EXAMINERS' REPORT

AM GEOGRAPHY

FIRST SESSION 2018

Part 1: Statistical Information

Table 1 shows the distribution of the candidates' grades for the May 2018 Advanced Level Geography Examination.

GRADE	A	B	C	D	E	F	ABS	TOTAL
NUMBER	4	9	15	8	7	1	1	45
% OF TOTAL	8.9	20.0	33.3	17.8	15.6	2.2	2.2	100

Table 1:

Part 2: Comments on the candidate's performance

General comments

Examinations

A total of 45 candidates enrolled for the Advanced Matriculation Geography (AM 13) examination in the May 2018 session. One candidate did not sit for the three examination papers and did not present the three fieldwork reports. Another candidate did not present the individual and short term field reports but sat for all three exam papers. Out of 45 candidates, only one took the examination as a private candidate. The latter only presented one short term field report and no individual report. The examination consisted of three papers. Each paper consisted of three sections and the candidates were to select one question from each section.

For Paper I, the most selected questions were: Section A Question 3 (54.5%), Section B Question 4 (50%) and Section C Question 8 (43.2 %). With regards to Paper II, candidates mostly opted for Question 1 and 2 (36.4%) in Section A, Question 4 (47.7%) in Section B and Question 8 (45.45%) in Section C. The questions mostly answered in Paper III were Section A Question 2 (63.6%), Section B Question 5 (38.6%) and Section C Question 8 (65.9%).

The performance of the candidates was satisfactory overall with the majority of the cohort obtaining a Grade C (33.3%). The performance of the candidates is not strikingly different when compared to that of previous examination sessions. However, there was a slightly higher percentage of candidates obtaining a Grade A and Grade B in this examination session when compared to that of last year. Furthermore, there was a significant decline in candidates who obtained a Grade D when compared to the May 2017 exam session.

Examiners have identified that the main points of concern are;
- the generally poor command of the English language;
- the lack of properly drawn, clear and well-labelled diagrams.;
- a lack of proper understanding of the questions being asked and the instructions for each question;
- the overall lack of use of technical and geographical terms.

Reports (coursework)

The majority of marks awarded by the tutors for both the individual field report and the short term field report were confirmed by the moderators. However, a small number of candidates had changes in their original marks, with some experiencing an improvement in the mark originally obtained while others experienced a slight reduction from the original mark.

Overall, the short term field reports presented were of good to very good quality. They generally followed a good structure and the topic selection was, in most cases, balanced. Some of the conclusions were somewhat weak and focused primarily on the views of the candidate only. Some of the reports did not have enough information about the topic being discussed, pictures and photographs were not labelled while no in-text references were made.

A high percentage of the individual fieldwork reports were of a very good standard. They were correctly structured and the aims and hypotheses were clearly identified in the introductory chapter. All selected topics were suitable and the candidates' ability in the enquiry was reflected in various data collection techniques and sampling. Various means of data presentation were used while statistical methods of analysis e.g. Spearman's Rank Correlation, Chi-Square and Nearest Neighbour Analysis were used correctly in the data analysis section of most reports. Acceptance or rejection of hypotheses was generally well understood by the candidates. Furthermore, different techniques to present the results, such as tables, graphs, photographs and sketches were used. Some candidates further enhanced the validity of their research by obtaining and using important secondary data from institutions such as the Planning Authority. Conclusions and evaluation of the topic discussed were of acceptable quality with most candidates supplementing this final part of their report with identified limitations and further studies. There is obviously room for improvement in the writing of the fieldwork report especially in particular sections and areas of the same report. For example, the majority of candidates only used websites as their references while very few included books in their reference lists. Moreover, stronger argumentative discussions could have been provided in the Results chapter. In most reports the conclusion section could have been improved too, especially since some were very short. It is advisable that candidates highlight the significance of their research in a more clear way.

In addition to the above points, the following additional comments and recommendations are being proposed for the overall improvement of both types of reports:

- All maps should have a scale, a North sign or compass directions, a legend/key and a title;
- Tables, figures and graphs presented in the reports must be captioned and numbered (e.g.: Figure 1: The total number of incoming tourists in the Maltese Islands). It is of utmost importance that each table and figure included in the reports is labelled correctly and adequately;
- All photographs and/or pictures used in the reports must be referenced to the source. It is also important that under each photograph and/or picture, the surname of the author is written together with the year it was taken (e.g.: Source: Camilleri, 2017);
- References need to be properly and adequately written. Apart from being written at the end of the report, candidates also need to use them in-text and under figures. Furthermore, as pointed out in previous years, website links are not enough and Wikipedia should be used with caution. Books and scientific papers (where possible) should ideally be used. As suggested in the 2017 report, it would be ideal if candidates are guided in the correct writing of references, both in-text but also in the full reference list at the end of the report.

Ideally, tutors marking the projects should provide a breakdown of marks assigned per project. The assessment criteria may be enclosed with the projects (this mostly applies for the individual report where an assessment criteria table already exists in the AM Geography syllabus). This will eventually and ultimately facilitate the moderation process for the benefit of the candidates.

PAPER I
Section A: Physical Geography of the Maltese Islands

Question 1
A total of 19 candidates (43%) answered Question 1. Part (b) carried 10 marks and was about the climax vegetation of the Maltese Islands. Whilst the majority of the candidates understood the question and answered in terms of the Mediterranean Woodland, the general trend was for a discussion of the four successional sequences of the Maltese Islands while only a few candidates mentioned the reasons for the regressive succession of woodland vegetation. A few candidates misunderstood the term "climax" and instead answered this question with reference to the most common habitat, the garigue. In general, the answers to question (c) were satisfactory. However, the majority of candidates focused only on the ecological characteristics of the maquis, with very limited reference to the geographical aspect.

Question 2
Question 2 asked about the karstic nature of the Maltese Islands. The only issue was that responses only discussed one type of limestone cave and one type of surface karst landform in the Maltese Islands, despite the questions clearly specified that two of each had to be discussed.

Question 3
Twenty-four candidates (54%) selected Question 3 which dealt with the perched aquifer system on the Maltese Islands, making it the most selected question from Section A. In general, the answers to part (a), on the formation of the perched aquifers, were satisfactorily related to geology. However, candidates discussed their answers in different levels of detail and this was reflected in the mark awarded. In part (b), whilst the uses of the perched aquifer water were often correctly listed, several candidates omitted answering the spatial distribution of such aquifer, even though this was clearly included in the question.

Section B: Human Geography of the Maltese Islands

Question 4
A total of 22 candidates (50%) answered this question, making it the most selected question from Paper 1 Section B. The majority of candidates answered correctly and in the desired detail. Question 4 (a), which carried 12 marks, was about the three negative impacts that derive from car use. Question 4 (b) in which candidates had to describe four possible alternatives to car use and explain initiatives taken by the government to promote such alternatives, carried 12 marks. Most of the candidates mentioned possible alternatives, but only a small number referred to initiatives in their answer.

Question 5
This question, answered by a total of 18 candidates (41%), was about the Maltese freshwater crab. In question 5 (a), which carried 10 marks, candidates had to discuss two factors that can contribute to the crab's extinction. Most of the candidates answered correctly and mentioned factors such as global warming and pollution. Question 5 (b), carried 14 marks and dealt with possible measures that can be put in action to help conserve the crab. Most of the candidates had a sound knowledge of the different measures that can be implemented to reach this goal.

Question 6
Only a few candidates opted for this question which was on the typical characteristics of Maltese villages. In Question 6 (a), which carried 6 marks, candidates had to outline the characteristics of a nucleated village. Some of the candidates knew the answers but answers were vague. Question 6 (b), which carried 8 marks, focused on a description of the two other types of settlements including examples. All of the candidates had a thorough knowledge of the possible answers but examples were lacking in some of the answers.

Section C: Fieldwork and Statistical Techniques

Question 7
Question 7 was the least selected question in this Section, with only 9 candidates (20%) opting for it. Four marks were assigned for Question 7 (a) in which candidates had to define the Nearest Neighbour Index (NNI). All candidates answered correctly. In Question 7 (b), which carried 16 marks, candidates had to work out the NNI. Almost all candidates failed to work the NNI properly. In question 7 (c) candidates were asked to interpret the answer obtained in question 7 (b). Hence, since almost all of the candidates did not know how to work out the NNI, the interpretation of the result obtained was wrong as well.

Question 8
Question 8 dealt with the chi-squared statistical analysis and was selected by 19 candidates (43%). In Question 8 (a), which carried 6 marks, candidates had to explain why chi-squared tests are used. Most of the candidates had a good grasp of the answer i.e. the test is used to identify if there is any correlation between two attributes. However, most candidates did not mention anything about the confidence interval or were too vague in their answer. Candidates had to list four criteria that are needed to perform the chi-square test in Question 8 (b). In this question, which carried 8 marks, some of the candidates had only a scant idea of what the criteria were and some indeed did not answer at all while others only wrote down the methodology involved. Other candidates went completely out of point in their answer and, in fact, none of the candidates answered this part correctly. In Question 8 (c), which carried 10 marks, candidates had to work out the chi-squared test and interpret the result. The majority worked out the chi-squared test correctly but some either failed to mention the null and alternative hypothesis or to interpret the results.

Question 9

Question 9 was answered by a total of 16 candidates (36%) and dealt with the interpretation of a weather map. Question 9 (a) carried a total of 12 marks and candidates had to describe the three different fronts that could be observed in a given weather map. While the majority mentioned the three fronts correctly i.e. warm, cold and occluded front, most candidates only explained the type of weather generally associated with such fronts e.g. sunny or rainy weather. For a question that carried 12 marks, more detail was expected including lighter/denser air, changes in temperature and wind etc. In Question 9 (b), which carried 12 marks as well, candidates had to describe the weather related to the given weather map. Most answers were correct but even here, more detail was expected since the question carried a good amount of marks.

PAPER II
Section A: Atmospheric Processes

Question 1

Sixteen candidates (36%) opted for Question 1 on hurricanes. In part (a) all candidates referred to strong winds and torrential rainfall as characterising hurricanes. However, few mentioned the westward movement and the eye of the hurricane. In part (b) the majority of candidates focused on the heat energy of the sea with only few mentions of the Coriolis force and the release of latent heat. In part (d), candidates had to list three hazards, but rather than listing hazards, several candidates unnecessarily explained the hazards in more detail. In part (e), which carried 9 marks, rising ocean temperatures was mentioned in each answer given by the candidates. Apart from thermal expansion and melting of ice, other valid reasons were accepted including changes in ocean currents and increase in the severity and frequency of hurricanes.

Question 2

Question 2, dealing with droughts, was also selected by 16 candidates (36%). The vast majority of candidates had a sound knowledge of the causes, consequences and mitigation approaches to droughts. Several case studies were also mentioned.. In part (a), candidates mainly referred to reduction in rainfall, global warming and deforestation as the causes of drought. The discussion on the consequences of drought in part (b) was generally good, with candidates also referring to both direct and indirect consequences.

Question 3

Twelve candidates (27%) opted to answer Question 3 on insolation. In part (b), the answers were generally satisfactory, however, no candidate discussed the individual curves in the provided graph of the global heat budget. Most referred to the difference in radiation between the Equatorial region and the Poles. Some candidates only had a very vague idea of the cosmic (part a), long-term and short-term factors that affect insolation (part c), with particular candidates making reference to albedo rather than insolation.

Section B: Geomorphology

Question 4

Question 4 was answered by 21 candidates (48%) and dealt with tsunamis and their characteristics. In Question 4 (a), which carried 3 marks, the majority of candidates were able to define a tsunami but, in some cases, failed to mention how this is created or how far it travels. Question 4(b) carried a total of 10 marks and was about the origins and characteristics of a tsunami. Most candidates only mentioned earthquakes as a cause of a tsunami, whereas only a few mentioned their characteristics. Question 4 (c) dealt with the impacts of tsunamis and was answered correctly by almost all candidates. In Question 4 (d), which carried 7 marks, most candidates answered correctly to a question related to a risk assessment study in relation to tsunami hazard.

Question 5

Fourteen candidates (32%) opted for this question which dealt with coasts. Question 5 (a), with a total of 12 marks, was answered correctly by most candidates and dealt with the four processes that lead to coastal erosion. Question 5 (b) also carried 12 marks and candidates had to annotate and describe three types of mass movements that affect cliffs. Most of the candidates did not answer correctly. Instead of mentioning mass movement phenomena, candidates explained the process of cave, stack and stump formation, together with beaches and headlands. In addition, some of the diagrams presented were not labelled.

Question 6

Only 9 candidates (20%) chose question 6 which dealt with rivers and flooding. Question 6 (a), which carried 6 marks, was answered correctly by all candidates and dealt with reasons why communities prefer to live near rivers. Question 6 (b) carried 14 marks and was related to uncontrolled development leading to flooding. Even though most of the answers were correct, candidates had, in many cases, to produce a more detailed and elaborate answer. Candidates had to outline four negative consequences had the Thames barriers not been installed in question 6 (c). This part of the question carried 4 marks and was answered correctly by most candidates.

Section C: Biospheric Processes and Patterns

Question 7

This question was answered by 17 candidates (39%). In question 7 (a) candidates were asked to list two common types of vegetation found in the Mediterranean biome. Most candidates answered this question correctly by making reference mostly to maquis and garigue vegetation. In question 7 (b) candidates were requested to explain ways how plants in the Mediterranean naturally adapt to the climate in this biome. Most candidates answered adequately by making reference to thick and waxy leaves, deep roots, thick barks and halophytic vegetation. In part (c), when asked to discuss five threats that the Mediterranean biome is facing, most candidates discussed the impacts of tourism, development and pollution. Few candidates discussed the invasion of non-native plants, the creation of water diversions and the risks to endangered species. Nevertheless, this part of the question was overall very well-answered.

Question 8

This was the most chosen question in this section as 20 candidates (45%) opted for it. In part (a), when asked to define the term "biome" most candidates gave a good short definition. However, in several cases, some more detail was expected, with particular reference to the link between the naturally occurring organic community and climate. In question 8 (b) candidates were requested to explain the key climatic conditions associated with tropical rainforests. In the majority of cases candidates made good reference to the hot and humid environment. Some more information was expected with regard to the ITCZ and convectional rainfall in the area. Most candidates gave an adequate description of the main characteristics of the vegetation in tropical rainforests in part (c). Most made reference to tall evergreen trees, buttress roots, the little undergrowth and the presence of lianas. Unfortunately, there were some candidates who

confused the natural adaptations in tropical rainforests with those in other biomes. The weakest part of this question was part (d) where candidates were asked to describe the nutrient cycle in tropical rainforests and explain the consequences of deforestation. Although there were candidates who answered this part of the question very well, the majority discussed the impacts of deforestation in a very weak manner. Furthermore, other candidates did not discuss any impacts at all while some others went out of point when answering this part of the question (e.g. by explaining just the nitrogen cycle instead of the nutrient cycle; or by describing the soil profile in tropical rainforests).

Question 9

Only 7 candidates (16%) answered this question making it the least chosen one in Section C. In part (a), which carried 6 marks, most candidates gave a good definition of the term "waterlogged soil". However, some more detail was expected when explaining the causes of waterlogged soils. Most candidates discussed the issue of excessive rainfall without making reference to other causes such as excessive irrigation, poor farm management systems and inadequate drainage of overland runoff. Most candidates gave a good answer to part (b) with regard to the impacts of climate change on the waterlogging of soils. The most discussed points were sea-level rise, the rise in temperatures and excessive rainfalls. In question 9 (c) and (d) candidates were requested to explain the reasons why waterlogged soils need to be managed and to provide examples of such management options. Overall these two parts of the question were well answered. Most candidates made reference to the issues of loss of nutrients, diseases and crop failure. Several candidates discussed the need to plant more tolerant crops, develop good drainage systems and develop levees to prevent flooding from rivers. Some candidates only discussed generic management options to prevent soil loss rather than focusing on waterlogged soils.

PAPER III
Section A: Human Geography and the Developing World

Question 1

This question was chosen by 12 candidates (27%) and was well answered overall. The most common mistake in question (a) was related to the fact that primacy occurs when the population of the first city is greater than twice the size of the second city. Question (b) was well answered overall although several candidates only discussed the effects of primate cities without making reference to their implications on economic development (as was requested in the question). The majority of candidates answered question (c) correctly by making reference to the main causes of urban growth (namely job opportunities and concentration of services) and counter-urbanisation (namely more peaceful and cleaner environment as well as a higher standard of living).

Question 2

Twenty-eight candidates (64%) opted for this question making it the most answered question in Section A. Question (a) focused on migration based on duration so candidates were requested to discuss daily, seasonal, semi-permanent and permanent migration. Few candidates answered this question correctly since most discussed only the different types of migration e.g. internal, voluntary and forced migration. The majority of candidates answered question (b) correctly by making reference to the different causes of migration (e.g. war, natural disasters, job opportunities). The weakest part of this question was part (c). Several candidates went out of point and several others opted not to answer. Nevertheless, there were few candidates who produced a correct answer and also made use of diagrams to explain the Gravity model. The main issue was that most candidates focused just on distance and did not discuss the relationship between population and distance as theorised in this model.

Question 3

Only four candidates (9%) answered this question. Part (a) dealt with the Human Development Index and although it was overall well-answered, there were some candidates who, when requested to discuss the key trends visible in Figure 2, only made reference to the colouring of the map i.e. dark colour represented high HDI and light colour represented low HDI (without making reference to the HDI in respective countries as shown on the map). Overall candidates replied correctly to questions (b) and (c) related to the Brandt Report and international debt respectively. The only issue was that not all candidates made reference to the North-South Divide.

Section B: Issues in Resource Management

Question 4

This question was chosen by 16 candidates (36%) and was related to oil spills and their impact on the environment. Overall, candidates were well-versed with the causes of oil spills in question (a). Question (b) was overall well-answered although most candidates only made reference to the environmental impacts of oils spills i.e. on the marine environment (e.g. destruction of habitats, impact on sea gulls etc.) with limited discussion on the anthropogenic effects of such spills e.g. the negative impacts on the economy (on fishing and tourism) and the contamination of drinking water supplies.

Question 5

This question was answered by 17 candidates (39%) and dealt with tidal and renewable energy. Overall candidates gave an accurate definition of the term "tidal energy" and were knowledgeable on the benefits of using such renewable energy. Most candidates also gave a good explanation of some of the environmental impacts associated with tidal energy in question (c). In this part of the question there were some candidates who confused tidal energy with HEP. In part (d) candidates were requested to discuss the significance of renewable energy within the concept of sustainable development through examples. A significant number of candidates answered this question correctly. However, there were others who just listed five examples of renewable energy and produced a very weak discussion on how these were related to sustainable development.

Question 6

Eleven candidates (25%) opted to answer this question. Generally, candidates gave good reasons why forests are an essential resource for people in question (a). Most candidates made reference to the use of forests as a resource for fuel, food and medicine. Candidates also gave good explanations for why people in the African continent need to rely on firewood as their main source of energy in part (b). In question (c), when candidates were asked about two human costs caused by firewood shortage, the most common mistake was that some of them did not make reference to human costs but to other issues such as environmental costs. Otherwise, answers given were satisfactory. Most candidates also gave a good explanation of environmental problems caused by the reliance on firewood in part (d). The only issue was that some candidates discussed points which were very much related to each other e.g. deforestation and soil erosion. Consequently, these could not be considered as separate problems and marks were lost in this regard.

PAPER III

Section C: The Geography of tourism and recreation

Question 7
Twelve candidates (27%) chose to answer this question on the relations between transport systems and tourism. In part (a), which dealt with the three characteristics making transport integral to tourism, answers given often centred around ease of access, price, speed, and efficiency, and were hence generally satisfactory. However, in question (b) several candidates interpreted transport improvements to tourism, which were not in relation to technology, hence marks were lost. Examples were rarely used by the candidates to support their answer.

Question 8
A total of 29 candidates (64%) opted for this question which dealt with the economic benefits and problems of tourism in host countries and hence was the most answered question in Section C. One of the issues encountered was that in both part (a) and (b), candidates failed to provide examples, despite clearly being asked for them in the question. In part (a), several candidates repeated the discussion of the same economic benefit rather than discussing three benefits. Few candidates related the economic benefits and problems to sustainability's other pillars i.e. environmental and social aspects.

Question 9
Only a few candidates answered this question dealing with development along coastal regions. Examples were discussed in part (a), however not enough detail on the negative influences to the physical environment was provided.

Chairperson
Examiners' Panel 2018