



education

Department:
Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

GEOGRAPHY P2

NOVEMBER 2008

MARKS: 100

TIME: 1½ hours

EXAMINATION NUMBER														
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CENTRE NUMBER									
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This question paper consists of 8 pages.

RESOURCES

1. An extract from the topographical map 3227DD, CAMBRIDGE.
2. Orthophoto map 3227DD 24, NAHOON.
3. NOTE: The resource material must be collected by the schools for their own use.
4. A non-programmable calculator may be used.

INSTRUCTIONS AND INFORMATION

1. Write your EXAMINATION NUMBER and your CENTRE NUMBER in the spaces provided.
2. Answer ALL the questions in the spaces provided on this question paper.
3. You are supplied with a 1:50 000 topographical map, 3227DD, CAMBRIDGE and an orthophoto map of a part of the same area.
4. The topographical map and the orthophoto map must be handed over to the invigilator at the end of the examination session.
5. The following English terms and their Afrikaans translations are shown on the 1:50 000 topographical map.

ENGLISH

Diggings
Brickworks
Caravan park
Weir
Sewerage works

AFRIKAANS

Uitgrawings
Steenwerke
Karavaanpark
Stuwal/Keerwal
Rioolwerke

QUESTION 1

The following questions are based on the 1:50 000 topographical map, 3227DD, CAMBRIDGE, as well as the orthophoto map of a part of the same 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 – 1.10).

1.1 The topographical map reference number represents ...

- A 32°N27°W.
- B 32°S27°E.
- C 32°W27°N.
- D 32°E27°S.

1.2 The scale of the topographical map (1:50 000) is ... than that of the orthophoto map (1:10 000).

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

1.3 The contour interval of the orthophoto map is ...

- A 5 m.
- B 20 m.
- C 10 m.
- D 25 m.

1.4 The map projection used on the topographical map is ...

- A Mercator.
- B Lambert.
- C Gauss conform.
- D universal transverse.

1.5 The orthophoto map (3227DD 24) depicts the ... section of the topographical map.

- A northern
- B eastern
- C western
- D southern

1.6 The exact distance between point 1 and point 2 on the topographical map is ...

- A 21,5 km.
- B 215 km.
- C 2 150 km.
- D 2,15 km.

1.7 The stream in block J6 is in the ... course.

- A upper
- B lower
- C middle
- D main

1.8 The coastline in block J7 on the topographical map is mainly ...

- A smooth.
- B dry.
- C rocky.
- D sandy.

1.9 The feature marked **3** on the orthophoto map is a/an ...

- A excavation.
- B embankment.
- C cemetery.
- D holiday resort.

1.10 The location (coordinates) of trigonometrical station number 512 in block H5 is ...

- A $27^{\circ}55'13''\text{E } 32^{\circ}56'8''\text{S} / 27^{\circ}55,2'\text{E } 32^{\circ}56,2'\text{S}.$
- B $32^{\circ}56'8''\text{S } 27^{\circ}55'13''\text{E} / 32^{\circ}56,2'\text{S } 27^{\circ}55,2'\text{E}.$
- C $32^{\circ}56'8''\text{E } 27^{\circ}55'13''\text{S} / 32^{\circ}56,2'\text{E } 27^{\circ}55,2'\text{S}.$
- D $27^{\circ}55'13''\text{S } 32^{\circ}56'8''\text{E} / 27^{\circ}55,2'\text{S } 32^{\circ}56,2'\text{E}.$

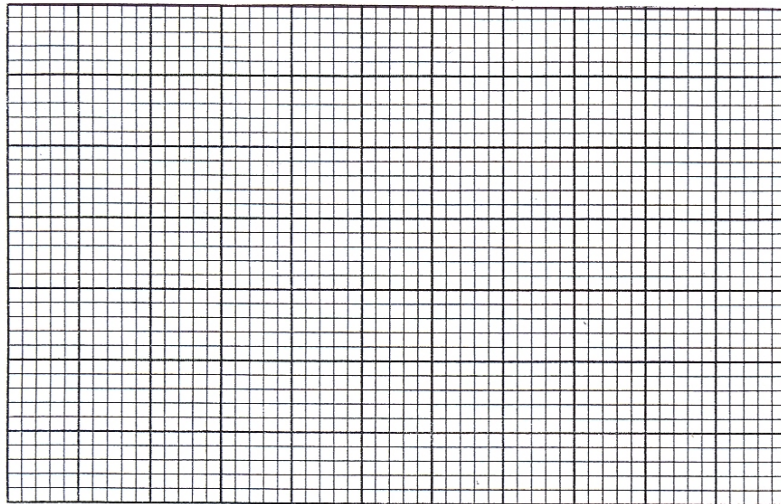
(10 x 2) [20]

QUESTION 2

2.1 Calculate the area of the feature marked **4** in m² on the topographical map. Show ALL the calculations.

(4)

2.2 Draw a cross-section from trigonometrical station number 513 in block H1 to spot height 182 in block G3. Use a vertical scale of 1 cm to represent 20 m.



(5)

2.3 Calculate the vertical exaggeration of the cross-section you have drawn in QUESTION 2.2 above. Show ALL the calculations.

(4)

2.4 Calculate the gradient between 5 on the topographical map and spot height 148 in block H2. Show ALL the calculations.

(5)

2.5 Account for the location of cultivated land on this slope between **5** and spot height 148.

_____ (1 x 2)

(2)
[20]

QUESTION 3

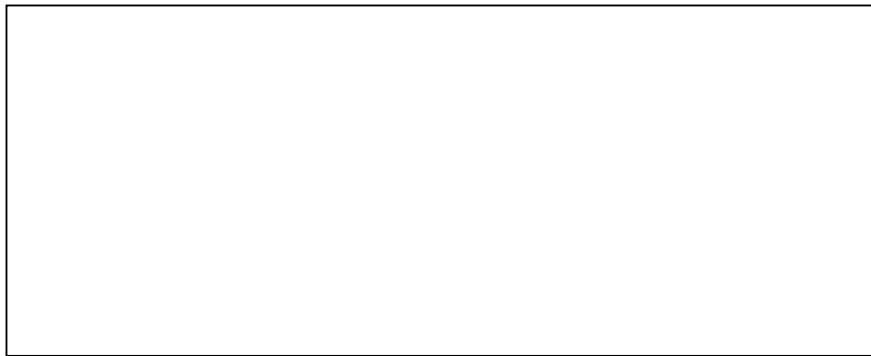
3.1 Refer to the orthophoto map.

3.1.1 Identify the landform numbered **6** on the orthophoto map.

_____ (1 x 2)

(2)

3.1.2 Use a labelled diagram to show the flow of air at night in the landform that you identified in QUESTION 3.1.1.



(2 x 2)

(4)

3.1.3 Name the type of wind/air flow you drew in QUESTION 3.1.2 above.

_____ (1 x 2)

(2)

3.2 Refer to blocks H7 and H8 on the topographical map.

3.2.1 Identify the stream pattern in blocks H7 and H8.

_____ (1 x 2)

(2)

3.2.2 What is the order of the stream at the point numbered **7** in block H8?

_____ (1 x 2)

(2)

3.3 Identify ONE recreational activity in block J8 on the topographical map that would keep tourists visiting the town of Cambridge.

_____ (1 x 2) (2)

3.4 Compare the street pattern at Dorchester Heights in blocks H3/4 and I3/4 to that of Vincent in block J4 on the topographical map in terms of the following:

	DORCHESTER HEIGHTS	VINCENT
Street pattern	_____	_____
Advantage	_____ _____	_____ _____
Disadvantage	_____ _____	_____ _____

(6 x 2) (12)

3.5 Name the primary and secondary activities found in block I3 on the topographical map.

Primary: _____

Secondary: _____

(2 x 2) (4)

3.6 Refer to the orthophoto map to answer the questions on Nompumelelo, which is an informal settlement near CAMBRIDGE.

3.6.1 Give ONE characteristic of an informal settlement.

_____ (1 x 2) (2)

3.6.2 What challenges are posed to the local government by this type of settlement?

_____ (2 x 2) (4)

3.7 Indicate whether Bonza Bay in block J7 on the topographical map is a high-income or low-income residential area. Give TWO reasons for your answer.

(3 x 2) (6)
[42]

QUESTION 4

4.1 What is a Geographical Information System (GIS)?

(1 x 2) (2)

4.2 Differentiate between *vector data* and *raster data*.

(2 x 2) (4)

4.3 Classify the following data as vector or raster.

4.3.1 Image _____

(1 x 2) (2)

4.3.2 Polygons _____

(1 x 2) (2)

4.4 Name any TWO components of a GIS.

(2 x 2) (4)

4.5 Your friend lives in Nompumelelo and he/she would like to open a business in the area. How could you make use of a GIS in order to ensure the success of his/her business?

(2 x 2) (4)
[18]

TOTAL: 100