

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE **EXAMINATIONS BOARD**

SECONDARY EDUCATION CERTIFICATE LEVEL **2019 MAIN SESSION**

SUBJECT: PAPER NUMBER: DATE:		Geography I 17 th May 2019	
TIME:		9:00 a.m. to 11:05 a.m.	
Answ	er ALL questions.		
the		map extract for Comino and South-East of The map scale is of 1:25,000. The map are in metres.	
a)	In which grid square	e is the rock of Ġebel tal-Ħalfa located?	
			(1)
b)	Give the six-figure	grid reference of:	
	i. The trigonometri	cal station marked A ;	(1)
	ii. Qala Parish Chur	ch marked B	(1)
c)	Give the compass period fort marked	direction from the trigonometrical statio C .	n marked A to the Knights
			(1)
d)	past few days. Cho	n-Easterly wind has been blowing over the posing from <u>calm, moderately rough</u> or ea condition to be in the following location	very rough, state how you
	i. Il-Bajja ta' Santa	Marija	(1)
	ii. The Bejn il-Kmie	men area	(1)
	iii. The Ras il-Qala a	rea	(1)
e)	Measure the straig marked A and D .	ht-line distance in kilometres between	the trigonometrical stations
			(2)
f)	Refer to grid square of coastline between	es 4185 and 4186 and estimate in kilomet n points E and F .	res the length of the stretch
			(2)

This question continues on next page.

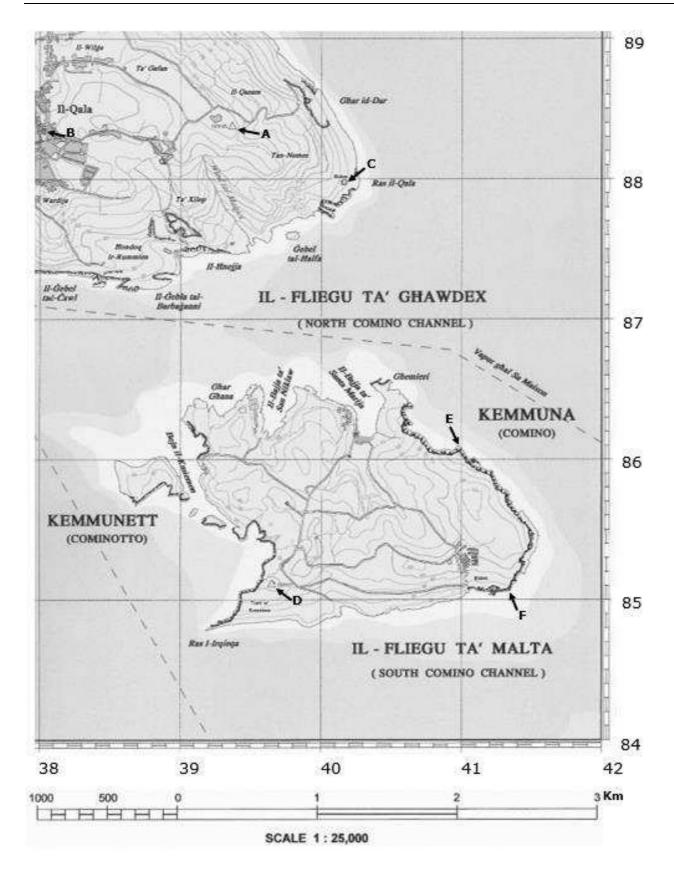
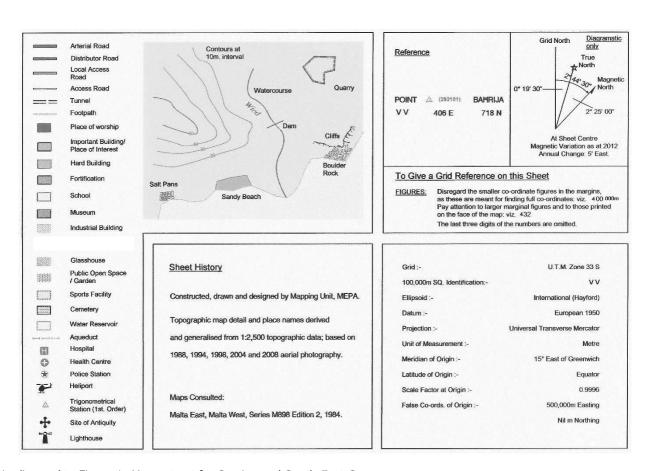


Figure 1: Map extract for Comino and South-East Gozo.

Source: Planning Authority 25A/2018/M edition.

g)	Using the data contained in Figure 1, including contour lines and topography, write a short paragraph explaining why on Comino, tourism is primarily based in the Bejn il
	Kmiemen, Il-Bajja ta' San Niklaw and Il-Bajja ta' Santa Marija areas. (5

(Total: 16 marks)



Key/Legend to Figure 1: Map extract for Comino and South-East Gozo.

Source: Planning Authority 25A/2018/M edition.

1	2		
3.	4		
Match the following major seas with their respective locations marked ${\bf A}$ to ${\bf D}$.			
Major Seas	Figure 2 locations A to D		
Caribbean Sea			
Gulf of Mexico			
Baltic Sea			
Arabian Sea Match the following Volcanoes	with their respective locations marked E to H .		
	with their respective locations marked E to H. Figure 2 locations E to H		
Match the following Volcanoes			
Match the following Volcanoes Volcanoes			
Match the following Volcanoes Volcanoes Mt Vesuvius			
Match the following Volcanoes Volcanoes Mt Vesuvius Mt St Helens			
Match the following Volcanoes Volcanoes Mt Vesuvius Mt St Helens Mt Kilimanjaro Mt Pinatubo	Figure 2 locations E to H		
Match the following Volcanoes Volcanoes Mt Vesuvius Mt St Helens Mt Kilimanjaro	Figure 2 locations E to H ts numbered 5 to 8.		

(Total: 16 marks)

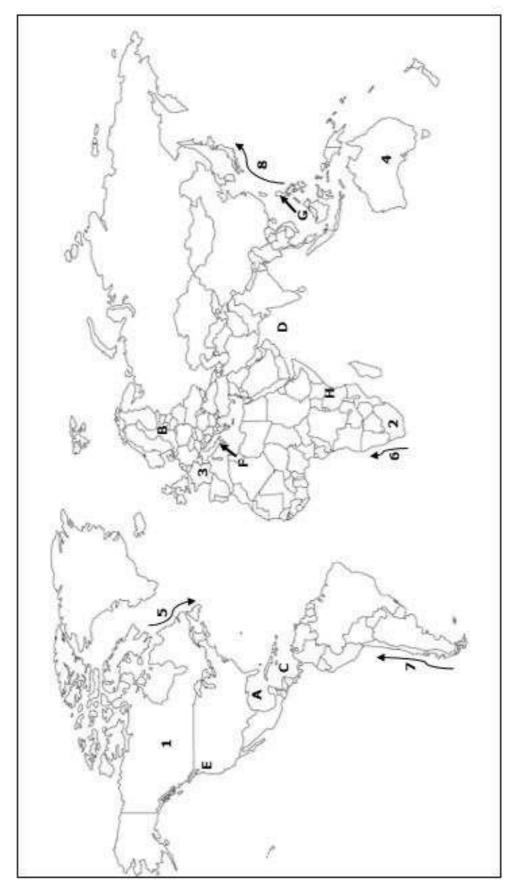


Figure 2: Map of the World.

Please turn the page.

3. There are four main types of weathering: frost shattering; onion skin weathering weathering; and chemical weathering.		
	a)	Choose ONE of the above-mentioned weathering processes and draw a simple, well-labelled diagram to show how this takes place.
		Weathering type: (3)
	b)	Write a short description to explain how the weathering process illustrated in the above diagram takes place. (3)
4.	wa	(Total: 6 marks) e drainage basin is an open system consisting of inputs and outputs as well as stores (of ter) and flows (transfers). Fill-in Table 1 using ALL the terms listed in the box hereunder placing them in their appropriate grouping:
		surface storage; precipitation; soil moisture storage; percolation; groundwater flow; water returned to the sea; evaporation; groundwater infiltration; interception (by vegetation); surface runoff; throughflow; transpiration.

Table 1

Inputs	Stores	Flows/Transfers	Outputs
Leave Blank			
Ecave Blank			
	Loavo Plank		Leave Blank
	Leave Blank		Leave Blank
			(Total: 6 marks

(Total: 6 marks)

5.	The following questions are on the weather and climate topic.			
	a)	Explain the difference between weather and climate. (2)		
	b)	Describe the difference in the atmospheric conditions between a summer anticyclone and a winter anticyclone. (6)		

6.		e following paragraph describes a tropical savanna grassland area. Fill in the blanks with words provided in the box hereunder.			
	desertification; migrate; Africa; overgrazing; biomes; grasses; xerophytic; seasons				
	Tro	Tropical savanna grasslands are one of the world's major The			
	lar	gest expanses of the savanna are found in Savanna regions			
	hav	ve two distinct, one wet and one dry. The typical vegetation in			
	the	savanna includes, scrub and occasional trees, which grow			
	dur	ring the wet period. During the the dry period, plants and animals have to adapt. In fact,			
	ma	ny plants are to withstand drought. Animals may			
		great distances to search for food and water. Overcultivation and			
		in savanna areas is resulting in, where			
	pre	eviously fertile land becomes degraded.			
		(Total: 4 marks)			
7.	Set	tlements are places where people live.			
	a)	Name and briefly explain TWO factors that affect the location of settlements.			
		Factor 1:			
		(2)			
		Factor 2:			
		(2)			
	D)	Identify the settlement patterns illustrated in Figures 3 and 4.			
		i. Name of settlement pattern shown in Figure 3:			
		Key ■ Dwelling			

		Key Dwelling Road Figure 4	ii. Name of settlement pattern shown in F	(1) (Total: 6 marks)
8.			onomic activity concerned with the processing	g of raw materials and
			rm `footloose industry'.	(2)
	b)	·	re and ONE negative impact of globalisation.	
				(2)
		Negative impact:		
				(2)
				(Total: 6 marks)
9.	Na	tural resources are co	mmonly grouped into `renewable' and `non-re	newable'.
	a)	Define the term 'non-	-renewable energy resource'.	(2)

This question continues on next page.

b)	Give TWO examples of non-renewable energy resources. (2)
	i
	ii
c)	Non-renewable resources contribute to the formation of acid rain. Explain in brief, TWO impacts acid rain has on the physical and human environment. (2)
	i
	ii.
	(Total: 6 marks)
10.Ve	hicular traffic creates numerous problems in urban areas.
a)	Mention and briefly describe TWO problems of urban transport.
	i
	(2)
	ii
	(2)
b)	Describe TWO negative impacts resulting from the urban transport problem.
	i
	(1)
	ii
	(1)
	(Total: 6 marks)

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MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD

SECONDARY EDUCATION CERTIFICATE LEVEL 2019 MAIN SESSION

SUBJECT: Geography

PAPER NUMBER: IIA

DATE: 20th May 2019

TIME: 9:00 a.m. to 11:05 a.m.

Answer any **TWO** questions from Section A and any **TWO** questions from Section B.

Answer **FOUR** questions in total. Answers are to be written on the booklet provided.

Each question carries a total of 25 marks. Marks allocated to parts of the questions are indicated.

Good use of language and orderly presentation are important. Credit will be given for relevant illustrations. The use of non-programmable calculators and geometric instruments is permitted.

SECTION A

Answer TWO questions from this section.

1. a) Figure 1 shows the climate graph of Manaus, a locality in the Brazilian Amazon Rainforest.

Name the type of climate found in a tropical rainforest and describe its main features. (7)

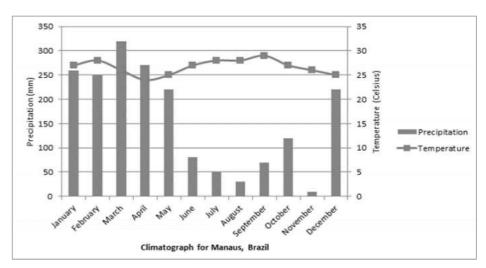


Figure 1: The climate graph of Manaus in Brazil.

Source: https://moodle.queenelizabeth.cumbria.sch.uk

- b) Deforestation is a key global environmental issue. Discuss **FOUR** environmental impacts of deforestation in the Amazon Rainforest. (12)
- c) Describe **TWO** ways in which rainforest development can be sustainable. (6)

(Total: 25 marks)

Please turn the page.

- 2. a) The Earth's crust is composed of a multitude of different rocks, yet these are grouped into three main types. With the use of labelled diagrams explain the formation and characteristics of these **THREE** main types of rock. (15)
 - b) Carboniferous Limestone has developed its own distinctive scenery known as *Karst*. Due to its structure, permeability and vulnerability to chemical weathering it forms various surface, underground and depositional landforms. Mention and briefly describe **FIVE** karst landform formations.

(Total: 25 marks)

3. a) A flood hydrograph shows how a river responds to a particular storm. Refer to Figure 2 in order to explain the meaning of 'Lag time'. (3)

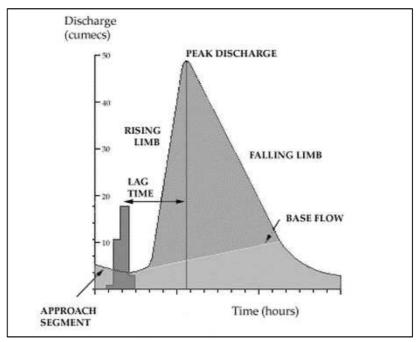


Figure 2: A Flood hydrograph.

Source: http://www.acegeography.com/factors-affecting-river-discharge.html

- b) Bangladesh experiences frequent flooding. List and explain **TWO** natural and **TWO** manmade causes of flooding in Bangladesh. (12)
- c) A river with a short lag time and a high peak discharge is more likely to flood than a river with a long lag time and a low peak discharge.
 - i. Give **ONE** reason and explain why a river basin can be at a high risk of flooding. (5)
 - ii. Give **ONE** reason and explain why a river basin can be at a low risk of flooding. (5)

(Total: 25 marks)

- 4. a) With the aid of a labelled diagram, explain how the process of Longshore Drift takes place.
 (5)
 - b) With the aid of a labelled diagram, describe how a 'spit' is formed. (8)
 - c) Beach nourishment projects are being carried out on some beaches across Malta. List and analyse **TWO** benefits and **TWO** limitations of beach nourishment. (12)

SECTION B Answer TWO questions from this section.

5. Figure 3 shows data for cruise liner passengers who visited Malta between October and December for the years 2015 to 2017. The graph shows the number of tourists who were in transit and those who landed in Malta.



Figure 3: Cruise Passengers between October and December (2015 to 2017).

Source: National Statistics Office, 2018.

a) Briefly analyse the data given in the graph in Figure 3.

(5)

- b) With reference to Figure 3, give **THREE** reasons why tourists may prefer to transit through Malta rather than land in Malta. (6)
- c) Explain why Malta's Grand Harbour is suitable for cruise liners. (10)
- d) List **TWO** advantages and **TWO** disadvantages of the cruise liner industry for Malta. (4)

(Total: 25 marks)

6. a) Define the term 'Green Revolution'.

- (5)
- b) Explain the properties of High Yield Varieties (HYVs), and provide **TWO** examples of such HYVs. (9)
- c) State **TWO** successes and **TWO** failures of the Green Revolution. (8)
- d) List **THREE** examples of countries from around the world where the Green Revolution was implemented. (3)

(Total: 25 marks)

Please turn the page.

- 7. a) Positive factors encourage people to live in an area, resulting in high population density. Discuss TWO physical and TWO human factors resulting in areas of high population density. (12)
 - b) Describe **TWO** reasons why life expectancy has increased, especially in More Economically Developed Countries (MEDCs).
 - c) Figure 4 shows the population density of Brazil. Describe THREE patterns of population distribution and density in Brazil.

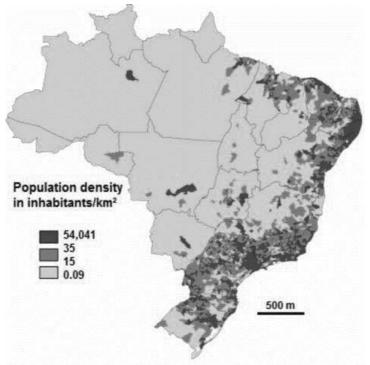


Figure 4: The population density of Brazil.

Source: www.ibge.gov.br

(Total: 25 marks)

- 8. a) The increase in urban growth is due to several push factors and pull factors.
 - i. Define the term 'push factor' and give **TWO** examples.

(5) (5)

ii. Define the term 'pull factor' and give **TWO** examples.

b) Cairo has experienced rapid urban growth. Discuss THREE major problems related to urbanisation in Cairo.



MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD

SECONDARY EDUCATION CERTIFICATE LEVEL 2019 MAIN SESSION

SUBJECT: Geography

PAPER NUMBER: IIB

DATE: 20th May 2019

TIME: 9:00 a.m. to 11:05 a.m.

Answer any **TWO** questions from Section A and any **TWO** questions from Section B.

Answer **FOUR** questions in total. Answers are to be written on the booklet provided.

Each question carries a total of 25 marks. Marks allocated to parts of the questions are indicated.

Good use of language and orderly presentation are important. Credit will be given for relevant illustrations. The use of non-programmable calculators and geometric instruments is permitted.

SECTION A

Answer TWO questions from this section.

- 1. a) The Earth's crust is composed of a multitude of different rocks, yet these are grouped into three main types. Making use of labelled diagrams, give the main characteristics of Igneous, Sedimentary and Metamorphic rocks. (15)
 - b) Carboniferous Limestone has developed its own distinctive scenery known as *Karst*. Due to its structure, permeability and vulnerability to chemical weathering it forms various surface, underground and depositional landforms. These include swallow holes, resurgence, dry valleys, limestone pavements, bedding planes, joints, clints, grykes, caverns, stalactites, stalagmites and pillars. Briefly explain the formation process of any **FIVE** of the above-mentioned karst landforms. (10)

(Total: 25 marks)

2. a) The up and down movement of wave action along a stretch of coast can cause longshore drift to occur. With the aid of a labelled diagram explain how longshore drift takes place.

(5)

- b) Groynes are built in some coastal areas to reduce longshore drift. List and explain **ONE** advantage and **ONE** disadvantage of building groynes along the coast. (8)
- c) Constructive waves enable the formation of depositional features such as spits, bars, tombolos and sand dunes. Choose **ONE** of the above listed depositional features and with the use of a labelled diagram explain its formation process. (12)

3. a) A flood hydrograph shows how a river responds to a particular storm. With reference to Figure 1 give the meaning of the term 'Lag time'. (5)

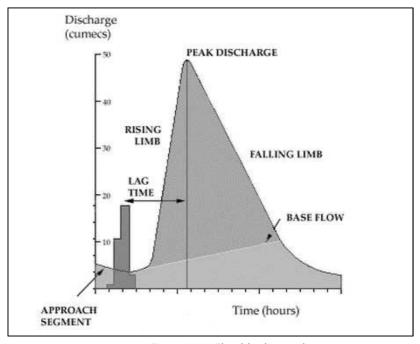


Figure 1: A Flood hydrograph.

Source: http://www.acegeography.com/factors-affecting-river-discharge.html

- b) River flooding can be natural and/or human-induced. List and explain **FOUR** factors which cause rivers to flood. (12)
- c) Bangladesh experiences frequent flooding. Discuss **TWO** factors that make Bangladesh so prone to flooding. (8)

(Total: 25 marks)

- 4. a) The surface layers of rock in a hot desert are weathered by exfoliation. Describe the process by which exfoliation occurs. (5)
 - b) The wind is an important factor which shapes landforms in a desert. With the help of labelled sketches, choose **TWO** from the following wind-shaped landforms and explain how they are formed: (10)
 - i. Deflation Hollows;
 - ii. Rock Pedestal / Mushroom rock;
 - iii. Yardangs;
 - iv. Zeugens;
 - v. Sand Dunes.
 - c) Name **ONE** hot desert and briefly explain **ONE** of its main climatic characteristics. (4)
 - d) Describe **THREE** ways by which plants can survive in a hot desert. (6)

SECTION B

Answer TWO questions from this section.

- 5. a) Define the term 'renewable energy sources'. (4)
 - b) List **THREE** types of renewable energy sources and briefly explain how they work. (9)
 - c) List and describe **THREE** advantages and **THREE** disadvantages of renewable energy sources. (12)

(Total: 25 marks)

- 6. a) Describe the following terms:
 - i. Urbanisation; (2)
 - ii. Mega-city. (2)
 - b) Figure 2 shows the favela of Rocinha in Rio de Janeiro, Brazil. Choose **THREE** from the following issues faced by the inhabitants of shanty towns and discuss them using Rio de Janeiro as a case study. (15)
 - i. Housing;
 - ii. Crime;
 - iii. Healthcare;
 - iv. Transport;
 - v. Waste.



Figure 2: The favela of Rocinha in Rio de Janeiro, Brazil.

Source: https://theculturetrip.com

c) One strategy aimed at improving living conditions in shanty towns involves investment in self-help schemes. What is a self-help scheme? (6)

7. a) What is the Human Development Index (HDI)?	(5)
b) Name ONE country that has a high HDI and ONE country that has a low HDI.	(2)
c) Discuss TWO main problems that can arise from the use of the Human D Index.	evelopment (12)
d) "Out of 189 countries for which the HDI is calculated, 59 countries are too very high human development group and only 38 countries fall in the low H Just nine years ago in 2010, the figures were 46 and 49 respectively". (Source: United National Action 1985)	DI group. ations, 2019)
Briefly discuss TWO possible reasons that led to the changes mentioned ir quoted paragraph.	the above (6)
(Total:	25 marks)
8. a) Describe the difference between voluntary migration and forced migration.	(4)
 b) Rural-urban migration is the movement of people from rural areas to cities. Define the term 'rural push factor' and list TWO examples. Define the term 'urban pull factor' and list TWO examples. c) Define the term 'counter-urbanisation'. d) With reference to the case study of refugees in the Mediterranean, discuss O and ONE negative impact of migration on the receiving European countries. 	(5) (5) (5) ONE positive (6)
	25 marks)