



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Cycle Final Examination 2024

Geography

Common Level

Thursday 6 June Afternoon 1:30 - 3:30

360 marks

Examination Number

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Date of Birth

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For example, 3rd February
2005 is entered as 03 02 05

Centre Stamp

Instructions

Write your Examination Number and your Date of Birth in the boxes on the front cover.

There are **nine** questions in this paper.

Answer all questions.

The questions do not all carry equal marks.

Write your answers in blue or black pen. You may use pencil and colouring pencils for sketches, graphs and diagrams only.

Write your answers in the spaces provided in this booklet. There is space for extra work at the end of the booklet. Label any such extra work clearly with the question number and part.

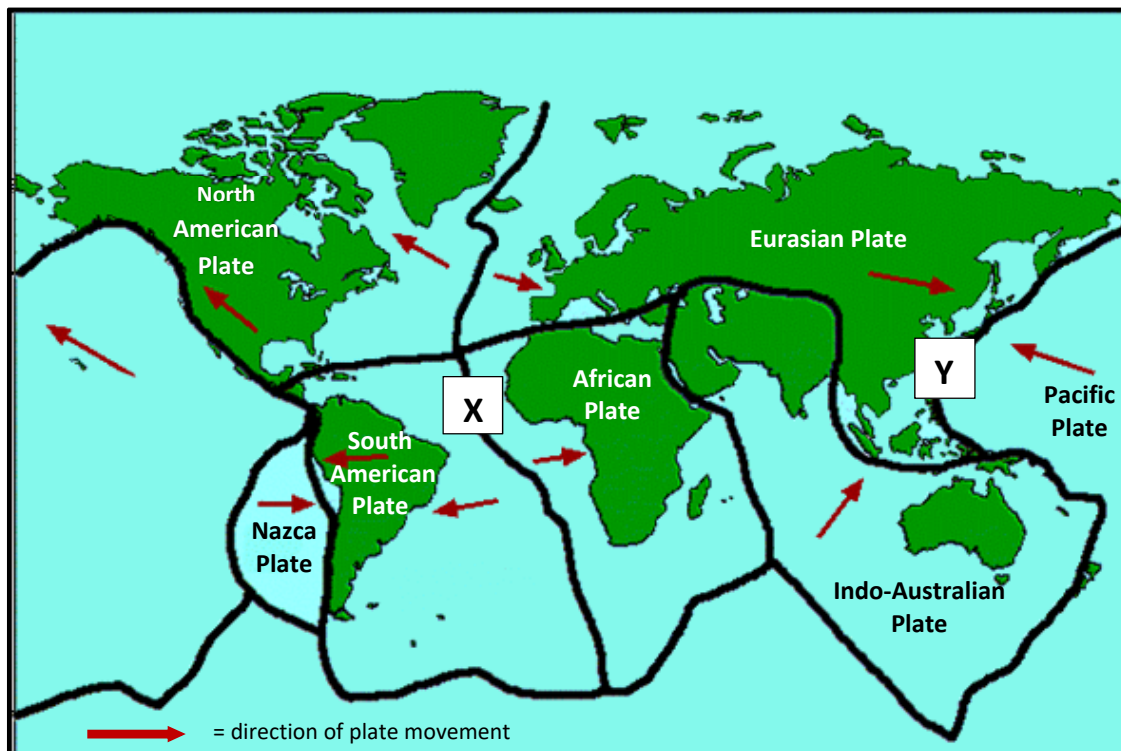
This examination booklet will be scanned and your work will be presented to an examiner on screen. Anything that you write outside of the answer areas may not be seen by the examiner.

The 1:10 000 Ordnance Survey map and legend supplied separately to this paper are for use in questions 4(a) and 8.

The legend for the 1:50 000 Ordnance Survey map extracts in questions 4(b), 6 and 7 is on page 30.

Question 1

- (a) The map shows the location of some of the earth's plate boundaries. Examine the map and answer each of the following questions.



- (i) Ireland is situated on which of the following plates?

Tick (✓) the correct box.

North American Plate ☐

Eurasian Plate ☐

Indo-Australian Plate ☐

- (ii) Name the feature that is found at the location labelled X?

- (iii) What type of boundary is located at Y?

Tick (✓) the correct box.

Colliding ☐

Separating ☐

Sliding ☐

- (iv) What is the name given to the outside layer of the earth?

(b) Explain how an earthquake occurs. Use a labelled diagram to support your explanation.

[illegible]

(c) Read the article below and answer each of the following questions.



Turkey-Syria Earthquake

Major earthquakes hit Turkey and Syria on 6 February 2023. The biggest earthquake had a magnitude of 7.8 on the Richter Scale. According to the United Nations (UN), 1.5 million people in the south of Turkey have been left homeless. Thousands of buildings have collapsed. Infrastructure, including roads and energy supplies, have been badly damaged.

- (i) According to the United Nations how many people were left homeless following the earthquakes?

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- (ii) Give **one** example of the destruction caused by the earthquake mentioned in the article above.

--

- (iii) Which of the following is the instrument used to measure an earthquake?
Tick (✓) the correct box.

Richter Scale ☐

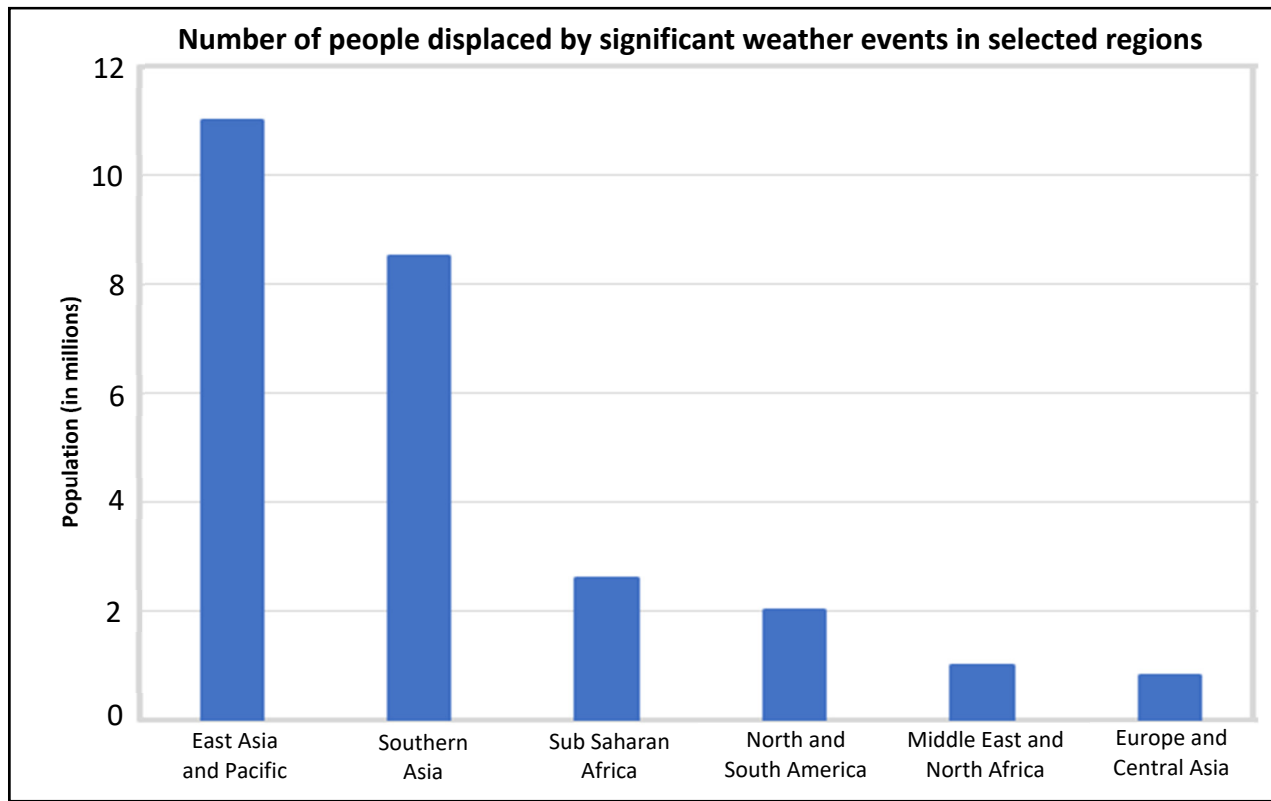
Seismograph ☐

Modified Mercalli Scale ☐

- (iv) Briefly describe **one** long term response to earthquakes.

Question 2

- (a) Examine the graph below showing the number of people in different regions of the world displaced by significant weather events and answer the following questions.



- (i) How many people (in millions) were displaced by significant weather events in North and South America?

- (ii) Which region had the most people displaced by significant weather events?

- (iii) Name **one** example of a significant weather event that you have studied.

- (b)** Climate change is causing an increase in significant weather events such as storms and drought. Climates are changing due to an increase in greenhouse gas emissions.

(i) Name **two** sources of greenhouse gas emissions.

1.
2.

(ii) Explain **one** reason why greenhouse gas emissions are increasing.

- (c)** *Migration is the movement of people from one place to another for an extended period of time.*

(i) Name **one** cause of migration, other than significant weather events.

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(ii) Explain **one** challenge/barrier that a person who wishes to leave a country might face.

Question 3

(a) Read the article below and answer each of the following questions.

Researchers are recruiting volunteers for a project being funded by the Geological Survey Ireland which aims to increase the reporting of landslides. Dr Niamh Cullen, the project's principal investigator, said: "We want to increase the reporting of coastal landslides through public participation." In Ireland, a national landslides database holds almost 3,000 events, but very few came from the coast. "We know from the data that many landslides occurring inland are triggered by heavy or intense rainfall," Dr Cullen explained. "The problem we have is that the landslides database only has a small percentage of coastal landslide records."



(i) What is the name of the organisation funding the project?

--

(ii) Where did most of the landslides on the national database take place?

Tick (✓) the correct box.

Inland ☐

On the coast ☐

(iii) What does Dr Cullen say has triggered many of the inland landslides?

--

(iv) Explain **one** reason why a landslide may occur along the coast.

(v) Name **two** examples of human activity that can cause mass movement.

1.
2.

(vi) Indicate whether each of the statements below is true or false by ticking (✓) the correct box for each.

	True	False
(a) The steeper a slope is the faster the mass movement will be.	☐	☐
(b) Overgrazing by animals on slopes slows down the process of mass movement.	☐	☐

(b) (i) Name **one** type of slow mass movement.

--

(ii) Draw a labelled diagram showing **two** effects of a type of slow mass movement. Label each effect on your diagram.

Space for labelled diagram:

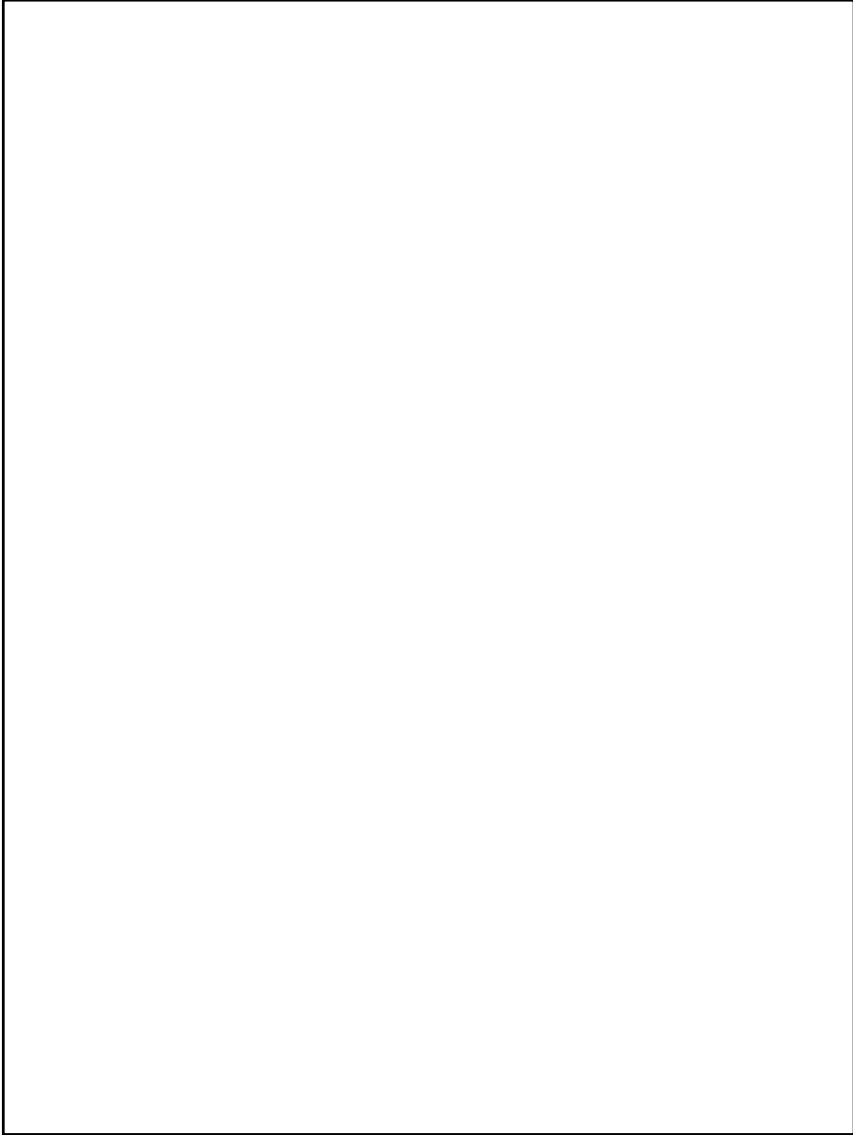
(c) People try to control natural processes in many different ways.



Discuss **one** example you have studied where people try to control a natural process(es). In your answer give the location **and** the natural process(es).

Question 4

- (a) Examine the map of Blessington and the legend supplied separately to this paper and answer each of the following questions.
- (i) Draw a sketch map of the Blessington area in the space below showing and labelling each of the following:
- The Naas Road (R410)
 - The County Boundary
 - Blessington Community College
 - Pollaphuca Reservoir.

Sketch Map of Blessington	
	<u>Key</u>

- (ii) According to the legend, what service do each of the following symbols represent on the map?

Symbol	Service
	
	

- (iii) If you travelled in a straight line from Blessington GAA in grid square A1 to the post office in grid square B2 in what direction would you be travelling?

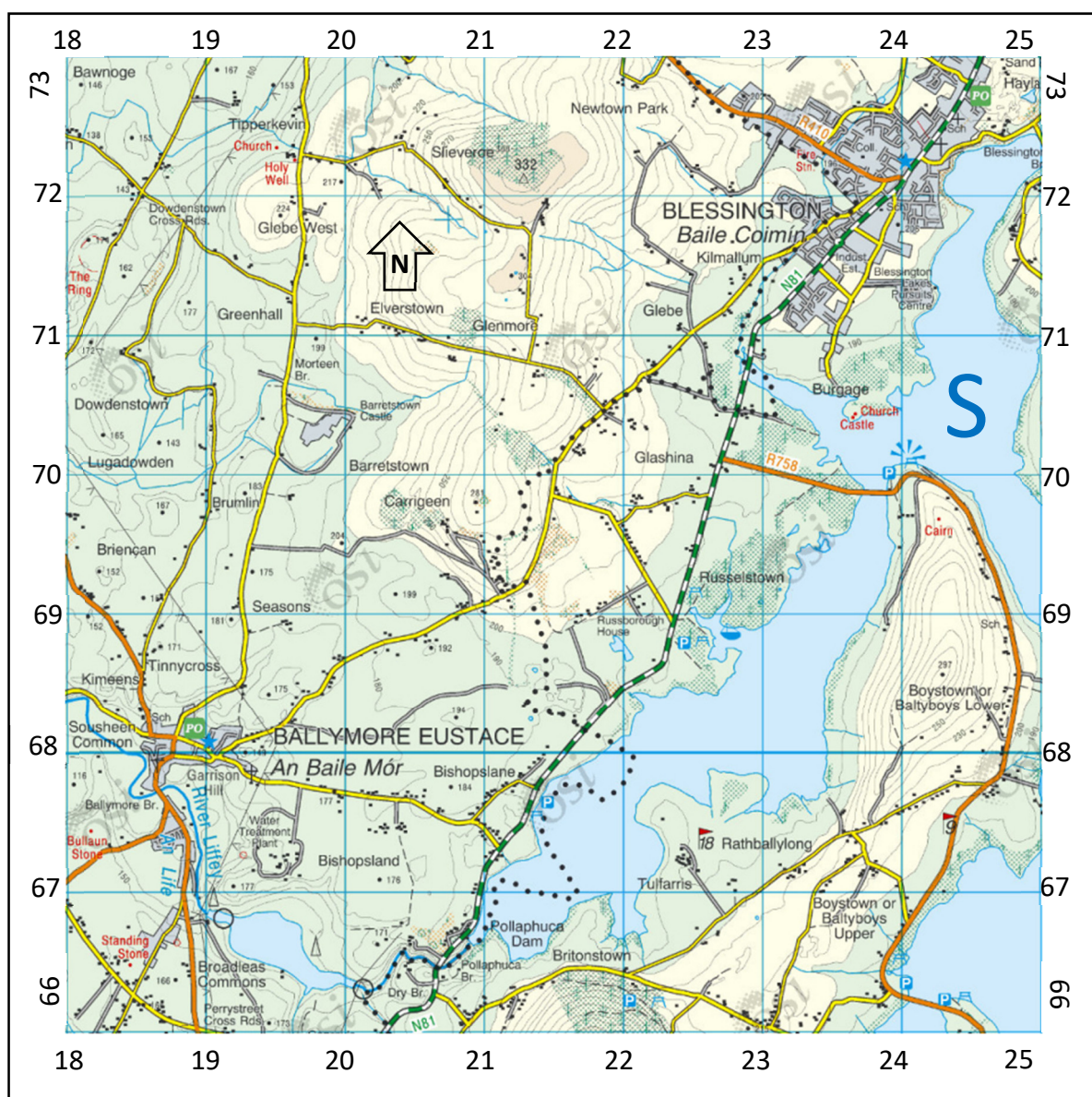
Tick (✓) the correct box.

South west ☐

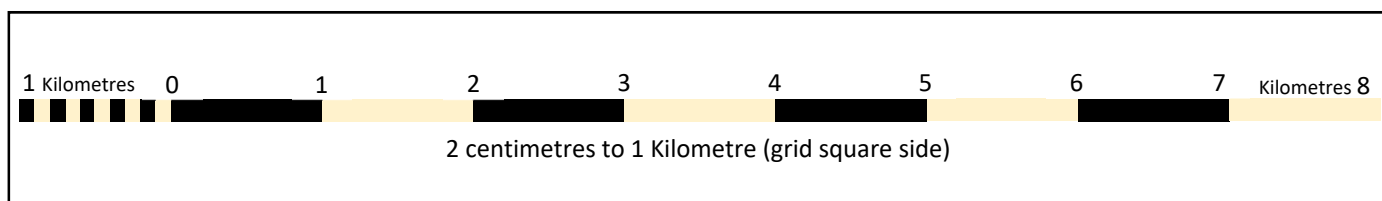
North east ☐

South east ☐

- (b) Examine the Ordnance Survey map below showing the area around Blessington and Ballymore Eustace and the legend on page 30. Answer the following questions.



Use the 1:50 000 scale below to answer the following question.



- (i) What is the straight-line distance between the Post Office in Blessington and the post office in Ballymore Eustace?
Tick (✓) the correct box.

6.1 kilometres ☐

6.4 kilometres ☐

7.2 kilometres ☐

- (ii) Give a six-figure grid reference for one of the hydroelectric power (HEP) stations to the south of Ballymore Eustace.

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- (iii) HEP is one example of renewable energy.
List **two** other examples of renewable energy.

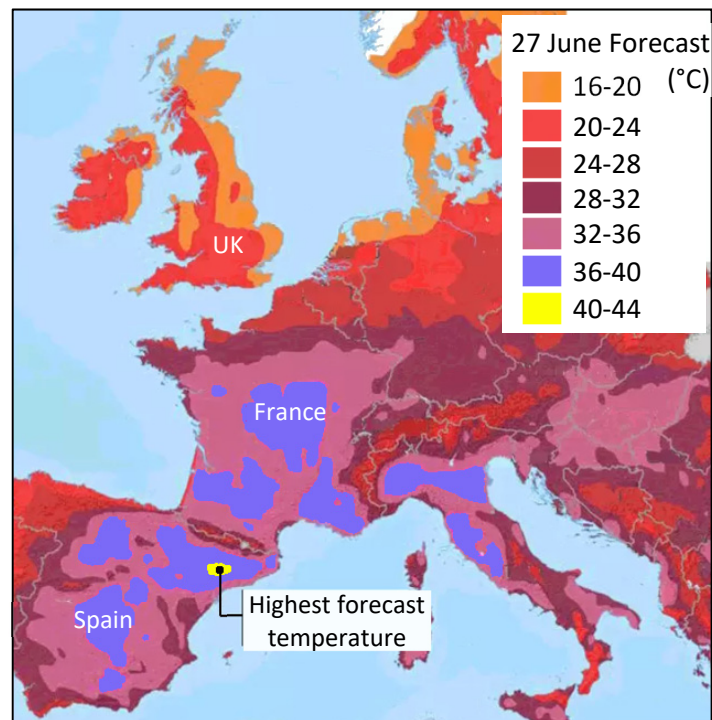
1.
2.

- (c) The map of Blessington accompanying this paper and the map extract on the previous page both show Pollaphuca Reservoir which is a water supply for the surrounding area.

Explain how water supplies, such as this one, can become polluted.

Question 5

- (a) Examine the map below showing temperature ranges forecast in Europe for 27 June 2023 and answer the following questions.



- (i) What was the lowest forecast temperature in Ireland?

Tick (✓) the correct box.

24-28°C ☐

28-32°C ☐

16-20°C ☐

- (ii) Which of the following countries has the highest forecast temperature?

Tick (✓) the correct box.

Spain ☐

France ☐

UK ☐

- (iii) Name Ireland's climate.

- (iv) Explain **one** reason why areas in northern Europe are more likely to have lower temperatures than areas in southern Europe.

- (b) The table below shows the climate data for Santorini, a popular tourist destination in Greece that has many beaches. Study the table and answer each of the following questions.

Month	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
Temperature (°C)	12	13	14	16	20	24	26	26	24	21	17	13
Rainfall (mm)	71	43	40	16	11	0	7	0	11	38	60	73
Average Daily Sunshine (hours)	7	7	9	11	12	13	14	13	11	9	8	6

- (i) What was the average daily sunshine (hours) in Santorini for April?

- (ii) What is the annual temperature range in Santorini?

Tick (✓) the correct box.

10°C ☐

12°C ☐

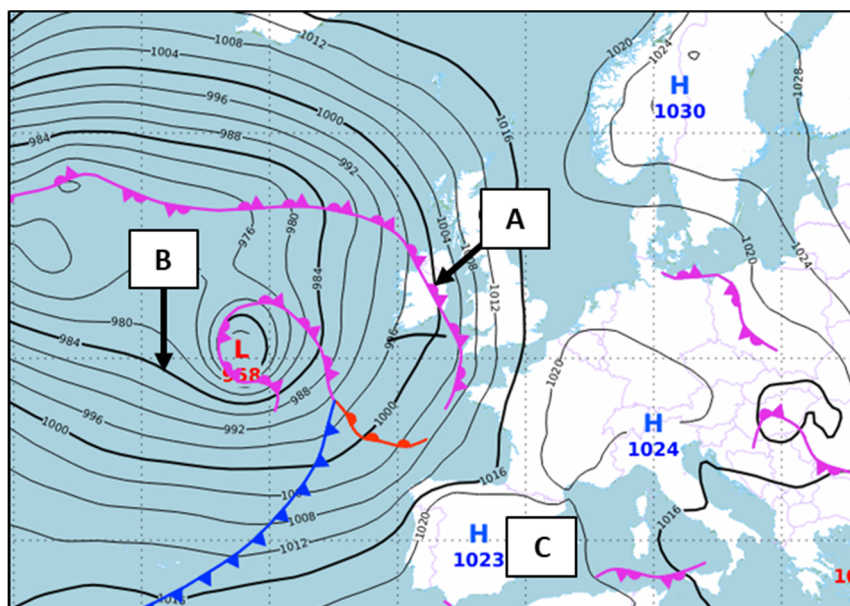
14°C ☐

- (iii) Calculate the mean (average) rainfall for the three months of October, November and December. Use the correct unit of measurement in your answer.

Optional rough work

- (iv) Most tourists visit Santorini in the months of June, July and August. Explain **one** reason why these months are attractive for tourists to visit this area. Use evidence from the table to support your answer.

(c) Examine the weather chart below and answer each of the following questions.



- (i) Which of the following types of front is labelled **A** on the weather chart above?
Tick (✓) the correct box.

Warm front ☐

Cold front ☐

Occluded front ☐

- (ii) What is the atmospheric pressure (in millibars/hectopascals) at the location labelled **B**?

- (iii) *Atmospheric pressure is measured using an instrument called a barometer.*

Is this statement true or false?

Tick (✓) the correct box.

True ☐

False ☐

- (iv) At which location shown on the weather chart can an anticyclone be seen?
Tick (✓) the correct box.

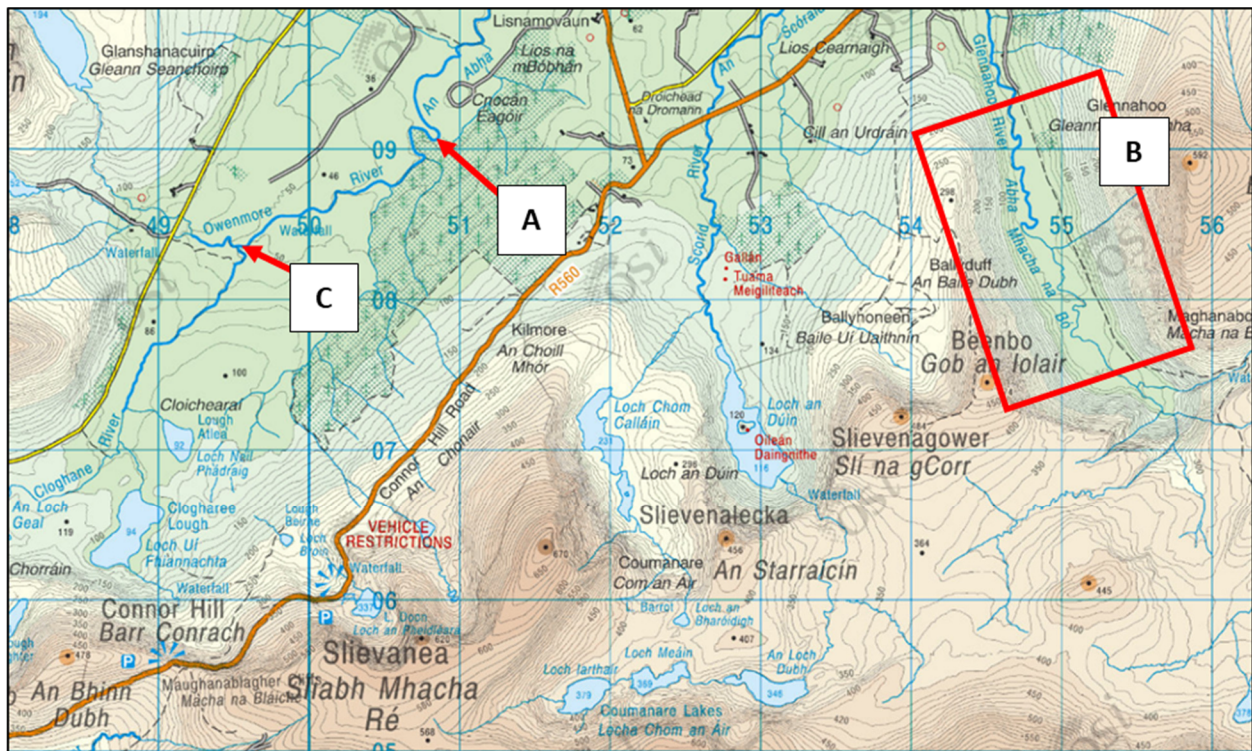
B ☐

C ☐

- (v) Using the weather chart on the previous page, contrast the weather conditions you would expect to find in the areas labelled **A** and **C**. Refer to both wind **and** precipitation in your answer.

Question 6

- (a) Examine the Ordnance Survey map extract below and the legend on page 30 and answer each of the following questions.



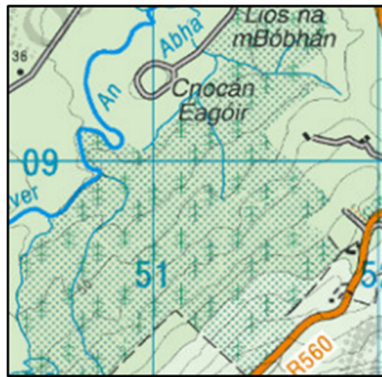
- (i) Which of the following features formed by rivers can be seen at **A** above?
Tick (✓) the correct box.
- | | |
|---------|--------------------------|
| Meander | ☐ |
| Delta | ☐ |
| Levee | ☐ |
- (ii) Which of the following features formed by glaciation can be seen at **B** above?
Tick (✓) the correct box.
- | | |
|-----------------|--------------------------|
| Drumlin | ☐ |
| Esker | ☐ |
| U-Shaped Valley | ☐ |
- (iii) What is the name for the point where one river joins another, labelled **C** on the map extract above?

- (iv) Give **one** piece of evidence from the map extract on the previous page that shows this area was developed to support tourism **and** state how it can be used by tourists.

Evidence:
How it can be used by tourists:

- (b) Explain how either the processes of river erosion **or** the processes of glacial erosion change the shape of the landscape.

- (c) (i) In which location below, **A** or **B**, is mechanical weathering (such as freeze thaw action) more likely to occur?
Tick (✓) the correct box.



A ☐

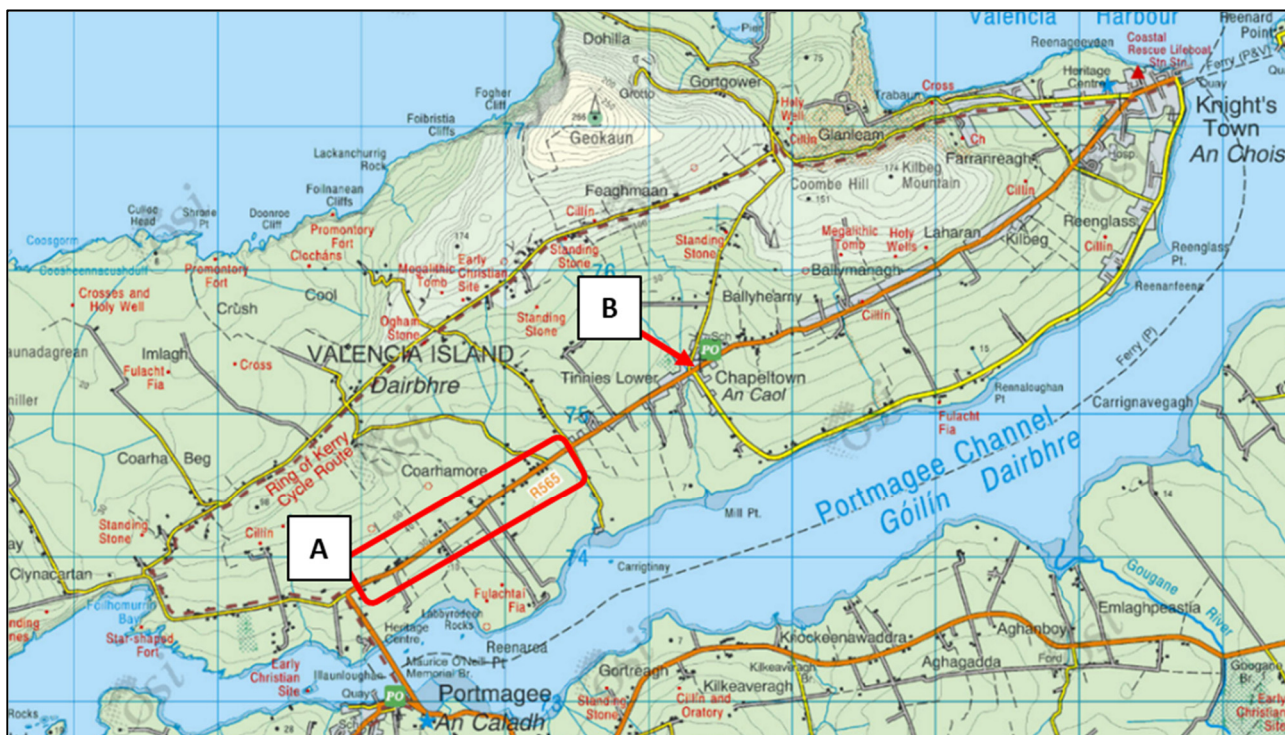


B ☐

- (ii) Explain **one** reason for your answer.

Question 7

- (a) Examine the map extract below showing Valencia Island and the legend on page 30. Answer each of the following questions.



- (i) Which of the following rural settlement patterns can be seen inside the rectangle labelled A? Tick (✓) the correct box.

Linear ☐

Nucleated ☐

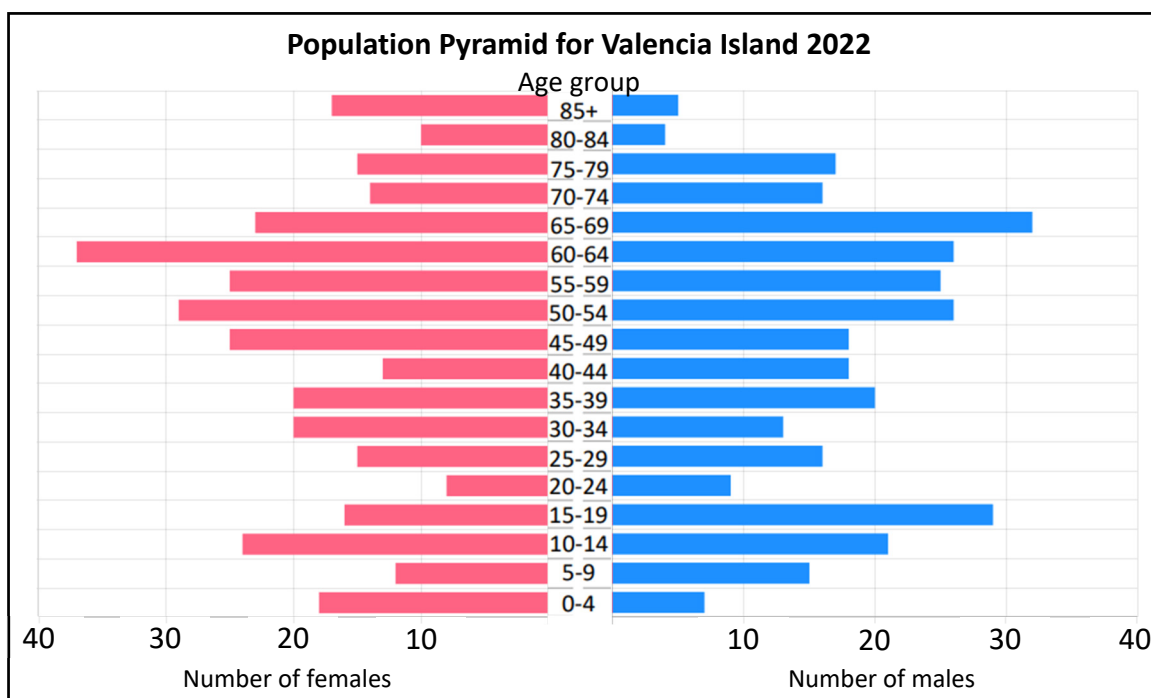
Dispersed ☐

- (ii) Briefly explain **one** factor that influenced the location of the village of Chapelstown labelled B on the map extract.

- (iii) Name **one** antiquity that can be seen on the map extract above.

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- (b) Examine the population pyramid for Valencia Island in 2022 and answer the questions that follow.



- (i) Are there more males or more females in the 60-64 age group?

Tick (✓) the correct box.

Males ☐

Females ☐

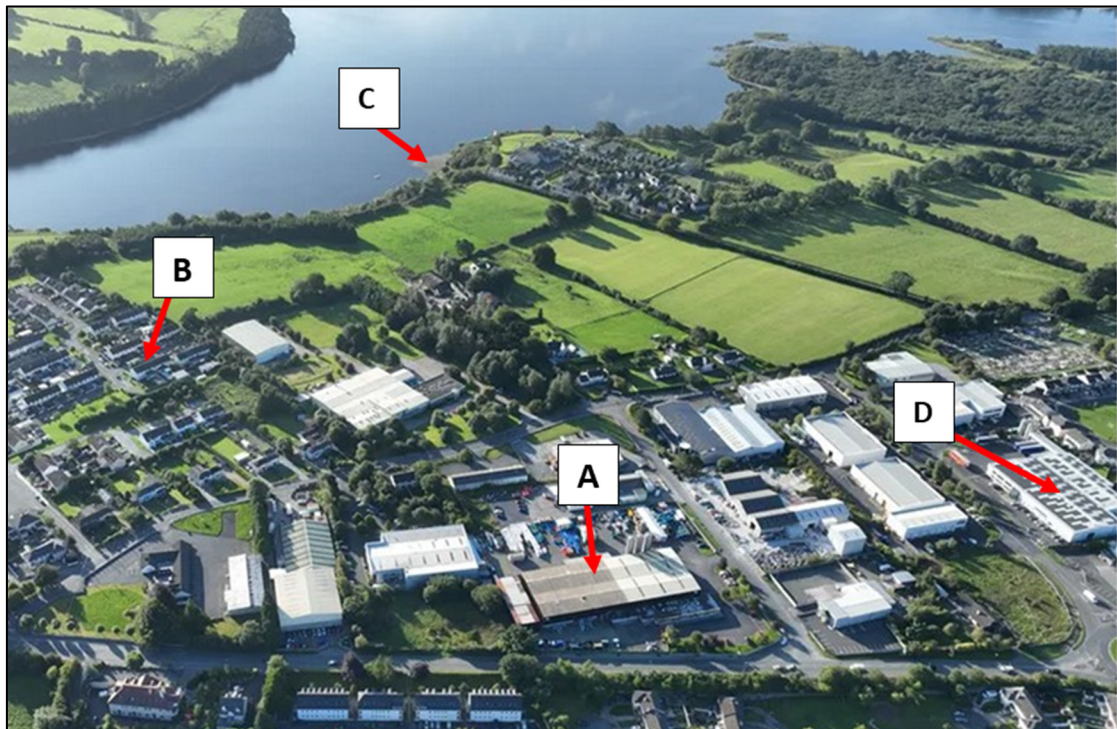
- (ii) How many females are there in the 80-84 age group?

- (iii) Calculate the total population in the 35-39 age group.

- (c) Explain **one** way that globalisation has impacted on settlement in Ireland.

Question 8

- (a) Examine the aerial photograph of Blessington below and answer each of the following questions.



- (i) Match each of the locations on the photograph labelled **A**, **B**, **C** and **D** with the evidence of a function that best matches it in the table below.

Evidence of Function	(i) Location on Photograph
Supermarket	D
Beach	
Factory	
House	

- (ii) Match each of the functions in the box below with the evidence listed in the table.

Commercial	Residential	Recreational	Industrial
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Evidence of Function	(ii) Function
Supermarket	
Beach	Recreational
Factory	
House	

- (iii) In which part of the photograph on the previous page can the lake be seen?
Tick (✓) the correct box.

Background ☐

Middleground ☐

Foreground ☐

- (iv) Churches and graveyards are often found near the centre of a town. What function are these an example of?

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- (b) Examine the Ordnance Survey map and legend accompanying this paper and answer each of the following questions.

- (i) Blessington Industrial Estate is located in which grid square of the map accompanying this paper.

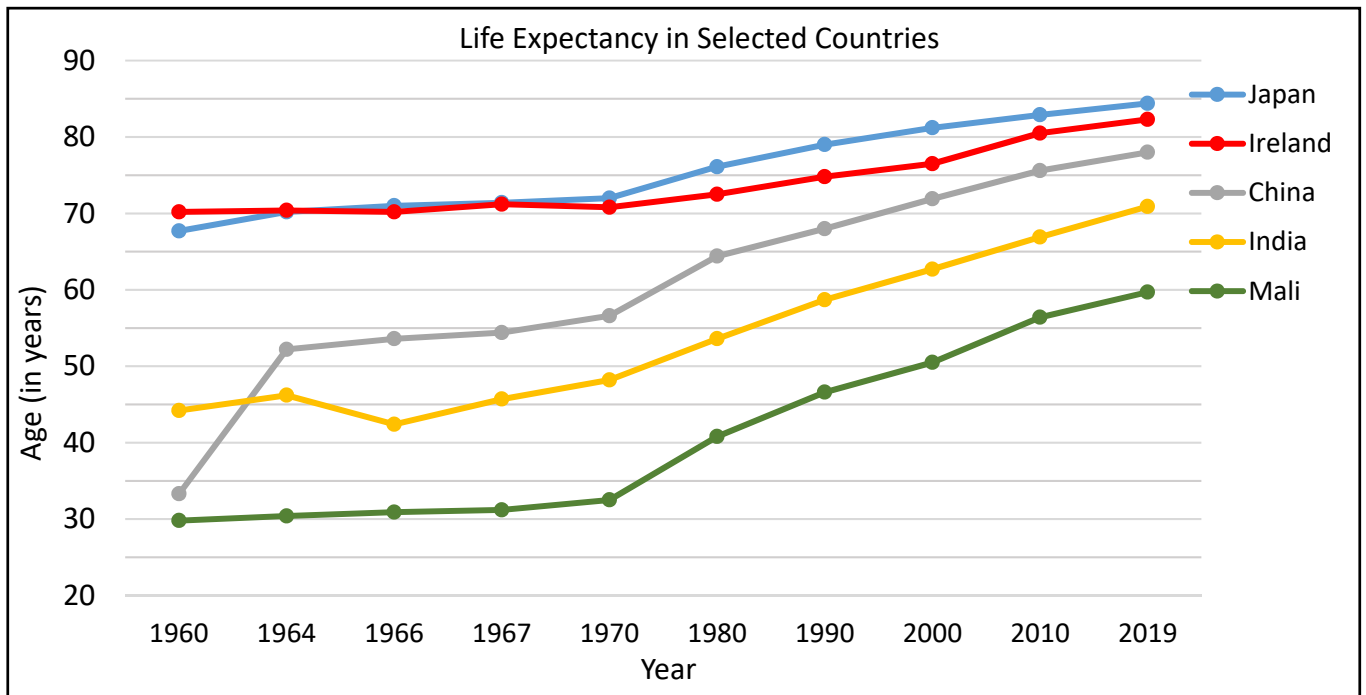
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- (ii) Using evidence from the map, explain **one** reason why Blessington Industrial Estate is situated at this location.

- (c) Name **one** town or city that you have studied **and** explain **one** way that town or city has changed over time.

Question 9

- (a) Examine the graph below showing the life expectancy in five countries from 1960 to 2019 and answer each of the following questions.



State whether each of the following statements is true or false by ticking (✓) the correct box for each.

- | | True | False |
|--|--------------------------|--------------------------|
| (i) Japan has the highest life expectancy. | ☐ | ☐ |
| (ii) Life expectancy in Mali in 2019 was 50 years. | ☐ | ☐ |
| (iii) Life expectancy in India has risen steadily between 1970 and 2019. | ☐ | ☐ |

- (b) Explain **one** reason why life expectancy is low in developing countries.

- (c) Explain **two** factors that impact birth rates in a developed country that you have studied. Name the developed country in your answer.

[illegible]

[illegible]



Acknowledgements

Images

Image on page 3: <http://www.texasgateway.org>

Image on page 6: https://www.migrationdataportal.org/themes/environmental_migration_and_statistics

Images on page 10: <http://www.wicklow.ie>, <https://kilcullenbridge.blogspot.com/>, <http://www.geograph.ie>, <https://corksafetyalerts.com>

Images in page 12: Tailte Éireann and <http://www.scoilnetmaps.ie>

Image on page 14: <https://www.bbc.com/news/world-europe-48780685>

Image on page 16: <http://www.met.ie>

Image on page 18: <http://www.scoilnetmaps.ie>

Images on page 20: <http://www.scoilnetmaps.ie>

Image on page 21: <http://www.scoilnetmaps.ie>

Image on page 22: <http://www.cso.ie>

Image on page 23: <http://www.myhome.ie>

Image on page 26: <https://ourworldindata.org/life-expectancy>

Texts

Article on page 5: <https://www.bbc.com/news/uk-64742187>

Article on page 8: <https://www.independent.ie/regionals/wexford/news/citizen-scientists-across-wexford-urged-to-support-coastal-landslide-study/42435422.html>

Data on page 15: <http://www.holiday-weather.com>

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Junior Cycle Final Examination – Common Level

Geography

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Afternoon 1:30 - 3:30