



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Cycle Final Examination 2026

Geography

Common Level

Thursday 4 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

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

Answer all questions.

The questions do not all carry equal marks.

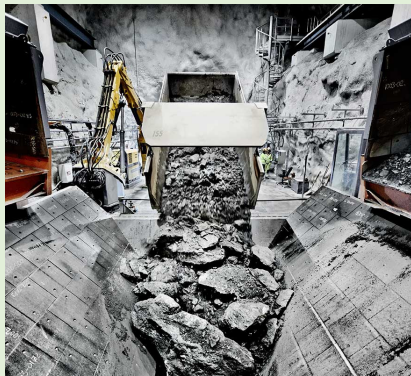
Write your answers in blue or black pen. You may use pencil and colouring pencils for sketches, graphs and diagrams only.

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.

There is an Ordnance Survey map and legend supplied separately to this paper.

Question 1

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



Boliden Tara Mines

Tara Mines is located 2 km from Navan in Co. Meath. This underground mine is run by Boliden and it is Europe's largest zinc mine. Production at the mine began in 1977. The ore that is taken from the ground is crushed to separate zinc and other metals. 2.6 million tonnes of ore can be extracted from the mine every year.

The mine was temporarily closed in 2023 due to a fall in zinc prices and an increase in its energy costs. The mine reopened in 2024 when conditions improved. In recent years the company have been exploring a newly found deposit of ore just 1 km from the main mine, known as 'Tara Deep'.

- (i) In what year did production begin in Tara mines?

- (ii) How many tonnes of ore can be extracted every year?

- (iii) State **one** reason why the mine temporarily closed in July 2023 mentioned in the article above.

- (iv) Mining is an example of which of the following economic sectors?

Tick (✓) the correct box.

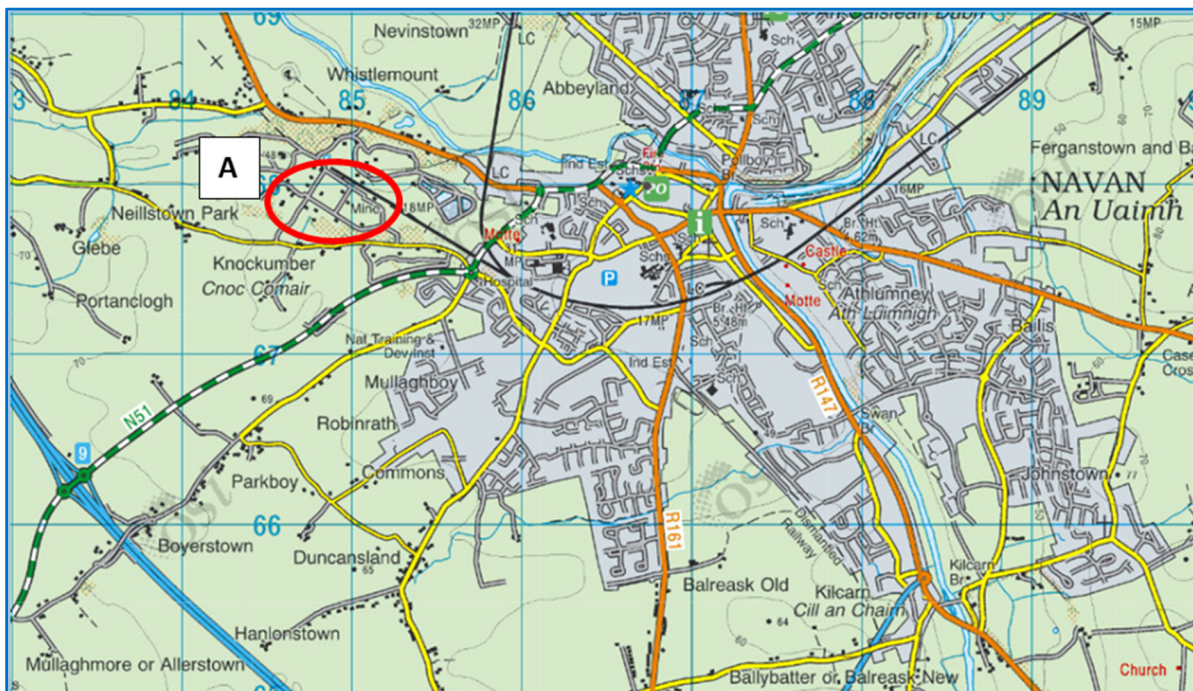
Primary ☐

Secondary ☐

Tertiary ☐

- (v) Rocks are an example of a natural resource. Define the term *natural resource*.

(b) Examine the map extract below showing Navan.

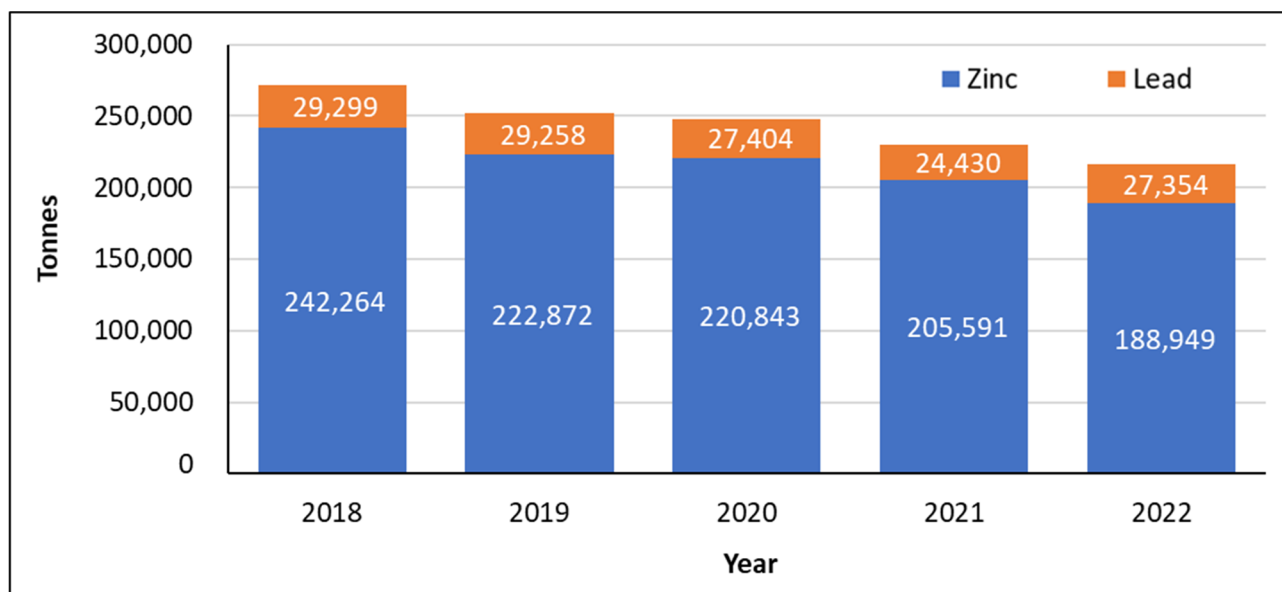


(i) Briefly explain **one** factor that influenced the location of the mine, circled at **A** on the map extract.

(ii) Explain **one** environmental **or** **one** social impact of exploiting rocks.

- (c) Examine the chart below showing the production of zinc and lead in tonnes from 2018 to 2022 at Tara Mines and answer the questions which follow.

Zinc and Lead Production, 2018 – 2022



- (i) How many tonnes of lead were mined in 2018?

- (ii) Identify the trend for zinc production from 2018 to 2022.

Tick (✓) the correct box.

Increasing ☐ Decreasing ☐

- (iii) Calculate the difference in tonnes of lead mined between 2018 and 2022.

Optional rough work

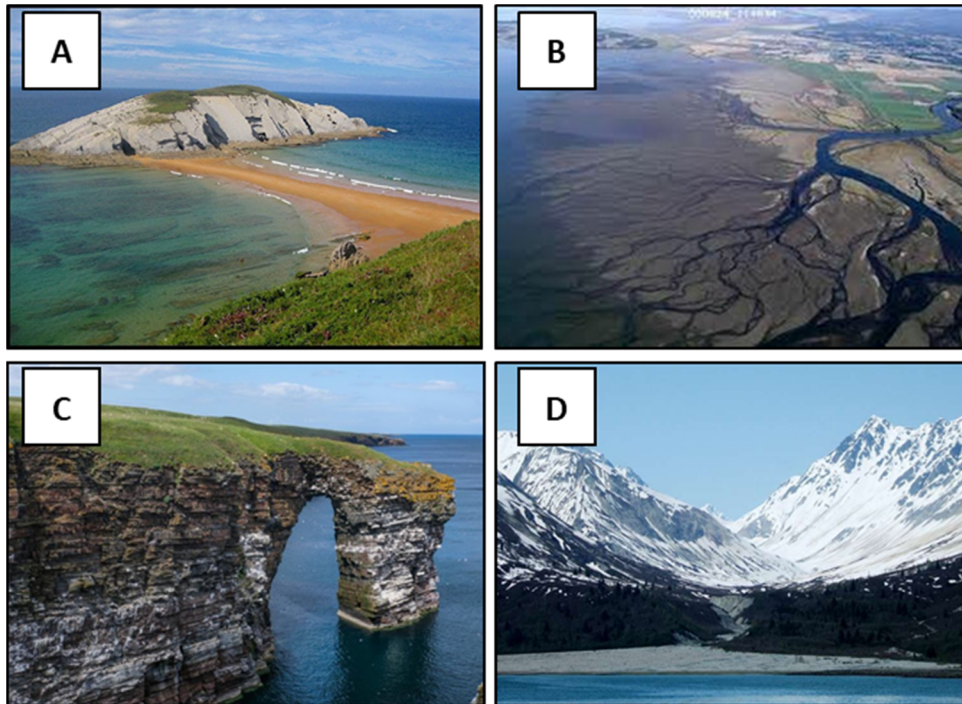
Answer:

- (iv) The total amount of lead and zinc mined in 2022 was greater than 250,000 tonnes.
Tick (✓) the correct box.

True ☐ False ☐

Question 2

- (a) Examine the photographs below and answer each of the following questions.



- (i) Match each of the photographs **A**, **B**, **C** and **D** with the feature that best matches it in the table below.

Feature	Letter
U-shaped valley	
Sea arch	
Tombolo	
Delta	

- (ii) A waterfall is formed by the processes of deposition.
Tick (✓) the correct box.

True ☐

False ☐

- (iii) A levee is found in the lower course of a river.
Tick (✓) the correct box.

True ☐

False ☐

(c) Examine the Ordnance Survey map and legend accompanying this paper and answer the following questions.

(i) Which of the following coastal landforms is found at T 27 76?

Tick (✓) the correct box.

Beach ☐

Sea stack ☐

(ii) Give a six-figure grid reference for the golf course in Arklow town.

(iii) Measure the straight line distance of the M11 motorway, in kilometres, from T 279 830 to where it meets the train line at T 231 743.

Tick (✓) the correct box.

☐ 10 kilometres

☐ 11 kilometres

☐ 12 kilometres

Question 3

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

Lava Flows into an Icelandic Town

A volcanic eruption began just outside the Icelandic town of Grindavík on January 14th 2024. Lava began flowing from new and old cracks in the crust, releasing gas, steam and smoke into the air.

Emergency crews worked to build a protective wall of dirt and rock. They hoped that this wall would steer the lava flow away from the town centre. Several houses in Grindavík were burned and crushed before the flow of lava paused.



(i) Name the nearest town to the eruption.

--

(ii) Name **two** things that were released into the air from this eruption.

1.
2.

(iii) State **one** way emergency crews tried to protect the town from the eruption.

--

(iv) Volcanic activity can have positive and negative impacts. Describe **one** positive impact of volcanic activity, with reference to an example you have studied.

- (b) Name and describe the formation of **one** igneous rock that you have studied.

Named example:
Description:

(c)

- (i) Use the terms in the box to complete the paragraph below.

Pacific	convection currents
volcanic	destructive

The earth's crust is broken into sections called plates. These plates move due to _____ . Boundaries where plates move towards each other are known as _____ plate boundaries. The _____ Ring of Fire is an area that experiences regular earthquake and _____ activity.

- (ii) What is the name given to the layer of the earth where magma is found?
Tick (✓) the correct box.

Mantle ☐

Core ☐

Crust ☐

Question 4

- (a) Examine the Ordnance Survey map of Arklow and the legend supplied separately to this paper and answer each of the following questions.

Draw a sketch map of the Arklow area in the space below by showing and labelling each of the following:

- The coastline
- The M11 Motorway
- A post office
- The Avoca River
- The built up area of Arklow south of the Avoca River

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

- (b) Examine the aerial photograph and information below about the Coolyduff Solar Farm in Cork and answer the following questions.



The Coolyduff Solar Farm in Cork was completed at the end of 2024. It has 85,000m² of solar panels, a substation and battery storage. This station and two others in the area have a combined capacity of 15MW, which provides power to approximately 3,000 homes.

- (i) The largest area of the solar farm can be found in which of the following locations on the aerial photograph above? Tick (✓) the correct box.

Centre middleground

☐

Right foreground

☐

Left background

☐

- (ii) How many homes are powered by the solar farms mentioned above?

--

- (iii) Briefly explain **one** factor that influenced the location of the solar farm on the aerial photograph.

(iv) State **one** benefit of using solar energy.

(v) Solar energy is one example of renewable energy.

List **two** examples of non-renewable energy sources.

1.
2.

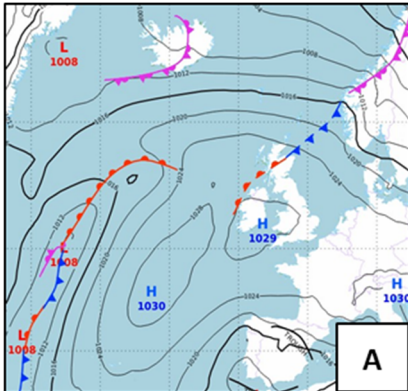
(c) Large scale energy projects can be met with opposition as well as support.

Explain in detail **one** argument for **and one** argument against the development of a solar farm that local people may have.

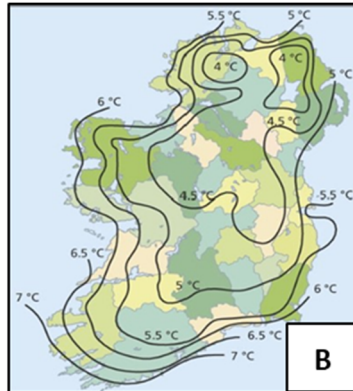
For:
Against:

Question 5

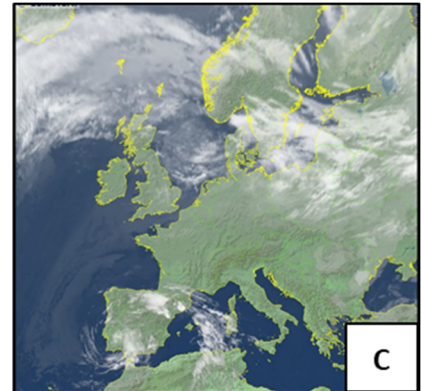
(a) Examine each of the weather charts below and answer the questions that follow.



A



B



C

(i) Match each of the weather charts above **A**, **B** and **C** with the term that best matches it in the table below.

Term	Letter
Temperature	
Cloud	
Pressure	

(ii) What is the name given to the lines on a weather map that join places of equal precipitation?

Tick (✓) the correct box.

Isobars ☐

Isohyets ☐

(iii) Isohels are the lines on a weather map that join places that experience the same amount of sunshine.

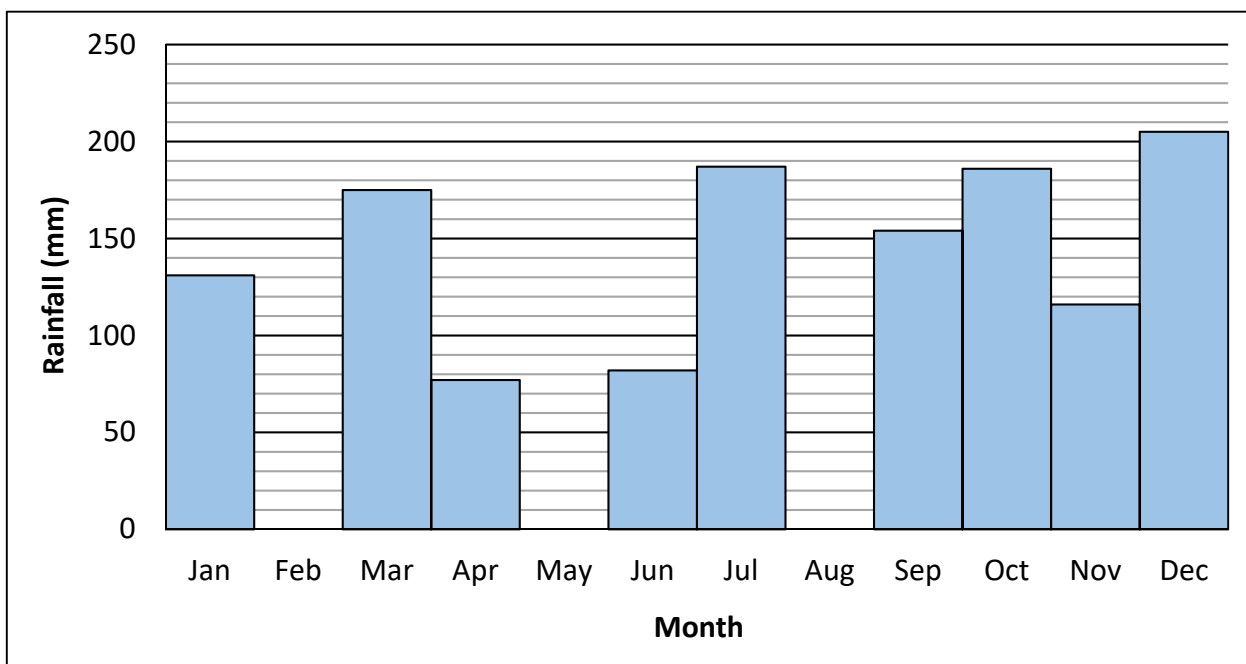
Tick (✓) the correct box.

True ☐

False ☐

- (b) Examine the table below showing average rainfall levels in Ireland, in millimetres (mm), for January to December 2023 and answer the following questions.

Ireland Monthly Average Rainfall (mm) Jan-Dec 2023												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	131	40	175	77	50	82	187	120	154	186	116	205



- (i) Complete the graph **above** by drawing in the missing bars for February, May and August, using information from the table.
- (ii) In which month during 2023 was the highest average rainfall?

- (iii) Calculate the total rainfall (mm) for September, October and November.

Optional rough work
Answer:

- (iv) Name **one** instrument used to measure rainfall.

- (c) Rainfall plays a major role in the formation of a mudflow like the one pictured below.



- (i) A mudflow is an example of which type of mass movement?
Tick (✓) the correct box.

Fast ☐

Slow ☐

- (ii) Which of the following is the loose weathered material that moves downslope as a result of mass movement. Tick (✓) the correct box.

Regolith ☐

Moraine ☐

- (iii) What is the name given to the ridges or steps which are evidence of soil creep?
Tick (✓) the correct box.

Lahars ☐

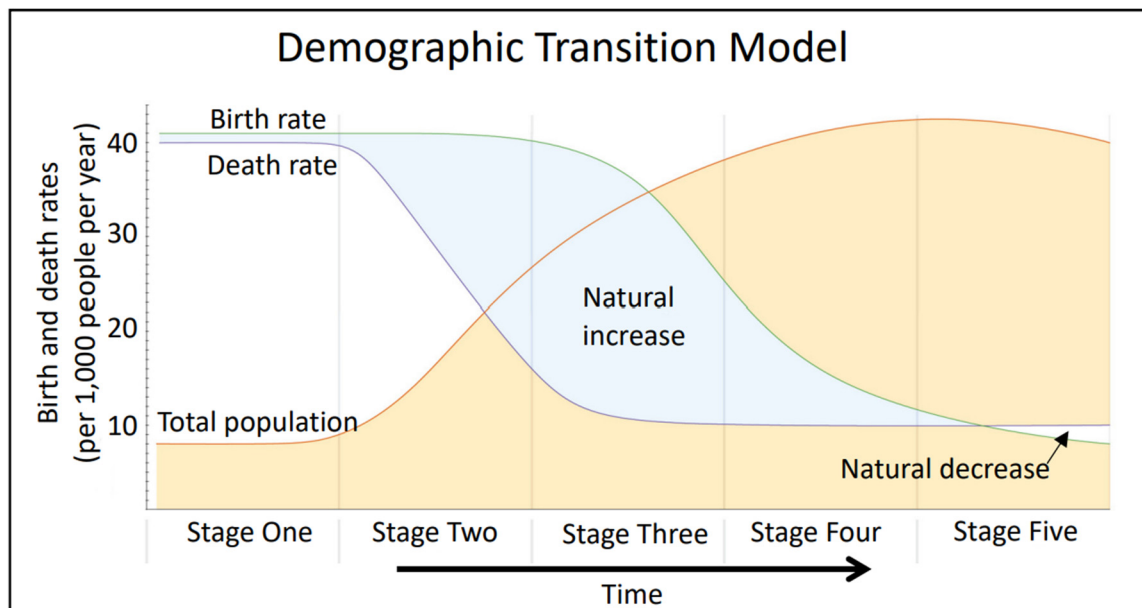
Terracettes ☐

- (d) Briefly explain how **one** of the following factors influences mass movement.

Water	Slope	Vegetation
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Question 6

- (a) Examine the Demographic Transition Model below and answer the questions that follow.



Choose the correct term from the word box below to complete each of the sentences. One has been completed for you.

high	low	five
decrease		increase

- (i) The Demographic Transition Model shows how a country's population changes over time. It has _____ stages.
- (ii) In stage one of the model, the birth and death rates are _____.
- (iii) In the second stage the birth rate remains high, while the death rate falls. This leads to a rapid population _____.
- (iv) In stage four of the model, the birth and death rates are low.
- (v) If the birth rate falls below the death rate, the population will _____.

- (b) Population change is influenced by the level of economic development in a country. Read the statements below that relate to levels of development. Indicate whether each statement relates to a developed **or** developing country by ticking (✓) the correct box.

Statements	Developed Country	Developing Country
Access to advanced healthcare.		
Poverty, malnutrition and famine are present.		
A large percentage of the population is employed in tertiary economic activities.		
Unfair working conditions and child labour are commonplace, with no signs of improvement.		

- (c) Study the table below which shows data relating to birth and death rates and life expectancy for Ireland, Mali and Mexico, and answer each of the following questions.

	Birth and death rates 2024		Life expectancy 2024	
	Birth rate (per 1,000)	Death rate (per 1,000)	Female (in years)	Male (in years)
Ireland	11.2	6.3	84.7	81.2
Mali	39.1	9.5	62.2	59.3
Mexico	16.1	6.4	78.2	72.4

- (i) Which country from the table has the highest female life expectancy in 2024?

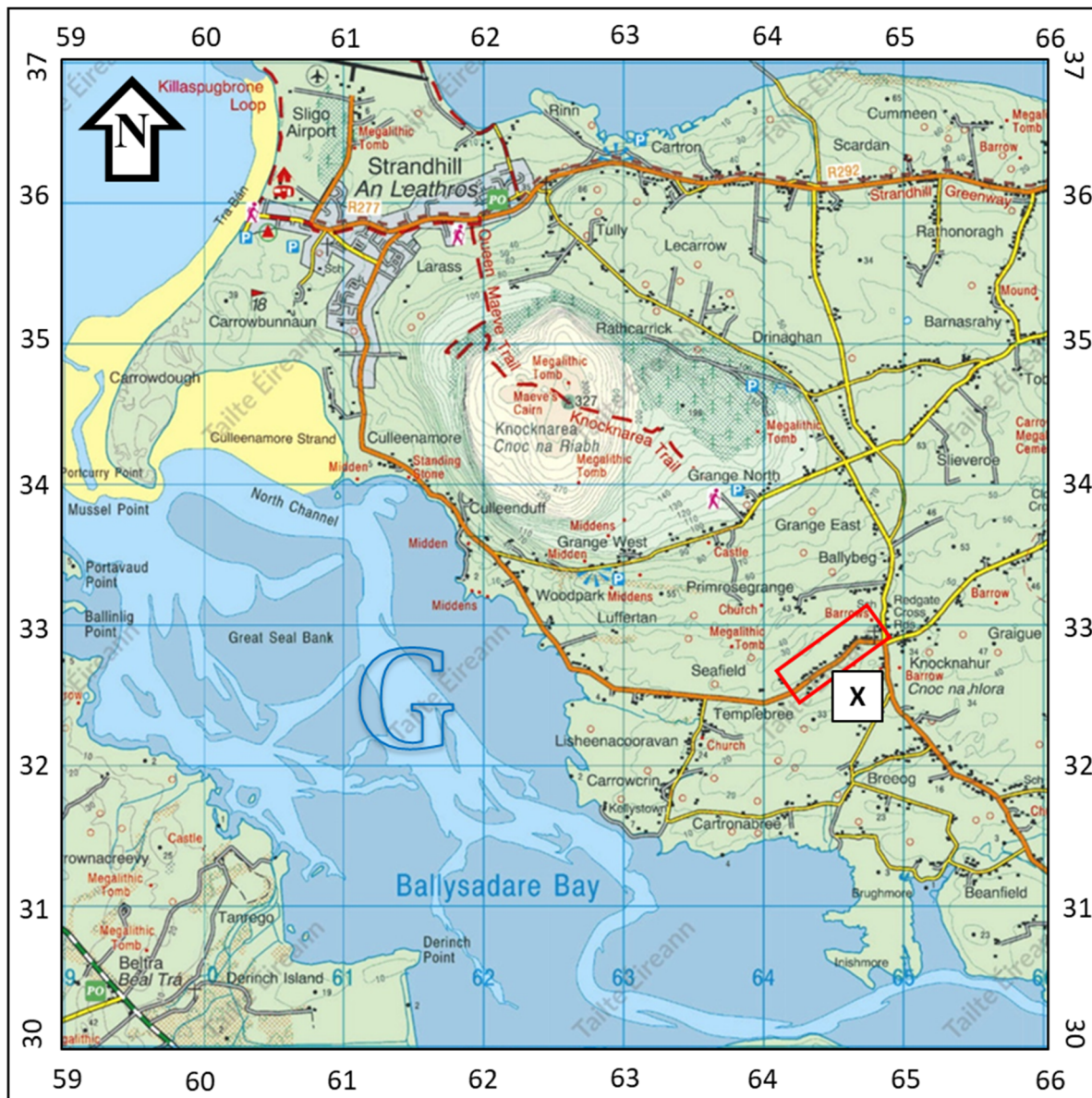
- (ii) Calculate the natural increase in population (per 1,000) in Mali for 2024.

Optional rough work
Answer:

- (iii) Explain the differences between the life chances of a young person in relation to education opportunities in a developed **and** developing country.

Question 7

Examine the map extract below showing Strandhill and the legend accompanying this paper and answer each of the following questions.



(a) The Strandhill area shown above has a long history of rural settlement.

(i) Name **two** antiquities that can be seen on the map extract.

1.
2.

- (ii) Look at the map extract of the Strandhill area on the previous page. Give a six figure grid reference for the **three** features named below.

Feature	Six figure grid reference
A post office	
A caravan site	
Sligo Airport	

- (iii) Calculate the area (in km²) of Ballysadare Bay, south of Culleenamore Strand, shown on the map.

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

Statements		True	False
(i)	Coastal deposition has formed the Culleenamore Strand area.		
(ii)	The highest point on the map is 327m at Knocknarea / Cnoc na Riabh.		
(iii)	Ballysadare Bay is located north of Strandhill.		
(iv)	An example of linear settlement can be seen in the rectangle labelled X.		
(v)	A national primary road runs through the village of Strandhill.		

(c) A new hotel development is proposed for the tourist town of Strandhill and the surrounding area.

(i) Give a six figure grid reference for a suitable location for the hotel.

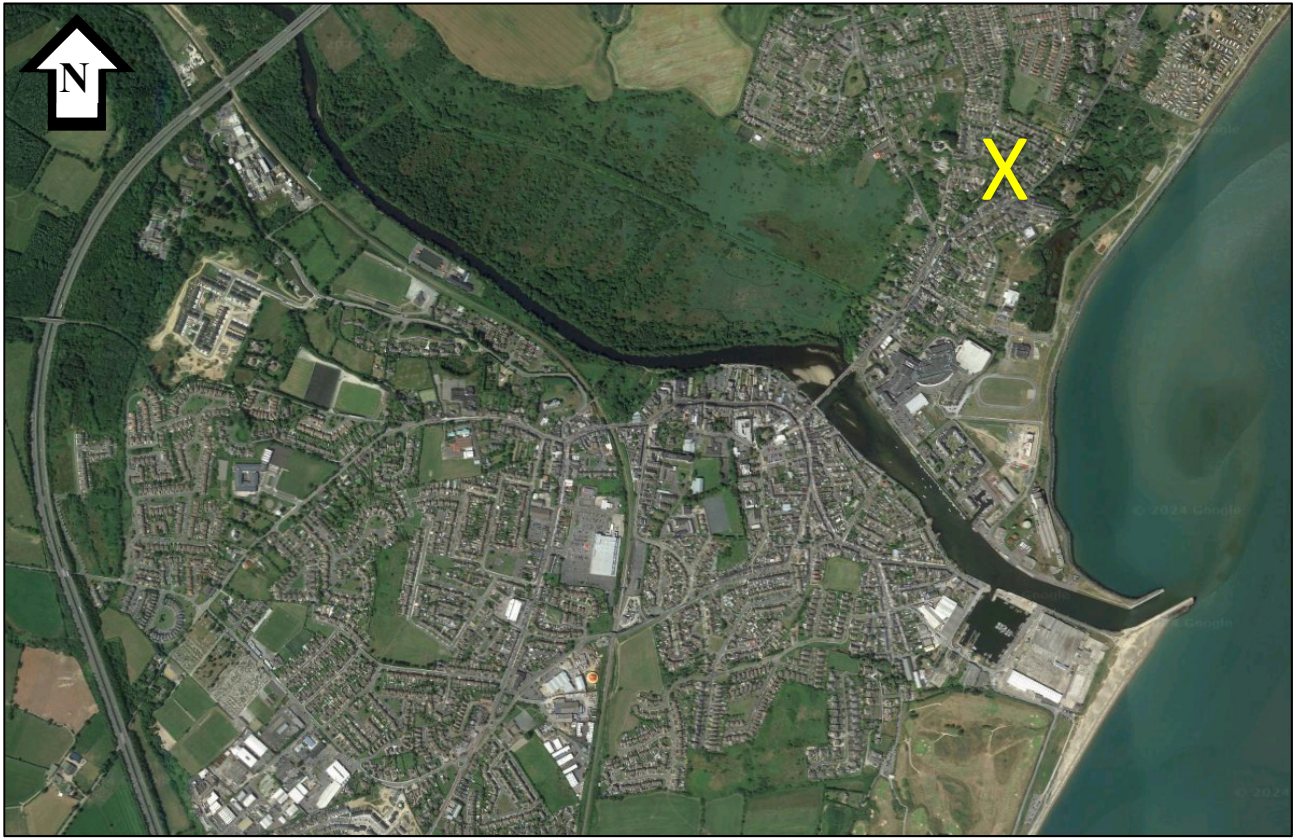
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(ii) Explain **two** reasons why the location you named in part (i) is suitable for the hotel.

1.
2.

Question 8

(a) The aerial photograph below shows an area of Arklow town.



(i) What type of aerial photograph is shown above?
Tick (✓) the correct box.

Oblique ☐

Vertical ☐

(ii) The housing estate at X is located in which of the following locations?
Tick (✓) the correct box.

South West ☐

North East ☐

Right Background ☐

(iii) Housing belongs to which of the following land use categories?
Tick (✓) the correct box.

Industrial ☐

Residential ☐

Commercial ☐

(b) Migration is the movement of people from one place to another.

(i) Match each of the terms in the box below with the description that best matches it in the table. One has been completed for you.

Emigrant	Push factors	Family	Donor region
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Description	Term
Barrier to migration.	
A person who leaves an area.	
The location or country that a migrant comes from.	Donor region
Persecution, war, famine.	

(ii) Commuter towns around Dublin, such as Arklow, are receiver regions because they experience high levels of inward migration.

State **one** pull factor that encourages inward migration.

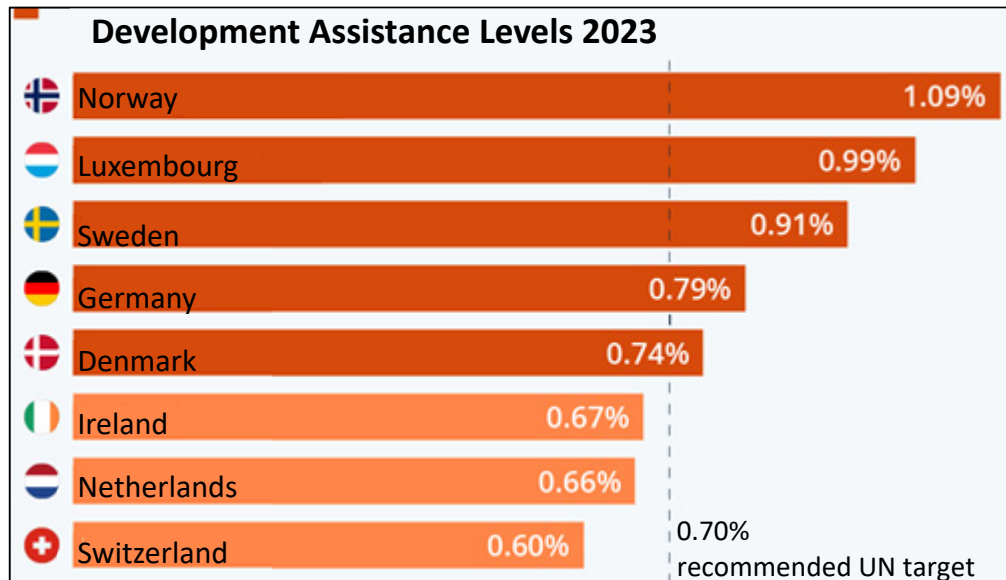
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(iii) A receiver region is the place that a person moves to when they migrate.

Discuss **one** impact of migration on receiver regions.

Question 9

- (a) Development assistance is given to a developing country with the aim of helping it to develop economically and socially. The United Nations (UN) recommends that 0.70% of gross national income (GNI) should be spent on development assistance. Examine the graph below and answer the questions which follow.



- (i) How many countries listed above did not reach the recommended UN target of 0.70%?

- (ii) Luxembourg gave 0.29% more than the recommended UN target.

Tick (✓) the correct box.

True ☐

False ☐

- (iii) Bilateral aid is aid given directly from one government to another.

Tick (✓) the correct box.

True ☐

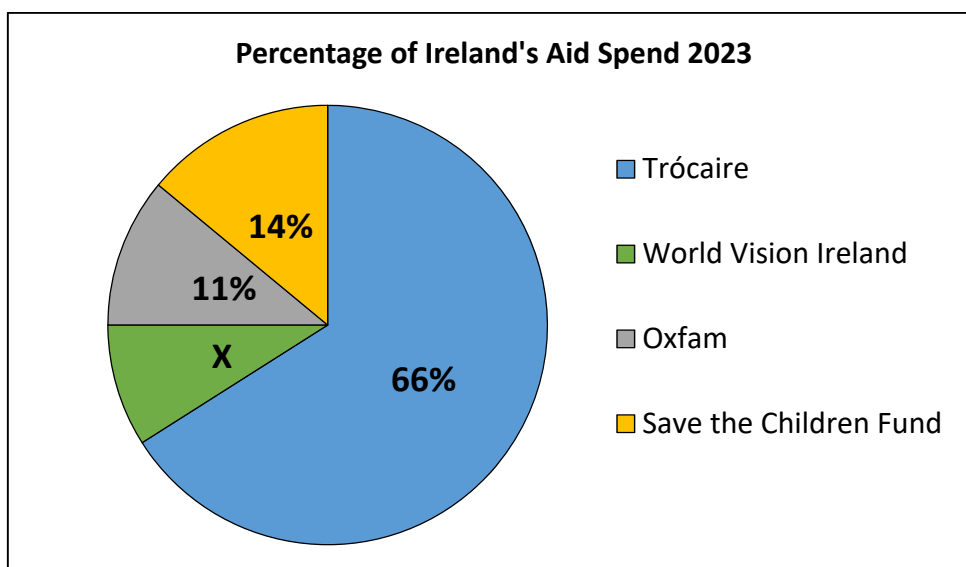
False ☐

- (iv) Briefly explain the difference between emergency aid and development aid.

- (b) Discuss **one** positive and **one** negative impact of giving aid to developing countries.

Positive:
Negative:

- (c) Study the pie chart below showing the percentage of Ireland's aid spend, for selected organisations, in 2023. Answer the questions that follow.



- (i) Which organisation received the largest percentage of Ireland's aid spend in 2023?

--

- (ii) Calculate X, the percentage of aid given to World Vision Ireland.

Optional rough work
Answer:

Question 10

- (a) Seasonal lakes can be found across Irish landscapes, especially in karst areas. These lakes fill with water in the winter and dry up during the summer.

Study the aerial photographs below showing the same location at different times of the year and answer each of the following questions.



- (i) Which of the above images best matches a winter landscape? Tick (✓) the correct box.

A ☐

B ☐

- (ii) Name the sedimentary rock most associated with karst landscapes.

- (iii) Name **one** example of a karst landscape you have studied.

- (iv) State **one** type of weathering associated with karst landscapes.

- (v) Circle **three** features in the box below that form underground in a karst landscape.

Limestone Pavement	Stalactite	Pillar
Swallow Hole	Grike	Stalagmite

- (b) Explain the formation of **one** underground feature found in a karst landscape. Use a labelled diagram to support your answer.

Space for diagram

Additional answer space.
Label all work clearly with the question number and part.

Additional answer space.
Label all work clearly with the question number and part.

Acknowledgements

Images

Image on page 3: www.boliden.com

Image on page 4: <https://scoilnet.ie>

Images on page 6: <http://d3teiib5p3f439.cloudfront.net>, <http://eopugetsound.org>, <http://live.staticflickr.com>, <https://picryl.com/media/glacier-landforms>

Image on page 9: <https://www.theatlantic.com/photo/2024/01/lava-flows-into-icelandic-town/677141/>

Image on page 12: <https://www.roadform.ie/solar-farm-contractors/>

Images on page 14: <https://www.met.ie>

Image on page 15: <https://www.met.ie/2023-confirmed-as-irelands-wettest-year-on-record>

Image on page 16: <https://stock.adobe.com/mudflow>

Image on page 17: <https://ourworldindata.org/demographic-transition>

Image on page 20: <https://maps.scoilnet.ie/OSiMaps/EsriVer17/index.html>

Image on page 23: <https://google.maps.com/Arklow>

Image on page 25: <https://www.statista.com/chart/8958/oecd-countries-oda-to-gni/>

Image on page 27: <https://x.com/GsiGroundwater/status/1721496101415449036/photo/1>
<https://www.sciencedirect.com/science/article/pii/S0034425723003905#f0005>

Texts

Extract on page 3: www.boliden.com

Data on page 5: www.boliden.com

Article on page 9: <https://www.theatlantic.com/photo/2024/01/lava-flows-into-icelandic-town/677141/>

Extract on page 12: <https://www.roadform.ie/solar-farm-contractors/>

Data on page 18: <http://hdr.undp.org/en/content/table>

Data on page 26: <http://assets.ireland.ie>

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Junior Cycle Final Examination – Common Level

Geography

Thursday 4 June

Afternoon 1:30 - 3:30