MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD
UNIVERSITY OF MALTA, MSIDA

SECONDARY EDUCATION CERTIFICATE LEVEL

MAY 2017 SESSION

SUBJECT:	**Geography**
PAPER NUMBER:	I
DATE:	22nd May 2017
TIME:	9:00 a.m. to 11:05 a.m.

Answer ALL questions.

1. Examine carefully Figure 1 – Malta West extract on page 2 and then answer the following questions. The scale of the map is **1:25,000**. The key/legend of the map is on page 3.

    a. In which grid squares are the islands of St Paul found?

        (i) _____   (ii) _____   (2)

    b. Give the six-figure grid reference of:
        (i) Tal-Għażżelin School marked A   _____

        (ii) St Michael Church marked B   _____   (2)

    c. The wind from the west was very strong for three consecutive days. State how you expect the sea at Salina Bay to be: (choose only one) calm, moderately rough, or very rough. Why is it so?

        _____

        _____

        _____(3)

    d. Measure the straight line distance, in metres or kilometres, between St Paul's Church marked C to Qawra Tower marked D.

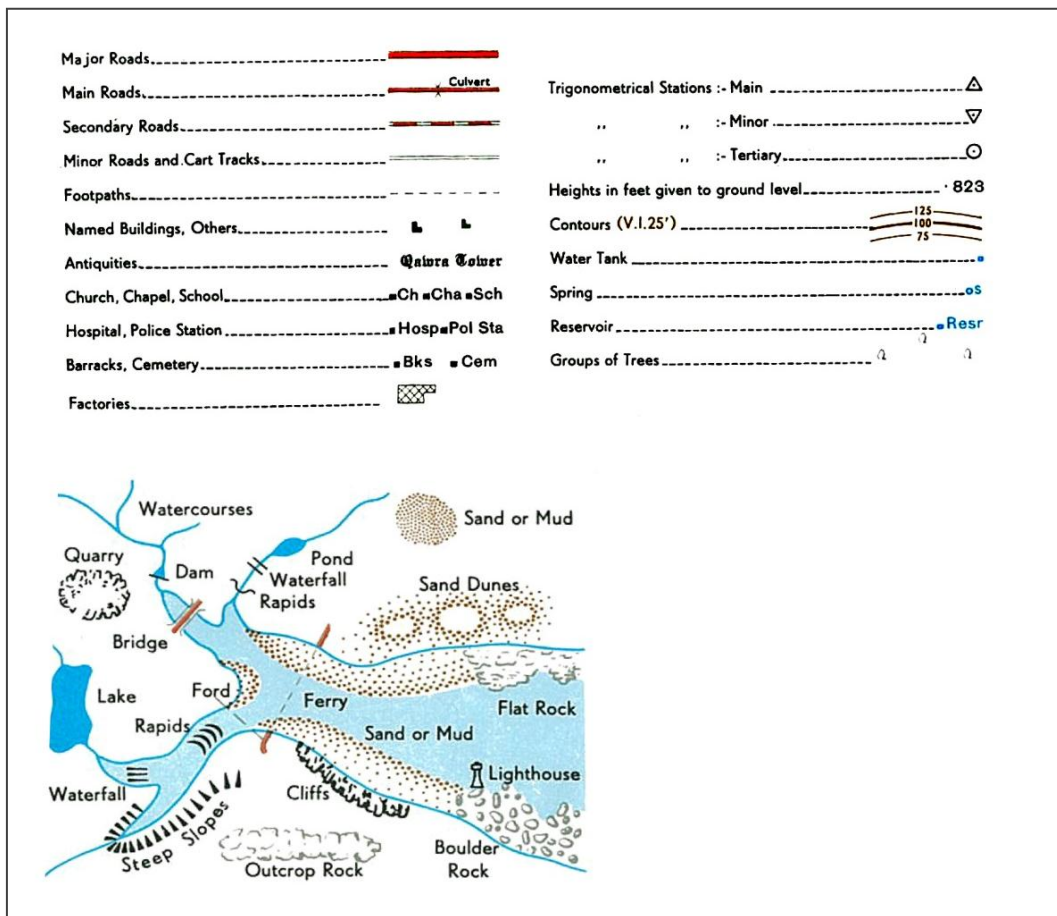   _____   (2)

Figure 1: Malta West extract   *Source: Planning Authority*

e. In the space provided below, sketch a cross-section between Ġebel Għawżara marked E and the point marked by the letter F. (2)

Legend to Figure 1: Malta West

DO NOT WRITE ABOVE THIS LINE
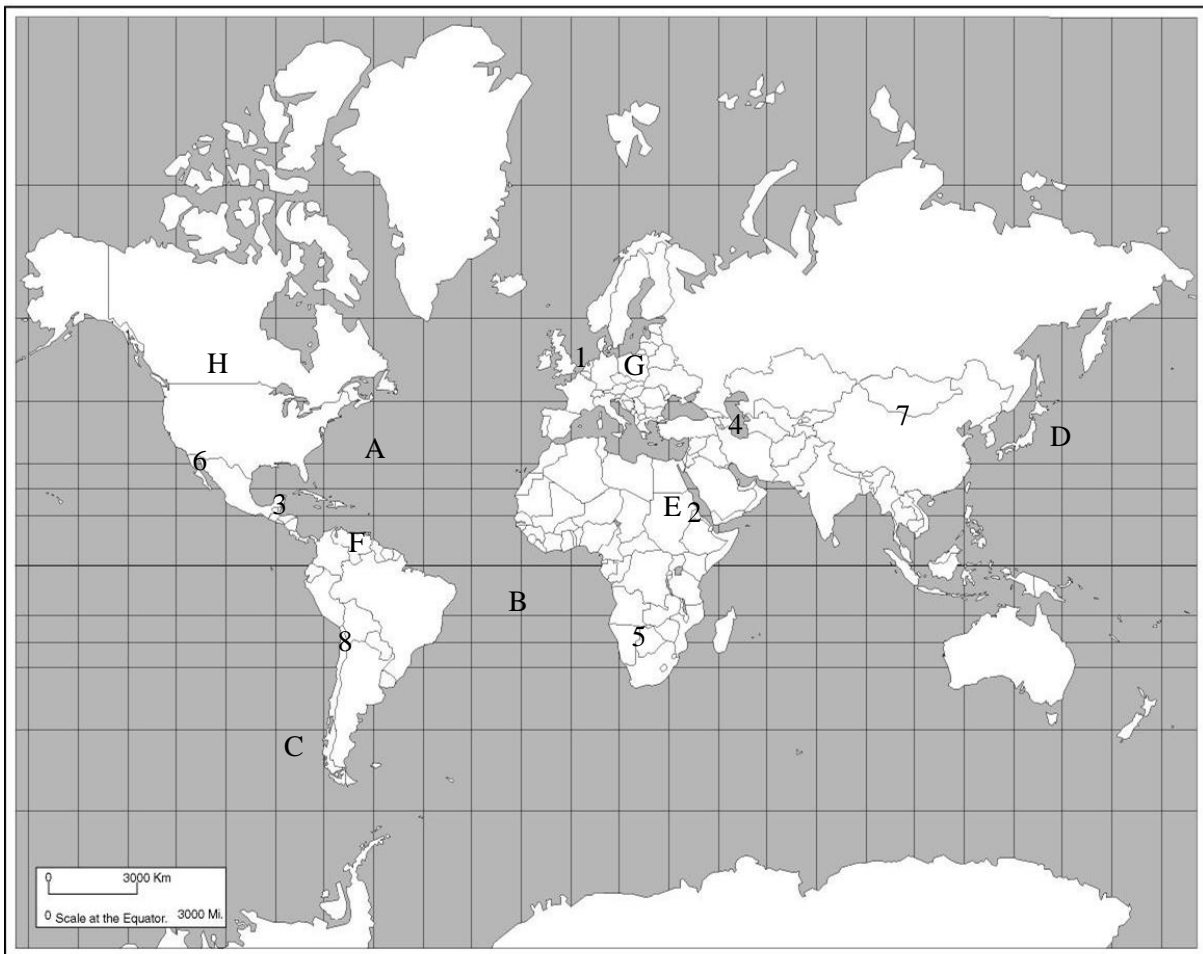
(i) State whether there is intervisibility between Ġebel Għawżara and point F.

_____ (1)

(ii) Briefly explain how relief influences transport in the area represented by the cross-section.

_____

_____

_____

_____

_____

_____ (4)

(Total: 16 marks)

2. Study the world map (Figure 2) and then answer the following questions.

Figure 2: Map of the World

a. Match the following locations of these major seas that are marked on the map and numbered 1 to 4.

Major Seas	Numbers
Gulf of Mexico	
North Sea	
Caspian Sea	
Red Sea	

(4)

b. Name the major Ocean Currents marked A to D.

A _____   B _____

C _____   D _____   (4)

c. Match the following major hot deserts, marked on the map and numbered 5 to 8.

Major Deserts	Numbers
Gobi	
Kalahari	
Atacama	
Arizona	

(4)

d. Name the countries marked E to H.

E _____   F _____

G _____   H _____   (4)

(Total: 16 marks)

Please turn the page.

3. Study Figure 3, and then answer the following questions.

a. What is the season in the Northern hemisphere at:

(i) Position A _____;

(ii) Position B _____;

(iii) Position C _____.   (3)

b. At Position D, which hemisphere would experience autumn?

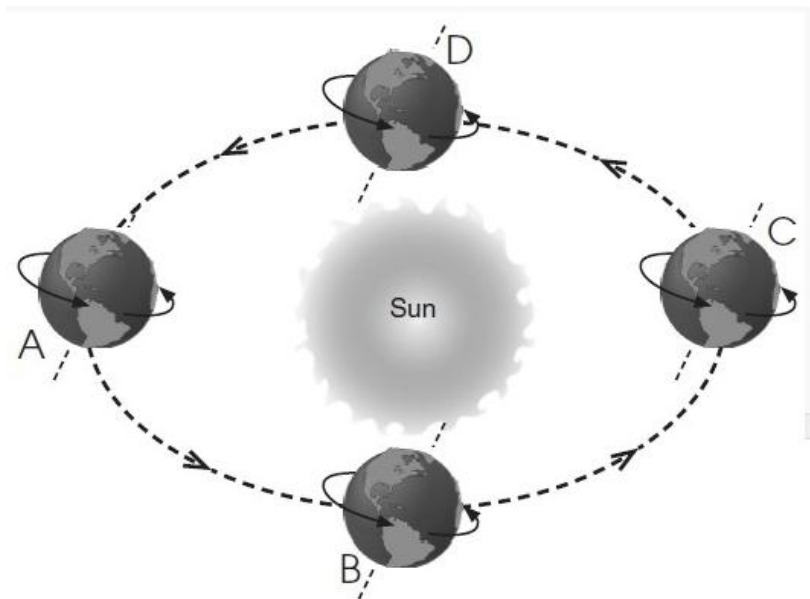_____   (1)

c. What causes day and night?

_____

_____ (2)

Figure 3: The Earth's orbit round the sun and the resulting seasons.

Source: https://quizizz.com/admin/quiz/57169459fc3cbe075be7c535

(Total: 6 marks)

4. The hydrological cycle describes the continuous transfer of water between the Earth's oceans, land and atmosphere.

a. Briefly describe **ONE** process in the hydrological cycle.

_____

_____

_____

_____ (2)

b. Explain the difference between surface runoff and groundwater flow.

_____

_____

_____

_____ (2)

c. Describe **ONE** effect of flooding in rivers.

_____

_____

_____

_____ (2)

(Total: 6 marks)

Please turn the page.

5. Tropical rainforests grow in places that have an equatorial climate. Vegetation in tropical rainforests grow in distinct layers.

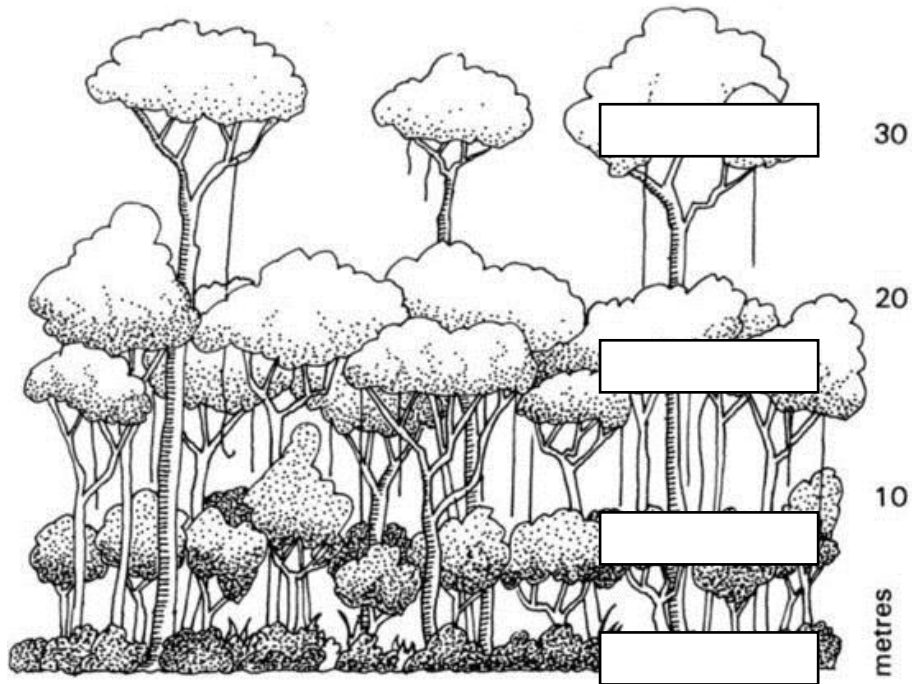a. Fill in the diagram below (Figure 4) using these terms: under canopy, main canopy, emergent, shrub layer. (4)

Figure 4: A Tropical Rainforest

Source: http://bio-ditrl.sunsite.ualberta.ca/detail/?P_MNO=1834

b. Name **ONE** example of a tropical rainforest.

_____ (1)

c. Give **ONE** reason and explain why these forests should be protected.

_____

_____ (1)

(Total: 6 marks)

6. Climate graphs show average rainfall and temperatures typically experienced in a particular location. Refer to Figure 5 and answer the following questions.
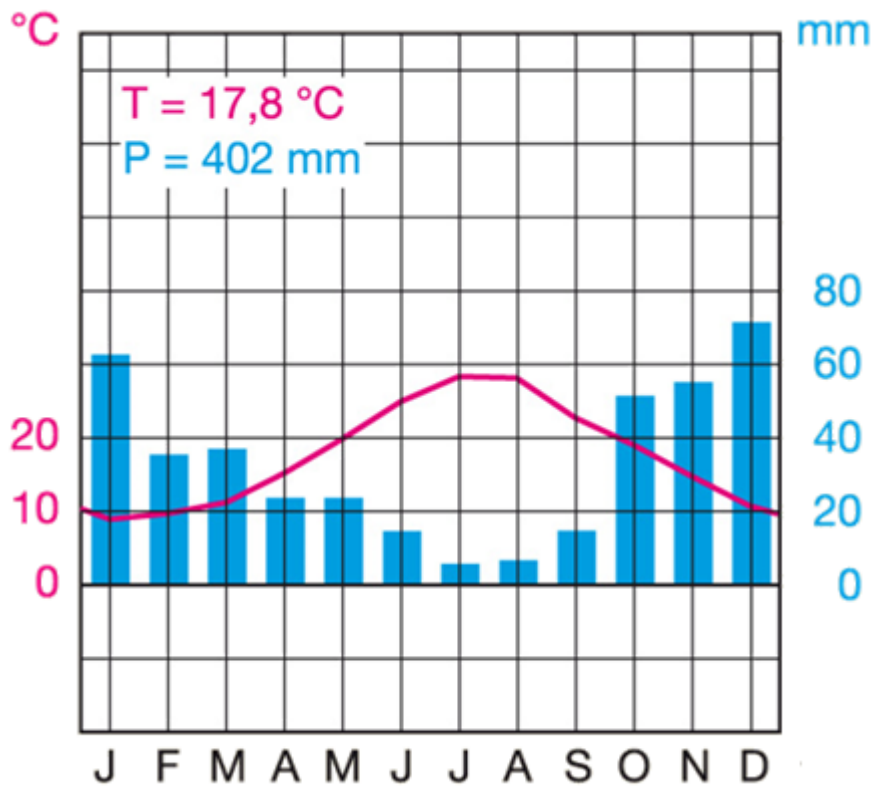

Figure 5: A Climate Graph

Source: http://www.diercke.com/kartenansicht.xtp

a. On which type of graph is the temperature shown. Line graph or Bar graph?

   _____ (1)

b. On which type of graph is the precipitation shown. Line graph or Bar graph?

   _____ (1)

c. Identify the **TWO** months with the highest temperature.

   (i) _____,   (ii) _____ (2)

d. Identify the month with the highest amount of rainfall. _____ (1)

e. Which of the following climates is the graph typical of? (Choose from: Tropical, Desert, Mediterranean, Polar).

   _____ (1)

(Total: 6 marks)

7. List **THREE** factors that influence the location of a settlement.

_____

_____

_____ (6)

(Total: 6 marks)

8. a. List **THREE** negative impacts of safari holidays.

_____

_____

_____ (3)

b. List **THREE** methods of sustainable tourism in relation to safari holidays.

_____

_____

_____ (3)

(Total: 6 marks)

9. Figure 6 shows a factory. Before building a factory the best possible site must be found for its location.
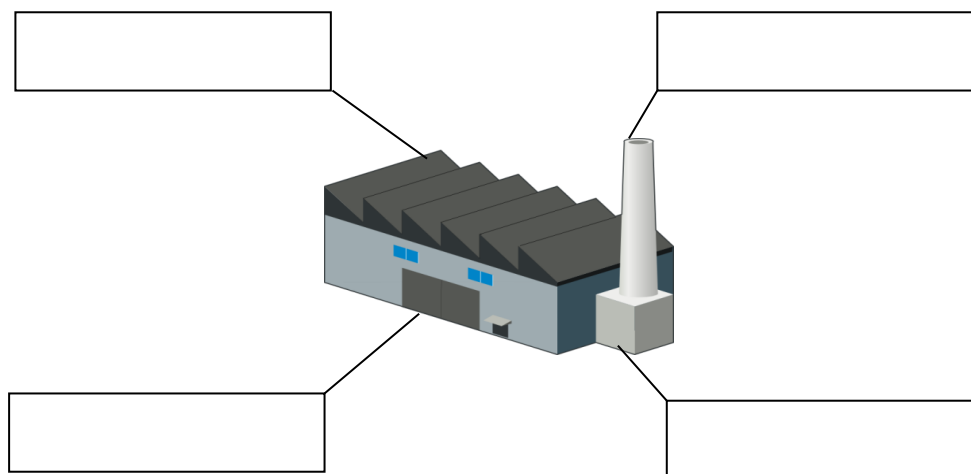

Figure 6: Factors affecting industrial location

a. On figure 6 label **FOUR** factors that might affect the location of any industry or business.

(2)

b. Choose **TWO** of the factors you named in question 9a above and explain how each affects the location of industry.

Factor 1 _____

_____

_____

_____

_____ (2)

Factor 2 _____

_____

_____

_____

_____ (2)

(Total: 6 marks)

Please turn the page.

10. Many countries surrounding the Pacific Ocean/Rim such as South Korea, Taiwan and Singapore have shown a dramatic increase in industrialisation and wealth since the 1960s.

a. What are these countries called? _____ (1)

b. Name **ONE** factor that led to the rapid economic growth of these countries surrounding the Pacific Rim.

_____

_____ (1)

c. Figure 7 shows Osaka-Kobe conurbation, Japan's most important economic region.

Figure 7: Osaka-Kobe conurbation

(Source: http://www.japan-guide.com)

With the use of **TWO** examples explain how industry has grown so rapidly in Osaka-Kobe to become Japan's most important economic centre.

Reason 1

_____

_____

_____

_____ (2)

Reason 2

_____

_____

_____

_____ (2)

(Total: 6 marks)

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD
UNIVERSITY OF MALTA, MSIDA

SECONDARY EDUCATION CERTIFICATE LEVEL

MAY 2017 SESSION

SUBJECT:	**Geography**
PAPER NUMBER:	IIA
DATE:	23rd May 2017
TIME:	9:00 a.m. to 11:05 a.m.

Answer any **TWO** questions from Section A and any other **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 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. Describe the **THREE** different layers of the earth's interior structure. (6)
   b. With the help of a sketch for each, explain the difference between constructive and destructive plate boundaries. (8)
   c. Earthquakes are vibrations on the Earth's surface.
      (i) Describe how earthquakes are caused. (6)
      (ii) Name and explain the scale that is used to measure earthquakes. (5)
      (Total: 25 marks)

2. a. Describe the origin and basic properties of the rock layers of the Maltese Islands. Illustrate your answer with a labelled diagram. (10)
   b. Describe the human uses of **TWO** rock layers of the Maltese Islands. (6)
   c. Discuss **THREE** negative impacts of quarrying in the Maltese Islands. (9)
      (Total: 25 marks)

Please turn the page.

3. a. With the help of a diagram, name and explain the properties of a soil profile. (7)

   b. Give **THREE** examples and explain how human activity can cause soil erosion. (6)

   c. Soil is a sustainable resource and it should be managed carefully. List **FOUR** ways of preventing soil erosion and explain them in detail. (12)

   (Total: 25 marks)

4. Erosion by destructive waves and deposition by constructive waves can create unique landforms.

   a. With the help of a diagram explain how and why,

   (i) a coastal erosional landform is formed, and (8)

   (ii) a coastal depositional landform is formed. (8)

   b. People living along the coast are increasingly vulnerable to coastal erosion. A variety of coastal management methods have been put in place to reduce the impacts of coastal erosion. Name and describe **THREE** types of management schemes. (9)

   (Total: 25 marks)

SECTION B
Answer TWO questions from this section.

5. a. Define 'population density', and explain how one can calculate the population density of a country. (9)

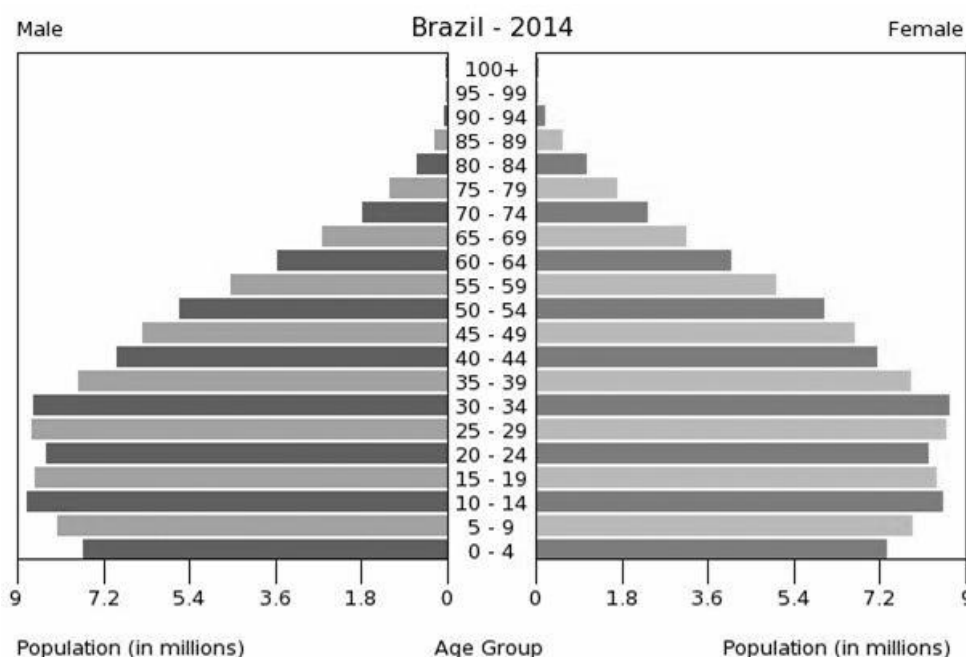   b. Figure 1 shows the population pyramid of Brazil for the year 2014.

Figure 1: The population pyramid of Brazil for the year 2014.

Source: www.indexmundi.com

   (i) Describe and briefly interpret Figure 1. (8)

   (ii) Over 90% of Brazilians live in a discontinuous strip of land about 500 km wide near to the east coast. List and briefly describe **TWO** factors that have influenced this density pattern. (8)

   (Total: 25 marks)

6. a. Define the term 'shanty town'. (5)
   b. List and briefly describe **FIVE** problems prevalent in shanty towns.

   (10)
   c. List and explain in detail **TWO** ways how shanty towns can be improved. (10)
   (Total: 25 marks)

7. a. What is the difference between arable and pastoral farming? (2)
   b. Define the following terms: 'inputs', 'processes' and 'outputs', and briefly explain how a simple arable farm works as an economic system. (9)
   c. Explain the changes that have taken place in Denmark to make it a world leader in dairy farming.

   (14)
   (Total: 25 marks)

8. Look at Figure 2 which shows the North-South divide, indicating differences in development according to the GDP.
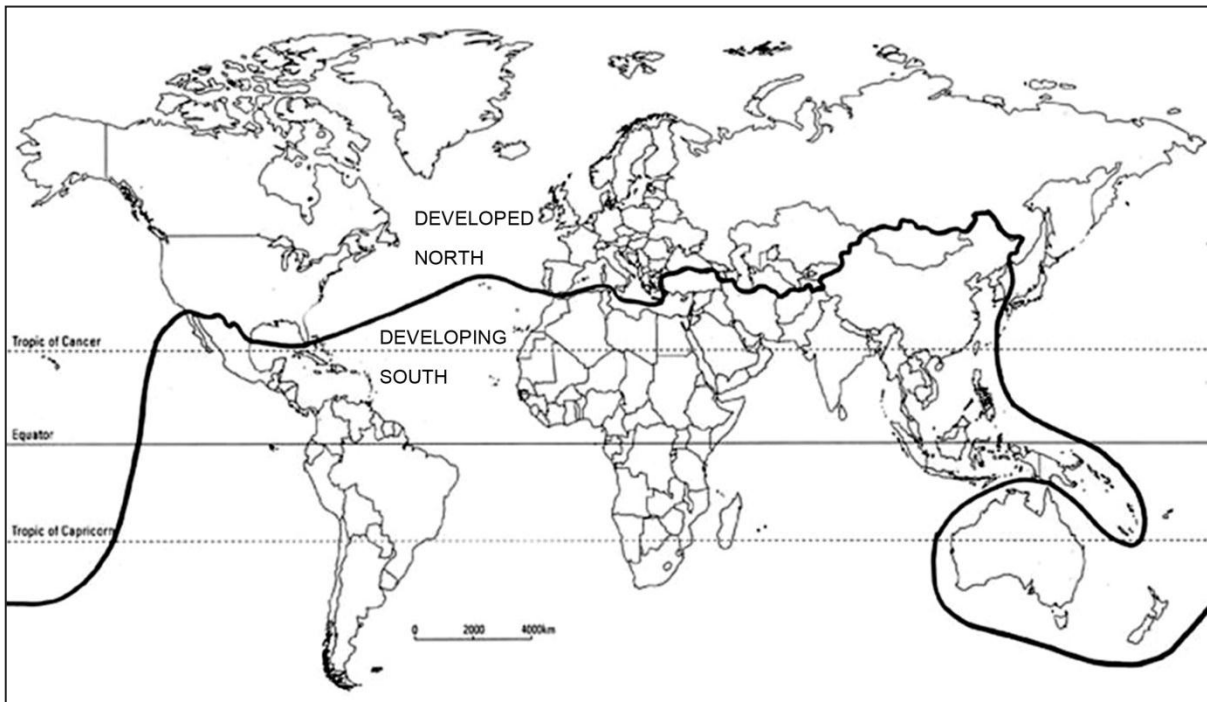

Figure 2: The North-South divide

   a. What does GDP stand for and what does it measure? (3)
   b. Mention **ONE** problem of using the GDP as a measure of development. (2)
   c. In the 1990s the United Nations created its own measure of development, called the Human Development Index (HDI). Describe the **THREE** components used to measure the HDI and explain why this is considered to be a better measure of development than GDP. (8)
   d. The inequalities that exist between the developed 'North' and the developing 'South', as seen in figure 2, may be the result of a number of factors, namely economic, social, political and environmental. Explain how each of these factors can cause inequalities in development between countries. (12)
   (Total: 25 marks)

SECONDARY EDUCATION CERTIFICATE LEVEL

MAY 2017 SESSION

SUBJECT:	**Geography**
PAPER NUMBER:	IIB
DATE:	23rd May 2017
TIME:	9:00 a.m. to 11:05 a.m.

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

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

Each question carries a total of 25 marks. Marks allocated to parts of 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. The structure of the Earth is made up of three layers: core, mantle and crust.
   a. Describe any **TWO** of these layers.   (6)
   b. Choose **TWO** of the following plate boundaries and with the help of a labelled sketch describe the movement of those plates: (8)
      i. Constructive boundary;
      ii. Destructive boundary;
      iii. Conservative boundary.
   c. Earthquakes are vibrations on the Earth's surface.
      i. Sketch a diagram to show the: epicentre, focus, and seismic waves of an earthquake.   (5)
      ii. Describe **TWO** impacts that earthquakes have on humans.   (6)

   (Total: 25 marks)

2. a. Briefly explain how the rocks of the Maltese Islands were formed.   (4)
   b. With the help of a labelled diagram describe each layer of Maltese rocks.   (11)
   c. Quarrying is the activity of extracting stone from the ground.
      i. Select **ONE** rock layer quarried in the Maltese Islands and briefly explain the use of the quarried stone.   (4)
      ii. Discuss **TWO** negative environmental impacts of quarrying in the Maltese Islands.   (6)

   (Total: 25 marks)

3. The soil profile is a vertical section that shows different layers, known as horizons.
   a. With the help of a diagram, name the horizons and explain the properties of each horizon in the soil profile. (7)
   b. Human activity can cause soil erosion. Name and explain **TWO** human causes of soil erosion. (6)
   c. Soil is a sustainable resource and it should be managed carefully. There are different methods that can help prevent soil erosion. Choose **THREE** from the following list of methods and explain how these prevent soil erosion:
      - Terracing;
      - Contour farming and ploughing;
      - Natural manure;
      - Avoiding excessive tillage and soil compaction;
      - Strip cultivation;
      - Replanting of trees;
      - Crop rotation. (12)

   (Total: 25 marks)

4. Erosion by destructive waves can create unique landforms.
   a. With the help of a diagram explain how and why a coastal arch like the one at Wied il-Mielaħ and the recently collapsed Azure Window in Dwejra Bay in Gozo, formed. (10)
   b. Buildings and structures on the coast are increasingly vulnerable to coastal erosion. A variety of coastal defences have been put into place to reduce the impacts of coastal erosion. Name and explain **THREE** of these coastal defences. (15)

   (Total: 25 marks)

SECTION B
Answer TWO questions from this section.

5. a. Define the following terms: (8)
      i. Overpopulation;
      ii. Underpopulation.
   b. China's population is 1.357 billion (United Nations, 2017) and it is the country with the world's largest population.
      i. List and briefly explain **FOUR** reasons why the population of a country can grow rapidly. (8)
      ii. China had the one-child policy. Explain what this policy meant and briefly discuss why this policy changed to a two-child policy in 2014. (9)

   (Total: 25 marks)

6. a. Explain the meaning of voluntary migration and state how it is different to forced migration. Give **TWO** examples. (5)
   b. Define the term 'push factors', and use **ONE** example to support your answer. (10)
   c. Define the term 'pull factors', and use **ONE** example to support your answer. (10)

   (Total: 25 marks)

7. a. Explain the meaning of arable, pastoral and mixed farming. (6)

   b. Look at Figure 1 showing a farming system with inputs into the farm, processes which take place in the farm and outputs.

Inputs	Processes	Outputs
Seeds Rainfall Sunshine Machinery Relief Labour Fertiliser Soil Energy	 e.g. ploughing, planting, fertilising, harvesting	Potatoes Tomatoes Strawberries Milk Lambs

Figure 1: A Farming system

   i. Name **THREE** physical inputs listed in Figure1. (3)
   ii. Explain how **TWO** of the physical inputs you listed in (i) above can affect farming. (4)

   c. Figure 2 shows the part of Italy known as the Mezzogiorno or the 'land of the midday sun'.

Figure 2: The Mezzogiorno

   i. Mention and explain **THREE** reasons why it was difficult to farm in the Mezzogiorno of South Italy before the 1960s. (6)
   ii. Mention and explain **THREE** improvements that have been done to improve farming in the Mezzogiorno. (6)

(Total: 25 marks)

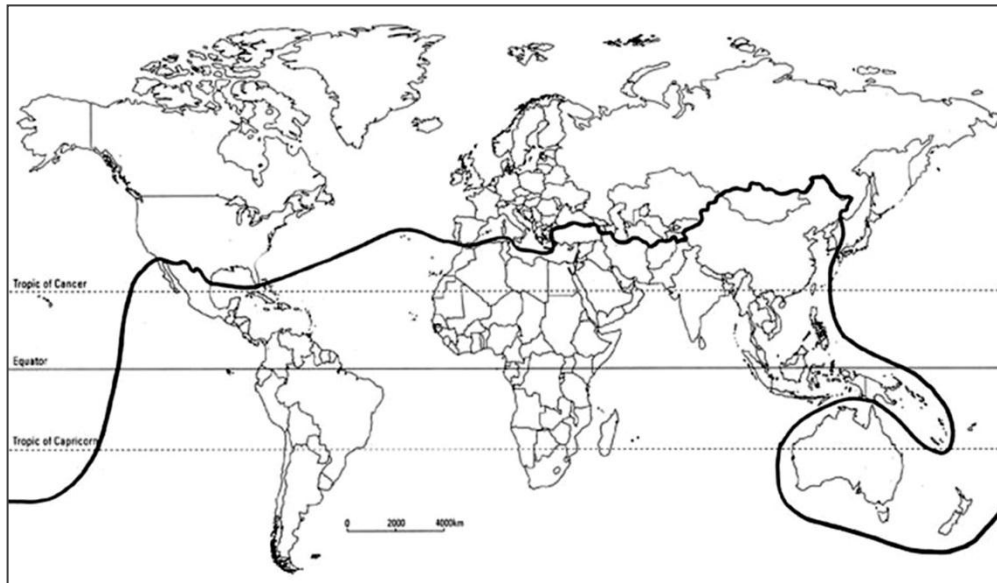8. Figure 3 shows the North-South divide, indicating differences in development between the rich and poor countries.

Figure 3: The North-South divide

a. Are the richest countries found North or South of the dividing line? (1)
b. What are the countries north of the line called? (1)
c. What are the countries south of the line called? (1)
d. Table 1 shows some development indicators for Kenya and Japan.

Table 1: Indicators of development for Kenya and Japan

Country	GDP per Capita (US$)	Life Expectancy (years)	Adult literacy (%)	Infant Mortality
Kenya	2780	62	78	47.5
Japan	37790	84	99	2.1

Source: CIA:The World Factbook

i. Of the indicators listed in Table 1 which one refers to the economic wealth of the country? (1)

ii. What is the life expectancy in Japan and what does this mean for people living in Japan? (2)

iii. What is the adult literacy rate in Kenya and what does this mean for people living in Kenya? (2)

iv. What is the link between the GDP and the other indicators listed for both countries? (4)

v. Of the two countries listed in the table, which one is considered to be the most developed? (1)

vi. Give **FIVE** reasons for the high level of development in the country you named in (v). (12)

(Total: 25 marks)