

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. The questions in this paper are based on the 1:50 000 SA topographical map 3319CB Worcester and the 1:10 000 SA orthophoto map 3319CB15 which is a section of the mapped area.
3. Write your examination number as well as the centre number in the spaces provided on the FRONT page of the question paper.
4. Answer ALL questions ON this question paper.
5. Use the LAST page of this question paper for ALL rough work.
6. Some questions can only be answered if the topographical map and the orthophoto map are studied together.
7. On completion of this question paper, the question paper as well as the topographical map and orthophoto map must be returned to the invigilator. The maps become the property of the school.
8. A glossary of some of the English and Afrikaans words and their translations appears on the next page.

GLOSSARY

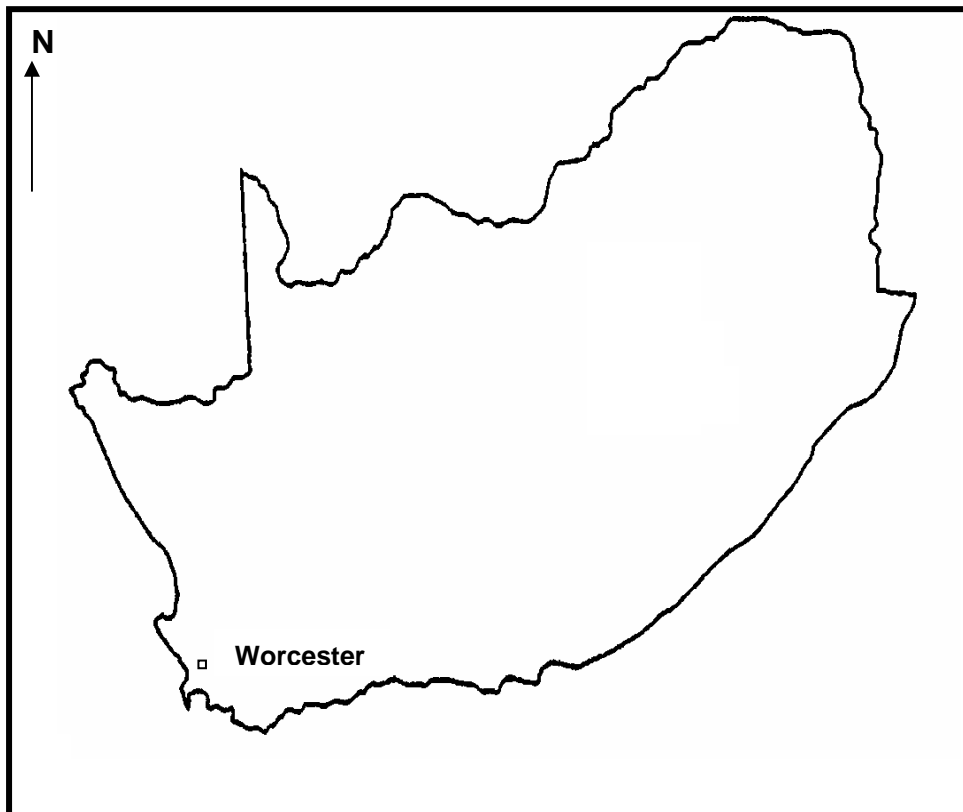
English

Cemetery
Diggings
Golf course
Hospital
Sewage works
Showgrounds
Rifle range

Afrikaans

Begraafplaas
Uitgrawings
Gholfbaan
Hospitaal
Rioolwerke
Skougronde
Skietbaan

POSITION OF WORCESTER WITHIN SOUTH AFRICA



SECTION A

QUESTION 1: MULTIPLE-CHOICE QUESTIONS

Refer to the 1:50 000 topographical map 3319CB and the 1:10 000 orthophoto map 3319CB15 of Worcester (attached) to answer the following questions.

Various possible options are provided as answers to the following statements. Choose the answer and write the letter (A – D) next to the question number (1.1 – 1.10) in the block provided on the right-hand side of the page.

1.1 The mean annual change in the magnetic declination on the topographical map is ...

- A 2' eastwards.
- B 23°12' west.
- C 2' westwards.
- D 23°12' east.

1.2 The contour interval on the topographical map is ... metres.

- A 20
- B 10
- C 50
- D 60

1.3 The two types of scales shown on the topographical map are the ...

- A ratio scale and word scale.
- B Richter scale and line scale.
- C word scale and line scale.
- D line scale and ratio scale.

1.4 The physical feature found at J (block A6) on the topographical map is a ...

- A mesa.
- B butte.
- C conical hill.
- D plateau.

1.5 What primary activity is found at K on the orthophoto map?

- A Orchards and vineyards
- B Mining
- C Fishing
- D Quarrying

1.6 The orthophoto number 3319 refers to ...

- A longitude and contour lines.
- B contour lines and isobars.
- C latitude and contour lines.
- D latitude and longitude.

1.7 What is the recreational facility found at 33°39'45"S and 19°25'45"E on the topographical map?

- A Golf course
- B Horse riding club
- C Caravan park
- D Model aircraft club

1.8 The man-made feature found at L (block C4/5) on the topographical map is a ...

- A reservoir.
- B dam.
- C sewage disposal works.
- D lake.

1.9 At M on the orthophoto map the land use is for a/an ...

- A park.
- B hospital.
- C school.
- D industry.

1.10 The type of road labelled N on the orthophoto map is a/an ... road.

- A other
- B national
- C secondary
- D main

TOTAL SECTION A: (10 x 2) 20

SECTION B

QUESTION 2: MAPWORK TECHNIQUES AND CALCULATIONS

2.1 Calculate the average gradient from spot height • 212 at P (block E12) to trigonometrical station 207 (block C8).

(5)

2.2 Calculate the magnetic declination for the year 2007. Show ALL calculations.

(5)

2.3 Calculate the area in square kilometres (km²) of block G8 on the topographical map.

(5)

2.4 Calculate the vertical exaggeration of a cross section. The vertical scale is as follows: 1 cm equals 40 m; the horizontal scale is 1:50 000. Show ALL calculations.

(5)

TOTAL SECTION B: 20

SECTION C

QUESTION 3: RELIEF AND DRAINAGE

3.1 Identify the following physical features on the topographical map:

P (block E7): _____

Q (block D5): _____

R (block G10): _____

(3 x 2) (6)

3.2 Give TWO physical factors that favour the location of the Brandvlei dam.

(2 x 2) (4)

3.3 In which general direction is the Breë River flowing? Give TWO reasons for your answer.

Answer: _____
(1 x 2) (2)

Reasons: _____

(2 x 2) (4)

3.4 Identify the drainage pattern associated with the feature named Voorsorgsberg (block H6).

(1 x 2) (2)

3.5 Suggest ONE physical factor hindering (preventing) the northward expansion of the town of Worcester.

(1 x 2) (2)

TOTAL SECTION C: 20

SECTION D

QUESTION 4: SETTLEMENTS AND ECONOMIC ACTIVITIES

4.1 The residential area of Van Riebeeckpark, S on the orthophoto map shows characteristics of a high-income residential area. Give THREE reasons in support of this statement.

(3 x 2) (6)

- 4.2 4.2.1 Identify the urban functional zone on the topographical map, where the sewage works (block D/E 10) are situated.
- _____
- (1 x 2) (2)
- 4.2.2 Give TWO reasons why it is located here.
- _____
- _____
- (2 x 2) (4)
- 4.3 State TWO advantages of land use labelled M on the orthophoto map.
- _____
- _____
- (2 x 2) (4)
- 4.4 The industrial area of Worcester (block C10) has an ideal (very good) location. State and explain THREE factors that influenced its location.
- _____
- _____
- _____
- _____
- (3 x 2) (6)
- 4.5 Identify the type of street pattern found in the CBD of Worcester.
- _____
- (1 x 2) (2)

4.6 Worcester enjoys an excellent location as a gap town. With reference to this statement:

4.6.1 Explain the meaning of the term *gap town*.

(1 x 2) (2)

4.6.2 State TWO advantages of a gap town.

(2 x 2) (4)

4.7 Environmental damage has taken place at C12 on the topographical map. Name the type of primary activity that is responsible for this damage.

(1 x 2) (2)

4.8 Fruit farming is an important economic activity in Worcester. Name and explain any TWO factors that have favoured this type of activity in this area.

(2 x 2) (4)

4.9 Suggest TWO reasons for the orientation of the runways of the Worcester aerodrome in a northwest – southeast direction.

(2 x 2) (4)

TOTAL SECTION D: 40
GRAND TOTAL: 100