



L-Università
ta' Malta

MATSEC
Examinations Board



Examiners' Report

AM Geography

First Session May 2023

Examiners' Report (201923): AM Geography

TABLE OF CONTENTS

A. STATISTICAL INFORMATION2

B. GENERAL REMARKS2

 General Remarks on the Coursework.....2

 General Remarks on the Written Examination3

C. COMMENTS ON PAPER I AND PAPER II4

 Paper I4

 Paper II6

D. CONCLUDING COMMENTS7

A. STATISTICAL INFORMATION

The total of 19 candidates registered for the Advanced Matriculation (AM) Geography May 2023 Main Session. This is 13 candidates less than the total for the May 2022 Main Session. As noted in previous years, there is a progressive decrease in the number of candidates registering for the AM Geography exam.

GRADE	A	B	C	D	E	F	ABS	TOTAL
Candidates	1	4	4	4	2	3	1	19
% OF TOTAL	5.3	21.1	21.1	21.1	10.5	15.8	5.3	100

Table 1: Distribution of grades for AM Geography 2023 Main Session

B. GENERAL REMARKS

General Remarks on the Coursework

Candidates sitting for the AM Geography First Session exam were expected to present the Individual Field Report (20% of the total mark) and the two Short-term field reports (8% of the total mark). No Covid 19 mitigation measures applied for this year's First and Second Session exams.

The examiners moderated a total of 17 Individual Fieldwork Reports in four different schools (two state schools, one private school and one church school). There were no private candidates for the Main/First examination session.

All marks awarded for the Individual Field Reports by their respective tutors were confirmed by the moderators, except two. Furthermore, a few short-term field reports did not reach the desired standard. Although the work related to the latter must be tutor/teacher-led, a basic scientific approach is still expected in these reports. Overall, the short-term field reports tackled an adequate choice of topics with a good mix of physical and human geography themes being discussed. For the individual field reports, an interesting choice of suitable topics was also noted, whereby topics were small in scale and specific in nature. On the whole, the majority of reports had a good structure and were well-organised.

The following remarks reflect comments made by the moderators:

1. The aims and hypotheses were identified in most reports. It is recommended that there is more linking to the literature through the theoretical background. The use of academic style referencing, together with referring to books and scientific papers is strongly suggested as well at this level.
2. Appropriate methods of data collection and sampling were overall utilised. In reports that tackled human geography topics, questionnaires were the main method of data collection. For physical geography themes, transect sampling was the most widely used data collection methodology. Some candidates provided a justification for the chosen sampling method and identified the limitations as well. The inclusion of a pilot study and the feedback obtained from pilot studies prior to submitting online questionnaires is commended.
3. The means of data presentation was adequate, mainly in terms of bar/line graphs, pie charts and tables. The inclusion of sketches and photographs was also adequate.

4. In the data analysis, most candidates referred to the literature review and linked it with the evaluation of their enquiry. Whilst marks were awarded fairly, it would be encouraging to increase the use of more descriptive statistical techniques. It should also be noted that descriptive statistics of central tendency and dispersion were never used. As for statistical techniques, several candidates opted for multiple tests (mainly Chi-squared test and Spearman rank correlation coefficient) to accept or reject several of their hypotheses.
5. The conclusion of the vast majority of reports was adequate, providing an evaluation of the research as a whole, together with the identification of possible future studies and limitations. The recognition of recommendations in the evaluation is applauded since several candidates showed evidence of the significance of their research in terms of government policies in the subject.

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

- In the writing of such reports, candidates should avoid the use of the first-person as much as possible.
- Whenever maps are presented from secondary sources, this needs to be mentioned in the caption. The north arrow and scale should also be indicated in maps.
- The aims should ideally be presented as a standalone text, with the objectives to achieve the stated aims listed underneath.
- Where possible, maps of the Maltese Islands indicating the location being studied should be included. Candidates should also be encouraged to use ERA's MEPS Geoportal to determine the existence of protected areas within the study area e.g. NATURA 2000 site, etc.
- The methodology section should include the methods used (for both collecting and analysing the data) and why such approach was undertaken. When an interview/questionnaire is undertaken, proper description of the methodology used (such as how many people were interviewed, how these were recruited, what type of questions were asked etc.) should also be briefly included.
- Proper referencing should be used. If the information was provided by the teacher, the candidates are expected to do their own research and find other secondary sources. Candidates should be encouraged to use books, scientific papers and refer to trustworthy websites.
- Any images presented in reports need to be clear and large enough for clear identification of features in the same pictures. Annotations in maps/images should be legible, preferably in colour and using most of the space on the page. It is also advisable that candidates produce their own images/sketches, when possible, rather than scans.
- When presenting photos/images of features such as coastal retreat or coastal erosion, these should be marked on the photo and/or described in the caption. Furthermore, all figures should be captioned and referred to in the text.

General Remarks on the Written Examination

The structure of the AM Geography exam paper presented some changes from that of the previous two years (i.e. 2021 and 2022). Since no Covid 19 mitigation measures applied for this year's First and Second Session exams, candidates had to answer four questions from a total of six (not eight as in the previous two years), as was the case in pre-Covid 19 exam papers. The mitigating factors for the 2021 MATSEC Examinations Sessions were all removed and hence candidates could be examined on the whole syllabus.

Examiners' Report (201923): AM Geography

As in previous years, the AM Geography exam consisted of two written papers each carrying 36% of the total mark. Paper 1 set out to assess knowledge and skills of candidates in relation to Physical geography topics while Paper 2 was aimed at assessing knowledge and skills of candidates in relation to Human geography topics. Each paper was of three hours duration.

For Paper I, the most selected question was Question 6 with 94% of the candidates responding to this question. With regards to Paper II, Question 1 was answered by all candidates sitting for the exam and hence was, by far, the most popular choice. Other questions were also more favoured by candidates in both exam papers. In Paper 1, Question 3 was answered by 89% of the candidates while in Paper 2, Question 6 got a 94% response rate by the candidates sitting for the session.

The performance of the candidates was overall satisfactory. There wasn't a dominant grade with most of the cohort, as happened in previous years, but the same percentage of candidates (21%) obtained a Grade B, C and D. This was, most probably, because the total number of candidates sitting for the AM Geography first session exam was low (i.e. 19). When the grades obtained are compared to those of the previous examination session (i.e. 2022) one can note that there was a considerably lower percentage of candidates obtaining a Grade C (-7.1%) and a Grade F (-9.2%) in the AM 2023 Main/First Session when compared to the 2022 Main/First Session. On the other hand, there was an increase in candidates who obtained a Grade B (+14.8%) and a Grade D (+5.5%) result in the 2023 Main/First Session.

C. COMMENTS ON PAPER I AND PAPER II

Paper I

Question 1

Question 1, dealing with precipitation types and the global patterns of precipitation was selected by 10 candidates (56%). In part (a), almost all candidates were familiar with the three main rainfall types and adequately named them. The descriptions for orographic rainfall and convectional rainfall were generally more detailed than those of frontal rainfall. Whilst all diagrams were annotated, several diagrams of relief rainfall incorrectly showed the rain shadow area in the windward side of the mountain. In part (b), a discussion of the global pattern was generally provided, with reference to oceans and the equatorial areas, however there were several instances in which candidates incorrectly interpreted the graph in terms of isobars showing pressure, instead of recognising the isolines which indicated precipitation. The provision of reasons for the development of the global patterns was often lacking. Most of the reasons discussed related to the abundance of rain in the equatorial region and its reduction with distance towards the poles, without much focus on the water component originating from distant oceans and that formed from locally evaporated water.

Question 2

Question 2 was answered by 10 candidates (56%). Generally, candidates fared well in defining soil catena, but answers varied on the level of detail provided. In part (b), which carried 20 marks, candidates were required to discuss the influence of altitude, drainage and slopes on soil development. The discussions on slope and drainage were often more detailed than that of altitude. Several candidates did not provide a clear reference to the figure in the discussion and there were several instances in which the podsol, brown earth

and gley soils were not included in the discussion, or else, the soil catena was explained in general, without a discussion of the three factors' influence on soil development.

Question 3

Sixteen candidates (89%) answered Question 3 on rocky coasts. Most answers did not directly mention the processes related to rocky coast erosion; however, candidates were able to explain marine processes and rock-breakdown processes. Many based their answer to part (a) on the different weathering or marine-rock removal processes affecting rocky coasts (corrosion, hydraulic action, corrasion and attrition), hence not adequately explaining the other main processes. Mass movements, although never mentioned directly, were often explained in terms of undercutting of cliff bases by erosion resulting in cliff retreat, hence candidates indirectly referred to rockfall. In part (b), where two controlling factors on the rate of erosion along a cliff profile had to be explained, many of the explanations were on the hardness of rock and wave action, albeit to varying levels of detail.

Question 4

Question 4 was the least popular question and only answered by 8 candidates, or 44% of those sitting for the examination session. The majority fared well in part (a) in outlining the human-induced activities that may increase the risk of flooding. The main factors that were outlined were urbanisation, deforestation, construction of dams and river engineering works. In part (b), which carried 15 marks, the majority of candidates explained field surveys and sampling, interviews, historical data and geology. Other valid methods such as rainfall data collection and the use of hydrographs were also accepted as valid. Moreover, there were a couple of instances in which candidates were not familiar with flood hazard assessment and based their answer on flood hazard mitigation instead.

Question 5

Question 5 dealt with the biospheric processes in tropical rainforests and savanna biomes and was answered by 11 candidates (61%). The majority of answers provided a correct name for both the tropical rainforest and the savanna grasslands. The provided descriptions on climate were more detailed for tropical rainforests. More knowledge on the climate of the savanna grasslands was expected at this level since many of the provided answers were short and vague. On the other hand, the vegetation adaptation of the savanna grasslands was overall well-answered. In the answer to part (b), on the major environmental threats of one named tropical rainforest, many answers provided, identified and discussed one threat, even though the question in the exam paper refers to threats in the plural. The Amazon Rainforest was the most commonly named rainforest, and apart from deforestation, climate change was referred to by almost all candidates.

Question 6

Most candidates answered Question 6 on the impacts of climate change in the Maltese Islands, with 17 candidates opting to answer this question (94%). The discussions were generally adequate, however many failed to relate their answers to the numeric values of past trends and predictions for air temperature, rainfall and sea temperatures. In part (a), candidates mainly referred to the rise in temperature, especially during summer, and the effects of increased temperatures. Several answers were more focused on the global greenhouse gases without adequate reference to the Maltese Islands. Whilst discussing rainfall in part (b), the main point of discussion related to the increased drought conditions and the unpredictability of rainfall

events, with many referring to heavy downpours resulting in temporary flooding. In the answer to sea temperatures in part (c), often candidates' focus was related to the negative implications of climate change on marine life.

Paper II

Question 1

All candidates sitting for the exam session answered Question 1 which was on the distribution of population. The first part of the question (a) was related to a choropleth map showing the global population density by country in 2022 and candidates had to describe it. Although most candidates answered correctly, most of them only mentioned countries with a high/low population density rather than describing why this was the case. In question (1b), candidates had to discuss two physical and two human factors which influence the distribution of the world's population. Most of the candidates answered this part correctly and also gave examples from around the world. The last part of the question (c) was related to the relationship between population density and distribution in the Maltese Islands. The vast majority of candidates answered correctly, however, basic information such as the population of the Maltese Islands and its density per km² were lacking. Other candidates opted to discuss the difference between population density and distribution without direct reference to the Maltese Islands.

Question 2

Nine candidates (50%) answered question 2, which dealt with agriculture. In (a), most of the candidates answered correctly with most of them choosing deforestation, desertification and the use of chemicals as the main activities bringing about environmental impacts on agricultural activities. In (b), candidates had to discuss three problems related to irrigation. Most of the candidates did not answer correctly as they discussed other problems such as soil erosion and surface run-off or completely went out of subject. The final part of the question (c) focused on the Malthus theory. All candidates had a sound knowledge of the theory but some answered very briefly and did not mention the criticism it got. Additionally, some of the diagrams included were incorrect.

Question 3

Question 3 focused on limestone quarrying and was answered by 8 candidates (44%). In (a) candidates had to describe the two types of quarrying taking place in the Maltese Islands. Almost all candidates mentioned the extraction of the Lower Coralline and Globigerina Limestone from local quarries together with their respective uses. In question (b) candidates had to discuss three negative impacts of the quarrying industry. The majority of the candidates answered correctly with the most common impacts mentioned being noise and air pollution, damage to surrounding areas and waste. In part (c), related to sustainable uses of disused quarries, most candidates answered correctly, with most of the answers focusing on solar farms, conversion to natural parks, backfilling and landscaping.

Question 4

Question 4, which focused on the Brandt report, was answered by six candidates (33%). In part (a), candidates had to differentiate between the characteristics of the Northern and Southern hemispheres. Most candidates had a sound knowledge of these characteristics including income inequality, economic development and technology. In part (b) candidates had to describe the relevance of the North-South divide

in the contemporary world. Answers were rather short and failed to highlight the fact that globalisation and technology have helped in blurring the Brandt Line. Furthermore, not all candidates seem to have understood the question. In the last part (c), candidates had to discuss (i) the North-South trade relations and (ii) fair trade. Most candidates provided good descriptions of both the trade relations and fair trade.

Question 5

Fourteen candidates (78%) answered this question which dealt with the changes in the global urban and rural populations in both less and more developed regions. In part (a), candidates had to explain how population changed over time by interpreting a given figure. Most of the answers were correct and some of them provided examples of why such change could have occurred. In part (b) candidates were asked about the causes of urban growth and decline in less economically developed countries. Most of the answers were correct with candidates describing various push and pull factors. In the final part of the question (c), candidates had to name and describe two social and/or economic criteria that are used to identify less economically developed countries. Although most of the candidates knew the answer, this was below the expected standard. More technical terms such as Gross Domestic Product (GDP), Physical Quality of Life (PQLI) etc. were expected.

Question 6

Question 6 was answered by 17 candidates (94%) and dealt with natural domestic resources. In part (a), candidates had to discuss the lack of natural resources in the Maltese Islands. This part of the question was overall well-answered and the lack of both the renewable and non-renewable resources featured prominently in the answers. The recent changes in electricity generation in the Maltese Islands was the subject of part (b) of this question. Although some candidates explained about the interconnector, they failed to give the necessary details. Most of the other candidates mentioned only the renewable resources of energy, such as solar and wind. Part (c) dealt with two types of renewable energy sources in the Maltese Island energy strategy. The majority of answers included solar energy and wind energy but others mentioned biomass, tidal and hydro-energy, which are not part of the local energy strategy and are not viable for the Maltese Islands.

D. CONCLUDING COMMENTS

In Paper 1, candidates' overall performance was noted to be, for the second year running, below the expected standard at Advanced Matriculation Level. It is recommended that candidates carefully read the questions and the mark allocations before answering, since the length and level of detail in several answers did not reflect the allocated mark. Unfortunately, there were also cases in which candidates went off-topic in their answer. Furthermore, candidates should do their utmost to improve their handwriting's legibility.

The performance of candidates in Paper 2 was, overall, satisfactory although improvements in the general standard of the candidates' answers can still be attained. As also pointed out for paper 1, candidates are urged to read the question thoroughly and analyse the allocated marks before answering so as to determine the detail being expected for each answer. More use of geographical and technical terms is also encouraged while it is expected that any figures or diagrams drawn by the candidates to better illustrate their answers are clear, legible and well-labelled. Candidate's handwriting should be as clear and legible as possible and,

Examiners' Report (201923): AM Geography

ideally, a fresh page should be used when answering a new question. It is also recommended to write acronyms in full, when first used (e.g. Gross Domestic Product [GDP]). After that, the acronym can be used indefinitely.

Chairperson

Examiners Panel 2023