



L-Università  
ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE  
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL  
2021 MAIN SESSION**

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SUBJECT:	<b>Geography</b>
PAPER NUMBER:	I
DATE:	1 <sup>st</sup> June 2021
TIME:	9:00 a.m. to 11:05 a.m.

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**Answer ALL questions.**

1. Examine Figure 1, the map extract for North Gozo on page 2 and answer the following questions. The map scale is of 1:25,000. The map's key/legend is given on page 3. The map contours are in metres.
  - a) In which grid square is Il-Bajja ta' Marsalforn located? \_\_\_\_\_ (1)
  - b) Give the six-figure grid reference of:
    - i. Ta' Pinu Basilica marked **A**. \_\_\_\_\_ (1)
    - ii. Għasri Parish Church marked **B**. \_\_\_\_\_ (1)
  - c) Give the compass direction from the Ġordan trigonometrical station marked **C** to the Għajn Damma trigonometrical station marked **D**.  
\_\_\_\_\_ (2)
  - d) A Force 8 north-westerly gale force wind is blowing over the Maltese archipelago. Choosing from calm, moderately rough or very rough, state how you would expect the sea condition to be in the following locations:
    - i. Il-Bajja ta' Marsalforn \_\_\_\_\_ (1)
    - ii. Għar il-Qamħ \_\_\_\_\_ (1)
  - e) Use Figure 1 to identify the coastal landscape features marked **E** and **F**.  
Feature **E** \_\_\_\_\_ (1)  
Feature **F** \_\_\_\_\_ (1)
  - f) Estimate in kilometres the length of the stretch of road between points **G** and **H**.  
\_\_\_\_\_ (2)

***This question continues on next page.***

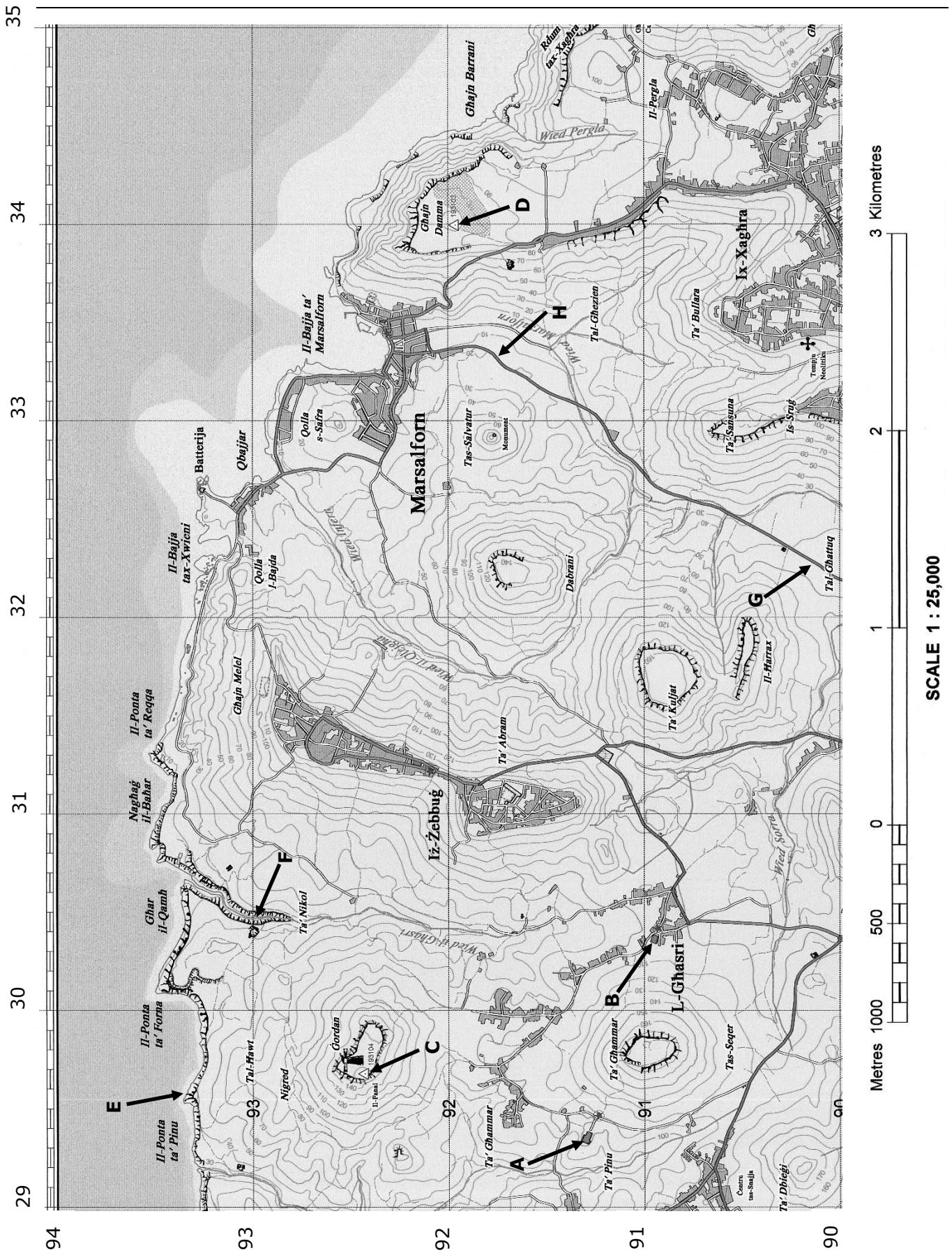


Figure 1: Map extract for North Gozo.  
(Source: Planning Authority 25A/2018/M edition.)

g) Using the data contained in Figure 1, including contour lines and topography, write a short paragraph describing the Ġordan hill at **C**, how it is in use today and why it was chosen for this purpose. (5)

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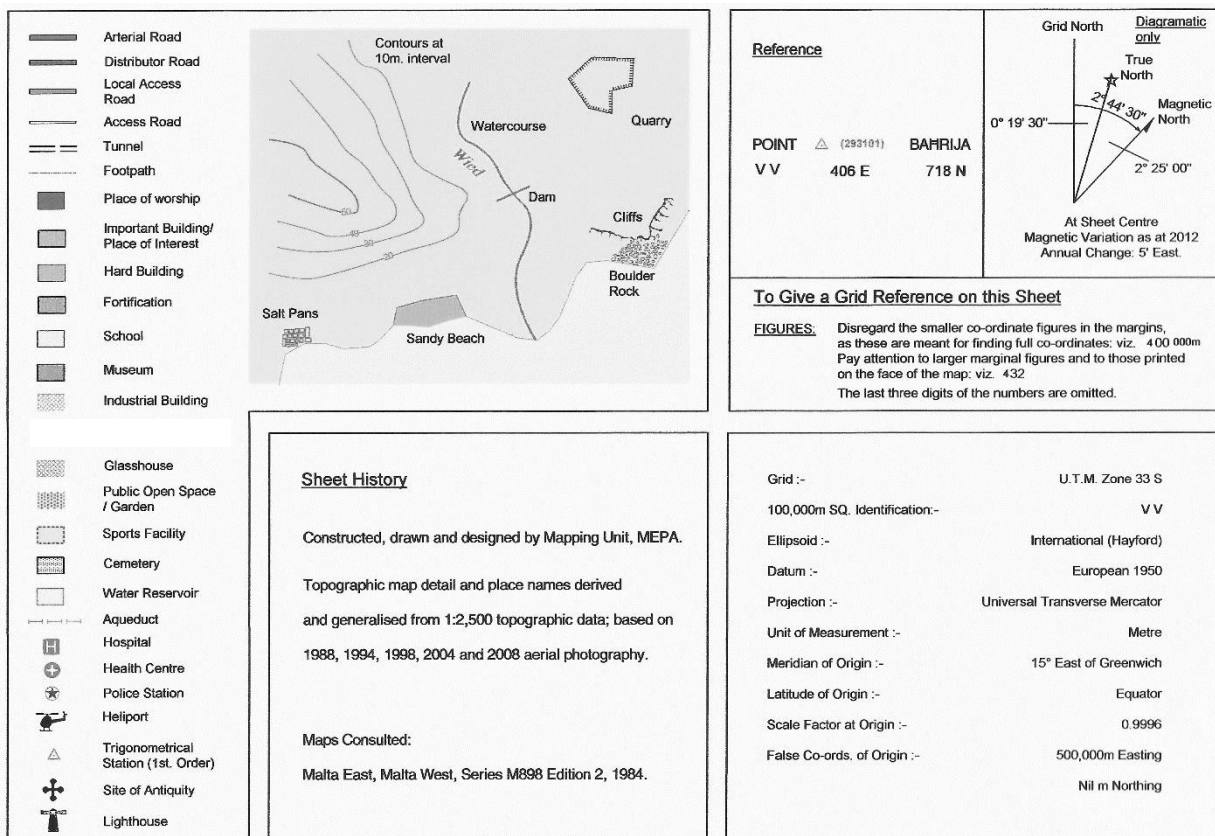


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**(Total: 16 marks)**



Key/Legend to Figure 1: Map extract for South-West Gozo. (Source: Planning Authority 25A/2018/M edition.)

**Please turn the page.**

2. Examine the world map in Figure 2 (page 5) and answer the following questions:

a) Name the countries numbered **1** to **4**. (4)

1. \_\_\_\_\_ 2. \_\_\_\_\_  
 3. \_\_\_\_\_ 4. \_\_\_\_\_

b) Match the following major fold mountain systems with their respective locations marked **A** to **D**. (4)

Fold Mountain Systems	Figure 2 locations A to D
Alps	
Drakensberg Mountains	
Rocky Mountains (Rockies)	
Atlas Mountains	

c) Match the following major world biomes with their respective locations marked **E** to **H**. (4)

Major Rivers	Figure 2 locations E to H
Tropical Rain Forest	
Savanna Grassland	
Mediterranean	
Temperate Deciduous Forest	

d) Name the major seas numbered **5** to **8**. (4)

5. \_\_\_\_\_ 6. \_\_\_\_\_  
 7. \_\_\_\_\_ 8. \_\_\_\_\_

**(Total: 16 marks)**

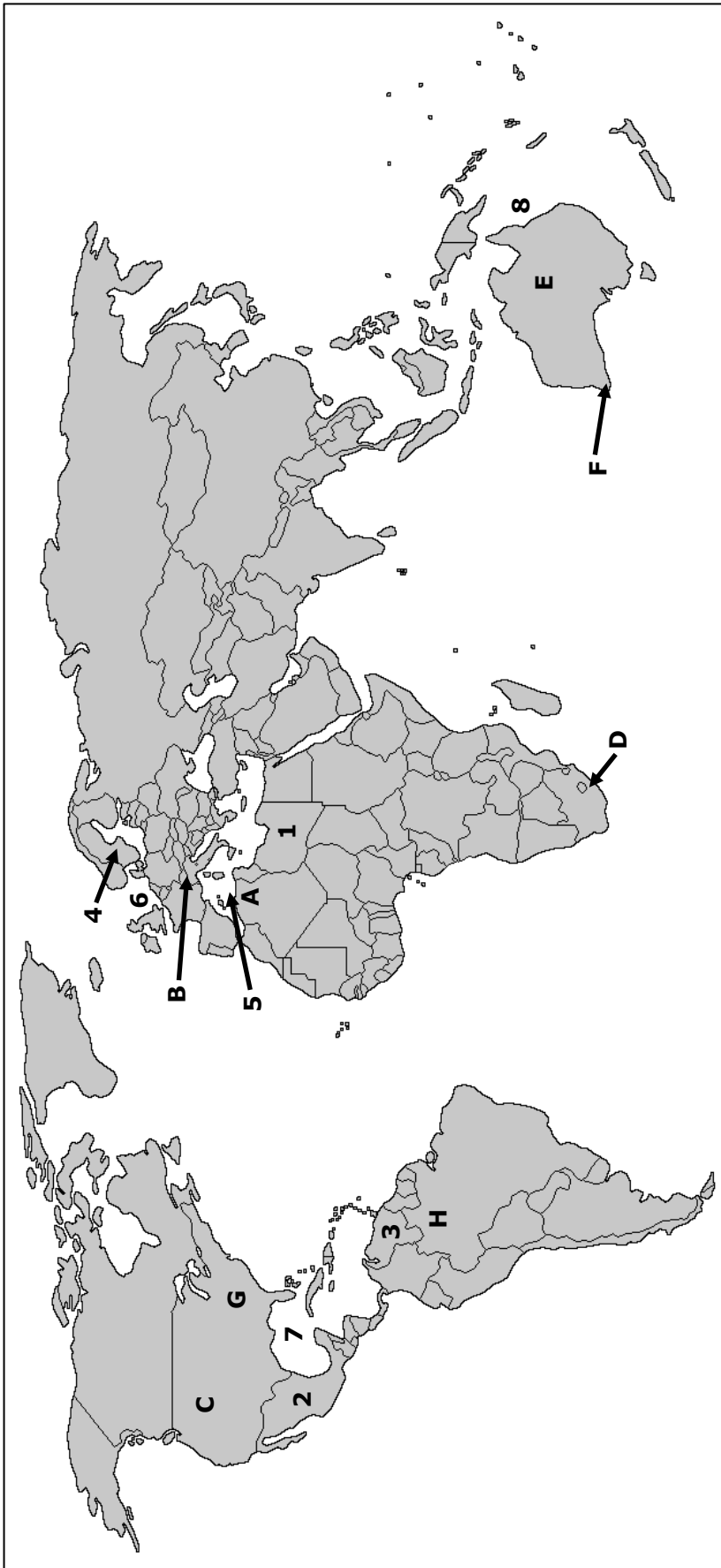


Figure 2: Map of the World.  
(Source: [www.outline-world-map.com](http://www.outline-world-map.com))

**Please turn the page.**

3. China's capital city Beijing lies on 120° East longitude. A person in London at 0° longitude watches a live news report from Beijing at 12.00 pm London time, and notices that in Beijing it is already dark.

a) What time is it in China? (2)

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b) What latitude is the North Pole in? (1)

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c) How is the North Pole's latitude calculated? (1)

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d) Roald Amundsen and his team were the first persons to reach the South Pole on 14 December 1911 after a march from the Antarctic Coast which started on 19 October. Throughout their journey it was always daylight. Study carefully Figure 3 to explain the reason for the continuous daylight. (2)

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**(Total: 6 marks)**

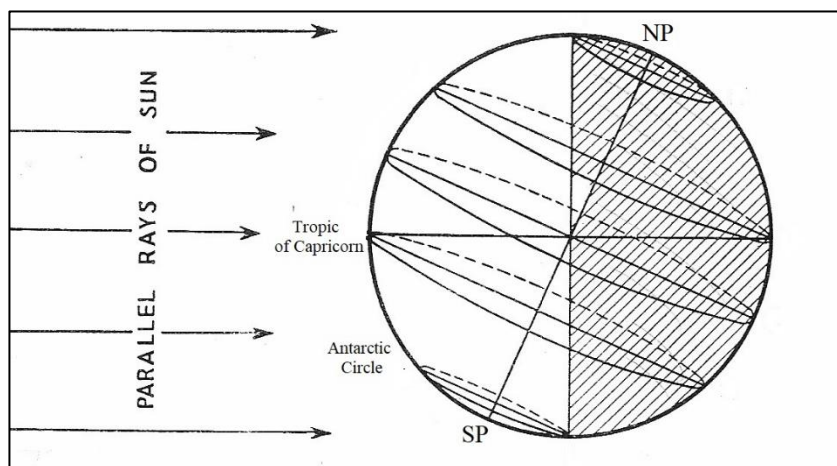


Figure 3: The Earth's position on 21 December.

(Adapted from: D.M. Preece and H.R.B. Wood, *Foundations of Geography* (University Tutorial Press, Slough, 1979), p.56.)

4. This question is on a typical soil profile having horizons A, B and C.

a) Briefly describe the name, position, and properties of a soil horizon of your choice. (2)

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b) Mention the main types of mineral particles in soil and briefly explain their importance. (2)

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c) What does leaching mean, and what is its effect on soils? (2)

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**(Total: 6 marks)**

5. Figure 4 shows one of the three types of rainfall: orographic or relief rainfall.

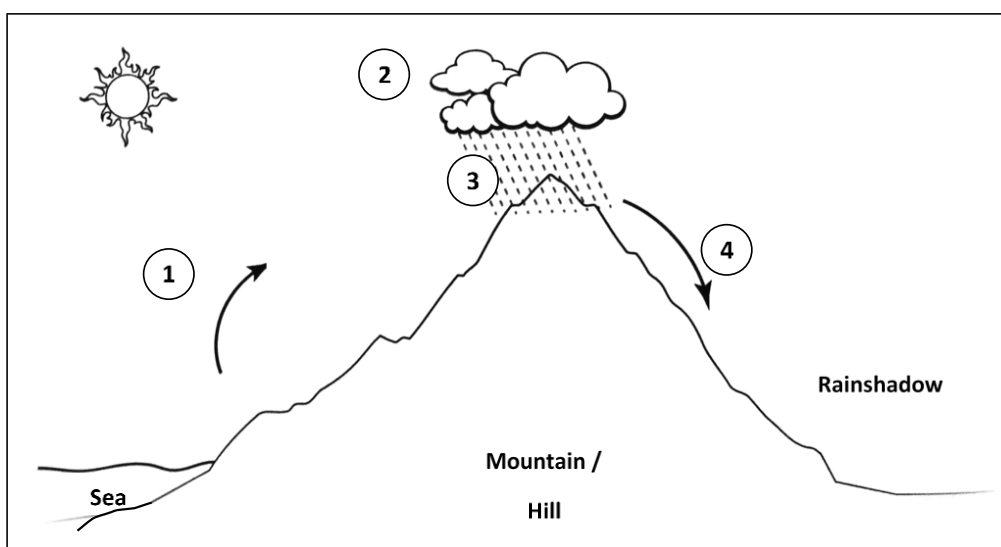


Figure 4: Orographic or Relief Rainfall.  
(Adapted from: <https://quizlet.com/301412630/rainfall-types-relief-diagram/>)

***This question continues on next page.***

- a) Four processes are marked and lettered 1 to 4 on Figure 4. Match the numbers on the diagram to the processes in the table below. Choose from: (2)

Interception	Condensation	Percolation	Cool dry air
Rainfall	Erosion	Warm moist air	Surface runoff

Number	Process
1	
2	
3	
4	

- b) List and briefly describe **ONE** other type of rainfall. (3)

Rainfall type: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- c) Name the weather instrument which records rainfall. (1)

\_\_\_\_\_

**(Total: 6 marks)**

6. The Tropical Savanna grassland and the Tropical Rainforest are two of the Earth's major types of biomes.

- a) Briefly describe the major climate characteristics of the Tropical Savanna. (2)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- b) Explain **TWO** ways by which vegetation in the Tropical Rainforest has adapted to the climate. (4)

i. \_\_\_\_\_

\_\_\_\_\_



ii. \_\_\_\_\_  
\_\_\_\_\_

**(Total: 6 marks)**

7. a) Define nucleated settlement and give an example from the Maltese context. (3)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b) Define linear settlement and give an example from the Maltese context. (3)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**(Total: 6 marks)**

8. a) Briefly describe **ONE** positive impact of globalisation. (3)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b) Briefly describe **ONE** negative impact of globalisation. (3)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**(Total: 6 marks)**

***Please turn the page.***

9. Briefly describe **THREE** different ways by which a host country can increase its incoming tourist numbers. (6)

- a) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- b) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- c) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**(Total: 6 marks)**

10. Give **ONE** example of a renewable energy resource and briefly describe **TWO** of its advantages. (6)

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**(Total: 6 marks)**

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SUBJECT: **Geography**  
 PAPER NUMBER: IIA  
 DATE: 2<sup>nd</sup> June 2021  
 TIME: 9:00 a.m. to 11:05 a.m.

Answer any **FOUR** questions.

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**

1. Figure 1 shows a labelled cross-section of a volcano.

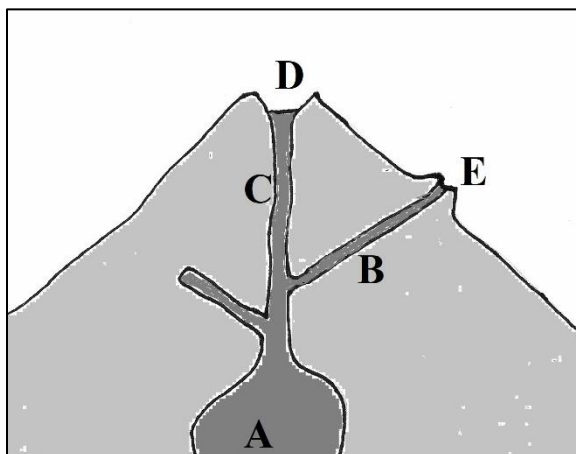


Figure 1: A cross-section diagram of a volcano.

- a) Name the features marked A to E. (5)
- b) Explain the difference between an acid and a basic lava volcano. (6)
- c) What is the difference between active, dormant, and extinct volcanoes? Name **ONE** active and **ONE** dormant volcano. (8)
- d) Describe **THREE** effects the volcanic eruption of either (i) Mount St Helens; or (ii) Mount Etna had on the nearby landscape and inhabitants. (6)

**(Total: 25 marks)**

2. Figure 2 shows four features marked A, B, C, and D of a river and its lowland valley.

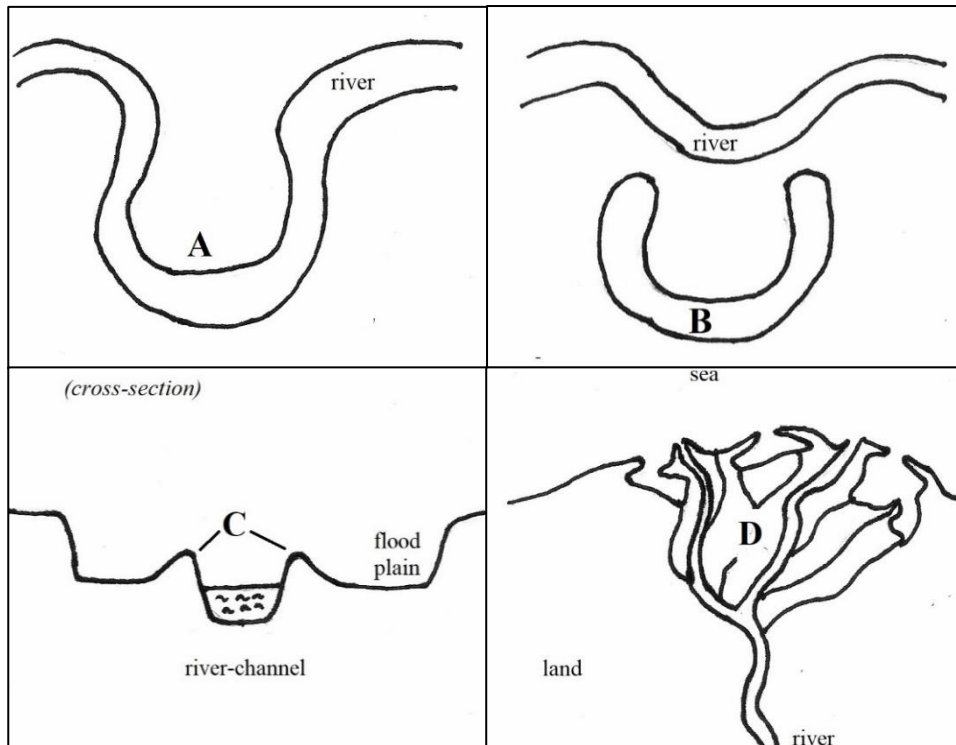


Figure 2: Features of a river valley in the lowlands.

- a) Name features A to D and explain how **TWO** of these are formed. (12)
- b) Give **THREE** reasons explaining why the coast of Bangladesh is vulnerable to flooding. (9)
- c) Mention **TWO** measures that can be adopted to reduce flooding or danger to human lives in Bangladesh. (4)

**(Total: 25 marks)**

- 3. a) Describe how waves carry material such as sand or shingle along the coast. Use a diagram to better explain this process. (5)
- b) When material such as sand or shingle is deposited, beaches, spits, bars and tombolos may be formed. Describe how **TWO** of the above features are formed. Use diagrams to better illustrate the process involved. (10)
- c) Sandy coasts suffer erosion. Describe in detail **TWO** ways by which the coast is managed to control the rate of erosion. You may use diagrams to better illustrate your answer. (10)

**(Total: 25 marks)**

4. One of the elements of weather and climate is temperature, which varies from one location to another.

- a) Describe **TWO** factors which affect the temperature of a particular area. (10)
- b) Explain the term urban heat island. (3)
- c) Describe **THREE** main causes of an urban heat island. (12)

**(Total: 25 marks)**

**SECTION B**

5. a) Define the term footloose industry and give an example of such an industry. (5)

b) Describe **TWO** advantages and **TWO** disadvantages of footloose industry. (20)

**(Total: 25 marks)**

6. a) Explain the importance of tourism for Malta. (4)

b) Discuss **FOUR** impacts of the COVID-19 pandemic on the tourism industry in Malta. (12)

c) List and briefly describe **THREE** disadvantages of tourism for Malta as a host country. (9)

**(Total: 25 marks)**

7. Figure 3 shows the population pyramids of China for the years: (A) 1950; (B) 2000; and (C) the projected population pyramid for 2050.

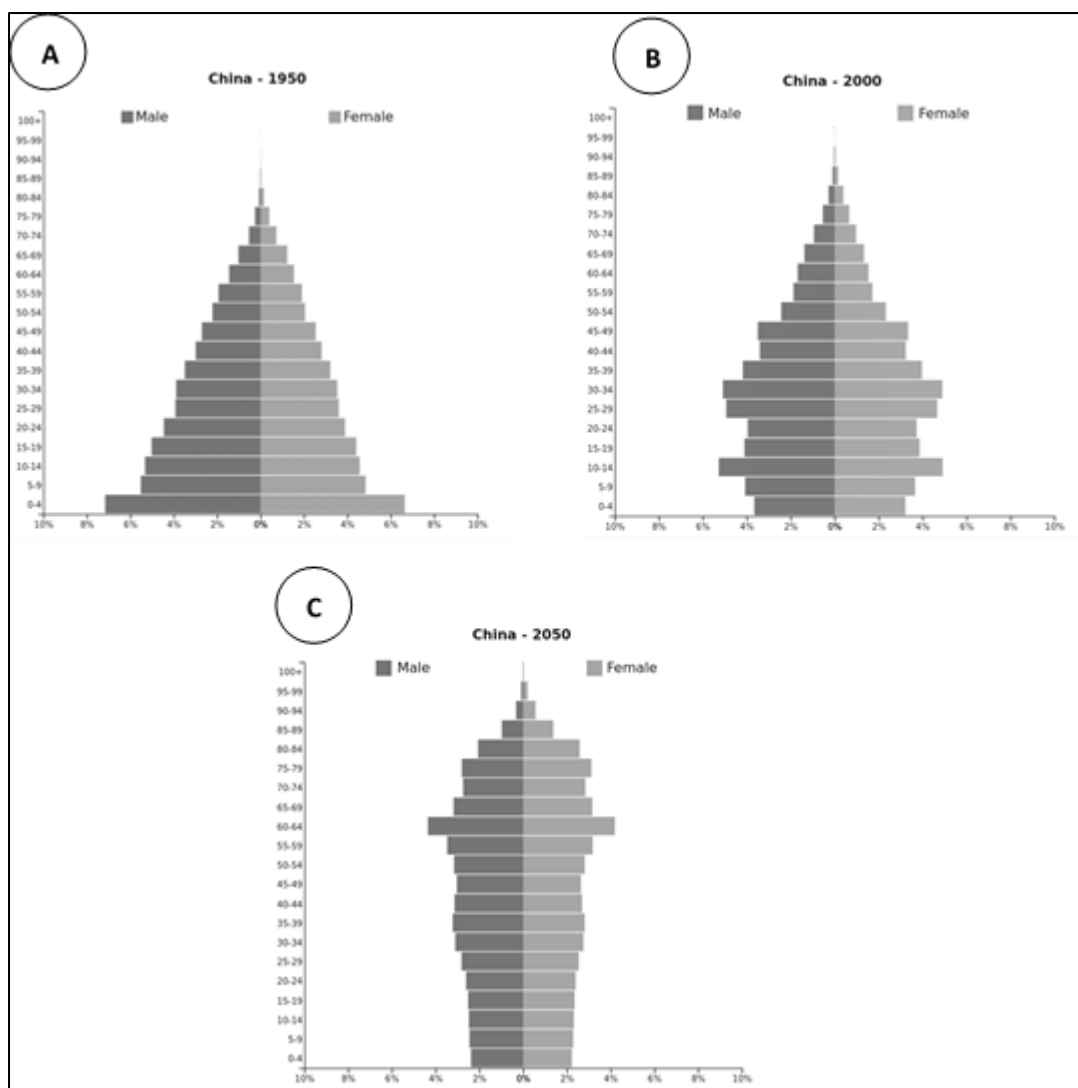


Figure 3: Population Pyramids for China in (A) 1950; (B) 2000; and (C) 2050 projection.  
 (Source: <https://www.populationpyramid.net/china/>)

- a) Use Figure 3 to interpret the **THREE** population pyramids for China. (12)
- b) China's one-child population policy has been responsible for changing the population dynamics of China.
  - i. Explain the reasons why China implemented the one-child policy. (5)
  - ii. Discuss **TWO** outcomes of the one-child policy in China. (8)

**(Total: 25 marks)**

8. Rapid urbanisation in Less Economically Developed Countries (LEDCs) is causing many problems.

- a) Explain the term shanty town and describe its main features. (5)
- b) With reference to São Paulo in Brazil, describe **FOUR** problems which are common in shanty towns. (12)
- c) Describe **TWO** ways by which quality of life may be improved in shanty towns. (8)

**(Total: 25 marks)**





SUBJECT:	<b>Geography</b>
PAPER NUMBER:	IIB
DATE:	2 <sup>nd</sup> June 2021
TIME:	9:00 a.m. to 11:05 a.m.

Answer any **FOUR** questions.

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

1. Figure 1 shows a labelled cross-section of a volcano.

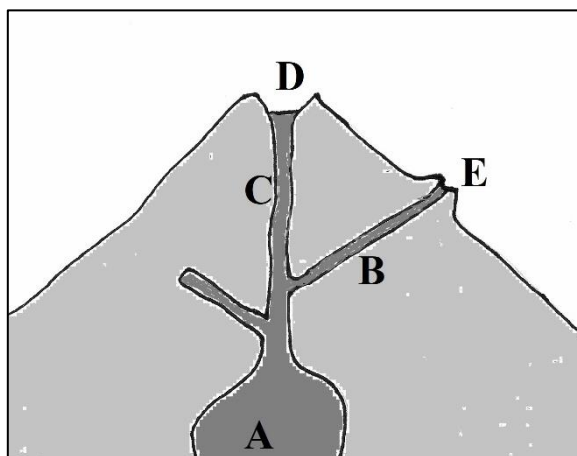


Figure 1: A cross-section diagram of a volcano.

- a) Name the features marked A to E in Figure 1. Choose from: lava tube; crater; side vent; secondary cone; magma chamber. (5)
- b) The following are descriptions of volcanoes. State whether each of these refers to an **Acid** or **Basic** volcano. (6)
- Volcano composed of viscous lava.
  - Lava coming out of this volcano solidifies quickly.
  - This volcano's eruptions are usually very explosive.
  - This volcano's eruptions are usually liquid lava flow.
  - The cone of this volcano is usually very large and wide with gentle slopes.
  - The lava of this very active volcano spreads out widely.

***This question continues on next page.***

- c) State whether each of these statements describes an active, dormant, or extinct volcano. (6)
- These volcanoes erupt explosively at distant intervals of time.
  - These volcanoes shall never erupt again since the crust beneath them has moved and carried them away from the magma chamber.
  - These volcanoes erupt frequently and are usually basaltic in nature.
- d) Describe **FOUR** effects the volcanic eruption of either (i) Mount St Helens; or (ii) Mount Etna had on the nearby landscape and inhabitants. (8)

**(Total: 25 marks)**

2. Figure 2 shows four features marked A, B, C, and D of a river and its lowland valley.

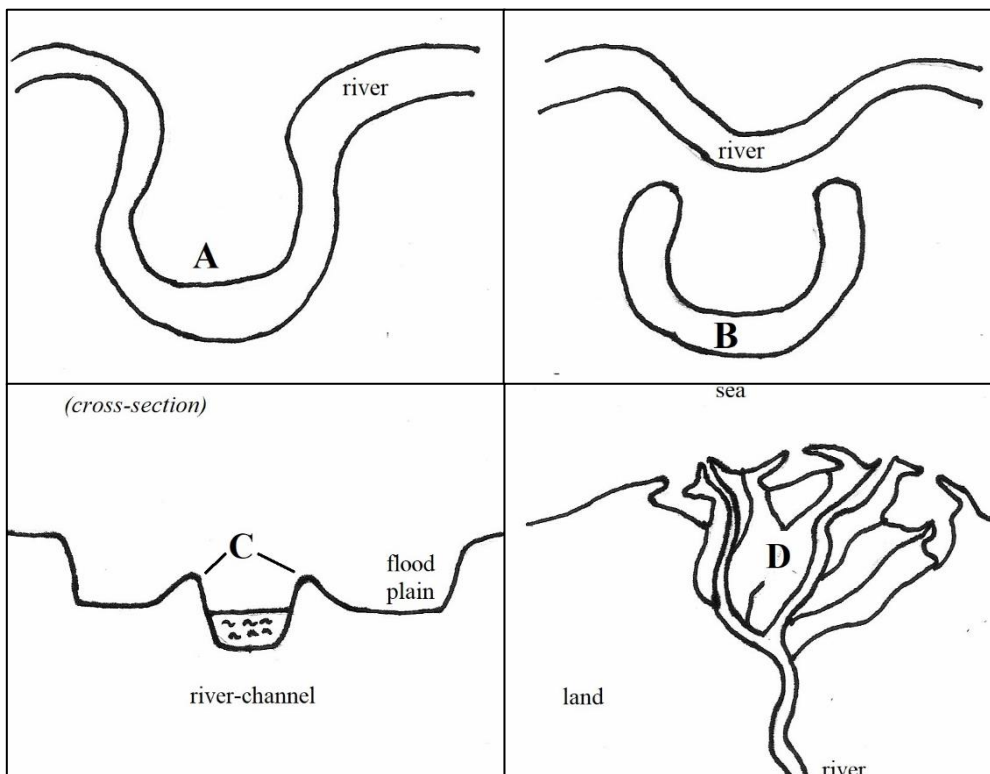


Figure 2: Features of a river valley in the lowlands.

- a) Name the features labelled A to D in Figure 2. Choose from: levée; ox-bow lake; delta; meander. (4)
- b) Briefly explain how **THREE** of the features mentioned in question 'a' above, were formed. (9)
- c) Bangladesh lies by the coast at the head of the Bay of Bengal and on the deltas of the Ganges and Brahmaputra rivers. In view of this, give **THREE** reasons why Bangladesh is prone to flooding. (6)
- d) Mention **TWO** ways how in Bangladesh, people may try to control floods to better safeguard their lives. (6)

**(Total: 25 marks)**

3. a) Waves carry material such as sand or shingle along the coast by a process called longshore drift. Using a diagram to better explain this process, describe longshore drift. (5)
- b) Beaches, spits, bars or tombolos are formed when material such as sand or shingle is deposited at sea. Choose **TWO** of these features and describe the way they are formed. Use diagrams to illustrate your answer. (10)
- c) Figure 3 shows two engineering techniques for coastal management control to avoid beach erosion.
- i. Name the **TWO** coastal management techniques shown in Figure 3. (4)
- ii. How does each one of these protect the coast? (6)

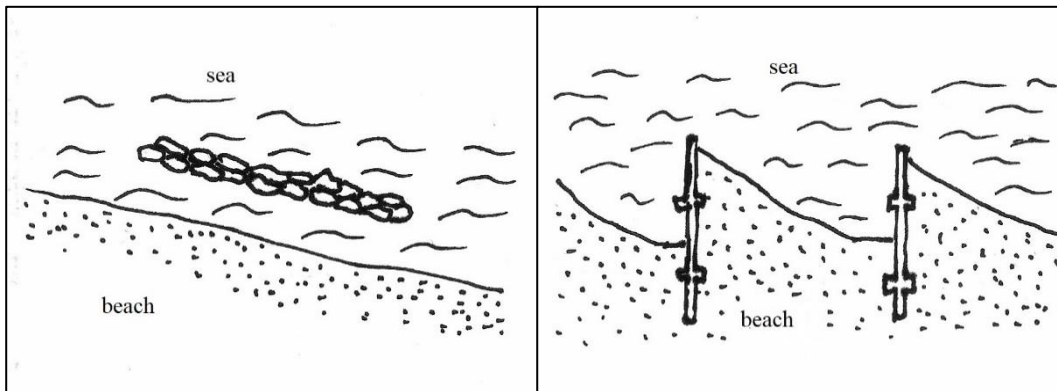


Figure 3: Two coastal management techniques used to avoid beach erosion.

**(Total: 25 marks)**

4. Figure 4 shows the climate graph of Valletta (Malta), which has a Mediterranean climate.

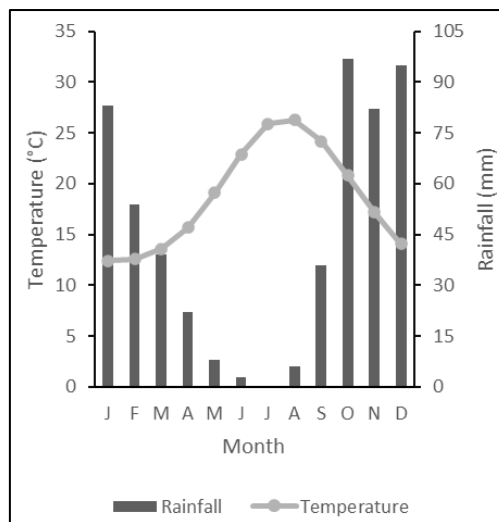


Figure 4: The Climate graph of Valletta Malta.  
(Source: <https://en.climate-data.org>)

- a) With the help of the climate graph in Figure 4, describe **THREE** main characteristics of the Mediterranean type of climate. (6)
- b) Apart from the Mediterranean region, name **ONE** other area having this type of climate. (2)

***This question continues on next page.***

- c) The garigue is one of the major types of natural vegetation in the Mediterranean.
  - i. Describe the natural environment of the Mediterranean garigue. (5)
  - ii. Name **ONE** example of plant which is typical of the garigue. (2)
- d) Explain **TWO** ways by which natural vegetation has adapted to live in the Mediterranean region. (6)
- e) Describe how **ONE** type of human activity is destroying the natural vegetation in Mediterranean areas. (4)

**(Total: 25 marks)**

## SECTION B

5. Figure 5 shows the Aswan High Dam in Egypt.



Figure 5: The Aswan High Dam in Egypt.

(Source: <https://file.ejAtlas.org/img/Conflict/3182/76234-004-2A9B844D.jpg>)

- a) Explain why the Aswan High Dam is important in relation to renewable energy. (5)
- b) Discuss **TWO** human-related benefits associated with the Aswan High Dam. (10)
- c) Discuss **TWO** economic-related aspects associated with the Aswan High Dam. (10)

**(Total: 25 marks)**

6. a) Draw a sketch of Hoyt's urban model and describe it. (10)
- b) Describe **TWO** features that characterise the use or function of buildings located in a Central Business District (CBD). (12)
  - c) List **THREE** reasons why a CBD is located in the centre of a city. (3)

**(Total: 25 marks)**

7. Figure 6 shows the first four stages of the Demographic Transition Model.

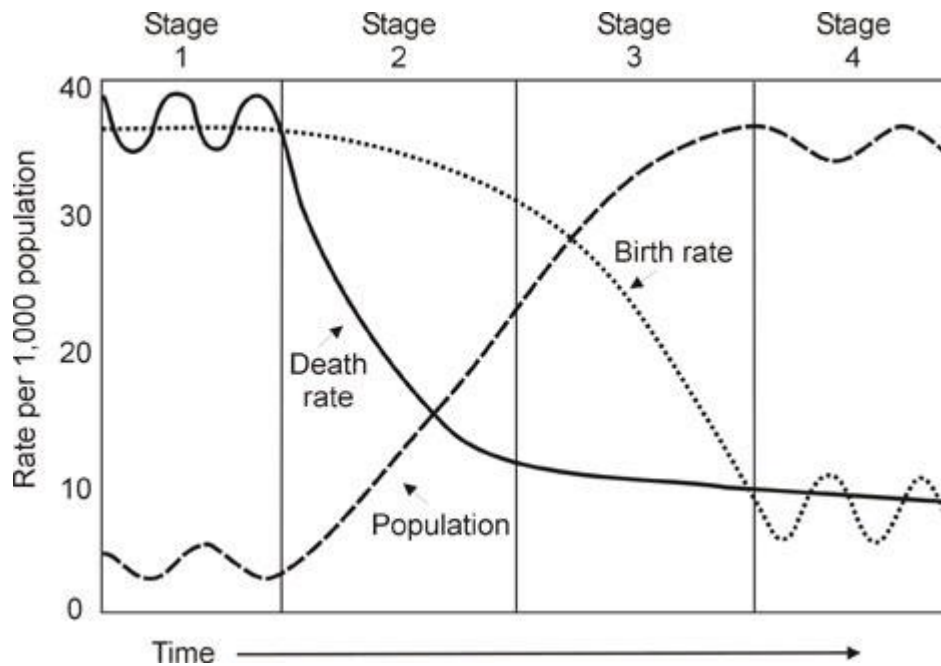


Figure 6: The Demographic Transition Model.  
 (Source: <https://sites.google.com/site/populationchanges/the-demographic-transition-model-the-uk>)

- a) What is the Demographic Transition Model? (3)
- b) Briefly describe the birth rates and death rates in each of the **FOUR** stages of the model. (8)
- c) Give **TWO** reasons to explain the change in the death rate in Stage 2. (4)
- d) Italy, which is a More Economically Developed Country (MEDC) is said to have entered Stage 5 of the Model.
  - i. Describe the typical birth rate and death rate trends in a Stage 5 country. (4)
  - ii. Describe **TWO** problems created by the ageing population of Italy. (6)

**(Total: 25 marks)**

8. Urbanisation is the process by which the proportion of people living in towns and cities increases.

- a) Define the term mega-city. (2)
- b) Describe **THREE** rural push factors and **THREE** urban pull factors which result in urbanisation. (12)
- c) Housing, Traffic, Crime and Segregation are amongst the problems experienced in São Paulo and Rio di Janeiro in Brazil, which have experienced rapid population growth. Choose **TWO** of the above-mentioned problems and discuss them. (8)
- d) Briefly describe what is meant by a self-help scheme. (3)

**(Total: 25 marks)**