BERGVLIET HIGH SCHOOL

GEOGRAPHY
PAPER 2

GRADE 11 FINAL EXAMINATION

24 NOVEMBER 2025

MARKS: 150	TIME: 3 HOURS
EXAMINER:	MR B. JOHNS
MODERATOR:	MRS V. SINGARUM

This question paper consists of 15 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO SECTIONS:

   SECTION A: QUESTION 1: Development Geography (60)

   QUESTION 2: Resources and Sustainability (60)

   SECTION B: QUESTION 3: Geographical Skills and Techniques (30)

2. Answer all THREE questions.
3. ALL diagrams are included in the QUESTION PAPER.
4. Leave a line between subsections of questions answered.
5. Start EACH question at the top of a NEW page.
6. Number your answers correctly according to the numbering system used in this question paper.
7. Do NOT write in the margins of the answer book.
8. Draw fully labelled diagrams when instructed to do so.
9. Answer in FULL SENTENCES, except when asked to state, name, identify or list.
10. The unit of measurement MUST be given in the final answer, where applicable, for example 1 020 hPa, 14 °C and 45 m.
11. You may use a non-programmable calculator.
12. You may use a magnifying glass.
13. Write neatly and legibly.

SPECIFIC INSTRUCTIONS AND INFORMATION FOR SECTION B

14. A 1 : 50 000 TOPOGRAPHIC MAP 2629DB ERMELO and a 1 : 10 000 orthophoto map extract from 2629DB 5 ERMELO are provided.
15. The area demarcated in RED on the topographic map represents the area covered by the orthophoto map.
16. Show ALL calculations where applicable. Marks will be allocated for this.
17. You must hand in the topographic and orthophoto map to the invigilator at the end of this examination session.

SECTION A DEVELOPMENT GEOGRAPHY AND RESOURCES AND SUSTAINABILITY

QUESTION 1: DEVELOPMENT GEOGRAPHY

1.1 Match the definition in COLUMN A with the correct term in COLUMN B. Write only the letter (A to I) next to the question number (1.1.1 to 1.1.8), for example 1.1.9 J.

COLUMN A		COLUMN B	
1.1.1	The level of economic and social advancement a country has achieved.	**A**	Import
1.1.2	The average income per person in a country.	**B**	Globalisation
1.1.3	The act of bringing goods and services into a country.	**C**	GDP per capita
1.1.4	The average age to which a person in a particular country can live.	**D**	Export
1.1.5	The total value of all the goods and services produced by all the citizens of a country in one year.	**E**	Life expectancy
1.1.6	The act of sending goods and services out of a country.	**F**	GDP
1.1.7	The increased inter-connectedness between countries on economic, social, cultural and political levels.	**G**	Development
1.1.8	The percentage of a population over 15 years that can read and write.	**H**	GNP
		I	Literacy rate

(8 x 1) (8)

1.2 The list of terms below refers to the environmental impacts of development.

Deforestation	**Pollution**	**Resource Depletion**	**Climate Change**
Biodiversity Loss	**Soil Erosion**	**Urbanisation**	**Industrialisation**

Match a term with a photograph showing an environmental impact. Write only the term next to the question number (1.2.1 to 1.2.7), for example 1.2.8 Sunshine.

1.2.1



1.2.2



1.2.3



1.2.4



1.2.5



1.2.6



1.2.7

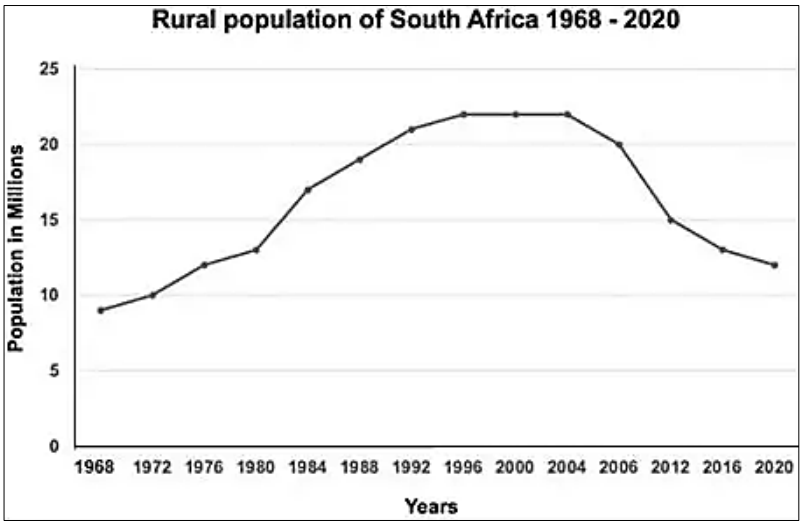


(7 x 1) (7)

1.3 Read the extract of rural challenges and development.

RURAL CHALLENEGES AND RURAL DEVELOPMENT

Rural depopulation refers to the decline in population density in rural areas, often caused by migration to urban centres, changing economic conditions, and other factors such as a lack of opportunities. The Northern Cape, South Africa's largest province, has a sparse population, making it particularly vulnerable to the impacts of rural depopulation. Limited economic opportunities, especially in the agricultural sector, have caused many inhabitants to leave for more populous provinces.



The South African government is set to build over 4 000 houses in municipalities across the Northern Cape over the course of the next 12 to 18 months, in a programme valued at R1bn. "Through this project, thousands of families will now have a home they can call their own, an asset that can be used to improve their lives and access financing for their needs, and a home that can be passed on to future generations," President Cyril Ramaphosa said on Thursday, 18 January 2024.

1.3.1 Describe the trend in South Africa's rural population between 2004 and 2020. (1 x 1) (1)

1.3.2 State TWO causes (mentioned in the extract) of the trend described in QUESTION 1.3.1. (2 x 1) (2)

1.3.3 Which economic activity in the Northern Cape has been negatively impacted by rural depopulation? (1 x 1) (1)

1.3.4 Discuss the impact of a decline in the economic activity (named in QUESTION 1.3.3) on food supplies (food security) in South Africa. (2 x 2) (4)

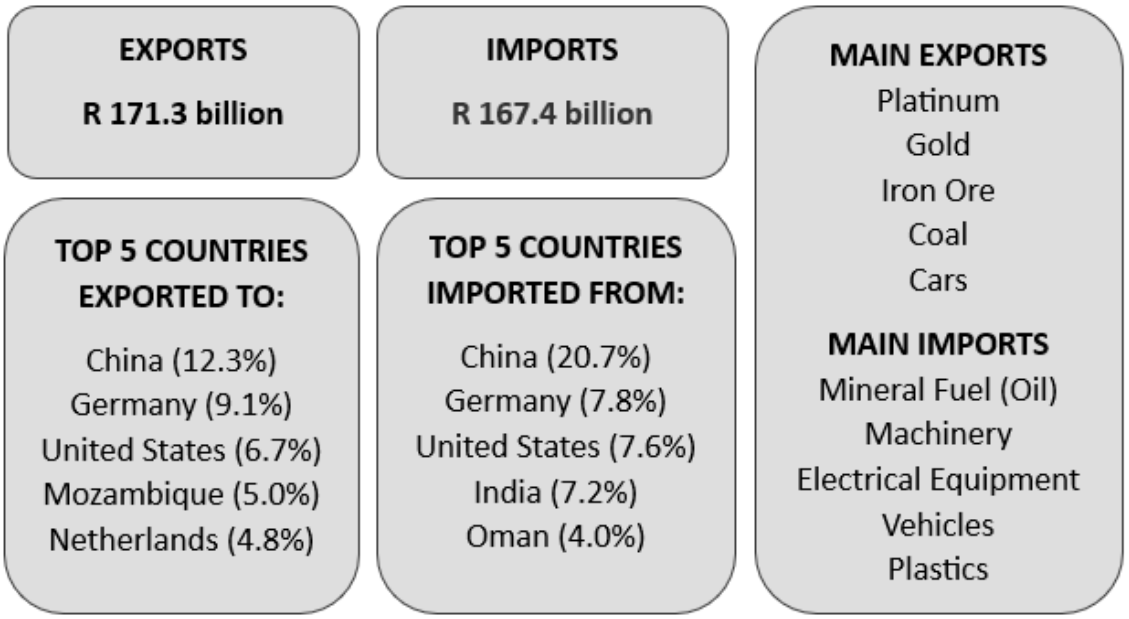
1.3.5 What is the main reason that rural dwellers migrate to provinces like Gauteng and the Western Cape. (1 x 2) (2)

1.3.6 Identify the aim of development project in the Northern Cape. (1 x 1) (1)

1.3.7 Suggest ways in which owning a home can improve quality of lives. (2 x 2) (4)

1.4 Study the trade statistics for South Africa.

TRADE STATISTICS FOR SOUTH AFRICA (AUGUST 2025)



(Adapted from www.statssa.gov.za)

1.4.1 Discuss TWO reasons why South Africa trades with the rest of the world. (2 x 2) (4)

1.4.2 Name South Africa's main trading partner. (1 x 1) (1)

1.4.3 What percentage of South Africa's goods enter the United States? (1 x 1) (1)

1.4.4 Identify ONE commodity (listed) South Africa likely imports from Oman. (1 x 1) (1)

1.4.5 Calculate South Africa's balance of trade (in rand) for August 2025. (2 x 1) (2)

1.4.6 Describe South Africa's balance of trade by analysing the answer to QUESTION 1.4.5. (1 x 2) (2)

1.4.7 South Africa imposes trade restrictions on the importation of certain commodities. Discuss reasons for imposing trade restrictions. (2 x 2) (4)

1.5 Read the extract on organisation that provide development aid.

THREE ORGANISATIONS PROVIDING DEVELOPMENT AID

Habitat for Humanity focuses on building safe and affordable housing for those affected by natural disasters. Its disaster preparation plan includes disaster-resistant construction and community preparation. In 2017, hurricanes destroyed 90% of homes in Puerto Rico. The organization created 2 000 solar panels, 2 000 solar lanterns and 2 000 shelter repair kits to provide residents with essential repairs. In a partnership with World Vision, Habitat for Humanity also repaired and built homes for 200 families in the Dominican Republic.

When natural disasters occur, **UNICEF** is one of the first responders. After Mozambique was swept over by a cyclone in March 2019, UNICEF assisted many families with urgent needs, focusing on malnutrition prevention and locating children who may have been left orphaned. Within a month, UNICEF gave cholera vaccinations to 900 000 people and restored Beira's water supply for 50 000 people. It also helped fight malaria by providing 500 000 mosquito nets.

In September 2019, category 5 hurricane Dorian devastated the Bahamas before heading towards the United States. In the Bahamas, 43 people died. During this time, the **International Relief Teams** provided the Bahamas with 5 000 tarps for temporary shelter, 21 024 ready-to-eat meals. It also set up 158 generators and 2 000 solar lights. The hurricane also destroyed around 45% of homes in Grand Bahama and Abaco. With the help of donations, the organisation hired local labourers to help rebuild than 100 homes.

1.5.1 Define the concept *development aid*. (1 x 2) (2)

1.5.2 Identify ONE example of the humanitarian aid given in:

a) Puerto Rico

b) Mozambique

c) Bahamas (3 x 1) (3)

1.5.3 State ONE reason why Mozambique, as an LEDC, required aid.

[NB: Focus on why Mozambique could not assist itself and NOT on the actual aid/assistance that was given]. (1 x 2) (2)

1.5.4 In a paragraph of approximately EIGHT lines, evaluate the importance of humanitarian aid. (4 x 2) (8)

[60]

QUESTION 2: RESOURCES AND SUSTAINABILITY

2.1 The process of generating electricity from coal as an energy source is shown below. The process (steps) of creating electricity has been randomly arranged.

A	Steam is important for driving the turbine.
B	Coal is crush into a fine powder in a pulveriser.
C	Electric current is converted to a safer voltage at a substation.
D	Coal is mined and transported to the power station.
E	The mechanical energy created by the turbine drives the generator.
F	Pulverised coal is fed into a boiler furnace to produce steam.
G	Electricity is produced through electromagnetic induction.

Place the steps/process in the correct order by re-arranging the letters.

Write only the letters (**A** to **G**), the one below the other. (7 x 1) (7)

2.2 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A to D) next to the question numbers (2.2.1 to 2.2.8), for example 2.2.9 D.

2.2.1 … resources can be used repeatedly.

A Renewable
B Non-renewable
C Finite
D Carbon

2.2.2 … means being able to carry on doing something over a long period of time without causing permanent damage.

A Non-sustainability
B Exploitation
C Sustainability
D Renewal

2.2.3 Which of the following is an example of a non-renewable energy?

A Nuclear
B Solar
C Hydro
D Wind

2.2.4 South Africa's main electricity supply comes from …

A Sasol.
B Engen.
C Eskom.
D Koeberg.

2.2.5 In South Africa, the main coal mines and coal-powered power stations are in …

A Western Cape
B Mpumalanga
C Limpopo
D Gauteng

2.2.6 Identify the energy source in the photograph:



A Wind
B Water
C Nuclear
D Coal

2.2.7 Which mineral is used to generate nuclear energy?

A Coal
B Uranium
C Platinum
D Iron ore

2.2.8 The following is a disadvantage of using nuclear power.

A It is a renewable form of energy.
B There is no release of greenhouse gases.
C Nuclear energy produces radioactive waste.
D Nuclear reactions can produce more energy than wind energy.

(8 x 1) (8)

2.3 Read the extract on soil erosion in South Africa.

SOIL EROSION IN SOUTH AFRICA

Soil erosion is a major environmental problem confronting land and water resources in South Africa. Although soil erosion is a natural process, it is often accelerated by human activities, for example by the clearing of vegetation, soil tillage or overgrazing.

Poor farming practices as well as the trend toward agricultural intensification have been considered to be major causes of erosion. Soil formation is a relatively slow process and therefore soil is essentially a non-renewable and a limited resource. Soil erosion not only involves the loss of fertile topsoil and reduction of soil productivity, but is also coupled with serious off-site impacts on South Africa's dams and other water resources.

2.3.1 Why is soil an important natural resource? (2 x 2) (4)

2.3.2 According to the extract, what speeds up soil erosion. (1 x 1) (1)

2.3.3 Considering your answer to QUESTION 2.3.2, describe how it speeds up erosion. (1 x 2) (2)

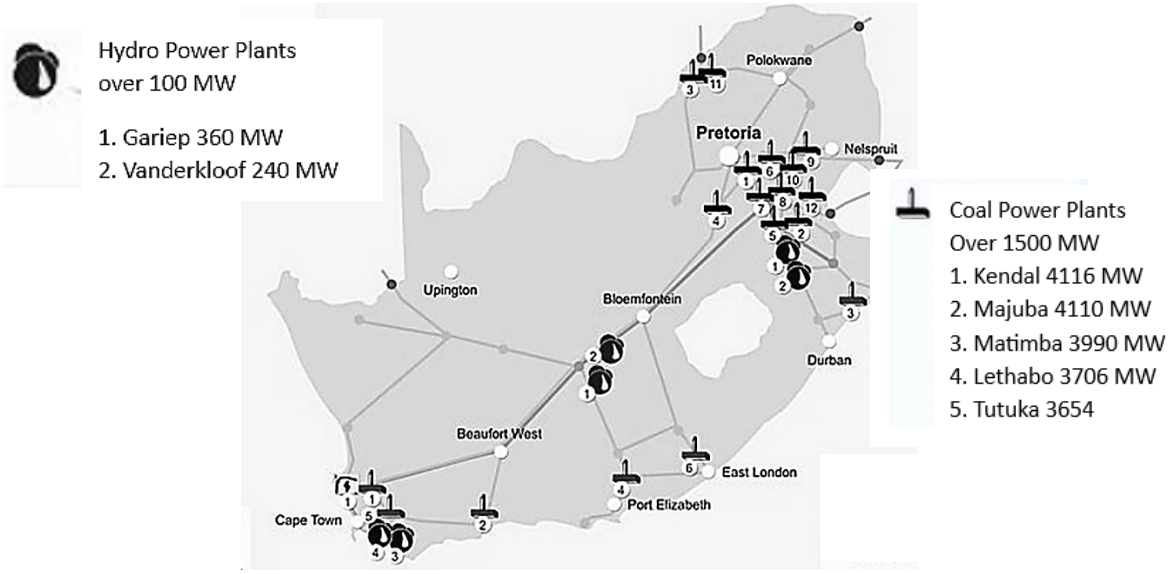
2.3.4 Discuss the off-site impacts that soil erosion has on water resources. (1 x 2) (2)

2.3.5 Evaluate the impact of soil erosion on economic growth. (1 x 2) (2)

2.3.6 Recommend strategies that farmers should use to prevent and control soil erosion. (2 x 2) (4)

2.4 Refer to the information on electricity generation in South Africa.

ELECTRICITY GENERATION IN SOUTH AFRICA

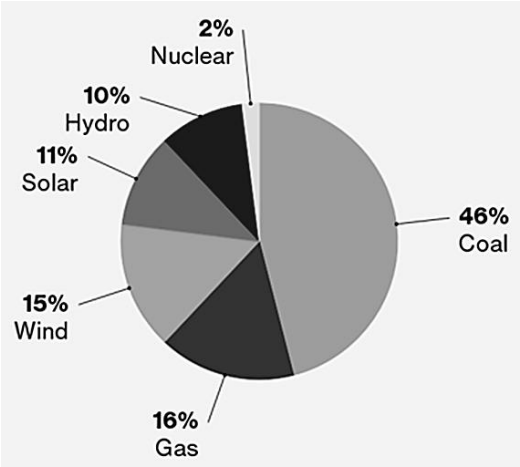


2.4.1 What is the main source of energy used for electricity generation in South Africa? (1 x 1) (1)

2.4.2 Name ONE dam in South Africa where hydroelectricity is generated. (1 x 1) (1)

2.4.3 How much electricity (in MW) is generated at Majuba power plant? (1 x 1) (1)

2.4.4 The pie chart below shows South Africa's energy plan for 2030.

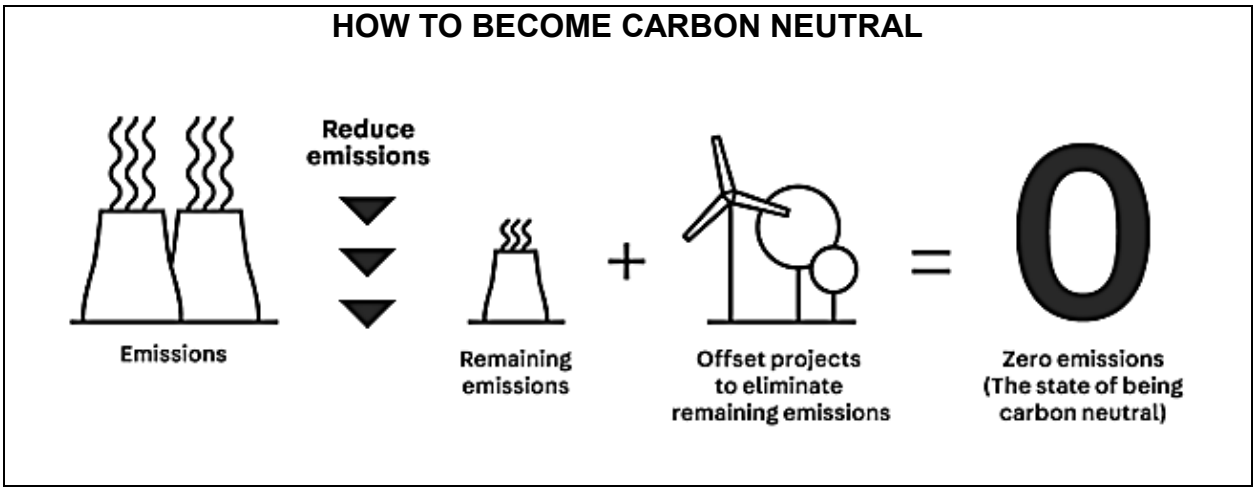


Use the pie chart and the set of axes on the inside cover of the answer book to complete bars for hydroelectricity and coal. (2 x 1) (2)

2.4.5 Discuss reasons for South Africa's heavy dependence on the energy source identified in QUESTION 2.4.1. (2 x 2) (4)

2.4.6 Describe the negative impact of using the energy source, identified in QUESTION 2.4.1, on the natural environment. (3 x 2) (6)

2.5 Study the illustration below.



2.5.1 What is the term given to *the measurement of all greenhouse gases (especially carbon dioxide) we produce individually*. (1 x 1) (1)

2.5.2 Use the illustration to describe how we can become carbon neutral. (2 x 1) (2)

2.5.3 Carbon offset projects are designed to mitigate (make less harmful) climate change by reducing, avoiding, or removing greenhouse gas emissions from the atmosphere.

Suggest ONE carbon offset 'project', and describe how it is likely to reduce the amount of carbon dioxide in the atmosphere. (2 x 2) (4)

2.5.4 In a paragraph of approximately EIGHT lines describe practical ways in which households can reduce their carbon emissions and in general use natural resources more sustainably. (4 x 2) (8)

[60]

TOTAL SECTION A: 120

SECTION B:

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1 **MAP SKILLS AND CALCULATIONS**

Refer to the information on the magnetic declination for Ermelo.

3.1.1 The difference in years, using the current year, is …

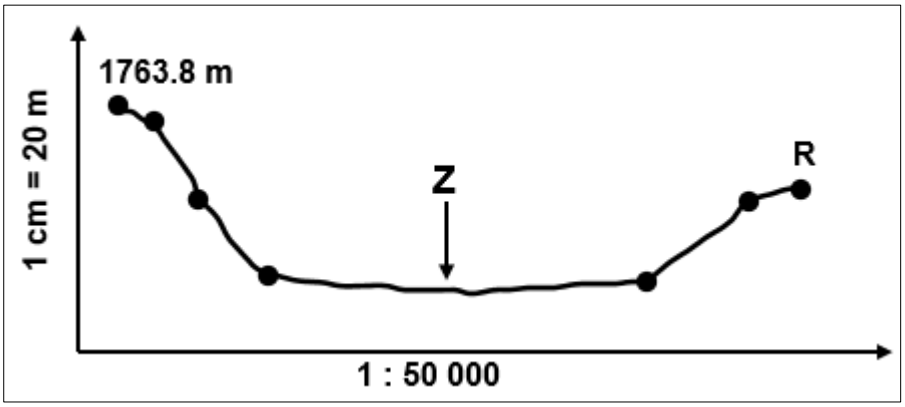
A 10.
B 11.
C 12.
D 13. (1 x 1) (1)

3.1.2 The mean annual change is … westwards.

A 18°
B 34’
C 2013
D 4’ (1 x 1) (1)

3.1.3 Use the answers to QUESTIONS 3.1.1 and 3.1.2 to calculate the current magnetic declination for Ermelo. (3 x 1) (3)

The cross-profile (not drawn to scale) shows the valley between trigonometrical station 305 (in block **D2**) and the reservoir (in **D4**) on the topographical map.



3.1.4 Identify the natural feature at **Z** on the cross-section. (1 x 1) (1)

3.1.5 Convert the vertical scale of 1 cm = 20 m into a ratio scale. (2 x 1) (2)

3.1.6 Calculate the vertical exaggeration for the cross-section.

Formula: $\boldsymbol{Vertical\ Exaggeration} = \frac{\boldsymbol{Vertical\ Scale}}{\boldsymbol{Horizontal\ Scale}}$ (2 x 1) (2)

3.2 **MAP INTERPRETATION**

3.2.1 The N2 national route connects Ermelo with …

A Camden
B Chrissiesmeer
C Breyton
D Piet Retief (1 x 1) (1)

Compare the settlement named Wesselton (**A4** and **B4**) with George Botha Park (in block **C5**) of the topographical map.

3.2.2 Which settlement (Wesselton or George Botha Park) has a higher level of development? (1 x 1) (1)

3.2.3 Provide TWO reasons for your answer to QUESTION 3.2.2. (2 x 2) (4)

Coal is mined near Ermelo.

3.2.4 List TWO pieces of evidence on the topographical map that shows that mining is taking place. (2 x 1) (2)

3.2.5 What social benefit does mining bring to Ermelo?

A Mining companies earn profits.
B Coal can be exported.
C Employment in mines helps to alleviate poverty.
D Social unrest and labour strikes are frequent. (1 x 1) (1)

3.2.6 Identify evidence from the topographical map that the following is available to make mining successful in Ermelo.

a) Labour force

b) Transportation

c) Power supply (3 x 1) (3)

3.3 **GEOGRAPHICAL INFORMATION SYSTEMS (GIS)**

The orthophoto map is a vertical aerial photograph with information from a topographical map added to it.

3.3.1 The vertical aerial photograph was captured using a process called …

A remote sensing.
B satellites.
C data standardisation.
D buffering. (1 x 1) (1)

3.3.2 Which of the following is found in block **A1** of the orthophoto?

A Cultivated land
B Residential area
C Sewerage works
D Landing strip (1 x 1) (1)

3.3.3 The orthophoto has a (high / medium / low) spatial resolution. (1 x 1) (1)

3.3.4 Explain why pixels have an influence on the spatial resolution of the orthophoto map. (2 x 1) (2)

3.3.5 Identify the feature marked **6** on the orthophoto map. (1 x 1) (1)

3.3.6 Discuss the important role that the transport data layer played in the location of feature **6**. (1 x 2) (2)

[30]

TOTAL SECTION B: 30

GRAND TOTAL: 150