Version : 8/10/2010

ASSESSMENT and QUALIFICATIONS ALLIANCE

General Certificate of Education

Geography 2030

Specification

GEOG1

Report on the Examination

2010 examination - June series

Set and published by the Assessment and Qualifications Alliance.

The Assessment and Qualifications Alliance (AQA) is a company limited by guarantee registered in England and Wales (company number 3644723) and a registered charity (registered charity number 1073334). Registered address: AQA, Devas Street, Manchester M15 6EX

General

A significant number of messages were clearly sent out in the first two reports. Some of these need repeating again here in the hope that they will be heeded more fully in the future. Candidates must ensure a clear knowledge of basic and underpinning concepts. There was often an uncertainty and confusion between long and cross profile of a valley in 1a and variable knowledge of the demographic transition model in 5(a).

There remains a clear need for candidates to be made more aware of exam technique. Coaching in this skill and practice of past questions – with the recognition that a different question is likely to appear – is essential in achieving success at the higher levels. There is a need to use the resources explicitly – such as in describing the specific waves shown in Figure 3 or the vegetation shown in Figure 4. Similarly, text as in Figures 7 and 9 should be interpreted and used to make points, rather than just repeated or paraphrased. Case study knowledge is invaluable and a clear route through levels on a mark scheme. However, it must be applied appropriately to answer the question asked. For example writing out what is known about cause, effects and responses to flooding in 1(c) led to much time being wasted as the question related to effects only. Candidates must select the information they are going to use carefully. Too many candidates merely launch into an answer without carefully considering how it matches the requirements of the question; the information may be potentially valid but should be tailored to the specific demands of the question to be made relevant. It is this considered response that is lacking and results in the marks being relatively low.

Again, it is necessary to remind candidates of the need to deconstruct the question. They should firstly identify the command word(s). They should be familiar with each likely command and know how to respond to these before they go into the exam room. Thus, revision programmes must incorporate this vital element as well as practice of past questions. They need to identify the concept concerned and its actual thrust. Often, the long answer questions offer a plan in the question if it is taken apart properly. So for example with 5(d), (Comment on the impact of different population structures on the balance between population and resources) candidates should have focused on two different population structures – such as an ageing and a youthful one – and considered the implications of each for resource provision with reference to health care geared to a young or old population, the pensions and retirement age issue and education and provision for large numbers of young people regarding jobs. There was a need to comment and this could have been in the context of a summary comparison or the extent to which the balance between resources and population was affected by that particular structure.

Where two command words are given, there is a need to address both. Failure to do so will result in an answer generally being confined to level 1. Ideally, there should be a degree of balance. Where the command words included ‘describe and explain’, it was often the limited quality of the former that precluded entry into level 2. This was the case in 2(d) and 7(a)(ii). Similarly, there is a need for precision in answers and the use of appropriate geographical terminology. Some clearly do this and enhance the quality of their answers as a result. Too many candidates make vague and over-generalised references – which at times result in errors. For example, referring to ‘the country of Africa’, perceiving North America as being the same as the USA, confusing the Arctic with the Antarctic.

Although there is not always a requirement to use case studies in the extended writing sections, this is clearly one way of exemplifying and developing answers. As such, candidates should be encouraged to both revise them and use them as appropriate. For example, they certainly enhanced the quality of responses in 3(d) and 5(c), although they were not a specific requirement. However, there is a need to use to use the case study to make points relevant to the question not just indiscriminately set out all that is known about it.

Section A

Question 1 Rivers, floods and management

The response to part (a) was disappointing, given the pivotal role of concepts such as long and cross profile. Too many wrote incorrectly about cross profile in (a)(i) and the average across the two questions was 3/8. There was confusion between altitude and gradient. Many could not accurately identify the height of the source giving 510m instead of 410m. Often, any feature was noted en route rather than identifying the specific changes that took place. Some were preoccupied with identifying upper, middle and lower course instead of focusing on what was visible. The best described the course of the river downstream noting areas of changing gradient, often marked by waterfalls and quoted grid references in support. Specific use of map evidence that was accurate was all too rare. As in (a)(i), in (a)(ii), some described any features present and too many focused on the channel when the question demanded the valley cross profile. This was better done overall than (a)(i). There was reference to the V – shaped versus the U – shaped profile (although some wrote poorly for the letters not to be distinct), the presence of the flood plain at 715868 and at times accurate reference to the nature of the valley sides. Candidates must refer to the cross profiles given – not what is theoretically meant to happen – and they should cite specific map evidence.

The command word in (b) was 'explain' and the concept referred to was the changing valley cross profile. Yet, many **described** how **landforms** changed and focused on the **channel**. This was poorly done, mainly because candidates did not answer the question asked. Too many referred to changes in a meandering channel – which had the potential to be relevant but usually was not made so. There was confusion as to whether streams did flow quicker nearer their source or mouth. Better responses sought to link the shape of the cross profile to the processes of vertical and lateral erosion, with the best looking at underlying reasons such as the role of base level potential and kinetic energy. Unfortunately, these were all too rare.

In (c), there was a range of case studies used. These usually featured Bangladesh as a poorer area of the world and a greater variety in a richer area, such as Carlisle, Tewkesbury and the Mississippi. Coastal flooding was not relevant to this question and it was disappointing to see dated examples such as Lynmouth. Whilst candidates did have case study knowledge, they frequently did not apply it selectively to the question. There were many accurate accounts of the causes of flooding in Bangladesh and Carlisle – but such information was irrelevant here. Often, candidates wrote separate accounts, only integrating them at the end in a comparative final paragraph. In a question that demands comparison, this would have been better throughout. The economic effects could have been looked at first for both examples and then the social and comment made on each. It is in this way that the question can be seen to provide a structure and one that candidates should use more effectively to plan an answer. This would result in more obtaining the top of level 2 or level 3. This long answer was the best in Section A, but there is room for significant improvement.

Question 2 Cold environments

Many candidates scored 0 marks on part (a) – about 40%. Yet periglacial is a key term in the specification content with a whole subsection of associated content detail. Permafrost was the usual aspect recognised followed by the positioning of such areas on the margins of ice sheets. Temperature and vegetation cover were inappropriate parameters to use.

There was some confusion with frost heave in (b). However, many could articulate the process clearly. There had to be recognition of the repetitive nature of the process and the time scale involved for all 3 marks to be awarded.

Knowledge of the active layer was limited in (c). There was a basic recognition of summer melting and winter freezing, but many did not go beyond this. Some were aware of the significance of the shifting around 0 degrees Celsius. There was virtually no recognition of the freezing from the surface and below. Many described different types of permafrost and the consequences of its presence – again an example of answers not addressing the question that was asked.

In (d) there was limited specific reference to the polygons visible in the photograph. There was some confusion with freeze thaw, rather than the relevant frost heave, and some wrote about ice wedges. Even where frost heave was recognised as the relevant process, many were vague, used limited terminology and could not articulate the sequence of the process. The best were aware of the specific heat capacity of the stones and the impact of this with regard to the earlier cooling and freezing of the water, pushing the stones to the surface. There was then explanation of why the stones did not fall back down as the finer material collapsed to support the stones. Such responses were rare, especially when used in conjunction with the photograph, with the result that only 11% of candidates reached level 2.

Responses to part (e) more often engaged with the protection aspect – how Antarctica could be protected - than with how a balance between protection and development may be found. There were many hypothetical debates, instead of focusing on what is happening. There were (too) many references to polar bears and the permanent population and the extraction of oil and other resources – all of which were incorrect. References to sealing and whaling were permitted. However, the best answers related to tourism and debated the measures that have been put in place to enable people to visit while ensuring that the area was not damaged. Specific support referring to the numbers of people allowed ashore and the Antarctic Treaty served to lift the quality of responses.

Question 3 Coastal environments

The answers to part (a)(i) varied in quality. There was a need to refer to Figure 3, not just to describe the characteristics of constructive waves. The features described had to be visible – frequency cannot be seen, but the relatively low height and long length were observable in Figure 3. Responses to (a)(ii) were competent, with over 50% getting 2 or 3 marks. There was a clear appreciation of the relative strength of the swash in contrast to the backwash and the recognition that this led to a build-up of material on the beach, including reference to berms. Some referred to the effects of destructive waves despite the stated focus on constructive waves.

The responses to (b) were variable. There was confusion with erosion, mass movement and a limited knowledge of sub-aerial weathering. Often candidates only managed a list of processes, whilst elaboration of processes such as freeze thaw and salt crystallisation were clear ways to obtaining more marks. Some showed a clear appreciation of the role of sub-aerial weathering in weakening the rock and facilitating the erosion process.

In (c), candidates found it difficult to engage with the full sequence. There was usually a recognition of the juxtaposition of hard and soft rock – usually seen as discordant to the coastline (although there was confusion between concordant and discordant) and that the harder rock was more resistant to erosion and so formed headland, whilst the softer rock formed bays. However, many could not reconcile that wave refraction meant that the erosive power was concentrated on the headlands, yet these remained sticking out – or perceived them

as being eroded to form a straight coastline. The role of wave refraction in leading to beaches at the head of bays was rare and the terminology used often more reflective of GCSE than AS.

Part (d) looked at coastal management using soft engineering. Rock armour and groynes were erroneously perceived by some to be examples of soft engineering. Limited support of ideas often prevented access to level 3. The Sefton coast, Pevensey Beach and the Blackwater estuary were frequent exemplars. There was no need to focus on one scheme – and this may have been a disadvantage. The key aspect was to discuss issues and in this context a debate about the effectiveness of soft engineering versus hard was pertinent, so too were the views of different interest groups. Some drifted into management of areas for recreation and many noted costs and benefits without fully engaging in a discussion of issues.

Question 4 Hot desert environments and their margins

Many were able to access the two marks available in (a) with accurate definitions of arid and semi-arid though sometimes an overlap of figures prevented two marks being awarded. There was limited reference to the aridity index.

Some answered (b)(ii) in the space for (b)(i) disregarding the command word to describe and the need to use the photograph. In describing Figure 4, there was a need to refer to what was visible in the photo - and so references to roots were irrelevant. Description should be accurate relating to the vegetation present. In (b)(ii), many recognised the different types of vegetation – often giving the technical terms. The critical aspect was the need to explain how the vegetation adapted e.g. to recognise how seeds lay dormant awaiting rain and then grow, flower and seed before dying or that succulents store water to overcome drought.

Many recognised the different types of rivers as sources of water in (c). There was some confusion of terms and the explain element was a stumbling block for some. For example there was a need to note that exogenous rivers do not dry up because of the huge volume of water they carry from outside the desert. References to precipitation, dew and aquifers were seen in varied answers, where explanation was the discriminating factor.

Answers to part (d) were often descriptive of sustainability in the Sahel and the use of the area for agriculture. South west USA was a common contrasting area, but not the only one. Here there was reference to tourism and retirement migration as well as agriculture. Often there was an imbalance between the two areas and the command to assess was frequently disregarded in favour of description – which appeared to be seen as an easier, if not relevant, option. Candidates need to answer the question asked and be prepared to exercise judgement about what is relevant rather than writing what they know indiscriminately.

Section B

Question 5 Population change

About one fifth of candidates accessed all four marks on (a), with a similar proportion getting 3 marks. There were many ways of obtaining the available marks and the demographic transition model is a basic and fundamental aspect of this section. Yet, for many, there was limited specific knowledge and a lack of precision, which contrasted against the clarity and accuracy of the better candidates. There was a need to identify birth and death rates and total population as labels – not just births, deaths and population. Many accessed marks by identifying the stages. However, the lines marking the end of the stages had to extend the vertical length of the diagram and cut the birth and death rate lines at an appropriate point. More got stage 1 to 2

and 3 to 4, whereas 2 to 3 proved trickier for many. The stages had to be accurately named and marks were available for identifying a time of increase or decrease.

It is surprising given the various routes to the marks that more did not access them on a knowledge based question.

Part (b) discriminated well. The sticking point for many was in disregarding the need to assess to what extent. Some wrongly drifted to reasons for changes. There was also a need to use the data to support points made. Weak responses sought to identify all 5 stages. More discerning answers saw only stage 3 while the best recognised the shift from stage 2 to 3 and the move towards stage 4, with reference to evidence from Figure 6. Where there was explicit assessment of the extent to which Malaysia fitted the model, these responses went to the top of level 2.

About a third of candidates did not answer the question asked in (c). There were many who described changes in the birth and death rates between stages 2 and 4 and explained reasons for them. The question focus on structure was disregarded. Much better responses recognised the youthful population in stage 2 and the ageing structure in stage 4, although contrasts were often implicit. The best had pyramids side by side in support and used appropriate terminology such as an expanding pyramid versus a contracting one or wide base versus the higher and wider apex.

Part (d) is a good illustration of the examination technique of deconstructing the question and using the structure derived from the question as a plan. Candidates could have chosen as their contrasting/different structures the youthful versus ageing ones as indicated in part (c). There was then a need to link to how the structures affected the balance between population and resources. Thus, the need to provide education and ante-and post-natal care in areas of young populations versus the need to consider raising the retirement age and funding care for the elderly in areas with an ageing population. Many disregarded the population *structure* element (which often did not seem to be understood) and looked at the population resource balance. There was much irrelevant drift into theory and China's one child policy – which had the potential to be relevant but was not usually made so. The best answers looked at UK, Italy or France for ageing populations and The Gambia, Ghana or Kenya for youthful ones and offered specific support. Some made pertinent reference to the role of migration in the UK with regard to offsetting the effects of an ageing population. The final component was the need to comment – with reference to the scale of the impact or different nature of the impact.

Question 6 Food supply issues

Few were tuned in to the concept of 'the geopolitics of food'. Half of candidates scored only 1 or even 0 marks. There were vague notions that this had something to do with governments and food supply. Some seemingly guessed at the answer. The best knew and considered the role of governments in distribution globally, referred to cooperation, dumping and the need for food security. The international context was essential.

Extensive and livestock were often dealt with separately in part (b). Frequently one aspect only was appropriately outlined, generally the extensive component. Level 2 was relatively rare (1 in 10) as there was imbalance between the two aspects and limited illustration. Better answers referred to cattle in USA, hill sheep in UK and pastoral nomads. Even where examples were appropriately selected, there was confusion between intensive and commercial and reference to battery hens. Precise knowledge was required for what was in essence a simple question.

About a quarter of candidates reached level 2 in part (c). Most were able to describe some problems though at times relying heavily on Figure 7. A common error was to consider the role

of TNCs and fair trade leading to a digression from the question focus on growers. The best responses recognised the lack of control by the growers and the shortage of food that resulted, with the need to buy at inflated prices as coffee cannot be eaten. There was at times pertinent comment regarding the exploitation of the growers.

Responses to (d) were generally disappointing. Most were descriptive of approaches which centred on CAP – periodically increasing and then decreasing food supply and the Green Revolution. There was confusion with GM crops and the Green Revolution. Often candidates merely set down indiscriminately all they knew about CAP – without considering the question being asked. Demand was frequently disregarded – yet there is plenty of scope for this in the specification with reference to seasonal produce, exotic fruits, increasing demand for local/regional produce. Candidates need to consider what the question is demanding before launching into specific aspects of the content. Better responses saw the link between the strategies and the increase in food supply or reduction and offered some support, but these were all too rare.

Question 7 Energy Issues

Part (a)(i) was relatively well done. Many recognised that primary energy could be directly used whilst secondary energy had to be converted. A significant number gave valid illustrations and examples of these. A common misconception related to primary being produced in the home country with secondary being imported. Similarly, primary was seen as non-renewable with secondary as renewable. Responses to (a)(ii) were equally encouraging. Most candidates could interpret the compound line graph and saw key changes in the decline of coal and increase in gas. There were often valid reasons for the changes given. Evidence was required for level 2 and candidates needed to incorporate this into their description - identifying the extent to which coal had declined and gas had increased. There was relatively little reference to the overall increase and limited changes in nuclear and renewable, but some candidates did consider these. Changes had to be clear, not just statements about 1990 and 2004.

Responses to part (b) were much more vague, in contrast with the relative precision of (a). Most selected oil, but there was limited knowledge regarding trade movements. Other aspects were permissible, such as groups controlling oil in some areas – OPEC – and the means of movement. Frequently there was a narrow focus and a local rather than a global perspective which often involved the influence of Russian oil production. Those who looked at the Middle East, Western Europe and USA often fared better with more of a global perspective.

Responses to (c) were varied and used a variety of approaches. A significant number contrasted two countries such as UK and France or China. Some looked at a renewable and a non renewable focus. Candidates should be reminded that in response to questions like these there is no credit for reversing relevant content – in this case setting our advantages and then disadvantages in the same terms. Some looked at the need to conserve energy and the role of congestion charging (but drifted to its effect on people rather than assessing its suitability for managing energy); some considered solar versus wind power. The selection of the two approaches was critical in determining how easy it would be to discuss relative advantages and disadvantages and again indicates the need for careful consideration. Support was variable, but was often very generalised

Question 8 Health Issues

Many obtained 2 marks in part (a). There was a recognition that mortality linked to death and morbidity to ill health or disease. There was some confusion with the morbidly obese in the context of morbidity. The remaining two marks required additional detail such as the measurement of deaths or the nature of notifiable diseases and measurement of ill-health and these proved more difficult for the majority of candidates.

Coronary heart disease, followed by type 2 diabetes were common choices in (b). Cancers and obesity were also used. Some wrongly referred to AIDS and flu as diseases of affluence. A significant proportion drifted into reasons for the disease, which is not actually a part of the specification content. The best responses focused on the worldwide spread of the disease and noted high/low incidences and exceptions to the general pattern and even changes over time.

There were some very good responses to (c) where candidates clearly used their own knowledge to add to or to complement the information given in Figure 9. Many recognised the potential economic benefits in some areas of the world and the tension created with regard to health issues. There was reference to the selling of single sticks and its impact, comment regarding exploitation of poorer, less well-informed areas and ways of advertising. There were also some errors – notably disregarding the information on China indicating the fact that TNCs were not involved there; some drifted onto pharmaceutical TNCs and beyond the remit of this question.

Answers to part (d) demonstrated again the importance of engaging with the specific question being asked. Some referred to a regional/national scale (contrasts between north and south were more suited to June 2009 question), many described provision without considering the links to age, gender and wealth and many were very general, disregarding the need for a local case study. The best responses considered different demands placed by young and old, males and females and richer and poorer. There was effective use made of two contrasting London boroughs. Reference to teenage pregnancies, STDs versus hip replacements; ante natal care and breast cancer care versus prostrate cancer and access to gyms and other facilities for better off were the hallmarks of good answers, with support drawn from the local case study. Often, statements were very general and unsupported, almost anecdotal. There is a need to bring the required knowledge into the exam.