



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY P2

NOVEMBER 2010

MARKS: 100

TIME: 1½ hours

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| EXAMINATION NUMBER | | | | | | | | | | | | | | |
| CENTRE NUMBER | | | | | | | | | | | | | | |

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|---------------|-----|
| MARK SCORED | 100 |
| MARKER | |
| SENIOR MARKER | |
| CHIEF MARKER | |
| MODERATOR | |
| TOTAL | 100 |

This question paper consists of 10 pages and 1 page for rough work.

RESOURCE MATERIAL

1. An extract from topographical map 3424BB HUMANSDORP.
2. Orthophoto map 3424 BB 1 HUMANSDORP.
3. NOTE: The resource material must be collected by the schools for their own use.

INSTRUCTIONS AND INFORMATION

1. Fill in your EXAMINATION NUMBER and your CENTRE NUMBER in the spaces provided on the cover page.
2. Answer ALL the questions in the spaces provided in this question paper.
3. You are supplied with a 1:50 000 topographical map 3424BB HUMANSDORP and an orthophoto map of a part of the mapped area.
4. You must hand in the topographical map and the orthophoto map to the invigilator at the end of this examination session.
5. You must use the blank page at the back of this paper for all rough work and calculations. Do NOT detach this page from the question paper.
6. Show ALL calculations. Marks will be allocated for calculations.
7. You may use a non-programmable calculator.
8. The following English terms and their Afrikaans translations are shown on the topographical map.

ENGLISH

Diggings
Caravan Park
Sewage Works
River Mouth
Golf Course
Wetland

AFRIKAANS

Uitgrawings
Karavaanpark
Rioolwerke
Riviermond
Gholfbaan
Vlei

QUESTION 1

The questions below are based on the 1:50 000 topographical map 3424BB HUMANSDORP, as well as the orthophoto map of a part of the mapped area. Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A – D) in the block next to each question.

1.1 The earth's curved surface is represented on the topographical map through the ... projection.

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

1.2 The landform that is found at **P** in block B11, is a ...

- A rocky outcrop.
- B cape.
- C sandy beach.
- D coastal rock.

1.3 Aston Bay (E10) has a/an ... street pattern.

- A grid iron
- B radial/cobweb
- C planned irregular/free
- D unplanned irregular

1.4 The slope south of Kwa Nomzamo (C2) is ...

- A gentle.
- B steep.
- C convex.
- D concave.

1.5 An aerial photograph which shows contour lines, spot heights, trigonometrical stations and other labelled features, is called a/an ...

- A oblique aerial photograph.
- B topographical map.
- C orthophoto map.
- D vertical aerial photograph.

1.6 The mean magnetic declination of this map in 2010 was ...

- A 26°50' east of true north.
- B 26°50' west of true north.
- C 24°08' west of true north.
- D 24°08' east of true north.

1.7 The index of the map sheet northwest of Humansdorp is ...

- A 3324DC.
- B 3324DD.
- C 3325CC.
- D 3424BA.

1.8 The co-ordinates of trigonometrical station 140 in block B3 are ...

- A $34^{\circ}01'20''S24^{\circ}47'44''E / 34^{\circ}01,3'S24^{\circ}47,7'E.$
- B $34^{\circ}02'40''S24^{\circ}48'16''E / 34^{\circ}02,7'S24^{\circ}48,3'E.$
- C $34^{\circ}01'20''E24^{\circ}47'44''S / 34^{\circ}01,3'E24^{\circ}47,7'S.$
- D $34^{\circ}02'40''E24^{\circ}48'16''S / 34^{\circ}02,7'E24^{\circ}48,3'S.$

1.9 The feature numbered 1 on the orthophoto map is a ...

- A soccer field.
- B sewage works.
- C dam.
- D marsh.

1.10 The scale of the orthophoto map is ... than that of the topographical map.

- A 5 times smaller
- B 5 times larger
- C 40 times larger
- D 40 times smaller

(10 x 2)

[20]

QUESTION 2

2.1 Determine the magnetic bearing of trigonometrical station 94 in block E1 from spot height 97 in block D1 for 2010. Show ALL calculations. Marks will be allocated for calculations.

(5)

2.6 What is the height of the dam wall marked **W** in blocks F1 and F2 on the topographical map?

(1)

2.7 Block E1 on the topographical map is covered by cultivated land. Calculate the area of this block in km². Show ALL calculations. Marks are allocated for calculations.

(4)
[20]

QUESTION 3

3.1 Refer to both the topographical map and the orthophoto map in answering the questions below.

3.1.1 The mapped area may be described as a wet region. Give TWO pieces of evidence to support this statement.

(2 x 2) (4)

3.1.2 The ocean has a cooling effect along the coast. What type of breeze will be experienced during the late afternoon at Ou Dorp Caravan Park in block C11 on the topographical map?

(1 x 2) (2)

- 3.1.3 Find the cemetery numbered 9 on the orthophoto map. In which urban land use zone is the cemetery located?

 _____ (1 x 2) (2)
- 3.1.4 Give ONE reason, visible on the orthophoto map, why the specific location was selected for the cemetery.

 _____ (1 x 2) (2)
- 3.1.5 Give a reason for the cultivation of rows of trees on the fruit farms in blocks D9 and D10.

 _____ (1 x 2) (2)
- 3.1.6 The streams in block E3 are flowing fairly slowly. Quote evidence from the map to support this statement.

 _____ (1 x 2) (2)
- 3.1.7 Krombaai (I6) is often visited by local tourists. Name TWO recreational activities that these tourists engage in during their stay at this resort.

 _____ (2 x 2) (4)
- 3.1.8 Paradise Beach (G9) is a new urban development. With reference to its location, name TWO strategies that can be implemented to ensure sustainable development of the coastline.

 _____ (2 x 2) (4)

3.1.9 The cultivated land in block F3 on the topographical map is irrigated largely by the furrow method. Name TWO advantages of this method.

(2 x 2) (4)

3.1.10 The area marked **X** in blocks F4 and F5 on the topographical map is relatively flat/gentle, but not inhabited by human beings. Give ONE reason why this is the case.

(1 x 2) (2)

3.1.11 Identify the landform numbered **3 – 4** on the orthophoto map.

(1 x 2) (2)

3.1.12 Compare the settlements Wavecrest (block B11) and Humansdorp (block B2) on the topographical map in terms of the following, on the table provided:

| | WAVECREST | HUMANSDORP |
|-----------------|------------------|-------------------|
| Street pattern | | |
| Flow of traffic | | |

(4 x 2) (8)

3.1.13 What street name is given to the R102 where it runs through Humansdorp (B2)?

(1 x 2) (2)

[40]

QUESTION 4

4.1 Identify a polygon feature and a line feature in block C2.

Polygon feature: _____

Line feature: _____

(2 x 2) (4)

4.2 With reference to the concept of attribute data, answer the following questions.

4.2.1 Define the term *attribute data*.

(1 x 2) (2)

4.2.2 Name ONE attribute of the N2 in block A2.

(1 x 2) (2)

4.3 Data integration is combining different types of data for the purpose of decision-making. Discuss TWO types of data that a farmer in block A5 will consider before cultivation.

(2 x 2) (4)

4.4 GIS allows us to use thematic layers on maps. Refer to the topographical map and name TWO layers of information that were used in compiling the topographical map of Humansdorp.

(2 x 2) (4)

4.5 The Hip Hop Joint company wants to open a new store in Jeffreys Bay. Suggest TWO ways in which GIS can be used to assist with the location of the store.

(2 x 2)

(4)
[20]

TOTAL: 100

ROUGH WORK AND CALCULATIONS