... ".* Methods of presentation were dominated by bar charts and pie charts, usually without any reference to any specific data. Evaluation, on the whole, was not good as it was often short, meaningless and repetitive if several techniques were used. Often evaluations were generic as no information from the enquiry had been given or displayed. A typical phrase would be: "*I presented my data in a pie chart, this was good because it was easy, quick and simple to do and looked good".* Often evaluations were with reference to collection methods and how collection issues affected the quality of data being displayed. Mapping techniques included choropleths. The majority of candidates cannot resist the temptation to put an extra *l* in the word choropleth (chloropleth) but from subsequent information it transpired that it wasn't a choropleth technique at all, but simply a coloured land use map. Dot maps turned out to also be land use maps. Proportional dot maps were in fact proportional circle maps. Spearman's was mentioned, but this is a processing/refining technique and not a presentation method. Some methods were mentioned with no outline of what the method was, such as Wordle. Here would be an opportunity to describe what this method entailed with its purpose followed by an illustration using relevant words from the enquiry; this way of answering the question was quite rare. Some answers mentioned PowerPoint presentations, this was acceptable as long as some of the illustrations within the PowerPoint had been described and evaluated. Overall, answers were quite superficial, often listing methods of presentation with limited detail or context and evaluating in very simplistic terms.

GEOGRAPHY

General Certificate of Education

Summer 2016

Advanced Subsidiary/Advanced

CONTEMPORARY THEMES AND RESEARCH IN GEOGRAPHY – SECTION A

This paper achieved the required degree of differentiation, giving opportunities to the most able to demonstrate some excellent knowledge and understanding, but also being accessible to those of lower ability. Although some very good scripts were seen, there were a relatively high proportion of responses in the 'average' category where candidates' potential was not fully realised due to particular challenges with specific questions. Generally candidates were more at home answering some of the Human Geography themes where it was easier for them to use their acquired knowledge to better effect than in the Physical themes. There were few incidences of rubric error but many examiners commented on the significant incidence of difficult handwriting and weak structuring of responses. Scripts also contained many Geographical and locational inaccuracies, which is both a disappointing and concerning trend.

Q.1   Candidates generally demonstrated sound knowledge and understanding of desert environments and so provided the necessary context for their responses. The Sonoran Desert, Zion National Park in Utah, Dubai and Mali were popular examples, although for some the sense of location was weak. References to 'desertification' were credited, although technically this is acceptable in areas where deserts are advancing (achieved by some candidates by making reference to the 250mm isohyet moving southwards from the Sahara into the Sahel) whereas desertification as a result of deforestation and soil erosion in forested areas is not. There was clear understanding of relevant human activities including population growth, water resource use, mining, agriculture and tourism and how they affected, mostly negatively, the desert environment, but much less understanding or even treatment of how such activities could be managed effectively. The most successful answers were based on a range of activities from located desert environments with details of different management strategies, some successful and some not. Weak responses contained generalised examples with few facts and an over-simplified discussion.

Q.2   Candidates identified Arctic and Alpine tundra (and sometimes justifiably Antarctic (peninsular) tundra.) However, there were some issues with the choice of examples used including marine environments, ice caps, taiga and the forested areas of the Alps which is tangentially creditable, though in many answers it was difficult to get any sense of tundra in the true sense of the word. Some essays were structured around economic benefits versus environmental costs, but often impacts were identified rather than candidates clearly differentiating between 'costs' and 'benefits'. Effective examples included the effects of tourism in the Alps, oil exploitation in Alaska and nickel mining and smelting in Norilsk, Russia with candidates demonstrating some detailed knowledge of the costs to the specialised flora and fauna and the permafrost. The fragility of the tundra environment was often

emphasised, but rarely was it explained why it is so fragile. Thermokarst was named by a few candidates, but not all candidates went on to explain its negative consequences for the tundra environment. Repetitive talk of more jobs and investment was self-limiting, especially when, as in the European Alps, these jobs were clearly on the lower slopes or in the valleys. Benefits were usually for the wider community or nation rather than **on** the tundra environment. Deforestation as a main negative activity on ski resorts seemed somewhat inapt, as 'dense pine forest' cannot be tundra. There was confusion about the term 'permafrost'; this was not clearly distinguished from 'glaciated' and many made the assumption that permafrost is present in both the alpine and the arctic tundra.

Q.3   In the majority of scripts there was clear evidence of sound knowledge and understanding of processes of glacial deposition and resultant landforms. The majority of candidates however achieved marks in the 'average' (Level 3) or low 'good' (Level 4) categories because they failed to grasp the essence of the question to 'examine'. The examination element tended to focus on the relative importance of deposition against other processes such as erosion, weathering and transportation. This discussion was sometimes integrated into the response, but a number of candidates only did this in their conclusion, which limited its effectiveness. Better candidates linked depositional processes to specific climatic variations and used the potential of sediment sorting in fluvio-glacial deposition to illustrate varying energy levels. There were a number of list-like responses, naming and briefly describing processes and then some depositional landforms without any links, with greater focus on the landform than the landform specific processes. Sometimes the different types of transportation were the only processes included. One or two weak candidates saw all depositional landforms as being fluvio-glacial, not separating meltwater streams from melting glaciers. The few really good essays stood out. Clear and well annotated diagrams were helpful but sometimes diagrams did not add anything to the text, sometimes even detracting from it. Some candidates conflated drumlins with roche moutonnee or crag and tail.

Q.4   Good responses were characterised by a range of human activities including tourism, logging, HEP generation and oil exploration and a detailed discussion of associated effects. However there were some very basic and over-simplified responses, particularly when tourism was the human activity and footpath erosion and litter were the main effects identified. The best essays included contrasting glacial environments, but it was rare to see detailed knowledge of the impacts on the environment. Avalanches were often used successfully as part of a discussion of skiing in the Alps and damage to permafrost in Alaska was also discussed well. However, factual knowledge was sometimes disappointing, with only a minority of candidates discussing specific locations in any significant detail. Weaker candidates often inverted the question to discuss the effects of glacial processes and landforms on human activities.

Q.5   This was by far the most popular question and was often answered well, although there were also many disappointing responses demonstrating limited understanding of how depositional processes contributed to the landform under consideration. Focus was usually on longshore drift, which was frequently described as a depositional process and drawn and explained inaccurately. Getting the balance between examining processes <u>and</u> resultant landforms was the key and candidates that focused on just a few landforms did this most successfully. Complex features such as Chesil Beach and Slapton Sands allowed the best candidates to show in depth knowledge, although information regarding Chesil beach varied widely between centres. Salt marshes and sand dunes provided the opportunity to examine other processes using flocculation and succession to build on the depositional processes. Good responses also made reference to wave refraction, coastline configuration and constructive wave processes, linking the development of landforms such as spits and tombolos effectively to the associated decline in energy levels. Some of the best answers noted that erosion and deposition can occur on the same landform, with storms breaching spits for example. Beaches tended to be superficially covered, with opportunities to use sediment sorting and the varying energy levels associated with different profiles and beach material composition overlooked by many candidates. Cuspate forelands were not always understood clearly and there was a lack of distinction between a bay bar and a barrier beach. It was disappointing to see many locational inaccuracies, with Holderness being placed in Essex, Dorset and Devon.

Q.6   This question was less popular than question 5, with many responses falling in to the average or marginal categories because their coverage of effects was superficial. Human activities included tourism, coastal management, industrial activity and dredging but the associated effects of littering, footpath erosion, marine pollution and damage to marine organisms was not sufficiently detailed or rigorous. South West England, the popular area for Q5, here too proved productive. Many candidates turned this into a coastal management essay but they did not always direct their knowledge towards how management affects the coastal environment. Essays that focused on one or two detailed case studies were often effective with the Poole Harbour, Poole Bay and Christchurch Bay stretch of the Dorset coast providing plenty of good discussion. As with Q4 there was some inversion of the question to discuss the effects of coastal processes and landforms on human activity.

Q.7   This question, when attempted, was often done well. The number of climate types chosen varied but the most successful responses contrasted two or three tropical climates and this produced the best balance between breadth and depth. There was good knowledge and understanding of the tri-cellular model, including accurate drawings, and the movement of the ITCZ which led to clear explanations of monsoon and savanna climates. The best candidates provided detailed statistics of temperature, precipitation, rainfall types and humidity, pressure and winds to back up their descriptions. Weaker candidates displayed somewhat insecure conceptual understanding with partial identification of climatic characteristics together with partial explanations. Candidates that chose the cool temperate western maritime climate were sometimes more secure in explaining regional variations than the characteristics of the climate type. Understanding of the roles of Rossby Waves and jet streams marked out the very able candidates.

Q.8   There were more responses to this question than to Q7. The relevant answers mainly concentrated on drought, particularly in the Sahel; these were reasonably informed, though some thought the Sahel extended south of the equator. There were valid contrasts between drought impacts and responses in the Sahel as compared to Australia and/or California. Such answers tended to focus on economic issues, arguing that Australia with its wealth and infrastructure can manage drought much better than, for example, Niger. All this is apt, since preventative and remedial measures are also impacts in this sense. Weaker candidates who chose drought in tropical latitudes referred to sub-Saharan Africa or the Sahel without any country specific detail and tended to over-simplify the impacts of drought. The best answers used specific countries to illustrate different types of impact.

Candidates that focused just on temperate latitudes did produce very detailed descriptions of events such as the long hot summer of 1976 and, in contrast, "The Big Freeze". These did tend to be highly descriptive and exaggerated minor impacts such as the postponement of football matches. Contrast between the impacts of drought in temperate and tropical areas also provided an effective structure.

Q.9   This was a popular question that differentiated successfully. Many candidates were able to make a creditable response, but answers were clearly differentiated by the depth, detail and the quality of evaluative comment and exemplification provided. The most successful answers included a range of single, composite and qualitative measures which gave scope for contrast and in depth evaluation, effectively linked to changing concepts of development. There were some excellent essays with effective exemplification in support drawn from countries such as Costa Rica, Bhutan and Saudi Arabia. In many cases the statistics provided and quality of evaluative comment were impressive with reference made to the difficulties of initial data gathering as well as consideration of the merits of one measure versus another. Weaker candidates were unable to outline selected indicators in any depth, with some outlining even the basic ones such as GNP incorrectly, and their assessment of the qualities of different indicators was not developed. Some candidates went straight into evaluation without outlining the indicators, so evaluation was often evident but variable in quality. There was some lack of knowledge about the Happy Planet Index (confusing it with the Gross National Happiness Index) and the use of PPP was poorly understood. Knowledge of the actual component parts of composite indicators such as HDI and HPI were also often inaccurate. Weaker candidates often included too many indicators in responses which became list-like. The Brandt Line and Rostow's model of economic development were sometimes referred to, both inappropriately as they refer to a pattern and a theory of development respectively, rather than being measures of it.

Q.10   Candidates generally started off with defining the development gap, although some then sagely opined that it was not 'a development gap' but 'a development continuum'. Able candidates provided a clear exposé of how debt came about and how continuing debt and increasing interest prevented investment and therefore the closure of the gap. Measures to cancel or alleviate debt were also considered by many candidates. Zambia made a good case study, although any attempt to use Zambia without making reference to Chinese influences does not appreciate the situation as it is. These debt-focused responses did go on to describe other factors, such as social constraints, cultural barriers and trade blocs. The best candidates demonstrated a good understanding of conceptually difficult aspects of debt, global trade and trade blocs and were able to exemplify their responses with appropriate case studies and present a balanced discussion. The weaker students skimmed over or ignored debt and went to the more comfortable zone of gender, education and

health; such answers were self-limiting as some treatment of debt is needed, as it is the constraint that was cited in the question. It was concerning to see lack of up to date knowledge, answers sometimes rooted in pre- debt relief times and there were some misconceptions, including the assumption that West African countries are not in trade blocs when they have ECOWAS. Social constraints and cultural factors were described, sometimes at length, but not always linked to the closure of the development gap. There are still inaccurate comments being made about women in Middle Eastern countries such as Saudi Arabia, assuming their low participation rate in the work force is due to lack of education.

Q.11   A few did distinguish between 'outsourcing' and 'offshoring' in their introductions, but not in the body of the text. There were some good and detailed accounts of a range of impacts resulting from the outsourcing to call centres in India and offshoring of textile manufacturing to Bangladesh and Vietnam and Dyson shifting the production of its vacuum cleaners to Malaysia. Although Coca-Cola, breweries and fast food outlets in Third World capitals maybe set up with TNC capital and professional expertise, they are set up for domestic markets and are therefore inappropriate examples of outsourcing and offshoring. More able students realized that there were effects, both positive and negative, on MEDCs as well, leading to deindustrialization and unemployment in South Wales and North East England, but also leading to reuse and gentrification of industrial waste land in line with new revived service and quaternary economies. However it is going too far to claim that the closure of the South Wales coal mines is down to outsourcing and offshoring, not only because it is anachronistic, but also because the economic and political processes and decision-making are different. Overall, though, a commendable workmanlike approach from many.

Q.12   There was a significant overlap with Q11 and of course outsourcing and offshoring are examples of globalisation, but the question allowed candidates to go beyond these economic concepts to discuss socio-cultural and environmental opportunities and threats too. Most started by defining globalisation and putting it in its historical context. The question was often reworded into costs and benefits or positives and negatives with only the best scripts clearly identifying opportunities and threats using well embedded examples. Taiwan, Bangalore, Detroit and the West Midlands were used to exemplify and provide detail and a good discussion. The main problem was the discussion left the examiner doing the work to decide whether the point being made was an opportunity or a threat. Few noted that one opportunity for one country created a threat to another. Opportunities such as jobs, investment and the multiplier effect and also threats such as labour exploitation, low wages and environmental pollution provided the basis of most answers, although the vague allusion to pollution was common without specifying the type of pollution. The discrimination was in the sophistication of the argument and the level of detailed examples. There were no major misconceptions or misunderstandings here, although sometimes the link was made to industrialisation rather than to globalisation.

Q.13   Most students provided a clear convincing list of the various urban challenges including housing, health, education and crime, producing evidence of good factual knowledge of the challenges, but this was often combined with poor geographical knowledge of the actual cities and regions of China. Housing and air pollution were the challenges cited most often. Weaker answers tended to be highly descriptive with many general points and much over-simplification and an insufficient focus on urban communities. The best answers included a variety of challenges, grouped into economic, demographic, social and environmental, thus providing a clear structure.

Specific detail from a number of urban areas, not just Beijing, improved these answers and it was good to see reference to cities in western China. A variety of challenges in a variety of urban areas made it easier to examine and not just describe. The word 'challenge' was not taken too seriously in the sense of 'demands that require a response' with the majority of candidates focusing on urban problems, although some did deal with political and administrative strategies, notably the *hukou* registration system. Too many candidates drifted from the question's central focus to discuss some of the wider challenges facing China, including the One Child Policy, ageing populations and food insecurity, which were insufficiently focused on urban areas.

Q.14   Fewer candidates answered this question. There was some overlap with Q13, because many of the challenges in China's cities are environmental. However, most took a wider view, dealing with deforestation, soil erosion, air pollution, water pollution, energy issues and biodiversity loss with the scale of each challenge mostly recognised well. Some responses discussed how 'a solution' could lead to further environmental problems such as the Three Gorges Dam, built to lessen China's dependence on fossil fuels, creating further environmental damage of flooding and loss of biodiversity. Some showed how China exported environmental challenges overseas, notably to Africa in the exploitation of that continent's resources. On the whole a factually well-answered response, although answers were often geographically and locationally weak. There was some good up to date knowledge of China's environmental management, but some candidates still described China as wanting economic development whatever the cost to the environment.

Q.15   Better candidates clearly identified and analysed a range of challenges including housing, health, sanitation and crime, but most limited much of their answer to the problems of Dharavi and Bangalore without explicitly identifying the specific related challenges. Where some solutions were suggested, coverage and assessment of their likely effectiveness was superficial. Some sound responses made reference to Mumbai, Bangalore and Delhi and were able to provide plenty of detailed examples of challenges faced by urban communities in India with supporting statistics, but weaker responses were generalised without the support of clear, detailed examples, demonstrating poor geographical knowledge of actual cities in India. As in Q13 the best answers were structured around types of challenge, with stronger candidates clearly identifying and analysing a range of challenges and focusing on urban <u>communities</u>. Although much detailed knowledge was shown, the move from description to examination provided the differentiation. There was some stereotyping of slum dwellers. Dharavi was the slum described by just about every candidate, but not all commented on its relatively high literacy rate and high employment rate. Too many candidates drifted from the question's central focus to discuss some of the wider challenges facing India, including environmental problems, the caste system (caste consciousness has diminished more in urban than rural India), transport issues and food insecurity, which were insufficiently focused on urban areas.

Q.16　This question was attempted by only a few candidates. Interesting examples including the Andaman Islands, Delhi and Rajasthan provided a good range of environmental challenges. Most essays showed good knowledge and understanding of the challenges and commented on the success or failure of attempted solutions, but proper discussion was done by only a few. There was recognition by the more able candidates that rates of urban and rural change make it hard to ensure that the best environmental decisions are taken and that India's democracy can hinder progress. Some, with validity, pointed to the challenges from the natural environment such as floods, hurricanes and earthquakes. Overall, some well-informed responses, although answers were often geographically and locationally weak.

GEOGRAPHY

General Certificate of Education

Summer 2016

Advanced Subsidiary/Advanced

CONTEMPORARY THEMES AND RESEARCH IN GEOGRAPHY – SECTION B

As with previous cohorts the paper gave good opportunities for candidates to demonstrate their knowledge and understanding of the investigations undertaken. Responses were varied and sometimes wide-ranging, with an increasing number lacking the development and rigor expected from A2 candidates.

- The quality of handwriting continues to deteriorate and is becoming an increasing issue with many responses being hard to interpret and read. This has, in some cases definitely hindered examiner's ability to award marks that might be appropriate to the candidate. It is worth noting that illegible scripts are no longer sent back to centres for transcription.

- Questions 2, 6 and 8 were the most popular, while 4, 5 and 7 were the least popular, which again was a slight change from the previous year.

- Centres are reminded that support is still available with the planning of the investigation for this paper.

- Many investigations appeared to be what was normally done; however, this does not necessarily meet the demands of the topics which change yearly. This often limited candidate's ability to show the full extent of their knowledge. Many candidates also ignored the command words in the topics, such as, contrasts, factors affecting, changing patterns and management, and just compared sets of data rather than applying their response to the demands of the topic.

Part (a)

For an investigation into (context), outline and justify data collection methods that could be used.

As in previous years there was no need for candidates to draw parallels with their own investigation, but data collection methods should be appropriate to the topic under consideration rather than generic.

Many candidates identified between two and four methods that they either used or that could be used to collect data. Candidates often listed their methods without any outline or a very limited/basic/simple outline. Frequently the detail in the outline and range of methods was insufficient to be classified as 'good', and, therefore, insufficient to access Level 3 of the mark scheme. Some gave sources rather than methods; there was often a generalised reference to the Internet rather than mention of specific sites.

Better candidates were able to provide a detailed and balanced justification of their methods and clearly linked them to the topic. Weaker candidates often had no justification or produced a basic justification, using terms such as 'simple, quick, and, easy'. They were often very repetitive in their comments. Many used sampling on its own, without any context and as such could not be given credit.

Part (b)

For your investigation into (context), describe the main findings and discuss how any limitations could be overcome.

While the content of the response will depend upon the investigation completed it is expected that answers will show knowledge and understanding of the chosen topic.

Most candidates managed to identify some findings, however, these varied from the very basic to detailed, with the support provided showing that an investigation had actually been completed. A number thought they could substitute predictions for findings, offering little or no support. Support for findings was usually of a numerical nature but there was some good locational support.

Discussion of limitations was very variable and often appeared to be quite challenging, often being unclear, implied and very simplistic. Many interpreted the question as limitations they had already overcome during their investigation (this was rather limiting), rather than identifying limitations and how they might be overcome. Reasoning varied from good to simplistic and repetitive, often being we could do it again, collect more data, we didn't have enough time, equipment failed.

A more worrying aspect of responses was that evidence suggested that some centres were trying to shoehorn their standard fieldtrip into topics for which it may not be fit for purpose. This was often evident in that candidates compared sets of data rather than applying their results to the commands in the topics, for example just comparing two sites rather than looking at changing patterns, or comparing two transects rather than considering the management or the factors affecting the patterns seen. These responses were, by their very nature limited.

Geography of Crime – The Perception of crime

It was good to see greater use being made of primary data and there was good use of secondary data although sources were not always clearly identified. Spatial locations of sites and transects lacked clarity. Perceptions were not always clearly identified.

Deprivation – Contrasts in deprivation

This was a popular question, which was generally well answered, although the rationale for some variables was not demonstrated, e.g. pedestrian flows. There were some detailed and located findings with good use often being made of the Welsh Index of Multiple Deprivation.

Geography of Disease – Factors affecting disease

Not a very popular question with most responses based upon secondary data, which was often not discussed very well. Factors affecting disease were often poorly covered with many discussing impacts. Some were based upon flawed ideas such a living near a health centre resulted in greater ill health.

Environmental Psychology – Gender and environmental perception

Data collection methods included questionnaires, footfall counts and environmental quality surveys, with some attempt often made to establish differences between males and females in their perceptions of the environment. Limitations were often narrowly focussed on design and implementation of the questionnaires.

Leisure and Recreation – Changing patterns of leisure and recreation

Many candidates investigated differing leisure and recreational patterns, often comparing two locations. This resulted in a comparison of two locations rather than changing patterns, lacking the concept of time that is necessary to see change.

Microclimates – Factors affecting microclimates

Answers often compared one or sometimes two transects, with candidates describing the data they collected and how it differed. Arguments relating to findings and limitations often demonstrated poor conceptual grasp of theory and how different factors affected the microclimate.

Atmospheric and Water Pollution – Impacts of pollution

Investigations were often very historical in nature and as such opportunities for primary data were very limited and as such discussion of limitations was by nature limited. Many responses read like case studies rather than an actual investigation.

Geography of Retailing – Changing retail patterns

Some good responses were seen, particularly from candidates who understood the nature of their investigation. However, most candidates carried out an investigation of different retail patterns, usually comparing two localities, e.g. urban and rural, CBD and out of town shopping centre. This meant they were unable to fully address the question. In particular, the use of pedestrian flows had little value for the topic: not only did the candidates not refer to historic data, but the issue of replicability would have been difficult to address and candidates did not show how pedestrian flows affected retail patterns.

Rivers – Flood management

Candidates often gave simplistic responses that considered flood events rather than flood management. Better responses provided clear justification for the use of questionnaires and a flood of flood prevention strategies, while there was often poor understanding of factors that might affect management.

Small Scale Ecosystems – Management of a small-scale ecosystem

Many candidates described the collection of data along a transect(s), but often failed to relate this to management in any way, which meant they were unable to fully address the question.

GEOGRAPHY

General Certificate of Education

Summer 2016

Advanced Subsidiary/Advanced

SUSTAINABILITY

There was good use of the Resource Folder with almost all candidates using some information from it. The quality of its use did vary a little between questions as indicated in the reports on individual questions below. The majority of candidates had sufficient knowledge to approach the question beyond the scope of the Resource Folder, but only a relatively small number had a comprehensive knowledge and understanding to respond to the question very well. Whilst a few candidates took items of information from the Resource Folder and related one item to another in constructing an answer, many just used them in isolation and constructed answers that lacked complexity or showed synopticity.

There were a number of candidates who extracted relevant evidence from the Resource Folder and presented it without quite making the point of introducing it clear, rather leaving it to the reader to see the significance of the information. There were some very articulate and well-informed answers and this helped achieve a good differentiation between candidates. As is usual, the greatest differentiation came from the 25 mark questions (Q4 and Q5) where clear understanding of sustainability, assessment skills and the ability to respond to 'extent' played an important part. The ten mark questions (Q1, 2 and 3) on the Resource Folder was used to greater degree in the 10 mark questions. The folder on the whole was not used effectively in Q4.

In addition:
- There were a small number of clearly unfinished answers.

- There were good answers that linked resources to deduce important relationships.

- Logical structure to answers often seemed a challenge, especially on longer answers – question 4 in particular.

- Sustainability was sometimes referred to in definitions then ignored.

- There was a tendency for candidates to only address part of the question.

- There was also clear tendency to over-complicate some questions.

- Difficult handwriting was reported by a number of Examiners.

Q.1 Most candidates understood what was meant by the 'variations in growth rates of cities'. The obvious way of noting the differences between MEDCs and LEDCs was present in most answers. There was extensive use of the resource folder – figures 1 to 7 were extensively quoted and many developed their answers by making use of figure 6. Figure 3 and 4 was also used effectively in many of the better answers as this resource allowed the candidates to look at sub-patterns such as the rise in NICs. To attain a level 3 mark more than the main pattern was needed – some candidates managed to do this by looking carefully at figure 6 and 7 or their own knowledge and developing on the variations between two cities. These answers were however in the minority.

Linking resources together frequently seemed a good route to show understanding. A small number of candidates showed very good knowledge of global variations not shown in the Resource Folder. For example, there were some very sound answers on the way the Chinese or Indian cities has changed – perhaps as a result of their studies in G3. However on the whole the answers were rather bland with correct but rather superficial use of statistics. The main characteristics of low scoring answers was (i) very little written in support of main pattern and (ii) an answer that easily drifted off task giving reasons why these variations were evident.

'E' grade candidates usually identified the pattern – but with little support and at a country/continent scale rather than individual city. 'A' grade candidates identified the pattern and included good support with perhaps a development on one city.

Q.2 Many good answers used information from the Resource Folder as a starting point. Figure 14 was popular as support to their statement fossil fuels were running out. Again better candidates linked resources an example being moving from resources 13 to 16 to emphasise their points. Only the better candidates did this. The resource was also effectively used using figure 20 and 23 to show some of the problems associated with renewable energy. Another effective approach was to use their own knowledge of disasters such as an oil spill or nuclear disasters such as Fukishima. Answers that took this approach generally scored well as it showed an ability to develop depth in their answers.

Overall this was answered better than question 1 showing a better geographic understanding. Many candidates showed the ability to develop either a range of problems or depth of one or two problems.

'E' grade candidates usually identified problems – but with little support. 'A' grade candidates identified the problems and included a good outline of those problems with depth to case study material.

Q.3   Again information from the Resource Folder was used very well by some of these candidates. One popular resource was figure 21–with many good candidates this was showed to be an example of how Solar energy could provide the answer. Similarly figure 23 was used extensively to show how some renewable energies could be cost effective and also by quoting the CO_2 figures included in the table. On the whole solar was probably the best utilised energy in this answer with a range of advantages included.

Another energy that was often cited was geothermal power. Many candidates took the time to develop the advantages however many answers after making the initial rather obvious advantages then drifted into an explanation of how these alternative energies created energy.

'E' grade candidates usually identified types of energy – but with insufficient focus on advantages. 'A' grade candidates clearly focused on the advantages and developed them beyond the obvious advantages.

Q.4   This was the hardest question on the paper and some candidates found it difficult to access the question effectively as they had not fully understood the demands of the question. Good answers tended to start with reasons why the statement was true. For this there is some assistance in the booklet e.g. figures 9-12 and 3 and 4. Most of the better scoring candidates also drew from their own experiences. Good case studies again included Chinese and Indian cities. Therefore there was plenty of support in favour of the statement. Better candidates then counter argued by using examples of ways in which cities can be more energy effective – case studies included Curitiba, Malmo, Freiburg, Bedzed and Madsar amongst others. Having studied both parts candidates then came to a conclusion.

This was the route taken by many of the better candidates – however this was not the only route. Some very able pupils managed to confidently switch from one opinion to another throughout their essay. This method was noted for the very best candidates – but these were infrequent.

Some weaknesses noted were a short reply that did not explore both sides of the issue. Thus clearly limiting the 'to what extent element'.

Many candidates however did not grasp the question and failed to focus on growth of cities and simply turned the answer into an essay on sustainable energy supply within a country. Many candidates paid hardly any attention to cities. Clearly such an answer is not going to access the higher levels.

'E' grade candidates usually failed to keep their eye on the statement. 'A' grade candidates identified reasons for and against the statement and showed signs of judging to what extent.

Q.5   Most candidates managed to respond positively to this question. Despite some drifting at times away from limiting food production the answers were generally on task. The answers here were certainly better than the response to Q4. Perhaps surprisingly the work on 'limiting factors' was weaker with on the whole generalised statements about a lack of rain and poor terrain. Not enough candidates developed the case studies here. Some made good use of desertification – other good examples that were noted included good specific knowledge of how a regions climate limits food production – Murray Darling was a well-used case study. A small minority included human factors here.

The second half was also effectively done on the whole with several good technological developments such as Hydroponics/Aeroponics and GM crops . Thus many candidates had included relevant information for both parts of the question. There was a danger in some cases on a 'mind dump' answer e.g. 'here are all the solutions that I know'. The main differential lay 'How far'. Whilst looking at positives and negatives of potential solutions is a good start this approach does not always lead into a 'How far' – this is left for the reader to work out. Candidates could have also developed the concept of sustainability in order to gain a L5 mark. The better candidates did successfully respond to the command and gained very high marks.

'E' grade candidates answers were either very short or vague and generalised in one or both aspects of the question. 'A' grade candidates identified both problems and solutions in addition to showing an attempt to address the sustainability of the solutions.

GSCE Geography Report Summer 2016/GH