

HILLCREST HIGH SCHOOL

**GRADE 11
GEOGRAPHY PAPER II
DECEMBER 2018**

TIME : 90 MINUTES
EXAMINER : CM Girvin Esq.

MARKS : 75

NAME : _____
TEACHER : _____

RESOURCES AND INFORMATION

1. An extract from the topographical map 2627CD PARYS
2. Orthophoto map 2627CD 19 PARYS

INSTRUCTIONS

1. Answer all the questions in the spaces provided, unless instructed otherwise
2. Show all calculations
3. You may use a non - programmable calculator
4. The following English terms and their Afrikaans translations are shown on the topographical map

ENGLISH

Aerodome
Caravan Park
Diggings
Golf Course
Gap
Holiday Resort
Island
Purification Plant
River
Sewage Works

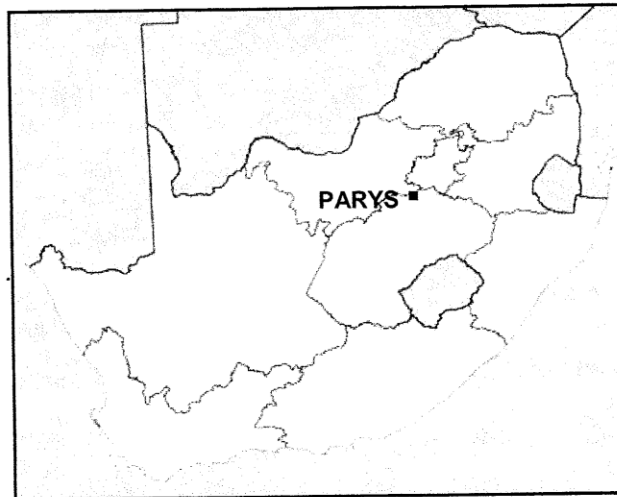
AFRIKAANS

Vliegvel
Karavaanpark
Uitgrawings
Gholfbaan
Poort
Vakansieoord
Eiland
Watersuiweringsaanleg
Rivier
Rioolwerke

SOME GENERAL INFORMATION ON PARYS

GENERAL INFORMATION ON PARYS

Parys is a town in the Free State in South Africa. It is located on the banks of the Vaal River approximately 115 km south of Johannesburg. The completion of the railway line to Parys in 1905 suddenly made Parys more accessible to the public and this, in turn, led to the growth of the town as a holiday resort and industrial centre. Many artists have settled in the town and the variety of new, interesting shops and attractions make it the ideal breakaway from Gauteng and other big centres. Parys lies within the Vredefort Dome World Heritage Site. The Vredefort Crater is the largest verified impact crater on Earth. The Vredefort Dome was added to the list of UNESCO World Heritage Sites for its geological interest.



Coordinates: 26°54'S 27°27'E

[Adapted from [http://en.wikipedia.org/wiki/Parys, South Africa, Freestate](http://en.wikipedia.org/wiki/Parys,_South_Africa,_Freestate)]

1. MULTIPLE CHOICE QUESTIONS

In the questions below, you are required to **CIRCLE** the most correct answer

- 1.1 The map index/ reference of the topographical map to the south – west of Parys is
A 2627DA B 2727BA
C 2627CA D 2727AA
- 1.2 The orthophoto map scale of 1 : 10 000 means that 1cm on the map represents
on the ground
A 0.01 B 0.1
C 0.5 D 0.05
- 1.3 The altitude (height above sea level) of the northern runway of the Parys Aerodrome
in block G10 on the topographical map is Meters
A 1400 B 1450
C 1420 D 1480
- 1.4 The landform represented by the number 4 on the orthophoto map is a
A valley B spur
C saddle D butte
- 1.5 The natural feature found in block J3 on the topographical map is a/an
A ox bow lake B marsh and vlei
C valley D prominent rock outcrop
- 1.6 The slope found between 11 and 12 on the orthophoto map is
A gentle B convex
C terraced D concave
- 1.7 The farming activity being practised on the farm Pistorius Rust in the south east of
the orthophoto map is Farming
A cattle B fruit
C poultry D crop
- 1.8 The man – made feature labelled K on the topographical map is a
A water tower B reservoir
C windpump D water point
- 1.9 The Diggings found at 10 on the orthophoto map is classified as a economic
activity
A primary B secondary
C tertiary D quaternary
- 1.10 The direction of 3 **FROM** 9 on the orthophoto map is
A north - east B north - north - east
C east - north - east D east

- 1.11 The contour interval on the orthophoto map is _____ meters
A 5 B 10
C 15 D 20
- 1.12 The orthophoto map is an example of a _____ photograph
A high oblique B low oblique
C horizontal D vertical
- 1.13 Land use at T in Block I 9 on the topographical map is
A residential B industrial
C commercial D recreational
- 1.14 The true bearing from the police station in Parys (G8) to the end of the long runway at Parys Aerodrome (G10) is
A 300° B 268°
C 88° D 100°
- 1.15 The grid reference/ co - ordinates of trig. Beason 334 in Block B2 is/are
A 26° 48' 20"E 27° 21' 03" S B 26° 48' 20"S 27° 21' 03" E
C 27° 48' 03"S 26° 48' 20"E D 26° 48' 20"N 27° 21'03"W
15 X 1 = [15]

2. GEOGRAPHICAL TECHNIQUES AND CALCULATIONS

- 2.1 Locate the largest dam at Rietpoort in Block F6 and calculate the length of the dam wall in metres. Show all you calculations

_____ (3)
- 2.2 (a) Identify the conventional sign along the road in Block D4 that shows height
_____ (1)
- (b) State the height of the conventional sign at that point
_____ (1)

2.3 Refer to spot height 1493 in Block D5 and spot height 1573 in Block E6 on the topographical map

2.3.1 Calculate the average gradient between spot height 1493 and spot height 1573, showing all your calculations.

Formula : Gradient = vertical difference in height (VD)/ horizontal distance (HD)

(5)

2.3.2 Interpret this gradient (ie. describe it in words) _____ (2)

2.3.3 What term is used to describe the fact that that the mountain on which spot height 1493 is located can be seen from the ridge where spot height 1573 is located on the topographical map _____ (1)

2.4 A cross - section is drawn between points 11 and 12 on the orthophoto map. Assume that the vertical scale is 1cm represents 40m

2.4.1 Calculate the vertical exaggeration of the cross – section, showing all your Calculations

Formula : Vertical exaggeration = vertical scale (VS)/ horizontal scale (HS)

(5)

2.4.2 Provide **ONE** reason why it is necessary for the vertical scale in a cross section to be exaggerated (made bigger)

_____ (1)

2.5 Calculate the magnetic declination of Parys for the year 2018

_____ (5)

2.6 How long would it take a car travelling at 50km/h to travel the length of the R59 on the map

_____ (4)

[28]

3. APPLICATION OF THEORY

3.1.1 The main economic activity in the mapped area is (mining/ industry/ farming/ recreation) _____ (1)

3.1.2 Quoting map evidence, outline TWO factors that favour this activity in the mapped area

FACTOR 1 _____

FACTOR 2 _____

(4)

3.2 Refer to the Vaal River on the map. The Vaal River forms the boundary between two South African provinces

3.2.1 What evidence is there on the map to suggest that it is a boundary between two provinces?

(1)

3.2.2 Name the two provinces between which it is the border, making your selection from this list : North West, Limpopo, Gauteng, Frees State, Mpumulanga

(2)

3.3.1 State the general direction of flow of the Vaal River on the map

(1)

3.3.2 Give **ONE** reason from the topographical map to justify your answer in 3.3.1

(4)

3.4 Tourism makes a large contribution to the economy of Parys

3.4.1 List **TWO** potential tourist attractions that would attract people to Parys

(2)

3.4.2 Give **TWO** positive economic impacts that the tourism industry could bring to the local community of Parys

(2)
[19]

4. GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

4.1 Refer to block F1 on the topographical map

4.1.1 Define the term **DATA LAYERING**

_____ (1)

4.1.2 Name **THREE** layers that the farmer in this area (F1) used when deciding to place his farm there

_____ (3)

4.2 Parys is located in the geologically important Vredefort Dome and geologists have made use of remote sensing to investigate this structure

4.2.1 What is meant by **REMOTE SENSING**?

_____ (1)

4.2.2 How could remote sensing assist geologists with their investigation?

_____ (2)

4.3 **TWO** methods are used to store data in a GIS

4.3.1 Name these two methods

_____ (2)

4.3.2 Which of these two methods is used to store data on the orthophotograph? Give a reason for your answer

_____ (2)

4.3.3 Explain why this method **IS NOT** suitable for storing data on the topographical map

(2)
[13]

TOTAL : 75