KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY P2

PREPARATORY EXAMINATION

SEPTEMBER 2022

MARKS: 150

TIME: 3 hours

This question paper consists of 16 pages.

Copyright Reserved

INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO SECTIONS:

   SECTION A

   QUESTION : 1 Rural and Urban Settlement (60)
   QUESTION : 2 Economic Geography of South Africa (60)

   SECTION B

   QUESTION : 3 Geographical Skills and Techniques (30)

2. Answer ALL THREE questions in the ANSWER BOOK provided.
3. ALL diagrams are included in the QUESTION PAPER.
4. Leave a line open 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 your ANSWER BOOK.
8. Draw fully labelled diagrams when instructed to do so.
9. Answer in FULL SENTENCES, when you have to state, name, identify or list.
10. Units of measurement MUST be indicated in the final answer, e.g. 1 020 hPa, 10km, 4°C, and 50m.
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

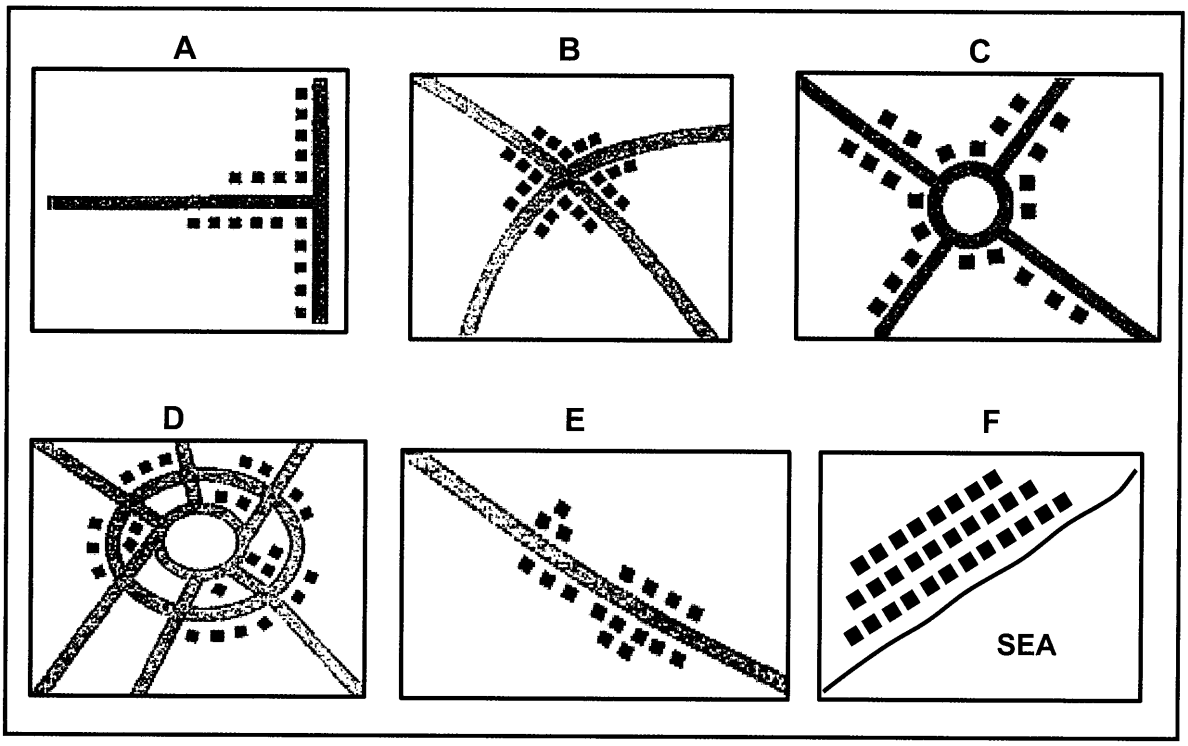
14. A 1 : 50 000 topographic map 2629 DB ERMELO and a 1 : 10 000 orthophoto map 2629DB 5 ERMELO are provided.
15. The area demarcated in RED/BLACK on the topographic map represents the area covered by the orthophoto map.
16. Show ALL calculations. Marks will be allocated for this.
17. You must hand in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

Copyright Reserved

SECTION A

QUESTION 1: RURAL AND URBAN SETTLEMENTS

1.1 Match the sketches A-F showing settlement shapes with the descriptions below. Choose the answer and write down only the letter (A-F) next to the question numbers (1.1.1 to 1.1.7) in the ANSWER BOOK, e.g.1.1.8 E.



[Adapted from: www.studyadda.com]

1.1.1 Along a road or river

1.1.2 For defense (security) purposes

1.1.3 Where two main roads intersect

1.1.4 At a T-junction in a road

1.1.5 Along radiating transport routes

1.1.6 Around a central feature

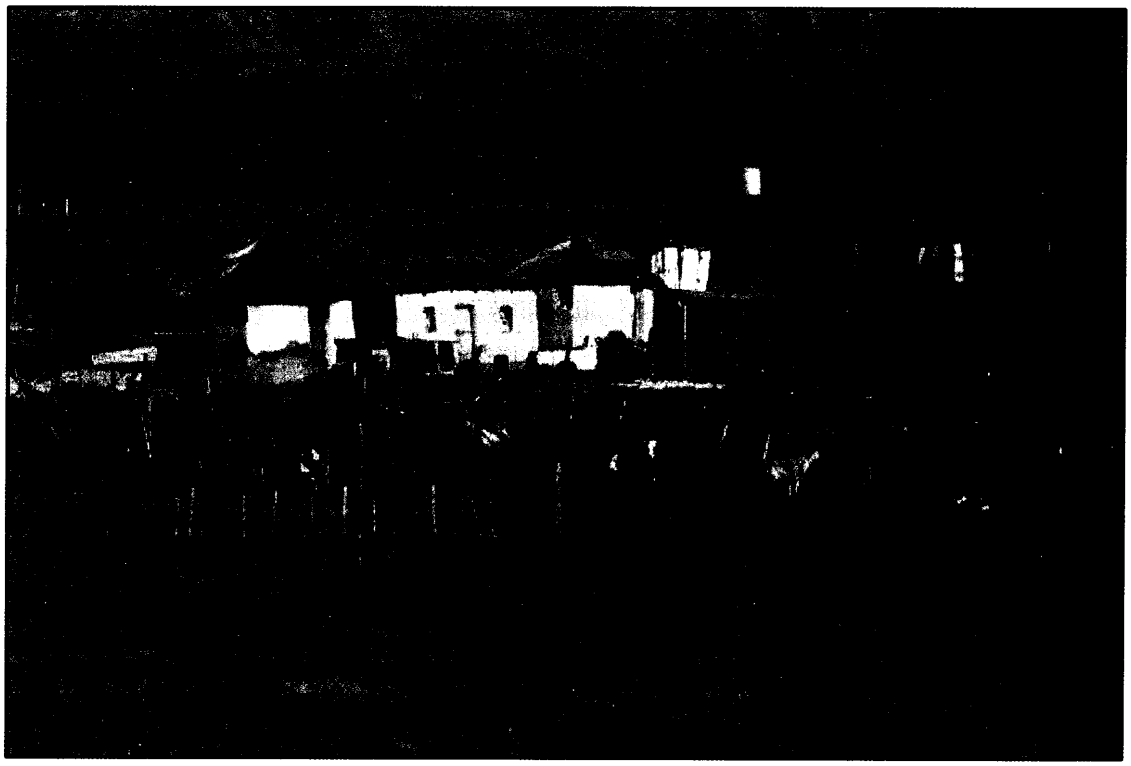
1.1.7 Influenced by a physical barrier (7 x 1) (7)

1.2 Choose a term/concept from COLUMN B that matches the description in COLUMN A. Write down only the letter (A – I) next to the question numbers (1.2.1 to 1.2.8) in the ANSWER BOOK, e.g. 1.2.9 J.

COLUMN A	COLUMN B
1.2.1 Increase in the percentage of people living in urban areas	A Urban profile
1.2.2 Deterioration of parts of an urban area	B Urban growth
1.2.3 Zone on the outskirts of the city with mixed land-use functions	C Urban blight
1.2.4 Internal structure of an urban area	D Urbanization
1.2.5 Uncontrolled growth of cities	E Urban morphology
1.2.6 Increase in the size of urban areas	F Urban hierarchy
1.2.7 Increase in the absolute number of people living in urban areas	G Urban sprawl
1.2.8 System of ranking settlements according to size and function	H Urban expansion
	I Rural-urban fringe

(8 x 1) (8)

1.3 Refer to the photograph below of a rural settlement.



[Source: https://www.moneyweb.co.za/news/south-africa/the-complexities-of-south-african]

1.3.1 Classify the settlement in the photograph according to the following:

(a) function (1 x 1) (1)

(b) size and complexity (1 x 2) (2)

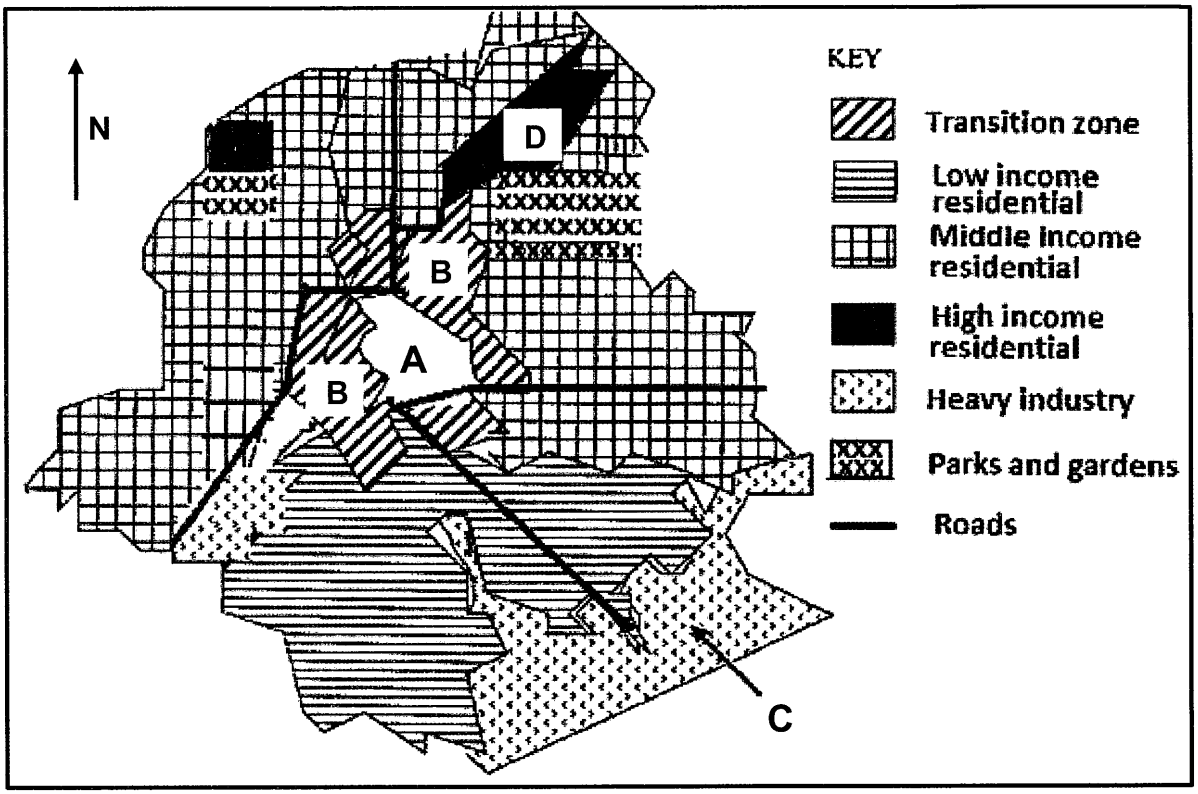
1.3.2 How has the settlement in the photograph ensured a regular water supply? (1 x 2) (2)

1.3.3 Describe TWO physical factors that favored the site of this settlement. (2 x 2) (4)

1.3.4 Suggest THREE sustainable strategies that could be put in place to improve the conditions of the people living in this settlement. (3 x 2) (6)

Copyright Reserved

1.4 Refer to the sketch below showing the internal structure of an urban settlement.



[Adapted from https://www.google.com/search?q=urban%20land%20use%20zones&tbm =isch&hl]

1.4.1 Identify the land-use zone labelled **A**. (1 x 1) (1)

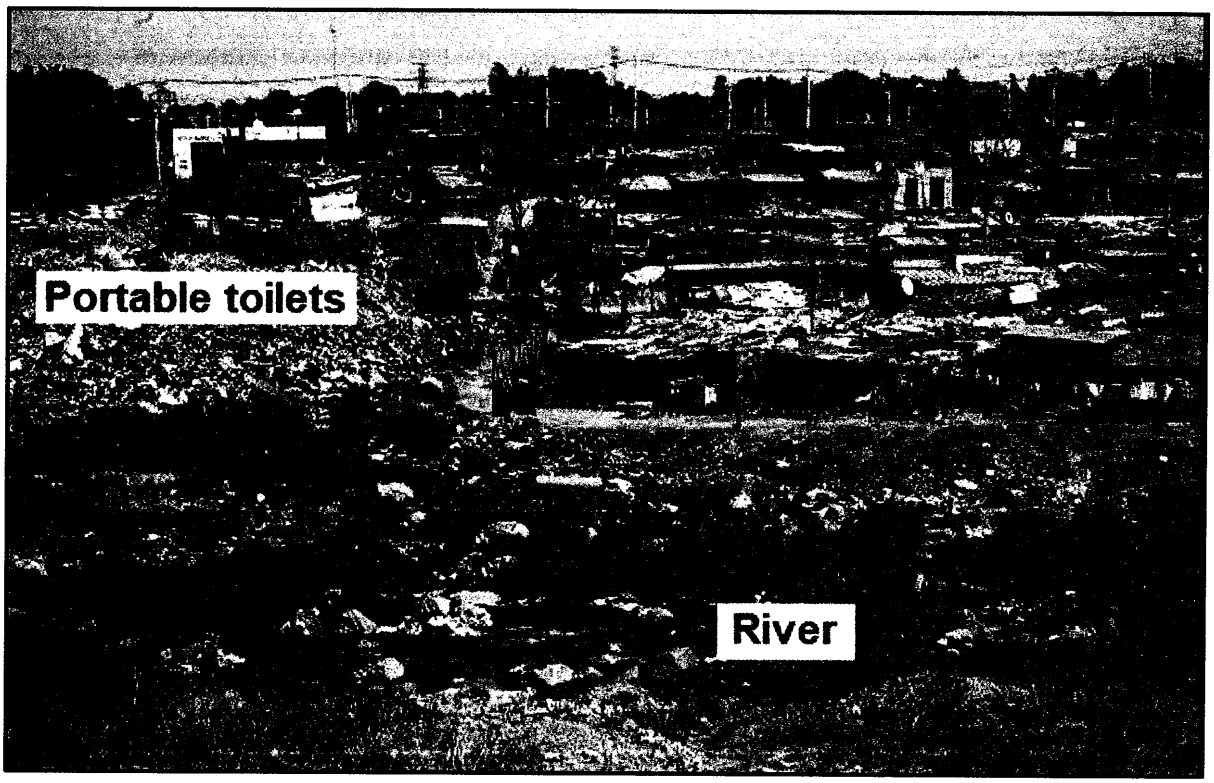
1.4.2 Give ONE reason why land-use zone **B** does not completely surround land-use zone **A**. (1 x 2) (2)

1.4.3 Why are the land-use areas labelled **C** and **D** not compatible? (2 x 2) (4)

1.4.4 In a paragraph of approximately EIGHT lines explain why land-use zone **A** in many South African cities is no longer favored as a location for businesses. (4 x 2) (8)

Copyright Reserved

1.5 Refer to the photograph below showing an informal settlement.



[Source: https://www.sabcnews.com/residents-of-alexandra-up-in-arms-over-mushrooming-illegal-structures/]

1.5.1 Name ONE type of material used to construct the dwellings in the photograph. (1 x 1) (1)

1.5.2 State TWO basic needs that people living in the informal settlement in the photograph do not have easy access to. (2 x 1) (2)

1.5.3 Give ONE reason why the outbreak of a fire would be a serious issue for the informal settlement in the photograph. (1 x 2) (2)

1.5.4 Explain TWO economic reasons for the development of informal settlements. (2 x 2) (4)

1.5.5 Suggest THREE sustainable strategies that local municipalities could implement to reduce the growth of informal settlements. (3 x 2) (6)

Copyright Reserved

QUESTION 2: ECONOMIC GEOGRAPHY OF SOUTH AFRICA

2.1 Choose a term/concept from COLUMN B that matches the description in COLUMN A. Write only the letter (A – I) next to the question numbers (2.1.1 to 2.1.8) in the ANSWER BOOK, e.g. 2.1.9 J.

COLUMN A	COLUMN B
2.1.1 Type of economic activity where a service is rendered	A home market
2.1.2 Total value of goods and services produced in a country, by citizens and non-citizens over a period of a year	B secondary activities
2.1.3 Products sold within a country	C trade agreement
2.1.4 The difference in value between a country's imports and exports	D imports
2.1.5 The total value of goods and services produced in a country in a year including foreign earnings by corporations and citizens overseas	E gross domestic product
2.1.6 Processes and changes raw materials into useful goods	F international trade
2.1.7 Two or more countries decide on terms that help them conduct business with each other	G balance of trade
2.1.8 Goods which are brought into a country	H tertiary activities
	I gross national product

(8 x 1) (8)

Copyright Reserved

2.2 Give ONE concept for each of the following descriptions by choosing a concept from the list below. Write only the concept next to the question numbers (2.2.1 to 2.2.7) in the ANSWER BOOK, e.g. 2.2.8 Industry.

Ubiquitous industries, light industries, Break-of-bulk industries, Industrial decentralization, Spatial Development Initiative, Footloose industries, Industrial agglomeration, heavy industries

2.2.1 Located in or close to the CBD

2.2.2 Located at harbours

2.2.3 Provides services 24 hours a day and 7 days a week from any geographic location

2.2.4 Located in any place without being affected by factors such as resources or transport

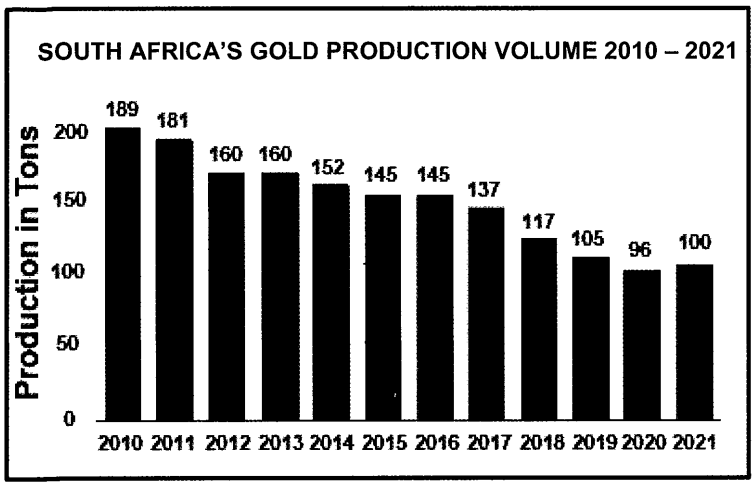
2.2.5 Movement of industries away from core areas

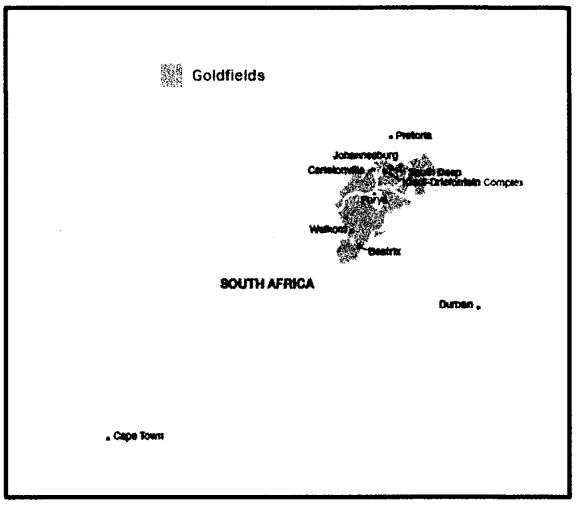
2.2.6 A strategy aimed at developing and improving existing transport infrastructure

2.2.7 Located on cheap land away from the CBD (7 x 1) (7)

Copyright Reserved

2.3 Refer to the infographic below on gold production in South Africa.





Over 50% of all gold reserves are found in South Africa, with the Witwatersrand Basin remaining the largest gold resource in the world. The Wits sedimentary basin is massive and stretches through an arc approximately 400 km across three provinces.

In 1975, South Africa was responsible for producing 40% of all the gold mined. By 2010, however, China affirmed its status as the world's largest gold producer with production of 324 tons of gold, followed by Australia (222.8 tons), and South Africa with 219.8 tons. Today, South Africa produces only 4.2% of the world's gold.

In 2021, an estimated 100 metric tons of gold was produced in South Africa. That was a notable decrease compared to South Africa's gold production volume in 2010, which was 189 metric tons. The gold mining industry in South Africa is an important source of employment.

[Adapted from: https://projectsiq.co.za › gold-mining-in-south-africa.htm]

2.3.1 Which area in South Africa has the largest gold reserves in the world? (1 x 1) (1)

2.3.2 With reference to the map name TWO gold producing provinces in South Africa. (2 x 1) (2)

2.3.3 What is South Africa's current (2021) gold production in relation to the rest of the world? (1 x 2) (2)

2.3.4 Use the graph to calculate the difference in gold production from 2010 to 2020. (1 x 2) (2)

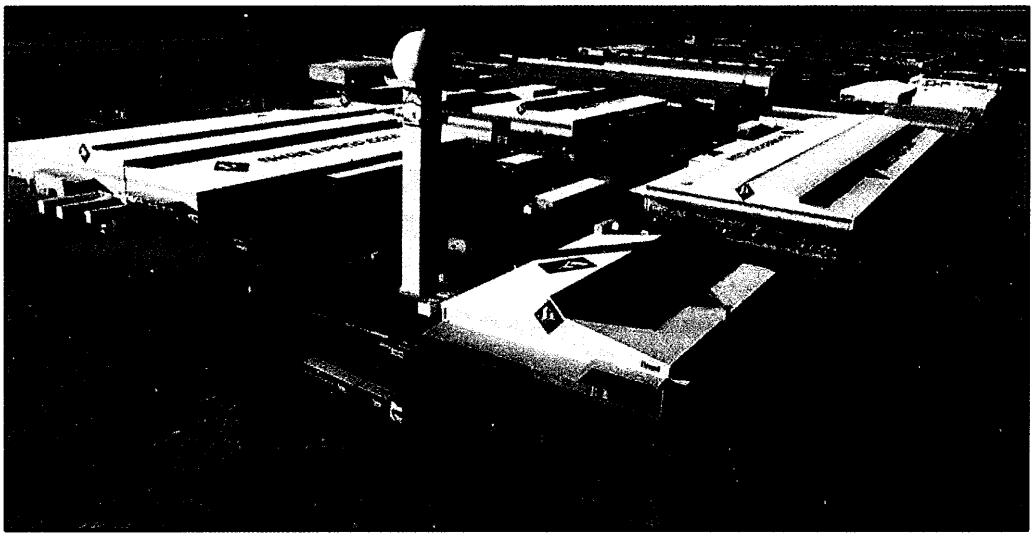
2.3.5 Gold production has dropped significantly from 2010 to 2020. Suggest TWO economic factors that contributed to this trend. (2 x 2) (4)

2.3.6 Discuss TWO contributions made by the gold mining sector to the economy of South Africa. (2 x 2) (4)

Copyright Reserved

2.4 Refer to the photograph and extract below on the Dube TradePort Industrial Development Zone (IDZ).

DUBE TRADEPORT AFRICA'S GLOBAL MANUFACTURING AND AIR LOGISTICS PLATFORM



Dube TradePort Industrial Development Zone (IDZ), is a world-class development offering globally integrated logistics and manufacturing infrastructure, and support for a range of airport-related activities, including cargo operations, warehousing, agriculture, and commercial real-estate for office, retail and hospitality.

The benefits offered to businesses operating within the Industrial Development Zone (IDZ) are geared towards promoting business growth, revenue generation, employment creation, the export of value-added commodities, and the attraction of both foreign and local investment – all enhancing South Africa's manufacturing and export capabilities.

Owned by the KwaZulu-Natal Provincial Government, Dube TradePort is the province's flagship infrastructural development and key priority, forming part of South Africa's National Infrastructure Plan.

Strategically located on the east coast of South Africa, linked to two of Africa's major seaports, major national roads and home to King Shaka International Airport, Dube TradePort is strategically positioned at the intersection of local and global intermodal (different modes) transport routes.

2.4.1 In which province is the Dube TradePort IDZ located? (1 x 1)(1)

2.4.2 Identify ONE example of an activity mentioned in the extract that can be considered a

(a) primary economic activity
(b) tertiary economic activity (2 x 1)(2)

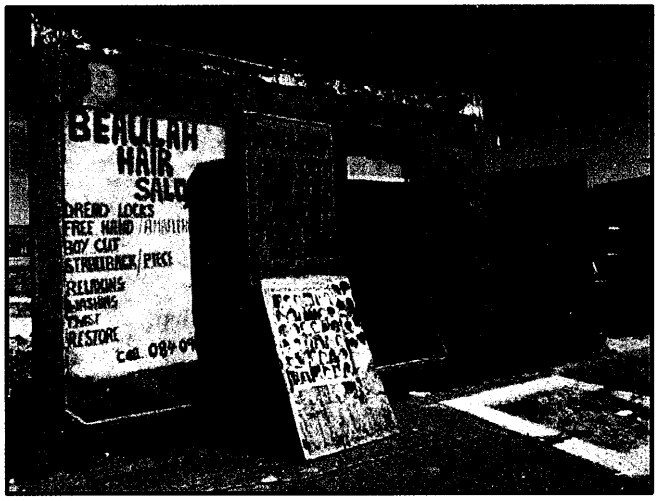
2.4.3 How does the existing infrastructure promote the development of the Dube TradePort IDZ? (2 x 2) (4)

2.4.4 In a paragraph of approximately EIGHT lines, explain how the Dube TradePort IDZ will have a positive economic impact on the local people. (4 x 2)(8)

Copyright Reserved

2.5 Refer to the extract below on the informal sector.

HAIRDRESSING AS A LIVELIHOOD IN THE INFORMAL SECTOR



With unemployment at unacceptably high levels in many areas some budding entrepreneurs are turning to the informal hair care industry to make a living. Mobile container hair salons dot almost every street in townships.

It's becoming big business with as many as six self-styled hair salons crammed along one street. The competition is stiff but there's apparently enough demand for some pampering to go around.

The informal hair care market is projected to grow at a rate of 6.6% during the forecast period (2022- 2027). The hair care market has been affected by the COVID-19 pandemic, as there have been widespread retail and salon store closures leading to the notable trends of do-it-yourself (DIY) beauty care. Hairdressers are placed in the role of informal assistants because clients often raise personal and emotional problems with them during appointments.

While the informal sector is the 'second' economy in many ways, it provides livelihoods, employment and income for about 2.5 million workers and business owners. One in every six South Africans who work, work in the informal sector.

[Adapted from: https://nextcity.org/urbanist-news/rethinking-architecture-to-evade-violence]

2.5.1 According to the extract, at what rate is the informal hair care market expected to grow from 2020 to 2027.? (1 x 1) (1)

2.5.2 With reference to the extract give ONE reason for the rapid growth of the informal hair care market. (1 x 2) (2)

2.5.3 Why is the informal sector regarded as the 'second' economy? (1 x 2) (2)

2.5.4 How would formalising the informal hair care business impact positively on the economy? (2 x 2) (4)

2.5.5 Suggest THREE ways in which informal traders can be empowered to make a meaningful contribution to the South African economy. (3 x 2) (6)

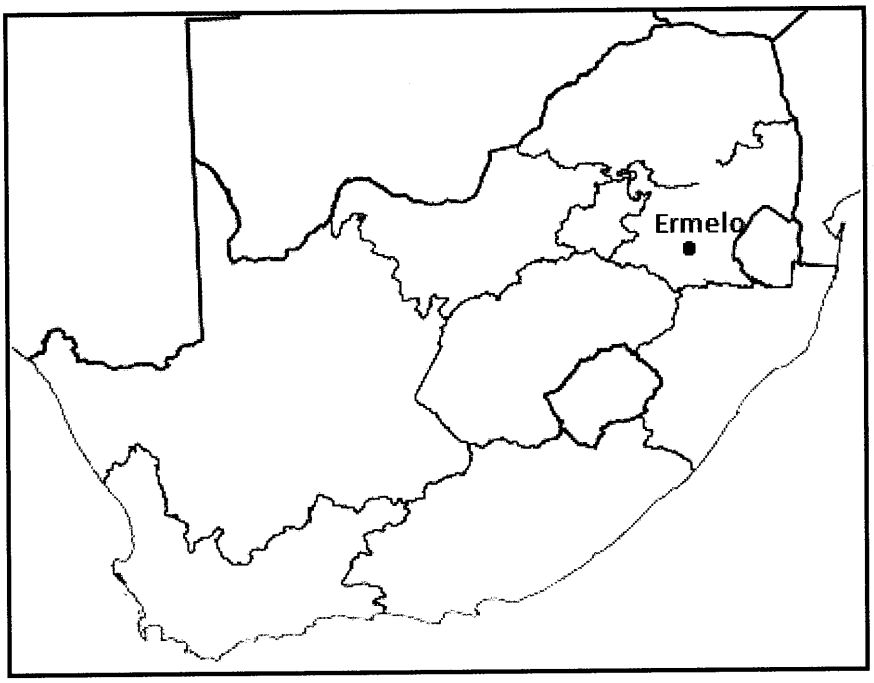
TOTAL FOR SECTION A: [120]

Copyright Reserved

SECTION B

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

GENERAL INFORMATION ON ERMELO



Coordinates: 26°31'S; 29°58'E

Ermelo is an educational, industrial and commercial town in the 7,750 km^2 Gert Sibande District Municipality in Mpumalanga, South Africa. It is located 210 km east of Johannesburg. It is both a mixed farming and mining region. Mixed farming, such as maize and cattle, take place within the district. Mining is important to the district with anthracite, coal and torbernite being mined.

[Source: https://en.wikipedia.org/wiki/Ermelo,Mpumalanga]

The following English terms and their Afrikaans translations are shown on the topographic map.

ENGLISH	AFRIKAANS
Diggings	Uitgrawings
River	Rivier
Sewerage works	Rioolwerke
Opencast mine	Oopgroefmyn
Prison	Tronk
Purification Plant	Suiweringsaanleg

Copyright Reserved

3.1 MAP SKILLS AND CALCULATIONS

3.1.1 The town north-north west of Ermelo when travelling on the N11 is …

A. Chrissiensmeer
B. Hendrina
C. Breyten
D. Wesselton (1 x 1)(1)

3.1.2 The contour interval on the orthophoto map is ... metres.

A. 5
B. 10
C. 20
D. 50 (1 x 1)(1)

3.1.3 Calculate the area covered by the orthophoto map as demarcated in black/red on the topographic map in km².

Formula: **Area = Length (L) x Breadth (B)** (5 x 1)(5)

3.1.4 Determine the true bearing of the windpump in block **D1** from trigonometrical station 305 in block **D2** on the topographic map. (1 x 1)(1)

3.1.5 The magnetic declination for 2022 is **19°10'** west of true north. Use the true bearing in your answer to QUESTION 3.1.4 to calculate the present magnetic bearing.

Formula: **MB = True Bearing (TB) + Magnetic Declination (MD)** (1 x 1)(1)

3.1.6 Identify the feature that is located at the following grid reference:

26° 33' 49"S; 29° 58' 23"E (1 x 1)(1)

Copyright Reserved

3.2 MAP INTERPRETATION

Refer to the settlement CASSIM PARK in block **D1/2** and **E1/2** on the orthophoto map.

3.2.1 The settlement pattern of CASSIM PARK is (nucleated/dispersed). (1 x 1)(1)

3.2.2 Give ONE social advantage for people living in the settlement identified in QUESTION 3.2.1. (1 x 2)(2)

Refer to the cemetery in blocks **A4** and **A5** on the topographic map.

3.2.3 The cemetery is located in the ...

A. commercial zone.
B. industrial zone.
C. transition zone.
D. rural-urban fringe. (1 x 1)(1)

3.2.4 Why is the location chosen (answer to QUESTION 3.2.3) an ideal site for the cemetery? (1 x 2) (2)

Refer to **H** on the topographic map.

3.2.5 Identify street pattern (plan) **H**. (1 x 1)(1)

3.2.6 Why is street pattern (plan) **H** more popular in new developments? (1 x 2)(2)

Refer to block **E4** on the orthophoto map.

3.2.7 Identify the type of primary activity practiced in block **E4**. (1 x 1)(1)

3.2.8 How does the primary activity (identified in QUESTION 3.2.7) have an economic impact on the local community? (1 x 2)(2)

Copyright Reserved

3.3 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

Refer to blocks **D1** and **E1** on the topographic map. There has been an increase in soil erosion due to extensive farming and opencast mining in the area. The local municipality uses remote sensing to assess the impact of soil erosion on the dams in blocks **D1** and **E1**.

3.3.1 Define the concept *remote sensing*. (1 x 2) (2)

3.3.2 How is remote sensing used to monitor the negative impact of the increased soil erosion on the dams in the area? (1 x 2) (2)

Refer to the hospital at **6** in block **E5** on the orthophoto map.

3.3.3 Identify ONE spatial data of this hospital. (1 x 1) (1)

3.3.4 Give ONE attribute data of the hospital. (1 x 1) (1)

3.3.5 Identify TWO data layers that would have been considered before the hospital was constructed. (2 x 1) (2)

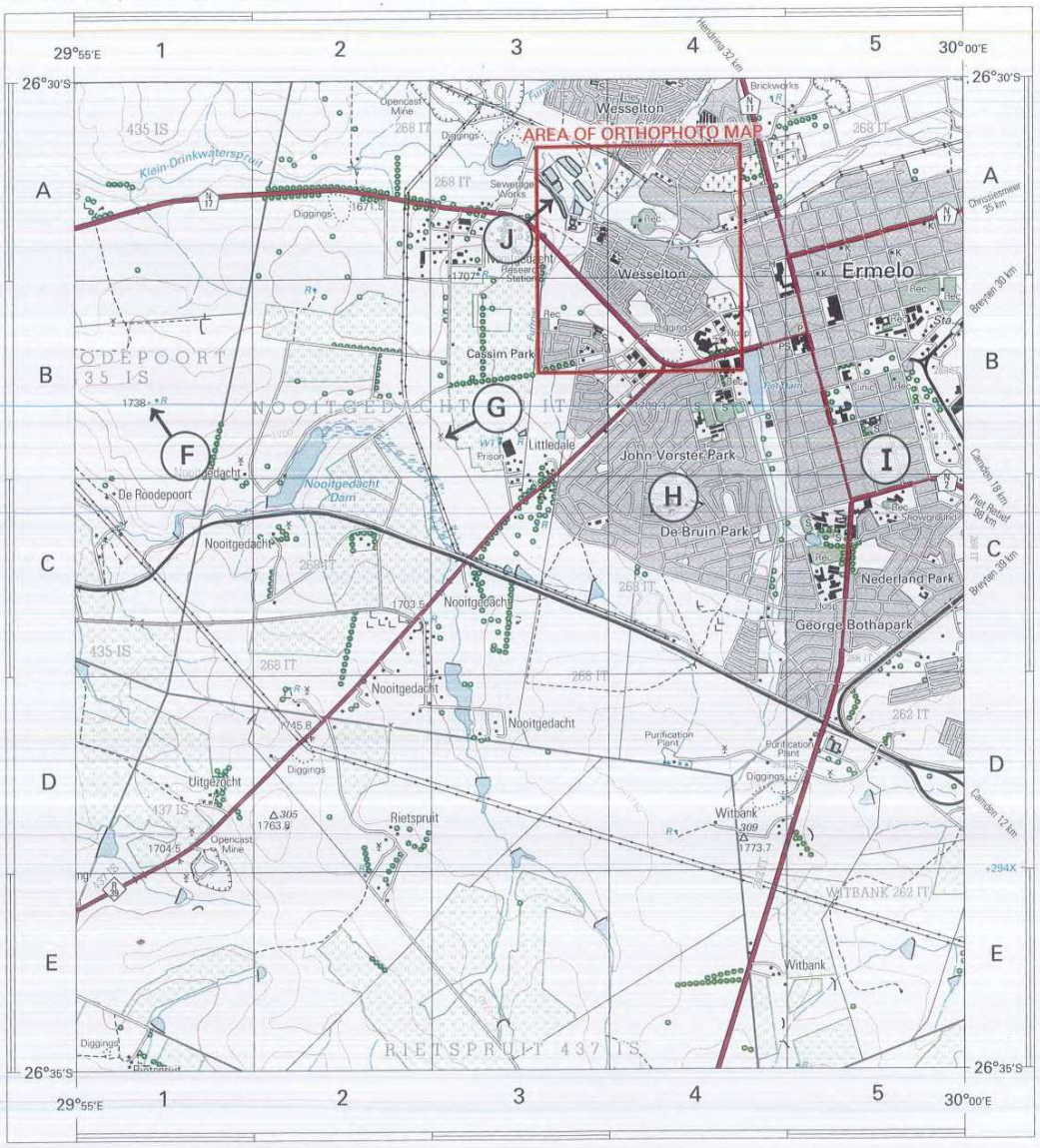
TOTAL FOR SECTION B: [30]

TOTAL FOR PAPER: [150]

Copyright Reserved

EXTRACT FROM 2629DB ERMELO

1:50 000



Gemiddelde magnetiese deklinasie 18°34' Wes van Ware Noord (Oktober 2013).
Gemiddelde jaarlikse verandering 4' Weswaarts (Okt. 2013 - Sept. 2014).

Mean magnetic declination 18°34' West of True North (October 2013).
Mean annual change 4' Westwards (Oct. 2013 - Sept. 2014).

CONTOUR INTERVAL 20 METRES · KONTOERTUSSENRUIMTE 20 METER

REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road; Bridge
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruin
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-Perennial Water
- Dry Water Course
- Dry Pan
- Marsh and Vlei
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- Erosion; Sand
- Woodland
- Cultivated Land
- Orchard or Vineyard
- Recreation Ground
- Row of Trees
- Original Farms

EXTRACT FROM 2629DB 5 ERMELO

1:10 000



CONTOUR INTERVAL 5 METRES - KONTOERTUSSENRUIMTE 5 METER

VERKLARING

- Nasionale Deurpad; Nasionale Roete
- Hoofverkeersroete
- Hoofpad
- Sekondêre Pad; Hoogtemerk
- Ander Pad; Brug
- Dowwe Pad en Voetslaanpad
- Spoorweg; Stasie of Sylyn
- Ander Spoorweg; Tonnel
- Opvulling; Deurgrawing
- Kraglyn
- Beboude Gebied (Hoë, Lae Digtheid)
- Gebeue; Murasie
- Poskantoor; Polisiestasie; Winkel
- Plek van Aanbidding; Skool; Hotel
- Internasionale Grens en Baken
- Provinsiale Grens
- Bewarings Gebied
- Standhoudende Rivier
- Standhoudende Water
- Nie-standhoudende Rivier
- Nie-standhoudende Water
- Droë Loop
- Droë Pan
- Moeras en Vlei
- Pyplyn (bo die grond)
- Watertoring; Reservoir; Waterpunt
- Kuslynrotse
- Prominente Klipbank
- Draadheining; Muur
- Windpomp; Monument
- Kommunikasietoring
- Mynhoop; Uitgrawing
- Peilbaken; Seevaartbaken
- Vuurtoring en Seevaartlig
- Begraafplaas; Graf
- Erosie; Sand
- Beboste Gebied
- Bewerkte Land
- Boord of Wingerd
- Ontspanningsterrein
- Rye Bome
- Oorspronklike Plase