GEOGRAPHY: PAPER II

NAME:

Time: 1½ hours   100 marks

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1.   Write your name in the space provided above.

2.   Answer all the questions in the spaces provided on the question paper (except where otherwise indicated.

3.   This paper consists of 10 pages. Please check that your paper is complete.

4.   On page 2 there is a glossary of words. This will help you understand what the words in **bold** are asking you to do. There is also an English/Afrikaans translation of words that appear on the topographic map.

5.   A magnifying glass and a calculator may be used.

Glossary

Compile	To create something by gathering information; to put things together
Determine	To work something out
Describe	To say what something is like
Evaluate	To express an opinion concerning the value of something
Explain	To make clear; give reasons; give causes
Justify	Explain; give a reason for
Predict	To say what you think will happen; to foretell; to say in advance
State	To present information or details plainly, without discussion
Suggest	Propose an explanation or solution

Translation

Aerodrome	vliegveld
Brickfields	steenmakery
Canal	kanaal
College	kollege
Crocodile farm	krokodilplaas
Drive-in theatre	inryteater
Furrow	voor
Golf course	gholfbaan
Hospital	hospitaal
Irrigation scheme	besproeiingskema
Ostrich farm	volstruisplaas
Race track	reisiesbaan
Rifle range	skietbaan
River	rivier
Sewage disposal works	rioolwerke
Tourist camp	toeriste kampeerplek

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.

_____

_____

_____   (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.

_____

_____

_____

_____

_____   (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.org>).
The map below shows the location of Oudtshoorn.
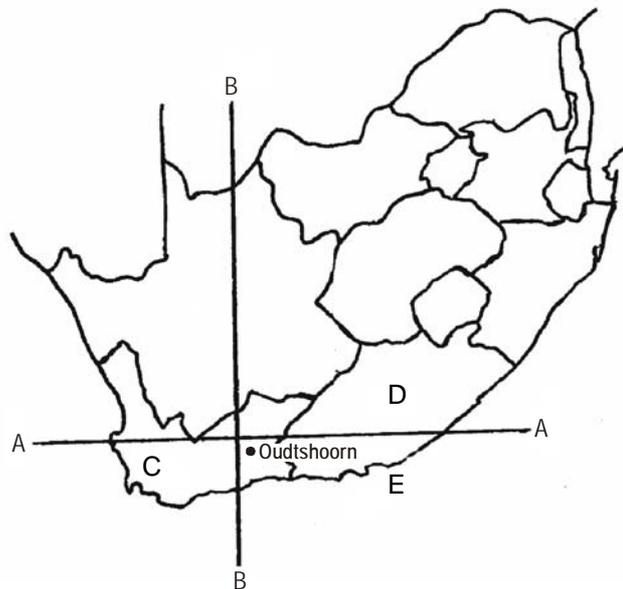
1.   **Geographical Skills and Technique (Multiple Choice)**

      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]

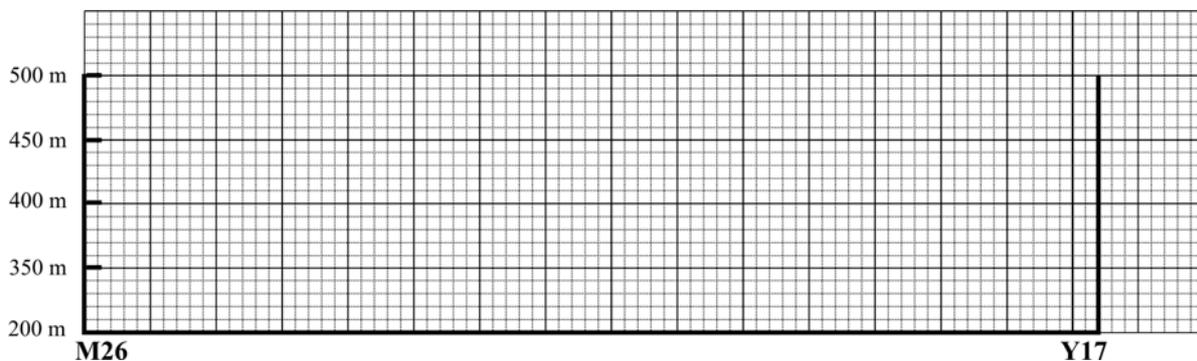3.   **Calculations and Cross-section**

3.1   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. _____m
(2)

(b)   **State** the difference in altitude between these points. _____m
(2)

(c)   **Determine** the average gradient between these points. 1: _____
(4)

Calculations

(d)   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. _____ (2)

(f)   **State** the vertical scale of the cross-section. _____ (2)

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

_____ (4)

> Calculations

3.2 Study the topographical map (which is drawn on a scale of 1:50 000). A canoeist paddles along the Olifants River from its confluence (where rivers join) with the Kammanasie River (G6) to the weir in D7.

(a) **State** the bearing on which the canoeist is paddling when approaching the weir. (D7)

_____ ° (2)

(b) **State** the distance (to the nearest kilometre) the canoeist paddles from the confluence to the weir.

_____ km (2)

(c) If it takes 30 minutes to paddle the distance **determine** the average speed of the canoeist.

_____ kilometres per hour (4)

> Calculations

[29]

4. **Ecology and Agriculture**

4.1 The Olifants River Valley is a good example of 'commercial intensive agriculture'. **Justify** this statement using map evidence.

_____

_____

_____

_____ (4)

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

_____

_____

_____

_____   (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:

_____

_____

_____

_____

_____

_____

_____   (4)

5.2   Results:

_____

_____

_____

_____

_____

_____

_____   (4)
                                                                  [8]

6.   **GIS**

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

   _____   (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)   _____

          _____

   (b)   _____

          _____

   (c)   _____

          _____   (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)

          _____   (1)

   (b)   Reasons for choice of site:

          _____

          _____

          _____

          _____

          _____

          _____

          _____

          _____   (10)

                                                                          [19]

                                                    Total: 100 marks