

**PHOENIX NORTH GEOGRAPHY CLUSTER**  
**NOVEMBER EXAMINATION: 2019**

**PAPER 2**

**GRADE 10**  
**MARKS: 75**

**DURATION: 90 MINUTES**

1. This paper consists of 4 questions and 10 pages.
2. The questions in this paper are based on the 1:50 000 topographical map and 1:10 000 orthophoto map of PARYS.
3. Write down your answers in the spaces provided.
4. Write down your name and division below.

**NAME:** \_\_\_\_\_

**GRADE: 10** \_\_\_\_\_

**Question 1: Multiple Choice Questions**

**Choose the correct answer from various options – write only the letter (A-D) in the block provided.**

1.1) The Earth's curved surface is represented on the topographical map through the \_\_\_\_\_ projection.

- A. Azimuthal
- B. Lambert
- C. Cylindrical
- D. Gauss Conform

1.2) Which statement about the orthophoto map is correct?

- A. Has no contour lines
- B. Has a smaller scale than topographical map
- C. Is 10 times bigger than the topographical map
- D. Contour interval is 5 metres

1.3) Point K on the topomap indicates a

- A. Windpump
- B. Monument
- C. Water Tower
- D. Cross

1.4) Parys is in the \_\_\_\_\_ province.

- A. Free State
- B. Gauteng
- C. North West
- D. Limpopo

1.5) The type of road at point 3 on the orthophoto map is

- A. National Freeway
- B. Main Road
- C. Secondary Road
- D. Arterial Road

1.6) The height of the land at point numbered 11 on the orthophoto map is \_\_\_\_\_ m

- A. 1378.72
- B. 1373.08
- C. 1380
- D. 1371.52

1.7) Height in block C4 on the topographical map is not shown by

- A. Bench Mark
- B. Spot Height
- C. Trig Beacon
- D. Contours

1.8) Points between 13 and 14 on the orthophoto map indicates a

- A. River
- B. Forest
- C. Road
- D. Racing Track

1.9) The "diggings" on the orthophoto map is represented by the number

- A. 7
- B. 10
- C. 1
- D. 15

1.10) The index of an atlas is located at the \_\_\_\_\_ of an atlas

- A. Front
- B. Middle
- C. Back
- D. Centre

1.11) The direction of point R from point S on the topographical map is

- A. NE
- B. SW
- C. SSW
- D. ESE

1.12) Very few buildings are evident in block J3 because of the presence of

- A. Cultivated Land
- B. Steep Slope
- C. A Marsh
- D. A Road

1.13) There is no crop farming taking place in block C, because

- A. There is an absence of dams
- B. The land is rugged
- C. There is an absence of perennial streams
- D. There is an absence of a road

1.14) The Vaal River is a/an \_\_\_\_\_ river

- A. Non-perennial
- B. Perennial
- C. Episodic
- D. Exotic

1.15) The towns of \_\_\_\_\_ is 29 km away from the mapped area

- A. Potchefstroom
- B. Sasolberg
- C. Fochville
- D. Dover



(15 x 1) [15]

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**Question 2: Map Calculation**

2.1) Calculate the straight line distance between trig beacon 706 (H5) and spot height 1568 (H1). Give your answer in metres. (3)

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2.2) Determine the difference in height between trig beacon 706 (H5) and spot height 1568 (H1). Give your answer in metres. (2)

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2.3) Calculate the magnetic declination for 2019. Use the following headings. (5)

MD for current year: \_\_\_\_\_

Annual change: \_\_\_\_\_

Total change: \_\_\_\_\_

MD for 2019: \_\_\_\_\_

2.4) Determine the TRUE BEARING of trig beacon 706 (H5) from spot height 1568 (H1) (3)

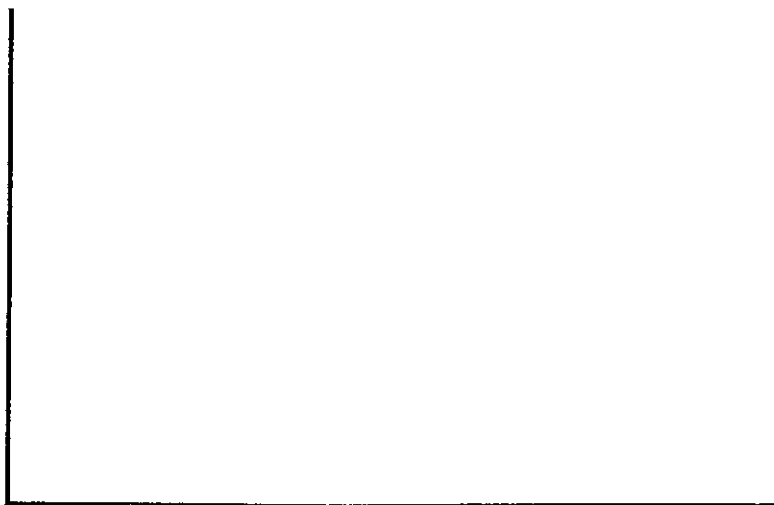
\_\_\_\_\_

2.5) Calculate the straight line distance of Allenby Street on the orthophoto map. (3)

\_\_\_\_\_

\_\_\_\_\_

2.6) Construct a rough cross section of the slope, labelled 8 on the orthophoto map. (4)



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**Question 3: Application and Interpretation**

3.1) The Northern part of the receives seasonal (poor) rainfall. Quote three pieces of evidence from block A5 to substantiate this statement. (6)

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3.2) Identify two types of recreational facilities found in G8. (2)

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3.3) Refer to the Vaal River as it passes West End (H7). State one advantage and one disadvantage as this river passes West End. (2 x 2) (4)

Advantage:

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Disadvantage:

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3.4) Siphso leaves his farm in Edenvale (J1) and moves towards the industrial area U near the town.

3.4.1) What type of movement was Siphso involved in? (1)

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3.4.2) Describe the impact of the type of movement mentioned in Q3.4.1 above on :

a) Edenvale:

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(2)

b) The Town:

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(2)

3.4.3) Outline two steps that the government can take in order to reduce the number of people leaving areas like Edenvale. (2 x 2) (4)

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3.5) What is the significance of the row of trees on the Rietpoort farm in block F6. (2)

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3.6) State one advantage that windmills have over boreholes. (2)

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**Question 4: Geographical Information System - GIS**

4.1) List two advantages that GIS has over paper maps. (2)

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4.2) Differentiate between hardware and software. (2)

Hardware:

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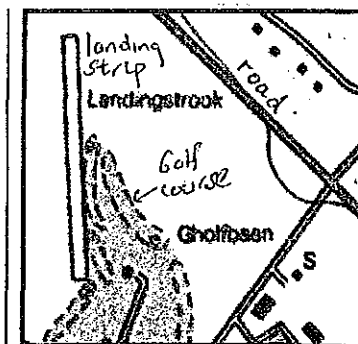
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Software:

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4.3) Study the sketch showing spatial objects



S. Schol

4.3.1) Define the term spatial object. (2)

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4.3.2) Identify the various types of spatial objects in the sketch. (3)

Line:

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Point:

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Polygon:

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4.3.3) Describe a line. (2)

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4.4) How many types of lines are there in the sketch? (1)

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4.5) State two disadvantages of remote sensing. (2)

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4.6) Name one remote sensing device that is used to capture data. (1)

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[15]

**GRAND TOTAL: [75]**