



education

Department:
Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

**GEOGRAPHY P2
PREPARATORY EXAMINATION 2008**

MARKS: 100

TIME: 1½ hours

NAME: _____

This question paper consists of 12 pages.

INSTRUCTIONS AND INFORMATION

1. Write your NAME and in the space provided on the cover page.
2. Answer ALL the questions in the spaces provided ON THIS QUESTION PAPER.
3. You are supplied with a 1:50 000 topographical map (2830AA DUNDEE) and an orthophoto map (2830AA DUNDEE) 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. NOTE: The resource material (topographical map and orthophoto map) must be collected by the schools for their own future use.
6. A non-programmable calculator may be used.
7. The following English terms or their Afrikaans translations are shown on the 1:50 000 topographical map.

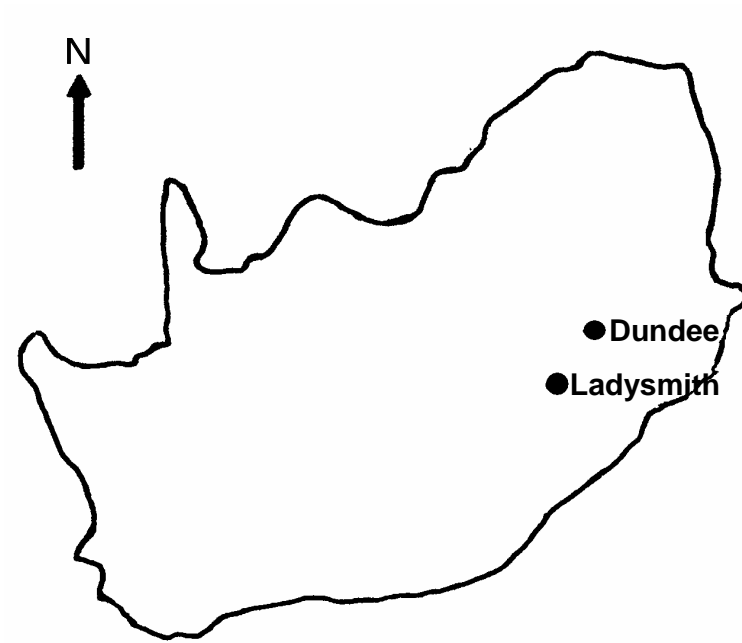
ENGLISH

Aerodrome
Golf course
Landing strip
Nature reserve

AFRIKAANS

Vliegveld
Gholfbaan
Landingstrook
Natuurresewaat

The map below shows the location of Dundee and Ladysmith.



QUESTION 1: MULTIPLE-CHOICE QUESTIONS

The following questions/statements are based on the 1:50 000 topographical map 2830AA DUNDEE and the orthophoto map of the same area. Various options are provided as possible answers to the following statements/questions. Choose the correct answer and write only the letter (A – D) in the block next to the question/statement.

1.1 The contour interval on the orthophoto map is ...

- A 20 m.
- B 50 m.
- C 5 m.
- D 2 m.

1.2 The reference number of the topographical map directly north of the map 2830AA DUNDEE is ...

- A 2730CD.
- B 2730CC.
- C 2830AC.
- D 2830AB.

1.3 The feature marked K in block J10 on the topographical map is a ...

- A mesa.
- B plateau.
- C valley.
- D butte.

1.4 The land-use zone marked 14 on the orthophoto map is a/an ...

- A zone of transition.
- B industrial zone.
- C residential zone.
- D commercial zone.

1.5 The slope element marked M in block J8 on the topographical map is the

- A pediment.
- B scarp.
- C talus.
- D crest.

1.6 Study the profile of the Steenkoolspruit River in block D10 on the topographical map. In which stage of development is the Steenkoolspruit River?

- A Middle course
- B Lower course
- C Plain course
- D Upper course

1.7 The man-made feature marked 17 on the orthophoto map is a/an ...

- A dam.
- B reservoir.
- C excavation.
- D sports field.

1.8 The type of residential settlement pattern found at Sibongile, marked 11 on the orthophoto map, is ...

- A dispersed.
- B circular.
- C nucleated.
- D irregular.

1.9 The exact location (grid reference) of the sewage works in block F10 on the topographical map is ...

- A $28^{\circ}10'47''S$ $30^{\circ}14'15''E$ / $28^{\circ}10'8''S$ $30^{\circ}14'2''E$.
- B $28^{\circ}12'47''S$ $30^{\circ}16'45''E$ / $28^{\circ}12'8''S$ $30^{\circ}16'8''E$.
- C $28^{\circ}10'00''S$ $30^{\circ}17'45''E$ / $28^{\circ}10'0''S$ $30^{\circ}17'8''E$.
- D $28^{\circ}12'11''S$ $30^{\circ}15'55''E$ / $28^{\circ}12'2''S$ $30^{\circ}15'9''E$.

1.10 The drainage pattern of the area marked O in block H8 on the topographical map is ...

- A dendritic.
- B trellis.
- C radial.
- D rectangular.

(10x2) [20]

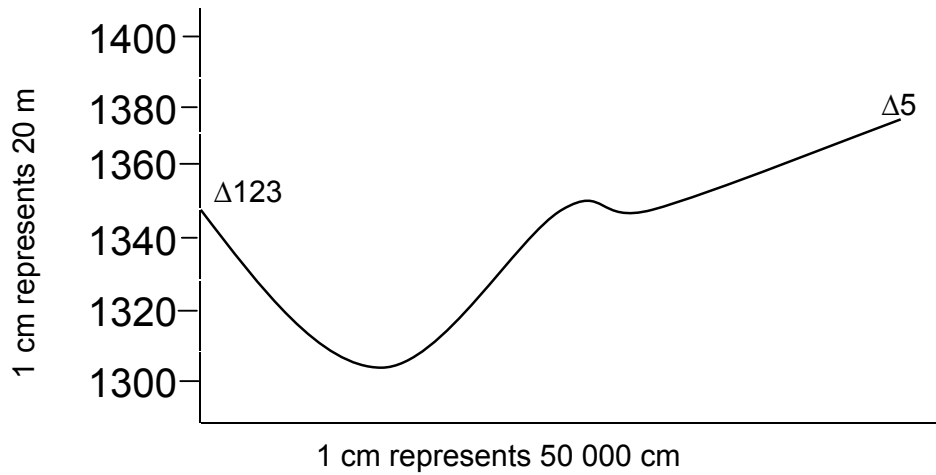
QUESTION 2

2.1 Calculate the length of the dam wall of the Donald McHardy Dam, in block F7 on the topographical map, in metres. Show ALL the calculations. (4)

2.2 Study the cross-section between trigonometrical station $\Delta 123$ in block E1 and trigonometrical station $\Delta 5$ in block C2.

2.2.1 Indicate the positions of the following features on the cross-section. Use the letters in brackets below to indicate the positions of these features.

- Dam (D) (1)
- Marshes (M) (1)
- Cultivated lands (C) (1)



2.2.2 Calculate the vertical exaggeration of the cross-section in QUESTION 2.2. Show ALL the calculations. (4)

2.2.3 Calculate the average gradient from spot height 1253 (point 20) to the point on the contour line indicated by 21 on the orthophoto map. Show ALL the calculations. Use the following formula: (6)

$$\text{Gradient} = \frac{VI}{HE}$$

2.2.4 (a) Refer to trigonometrical station Δ123 (E1) and trigonometrical station Δ5 (C2). Are these two points intervisible? (Ignore the distance between the two trigonometrical stations.) (1)

(b) Give a reason for your answer to QUESTION 2.2.4(a). (1x2)(2)

[20]

QUESTION 3

3.1 In which province is Dundee located? (1x2)(2)

3.2 What is the direction of Dundee from Glencoe? (1x2)(2)

3.3 Explain the suitability of the site selected for the construction of the Dundee Aerodrome in blocks F9 and G9. (1x2)(2)

3.4 Describe the stream channel pattern of the Steenkoolspruit River in block D10 on the topographical map. (1x2)(2)

3.5 Explain why the stream channel pattern mentioned in QUESTION 3.4 developed. (1x2)(2)

3.6 Compare the following land-use zones (Strath More Park and Avon Industrial) shown on the topographical map by completing the table below.

	STRATH MORE PARK (BLOCK F8)	AVON INDUSTRIAL (BLOCK F10)
3.6.1 Main land use		
3.6.2 Land value		
3.6.3 Degree of pollution		

(3x2)(6)

3.7 Find Peacevale in block E10 on the topographical map and answer the questions that follow.

3.7.1 Identify the street pattern at Peacevale. (1x2)(2)

3.7.2 Give ONE advantage of the street pattern at Peacevale. (1x2)(2)

3.7.3 Give TWO disadvantages of the street pattern at Peacevale. (2x2)(4)

3.8 Identify the rock type and structure associated with the features marked L (I8) and K (J9/10). (2x2)(4)

3.9 The area marked Sibongile, 11 on the orthophoto map, is a low-income residential area. Give a reason to support this statement. (1x2)(2)

3.10 The location (position) of the sewage works in block F10 on the topographical map is suitable. Give a reason to support this statement. (1x2)(2)

3.11 There are several 'green areas' like Brickfield, (13 on the orthophoto map) that are important to the town. Give the geographical term for these green areas. (1x2)(2)

3.12 Explain why these green areas are important to the urban environment. (1x2)(2)

3.13 Does Dundee have a high or a low transport development index? Give evidence from the topographical map to support your answer. (2x2)(4)

3.14 Give ONE piece of evidence from the topographical map which indicates that environmental conservation is practised in Dundee. (1x2)(2)

3.15 Commercial farming is practised at the Carlisle farm (E5) on the topographical map. Give a reason to substantiate this statement. (1x2)(2)

[44]

QUESTION 4

4.1 Explain the following concepts:

4.1.1 Geographic information systems (GIS) (1x2)(2)

4.1.2 Remote sensing (1x2)(2)

4.2 Differentiate between *vector data* and *raster data*. (2x2)(4)

4.3 Name ONE of the main data inputs of a GIS. (1x2)(2)

4.4 Classify the following data as either spatial data or attribute data.

(a) A map showing housing density (1x2)(2)

(b) The shape of a ploughed field (1x2)(2)

4.5 Give ONE example of possible spatial data found in or around the school on the topographical map. (1x2)(2)

[16]

TOTAL: 100