



Education

KwaZulu-Natal Department of Education
REPUBLIC OF SOUTH AFRICA

**GEOGRAPHY P1 (THEORY - SECTION A) &
GEOGRAPHY P2 (MAPWORK - SECTION B)**

COMMON TEST

MARCH 2017

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

MARKS: 100 (THEORY 75 + MAPWORK 25)

TIME: 1½ hour (THEORY 1 hour + MAPWORK 30 minutes)

**N.B. This question paper consists of 13 pages and an
Annexure of 5 pages.**

INSTRUCTIONS

1. The question paper consists of **TWO** sections: **SECTION A (Paper 1)** and **SECTION B (Paper 2)**
2. Both sections must be written in **ONE** session: 1.5 hours.
3. **SECTION A: Paper 1: CLIMATE AND WEATHER AND GEOMORPHOLOGY**
(1 HOUR)
MARKS: 75
4. **SECTION B: Paper 2: MAPWORK (30 MINUTES)**
MARKS: 25
5. ALL diagrams in **SECTION A** are included in the **Annexure**.
6. Answer **ALL** questions.

QUESTION 1

1.1 Study FIGURE 1.1 indicating a certain climatic condition in the atmosphere and answer the following questions. Only select the correct answer between brackets.

1.1.1 The climatic condition illustrated in the valley is termed (greenhouse effect /inversion).

1.1.2 The bottom layer of the atmosphere shows a/an (increase/decrease) in temperature.

1.1.3 The temperature usually decreases by (1°C/10°C) for every 100 metre increase in height.

1.1.4 At night time a (katabatic/anabatic) wind will develop along the valley slope.

1.1.5 This climatic condition can easily lead to the formation of (frost/fog) if the dew point temperature is below 0°C.

1.1.6 This condition mainly occurs at (night/day).

1.1.7 This condition usually occurs (at hilltops/in valleys).

1.1.8 The (warm front/thermal belt) is the warmer air layer that is trapped above and beneath the cool air. (8 x 1) (8)

1.2 Study FIGURE 1.2 based on river capture and answer the questions that follow. Write down only the correct word next to the question number (1.2.1-1.2.7) in the ANSWER BOOK, for example 1.2.8 waterfall.

wind gap	waterfall	captured stream	elbow of capture
captor stream	watershed	misfit stream	headward erosion

1.2.1 The stream that has more energy and is rejuvenated.

1.2.2 The point where the stream piracy has taken place

1.2.3 The stream which flows in a valley that is too big for the stream.

1.2.4 At **E**, the river valley is dry with river gravel.

1.2.5 The stream that lost its water to a more energetic river.

1.2.6 The river feature that can develop at **G** because of a difference in height

1.2.7 The feature at **H**. (7 x 1) (7)

SYNOPTIC WEATHER MAP

- 1.3 Study the synoptic weather map in FIGURE 1.3A and 1.3B and answer the following questions.
- 1.3.1 Name the season represented on the synoptic weather map. (1 x 1) (1)
- 1.3.2 What evidence suggests that **A** is a high pressure cell? (1 x 1) (1)
- 1.3.3 Refer to mid-latitude cyclones **D** and **B**.
- (a) Is mid-latitude cyclone **D** or **B** older? (1 x 1) (1)
- (b) Give a reason for your answer to question 1.3.3(a). (1 x 2) (2)
- 1.3.4 State why cold-frontal systems occur more frequently over South Africa during the colder months of the year. (1 x 2) (2)
- 1.3.5 FIGURE 1.3B illustrates the weather changes that have taken place at Cape Town as the cold front moved over. Describe and account for the changes in
- (a) temperature being experienced.
- (b) wind. (2 x 2) (4)
- 1.3.6 Evaluate the importance of using synoptic weather maps and satellite imagery as weather warning systems. (2 x 2) (4)

TROPICAL CYCLONE

1.4 Read the extract in FIGURE 1.4 before answering the following questions.

- 1.4.1 (a) Which one of the three cyclones mentioned in the article developed first? (1 x 1)(1)
- (b) Give ONE reason to support your answer to QUESTION 1.4.1 (a). (1 x 1)(1)
- 1.4.2 In which stage of development was Cyclone Phailin before it reached land? (1 x 1)(1)
- 1.4.3 Explain why Cyclone Phailin dissipated when it moved inland. (1 x 2)(2)
- 1.4.4 Explain the statement that 'India was better prepared for the approach of Cyclone Phailin than for similar destructive storms in the same area'. (1x 2)(2)
- 1.4.5 Discuss, in approximately eight lines, why the disaster management team of India would encounter more problems after the storm than during the storm itself. (4 x 2)(8)

DRAINAGE BASIN

1.5 Refer to FIGURE 1.5 illustrating a drainage basin and answer the questions that follow.

- 1.5.1 What is a *drainage basin*? (1 x 1)(1)
- 1.5.2 (a) Name the drainage pattern illustrated in FIGURE 2.5. (1 x 1)(1)
- (b) Give ONE reason for your answer to QUESTION 1.5.2 (a). (1 x 1)(1)
- 1.5.3 Determine the stream order of the main river where it flows out of the drainage basin. (1 x 2)(2)

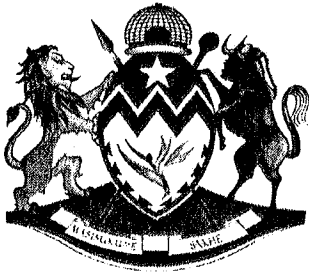
- 1.5.4 The illustrated drainage basin will experience flooding during the rainy seasons.
- (a) Outline the impact that flooding will have on the stream order of the main river where it flows out of the drainage basin. (2 x 2) (4)
 - (b) Explain the impact that flooding will have on the drainage density of the illustrated drainage basin. (1 x 2) (2)
 - (c) Suggest TWO measures that can be introduced to reduce flooding in the main river of the illustrated drainage basin. (2 x 2) (4)

MEANDERING RIVER

- 1.6 Refer to FIGURE 1.6 of a meandering river, and answer the following questions.
- 1.6.1 Name the course of river flow for the river in FIGURE 1.6. (1 x 1) (1)
 - 1.6.2 State the dominant geomorphologic process in this course of river flow of QUESTION 1.6.1. (1 x 1) (1)
 - 1.6.3 Describe the nature of river flow of the river in FIGURE 1.6. (1 x 1) (1)
 - 1.6.4 Draw a simple free hand cross section of the meander in FIGURE 1.6 along line A-B. Label the area with a high rate of erosion with a label. (1 x 2) (2)
 - 1.6.5 Explain why the soil on both sides of the floodplain is fertile. (1 x 2) (2)
 - 1.6.6 A settlement developed along the banks of the river at C. Write a paragraph and discuss the possible impact that human activities could have on this river and why the river maybe less sustainable for future use? (4 x 2) (8)

TOTAL MARKS: 75

25



Education

KwaZulu-Natal Department of Education
REPUBLIC OF SOUTH AFRICA

GEOGRAPHY P2 (MAPWORK) – SECTION B

COMMON TEST

MARCH 2017

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

MARKS: 25

TIME: 30 minutes

NAME: _____

DIVISION: _____

RESOURCE MATERIAL

1. An extract from topographical map 2729BD VOLKSRUST (EXTRACT).
2. Orthophoto map 2729 BD 13 VOLKSRUST.
3. **NOTE:** The resource material must be collected by schools for their own use.

INSTRUCTIONS AND INFORMATION

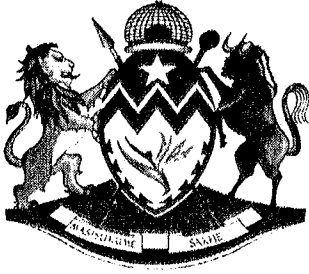
1. Write your NAME and DIVISION in the spaces on the cover page.
2. Answer ALL the questions in the spaces provided in this question paper.
3. You are provided with a 1 : 50 000 topographical map 2729BD VOLKSRUST (EXTRACT) and an orthophoto map 729 BD 13 VOLKSRUST of a part of the mapped area.
4. You must hand the topographical map and the orthophoto map to the invigilator at the end of this test session.
5. You may use the blank page at the back of this question paper for all rough work and calculations. Do NOT detach this page from the question paper.
6. Show ALL calculations and formulae, where applicable. Marks will be allocated for these.
7. Indicate the unit of measurement in the final answer of calculations.
8. You may use a non-programmable calculator.
9. The following English terms and their Afrikaans translations are shown on the topographical map:

ENGLISH

Aerodome
Diggings
Furrow
Golf Course
Rifle Range
River
Sawmills
Sewage Works
Silos

AFRIKAANS

Vliegveld
Uitgrawings
Voor
Gholfbaan
Skietbaan
Rivier
Saagmeule
Rioolwerke
Graansuiers



Education

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**GEOGRAPHY P1 (THEORY - SECTION A) &
GEOGRAPHY P2 (MAPWORK - SECTION B)**

**ANNEXURE
COMMON TEST**

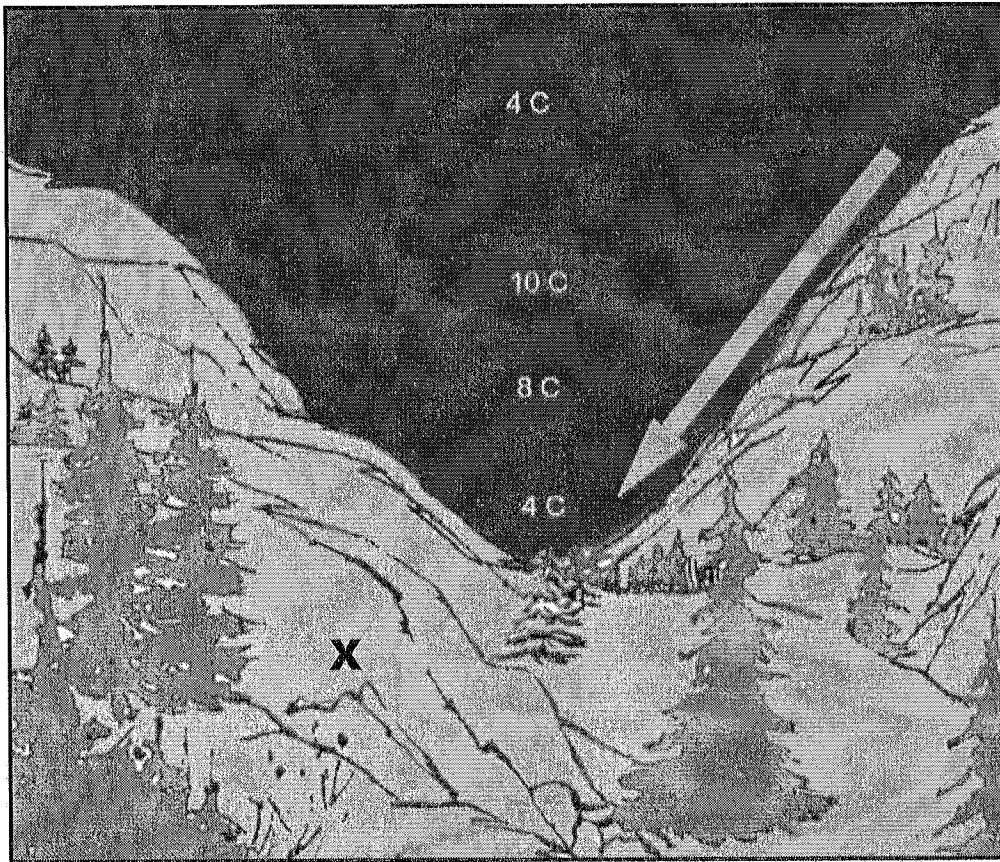
MARCH 2017

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

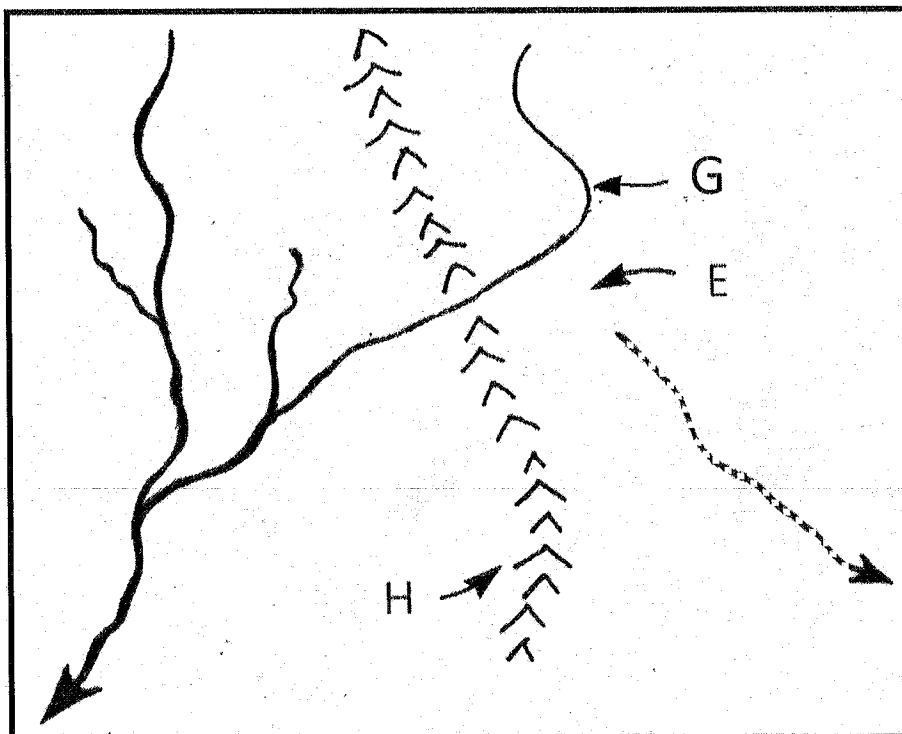
N.B. This annexure consists of 5 pages including this page.

FIGURE 1.1: VALLEY CLIMATE



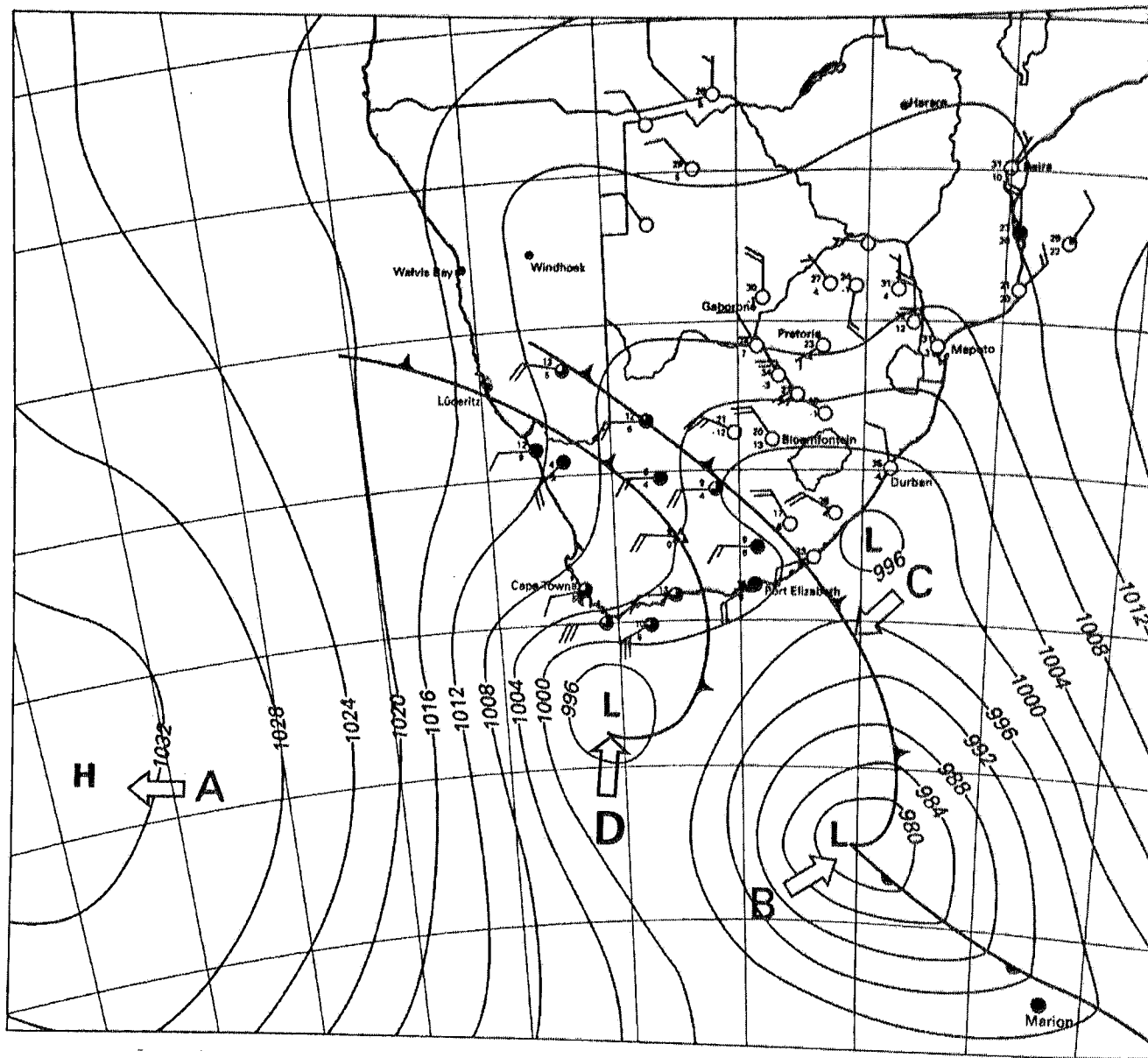
[Source: Adapted from Google Image]

FIGURE 1.2: RIVER CAPTURE



[Source: X-Kit Geography]

FIGURE 1.3A: SYNOPTIC WEATHER MAP



[Source: South African Weather Service]

FIGURE 1.3B: CAPE TOWN

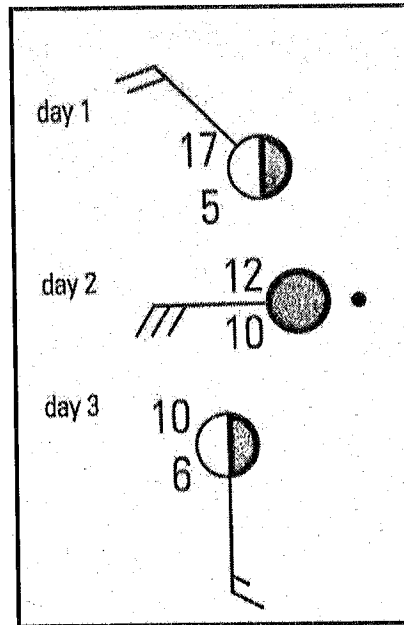


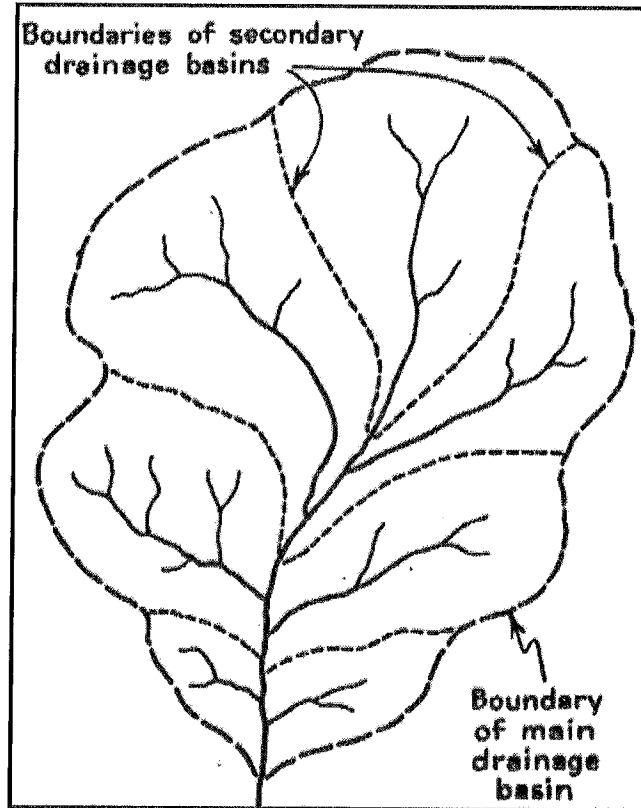
FIGURE 1.4: TROPICAL CYCLONES

STRONGEST STORM IN 14 YEARS LASHES INDIA

India's strongest storm in 14 years left a trail of destruction along the country's east coast yesterday killing seven people. Cyclone Phailin was expected to dissipate within 36 hours, losing momentum as it moved inland. After making landfall, the cyclone brought winds of more than 200 km/h that ripped up homes and tore down trees. The cyclone was one of three major storms over Asia yesterday. The smaller Cyclone Nasi was approaching Vietnam, and Cyclone Wilpha loomed over the Pacific. At least 873 000 people spent the night in shelters which had been built after the 1999 storm which killed more than 10 000 people in the same area. The disaster management team saved lives by putting people in shelters in time.

[Adapted from *The Star* (14 October 2014)]

FIGURE 1.5: DRAINAGE BASIN



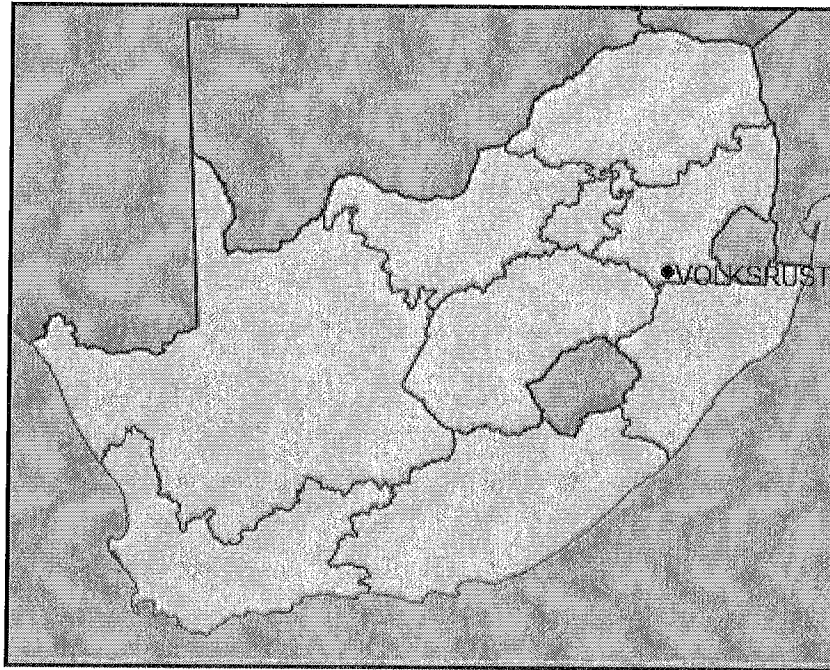
[Source: <http://www.tharsis.online.fr/html/.htm>]

FIGURE 1.6: MEANDERING RIVER



[Source: Geomorphological Processes]



GENERAL INFORMATION ON VOLKSRUST

Volksrust is a town in Mpumalanga on the border of KwaZulu-Natal. It is located 240 km southeast of Johannesburg. The town has important beef, dairy, maize, sorghum, wool and sunflower seed industries. Volksrust has an average annual rainfall of 648 mm, with the lowest rainfall (1 mm) in July and the highest rainfall (117 mm) in January. Most of the rain falls in the summer. The average midday temperatures for Volksrust range from 15,9°C in June to 24,3°C in January. June is the coldest period when the mercury can drop to an average of 0,5°C during the night.

QUESTION 1: MULTIPLE-CHOICE QUESTIONS

The questions below are based on the 1:50 000 topographical map (2729BD VOLKSRUST) as well as the orthophoto map as part of the mapped area. Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A–D) in the block next to each question.

1.1 Volksrust is located in the ... province.

- A Gauteng
- B Kwazulu-Natal
- C Orange Free State
- D Mpumalanga

1.2 The ... projection was used in the drawing of the topographical map of Volksrust.

- A Lambert
- B Mercator
- C Gauss Conform
- D Azimuthal

1.3 The Sewerage Works in block **D 4** is located ... of the town of Volksrust.

- A north west
- B north
- C south east
- D north east

1.4 The fluvial feature found at **Y** on the topographical map is a/an ...

- A ox-bow lake
- B braided stream
- C non-perennial river.
- D meander

1.5 The type of slope found at **5** on the orthophoto map is a ... slope.

- A concave
- B terraced
- C convex
- D gentle

5 x 1 (5)

QUESTION 2: MAPWORK TECHNIQUES AND CALCULATIONS

2.1 Calculate the length of the Mahawane dam wall in block **A/B5** in metres.
Show all calculations.

(2 x 1) (2)

2.2 Using the information on the topographical map, determine the magnetic declination for this year.

Difference in years: _____

Mean annual change: _____

Total change: _____

Magnetic declination for 2017: _____

_____ (4 x 1) (4)

2.3 Explain why it is important to correct the magnetic declination when using a topographical map and a magnetic compass on a hike.

(1 x 1) (1)

[7]

QUESTION 3: APPLICATION AND INTERPRETATION

- 3.1 Give one reason why crop farming is limited in the southern part of the mapped area.

(1 x 1) (1)

- 3.2 The Mahawane Dam has an ideal location. Give ONE reason to support this statement.

(1 x 2) (2)

- 3.3 The town planners have introduced a number of green areas within the town of Volksrust. Explain the importance of these green areas to the town.

(1 x 1) (1)

- 3.4 Refer to Volksrust's location in a valley and give reasons why it regularly experiences frost at night during winter.

(1 x 2) (2)

- 3.5 Suggest how the marsh and vlei found in block D9 controls the Papale River flow during times of droughts and floods.

(1 x 2) (2)

[8]

QUESTION 4: MAP PROJECTION AND GEOGRAPHICAL INFORMATION SYSTEMS

4.1 Name any ONE component of a GIS.

_____ (1 x 1)(1)

4.2 Refer to the orthophoto map which shows a high spatial resolution.

4.2.1 Explain the term spatial resolution.

_____ (1 x 1)(1)

4.2.2 Why can one say that the orthophoto map has a high spatial resolution?

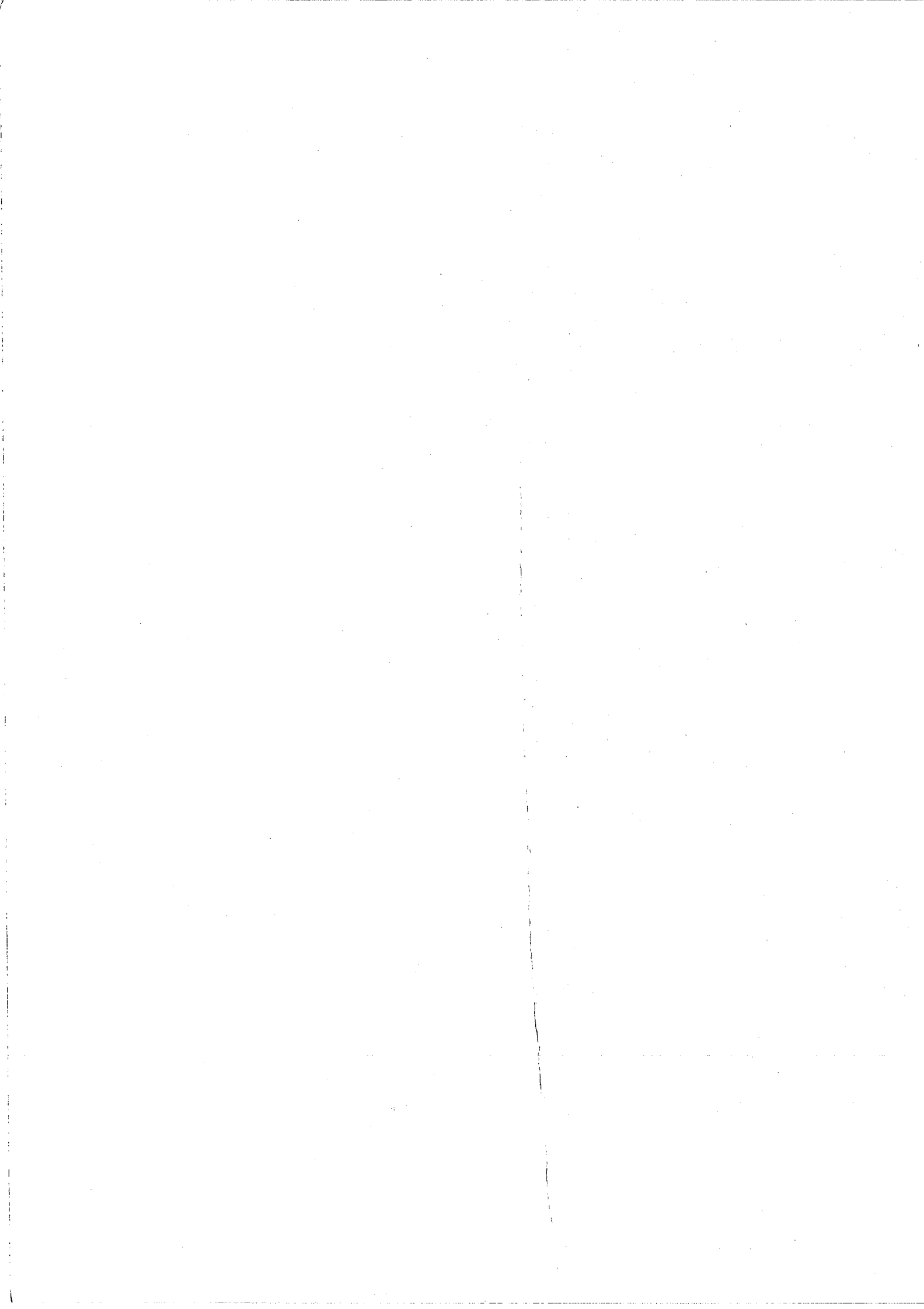
_____ (1 x 1)(1)

4.3 How can GIS assist farmers in Volksrust with their farming activities.

_____ (1 x 2) (2)

[5]

TOTAL MARKS: [25]





Basic Education

KwaZulu-Natal Department of Basic Education
REPUBLIC OF SOUTH AFRICA

GEOGRAPHY P1 & P2 (SECTION A & B)

MEMORANDUM

COMMON TEST

MARCH 2017

NATIONAL
SENIOR CERTIFICATE

GRADE 12

MARKS: 75

N.B. This question memorandum consists of 10 pages.

SECTION A

QUESTION 1

1.1

- 1.1.1 inversion ✓
- 1.1.2 decrease ✓
- 1.1.3 1°C ✓
- 1.1.4 katabatic ✓
- 1.1.5 frost ✓
- 1.1.6 night ✓
- 1.1.7 in valleys ✓
- 1.1.8 thermal belt ✓

(8 x 1)(8)

1.2

- 1.2.1 captor stream ✓ / pirate stream
- 1.2.2 elbow of capture ✓
- 1.2.3 misfit stream ✓
- 1.2.4 wind gap ✓
- 1.2.5 captured stream ✓
- 1.2.6 waterfall ✓
- 1.2.7 watershed ✓ / drainage divide

(7 x 1)(7)

TROPICAL CYCLONE

- 1.4
- 1.4.1 (a) Nasi ✓ (1 x 1) (1)
 - (b) Cyclones named alphabetically ✓
N before P and W in the alphabet ✓
[Any ONE. Concept of naming] ✓ (1 x 1) (1)
 - 1.4.2 Mature ✓ (1 x 1) (1)
 - 1.4.3 It reaches land which is dry ✓✓
Moisture supply is cut off ✓✓
Less evaporation and release of latent heat ✓✓
Friction with the land slows down the cyclone ✓✓
[Any ONE] (1 x 2) (2)
 - 1.4.4 Shelters were constructed after the previous severe storm ✓✓
People were moved to shelters before the storm struck ✓✓
[Any ONE] (1 x 2) (2)
 - 1.4.5 All infrastructure destroyed ✓✓
Rescue teams / Medical teams / Medication cannot reach affected areas ✓✓
No access to fresh water supplies ✓✓
Emergency food supplies may be inadequate ✓✓
Outbreak of diseases ✓✓
People lack proper shelter ✓✓
Lack of financial resources ✓✓
Manpower may not match the scale of the disaster ✓✓
Humanitarian aid may not be sufficient to assist the rescue teams ✓✓
Mitigating factors affecting the operation of rescue teams ✓✓
[Any FOUR] (4 x 2) (8)

- 1.3
- SYNOPTIC WEATHER MAP**
- 1.3.1 Winter ✓ (1 x 1) (1)
 - 1.3.2 Pressure reading increase towards the centre. ✓
The presence of the letter H. ✓ (1 x 1) (1)
 - 1.3.3 (a) B ✓ (1 x 1) (1)
 - (b) The systems are moving from west to east and B is ahead of D. ✓✓
B is further east / south east ✓✓
(Any ONE) (1 x 2) (2)
 - 1.3.4 Pressure belts and wind systems move slightly north as the sun rays lie vertically overhead at 23½°N/Tropic of Cancer ✓✓
ITCZ moved northwards and with it the subtropical High pressure belt, this allows the cold front to influence the weather during Winter ✓✓
(Any ONE) (1 x 2) (2)
 - 1.3.5 (a) Temperature decreases ✓ because of the presence of cold air/ cold polar air / cold sector ✓
 - (b) Wind – backing of the wind/ change from north west to southerly ✓ due to the clockwise circulation of air ✓
increase in wind speed ✓
due to the cold air near the surface moving faster ✓
increase then decrease in wind speed ✓
due to the cold air near the surface moving faster ✓
(Any ONE) One mark for description and one mark for account. (2 x 2) (4)
 - 1.3.6 There is repeated coverage of an area therefore continual updates can be monitored. ✓✓
Images are transmitted quickly. ✓✓
Images can warn meteorologists about approaching weather conditions and public warnings can then be issued. ✓✓
Through early warning systems people are able to better prepare for a weather hazard and they can prevent a catastrophe. ✓✓
People can be evacuated and emergency measures can be put in place ✓✓
(Any TWO) (2 x 2) (4)

DRAINAGE BASIN

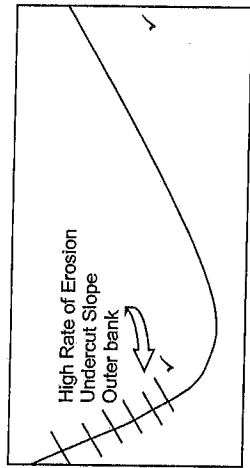
- 1.5
- 1.5.1 The entire area drained by the river system ✓
[Concept] (1 x 1) (1)
 - 1.5.2 (a) Dendritic pattern ✓ (1 x 1) (1)
 - (b) The tributaries appear like branches of a tree ✓
Tributaries join the main stream at small/acute angles ✓
[Any ONE] (1 x 1) (1)

(Due to technical reasons question 1.5.2 a & 1.5.2 b has been deleted)

- 1.5.3 4th order stream ✓✓ (1 x 2) (2)
- 1.5.4 (a) Stream order will increase ✓✓
More first order streams will develop ✓✓
Increase in stream order further downstream ✓✓
[Any TWO] (2 x 2) (4)
- (b) The drainage density of the river will increase ✓✓ (1 x 2) (2)
- (c) Small catchment dams in upper reaches ✓✓
Large storage dams in lower reaches ✓✓
Regulating water flow from the dam ✓✓
Decrease number of meanders ✓✓
Prevent deforestation ✓✓
Encourage afforestation / reforestation ✓✓
Plant natural vegetation ✓✓
Raise levees/river banks ✓✓
Create buffer zones around the river channel ✓✓
[Any TWO] (2 x 2) (4)

MEANDERING RIVER

- 1.6
- 1.6.1 lower course ✓ (1 x 1) (1)
 - 1.6.2 deposition ✓ (1 x 1) (1)
 - 1.6.3 laminar flow ✓ (1 x 1) (1)
 - 1.6.4



One mark for label and one mark for shape

- 1.6.5 The deposition of a silt layer with every flood increases the fertility of the soil. ✓✓ (1 x 2) (2)
- 1.6.6 Impact of human activities on the banks of a meandering river:

Human Impact:

- Pollution of water by household run-off or untreated sewage. ✓✓
- Removal of natural vegetation. ✓✓
- Disturbance of the ecology of the river and the catchment area. ✓✓
- A change in the nature of river flow. ✓✓
- Drainage of water resource. ✓✓
- Development decrease infiltration, cause more run-off and more erosion of river banks. ✓✓
- Increase in erosion. ✓✓

Reasons for less sustainability:

- Polluted water becomes unusable. ✓✓
- Can lead to shortage of water ✓✓
- Can change the flow characteristics of the river ✓✓
- Disruption of the ecosystem ✓✓

(Learner must include both aspects in order to achieve eight marks.)

[Any FOUR in full sentence.] (4 x 2) (8)

Due to the deletion of Question 1.5.2 a & 1.5.2 b the new total for Section A in 73.

Please convert to 75 using the following formula (learner's mark/73 X 75)

QUESTION 2: MAPWORK TECHNIQUES AND CALCULATIONS

2.1 Calculate the length of the Mahawane dam wall in block A/B5 in metres. Show all calculations.

$$0.6 \times 0.5 = 0.3 \text{ km} \checkmark$$

$$= 0.3 \times 1000$$

$$= 300 \text{ m} \checkmark$$

(Range: 0.5 – 0.7)
(250 – 350m)

(2)

2.2 Using the information on the topographical map, determine the magnetic declination for this year.

Difference in years: 2017 – 2010 = 7years ✓

Mean annual change: 3' Westwards

Total change: 3' x 7 = 21' ✓

Magnetic declination for 2017: 20° 37'

+✓ 21'

20° 58' West of true north ✓

(4)

2.3 Explain why it is important to correct the magnetic declination when using a topographical map and a magnetic compass on a hike.

To obtain the precise direction ✓

To maintain a correct path/proper navigation during the hike ✓

[ANY ONE]

(1)

[7]

SECTION B

QUESTION 1: MULTIPLE-CHOICE QUESTIONS

The questions below are based on the 1:50 000 topographical map (2729BD VOLKSRUST) as well as the orthophoto map as part of the mapped area. Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A–D) in the block next to each question.

1.1 Volksrust is located in the ... province.

- A Gauteng
- B Kwazulu-Natal
- C Orange Free State
- D Mpumalanga

D

1.2 The ... projection that was used in the drawing of the topographical map of Volksrust.

- A Lambert
- B Mercator
- C Gauss Conform
- D Azimuthal

C

1.3 The Sewerage Works in block D 4 is located ... of the town of Volksrust.

- A north west
- B north
- C south east
- D north east

C

1.4 The fluvial feature found at W on the topographical map is a/an ...

- A ox-bow lake.
- B braided stream.
- C non-perennial river.
- D meander.

D

1.5 The type of slope found at 5 on the orthophoto map is a ...slope.

- A concave
- B terraced
- C convex
- D gentle

A

[5]

QUESTION 3: APPLICATION AND INTERPRETATION

- 3.1 Give one reason why crop farming is limited in the southern part of the mapped area.
Area dominated by the undulating/steep/rugged topography ✓
Few perennial rivers/streams ✓
 [Any ONE] (1 x 1) (1)
- 3.2 The Mahawane Dam has an ideal location. Give ONE reason to support this statement.
Situated on a higher altitude ensuring natural flow pressure to the town ✓
Fed by perennial stream ensuring a constant supply of water ✓✓
Widely spaced contour lines/gentle slope providing an opportunity for the expansion of the dam to cater for the growth of the town. ✓✓
Close to the town for recreational activities. ✓✓
Providing water for the surrounding farmland ✓✓
Ensuring availability of water for industrial development ✓✓
 Easy access to water for domestic use ✓✓
 [Any ONE] (1 x 2)(2)
- 3.3 The town planners have introduced a number of green areas within the town of Volksrust. Explain the importance of these green areas to the town.
Helps reduce the temperature / heat island effect within the town ✓
Provides an opportunity for relaxation ✓
Filters pollution within the town ✓
Prevents uncontrolled urban expansion ✓
Provides a habitat for wildlife. ✓
Reduces noise within the town ✓
Improves the aesthetic value of the town ✓
 [Any ONE] (1 x 1)(1)
- 3.4 Refer to Volksrust's location in a valley and give reasons why it regularly experiences frost at night during winter.
Volksrust is situated inland where temperatures are generally low in winter and is conducive to the development of frost. ✓✓
Katabatic winds cause cold air to descend from surrounding hills and as temperature in the town falls below 0 °C frost develops. ✓✓
 [Any ONE] (1 x 2)(2)
- 3.5 Suggest how the marsh and vlei found in block D9 controls the Papale River flow during times of droughts and floods.
The marsh and the vlei acts as a sponge absorbing and releasing water during wet and dry periods. ✓✓
During times of floods, the excess water is absorbed by the marsh and vlei and is slowly released into the rivers during times of droughts. ✓✓
 (1 x 2)(2) [8]

QUESTION 4: MAP PROJECTION AND GEOGRAPHICAL INFORMATION SYSTEMS

- 4.1 Name any ONE component of a GIS.
People/Professionals ✓
Hardware ✓
Software ✓
Data ✓
 [Any ONE] (1 x 1) (1)
- 4.2 Refer to the orthophoto map which shows a high spatial resolution.
 4.2.1 Explain the term spatial resolution.
It refers to the clarity of an object/image. ✓
It refers to the number of pixels utilized in the construction of a digital image. ✓
 (1 x 1) (1)
- 4.2.2 Why can one say that the orthophoto map has a high spatial resolution?
Features and objects are clearly visible / high degree of clarity ✓
Image is composed of greater number of pixels ✓
Displays a greater measure of accuracy of graphic display ✓
 [Any ONE] (1 x 1) (1)
- 4.3 How can GIS assist farmers in Volksrust with their farming activities.
Remote sensing devices can assist farmers to determine areas where farming activities are most suitable ✓✓
Areas of available water supply. ✓✓
Areas of fertile soil condition ✓✓
Identifying areas of topographic suitability. ✓✓
Identify areas vulnerable to pests. ✓✓
Crime mapping. ✓✓
Identify areas with good infrastructure. ✓✓
Identify areas with a good labour pool. ✓✓
 [Any ONE] (1 x 2) (2)

[5]

TOTAL MARKS: [25]

