



GRADE 11 EXAMINATION
NOVEMBER 2007

GEOGRAPHY: PAPER II

MARKING GUIDELINES

Time: 1½ hours

100 marks

The marking guide is a working document prepared for use by teachers as they assess the Grade 11 externally set examinations.

There may be different interpretations of the marking guidelines but the teacher should keep as closely as possible to the suggested way of assessing. When in doubt, a teacher should check with another member of the cluster or with the relevant Assessment Specialist.

SECTION A MAP PROJECTIONS

Study the map of the world below, drawn on Mercator's projection, and answer the questions which follow.



1.1 **Explain** why map projections are necessary.

It is impossible to represent a 3-D image (globe) onto a 2-D surface,

(1) thus a particular projection has to be chosen to represent a specific

quality desired by the user, e.g. equal area. (1)

(2)

1.2 Greenland and Africa (shaded in black on the world map above) appear to be about the same size, while, in reality, Africa is about 14 times larger than Greenland. **Explain** why Africa looks the same size on the map but is actually much larger than Greenland.

The Mercator projection distorts areas (1). The closer to the poles/the

further from the equator the greater the distortion (1). As Greenland is

close to the North Pole and Africa lies across the equator, Greenland's

area is greatly exaggerated. (2)

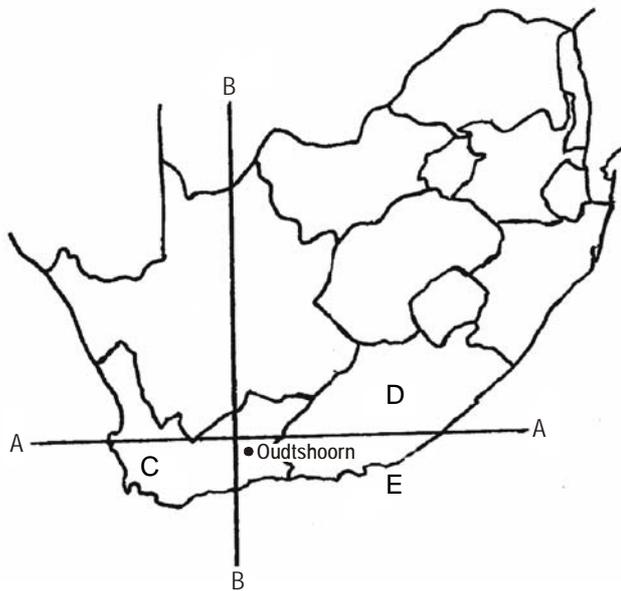
(4)

[6]

SECTION B GEOGRAPHICAL SKILLS AND TECHNIQUES, MAP AND PHOTOGRAPH INTERPRETATION, FIELDWORK, ATLAS WORK

- Carefully study the 1:50 000 topographical map extract 3322CA Oudtshoorn and the accompanying orthophoto map (which is on a scale of 1:10 000) before answering the questions.
- The map has grid lines with markings A to G and 1 to 9. The orthophoto map has grid lines with markings A to AA and 1 to 28. These may be used to identify locations.

Oudtshoorn is the largest town in the Little Karoo region of South Africa. The town is also home to the world's largest ostrich population with a number of specialised ostrich breeding farms. Oudtshoorn is in the centre of the Little Karoo and has a dry climate. (Adapted from <wikipedia.org7>). The map below shows the location of Oudtshoorn.



1. Geographical Skills and Technique (multiple choice)

Study the location map of Oudtshoorn above and answer the questions that follow by putting a tick in the correct box.

1.1 The line of latitude marked A on the location map is ...

33° E	
33° S	✓
22° S	
22° E	

(2)

1.2 The line of longitude marked B on the location map is ...

33° E	
33° S	
22° S	
22° E	✓

(2)

1.3 The province marked C is ...

Northern Cape	
Southern Cape	
Eastern Cape	
Western Cape	✓

(2)

1.4 The province marked D is ...

Northern Cape	
Southern Cape	
Eastern Cape	✓
Western Cape	

(2)

1.5 The ocean marked E is ...

Atlantic	
Pacific	
Agulhas	
Indian	✓

(2)
[10]

2. **Map Skills and Map Analysis (Multiple Choice)**

Refer to the 1:50 000 topographic map of Oudtshoorn and for each question put a tick in the correct box.

2.1 The latitude of trigonometrical station 404 (C2) is ...

33° 33' 33"E	
33° 33' 33"S	✓
22° 10' 55"E	
22° 11' 05"S	

(2)

2.2 The longitude of trigonometrical station 404 (C2) is ...

33° 33' 33"E	
33° 33' 33"S	
22° 10' 55"E	✓
22° 11' 05"S	

(2)

2.3 The land use at Z (F3) is ...

Brickfield	
Quarry	✓
Mine dump	
Landform	

(2)

2.4 The land use at 33° 35' 20" S, 22° 13' 20" E is ...

Cemetery	
Industry	
Farming	
Recreation	✓

(2)

2.5 The rivers in G3 are ...

Non-perennial	✓
Permanent	
Perennial	
Flowing all the year round	

(2)

2.6 The direction of flow of the Olifants River in D7 is ...

South-east	
South-west	✓
North-east	
North-west	

(2)

2.7 The approximate altitude of the brickfields (E3) is ...

462.1 metres	
400 metres	
360 metres	✓
320 metres	

(2)

2.8 The Oudtshoorn aerodrome (D5) lies on ...

A concave slope	
Flat ground	✓
A stepped slope	
A convex slope	

(2)

2.9 The farm Welgevonden (D6) is situated on a ...

Flood plain	✓
Levee	
Meander	
V-shaped valley	

(2)

2.10 The secondary economic activity in D3 is ...

Healthcare (hospital)	
Education (school)	
Brickfields	✓
Recreation	

(2)
[20]

3. **Calculations and Cross-section**

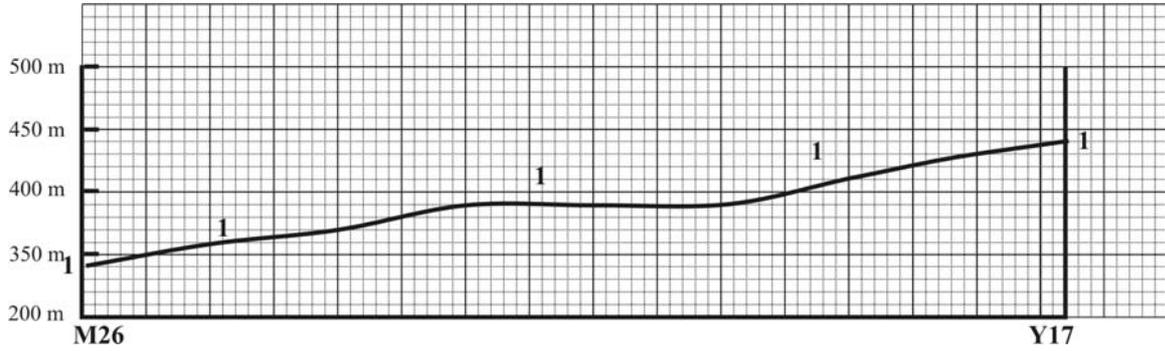
(c). Study the orthophoto map (scale 1:10 000).

As part of their fitness programme army recruits have to run from the intersection of St Saviour and Condor Streets (M26 on the orthophoto map) to spot height 446 (Y17).

- (a) **State** the straight line distance between these points. 1540 m (2)
- (b) **State** the difference in altitude between these points. 76 m (2)
- (c) **Determine** the average gradient between these points. 1: 1:20 (4)

Calculations

(c) On the grid below complete the cross-section profile from the intersection of St Saviour and Condor Streets (M26 on the orthophoto map) to spot height 446 (Y17).



(5)

(e) **State** the horizontal scale of the cross-section. 1:10 000

(2)

(f) **State** the vertical scale of the cross-section. 1:5 000

(2)

(g) **Determine** the vertical exaggeration of the cross-section.
2

(4)

Calculations

4.2 **Predict** the impact of commercial intensive agriculture on the ecology of the Olifants River.

Extraction of large amounts of irrigation water which affect river-based ecosystems negatively by reducing their habitat.

Fertiliser/pesticide run-off into the river will also affect these ecosystems by killing certain species.

Nitrogen fertiliser run-off will cause eutrophication. Any TWO relevant impacts in detail; FOUR with little detail.

(4)
[8]

5. **Fieldwork**

As a Grade 11 student in a school in Oudtshoorn you have been asked to do a Geography fieldwork exercise in the area covered by the topographic map for your IEB portfolio.

Describe a fieldwork exercise you could undertake in the mapped area and **predict** the results you might expect. *Note: You may refer to fieldwork you have done or you may be creative.*

5.1 Description:

Any possible fieldwork exercise may be chosen _____

Exercise fits in well with the map (4) _____

Some linkage between exercise and map (3) _____

Little linkage (2) _____

Fieldwork described but does fit in with the map (1) _____

(4)

5.2 Results:

Predicted results mesh well with stated fieldwork (4) _____

Satisfactory results (3) _____

Results mentioned but bear little relation to planned exercise (2) _____

Any results (1) _____

(4)
[8]

6. **GIS**

6.1 **State** what the acronym GIS stands for?

Geographic Information System (2)

6.2 As a GIS expert you have been asked by developers to research the possibility of locating a casino in the area covered by the topographic map.

Suggest 3 GIS layers you would need to study to find out if the casino would be a financial success.

(a) Wealth of possible visitors

(b) Accessibility of casino

(c) Proximity of competing attractions

Any THREE possible layers (6)

6.3 **Compile** a report to the developers of the casino in which you **state** where you would site the casino and **evaluate** the reasons for your choice of site.

(a) Site of casino: (State the grid reference or accurately locate the site)

Any good site. The specific site MUST be located. (1)

(b) Reasons for choice of site:

There is no one correct answer for this question.

There are any number of possible sites

5 well explained reasons = 10

10 not so well explained reasons = 10

The reasons must fit in with the actual site selected.

(10)
19]

Total: 100 marks