



# education

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Department:  
Education  
**REPUBLIC OF SOUTH AFRICA**

## **NATIONAL SENIOR CERTIFICATE**

**GRADE 11**

**GEOGRAPHY P2**

**EXEMPLAR 2007**

**NAME OF CANDIDATE:**..... **NAME OF SCHOOL:**.....

**MARKS: 100**

**TIME: 1½ hours**

**This question paper consists of 10 pages.**

**RESOURCE MATERIAL**

An extract from topographic map 2820CB Augrabies.

Orthophoto map 2820 CB 7 Augrabiesvalle.

NOTE: The resource material must be collected by the schools for their own use.

A non-programmable calculator may be used.

**INSTRUCTIONS AND INFORMATION**

1. Fill in your NAME and that of your SCHOOL in the space 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 2820CB Augrabies and an orthophoto map of a part of the same area.
4. The topographical map and the orthophoto map must be handed to the invigilator at the end of this examination session.

The following Afrikaans terms or their English translations are shown on the 1:50 000 topographic map.

<b>AFRIKAANS</b>	<b>ENGLISH</b>
Kanaal/Voor	Canal/Furrow
Eiland	Island
Wandelpad	Hiking trail
Rivier	River
Noord	North
Nasionale park	National park
Studam of stuwal	Weir
Kop	Butte

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**QUESTION 1**

The following questions are based on the 1:50 000 topographic map 2820CB Augrabies. The orthophoto map can be of assistance. Various possible options are provided as answers to the following questions. Write only the letter (A - D) in the block next to each question.

1.1 The map to the south-west of the map 2820CB Augrabies is ...

- A 2820CC
- B 2820DC
- C 2820AC
- D 2820BC

1.2 The Orange River is an example of a ... river.

- A periodic
- B episodic
- C circular
- D permanent

1.3 The phenomenon, Waterval, labelled 1 in block B7, is a/an ...

- A geomorphological feature.
- B farmhouse.
- C post office.
- D farm school.

1.4 The windmill, labelled 4 (D2), is approximately ... above sea level.

- A 690 m
- B 680 m
- C 656 m
- D 665 m

1.5 The exact location (grid reference) of spot height 630, labelled 6 in block D3, is ...

- A 28°35'15" S/20°16'25" E
- B 28°36'05" S/20°17'50" E
- C 20°15'00" S/28°33'00" E
- D 28°37'45" S/20°18'45" E

1.6 The name ROOIPAD 15, labelled 7 (D3), indicates a/an ...

- A nature reserve.
- B permanent river.
- C periodic rivers.
- D industrial area.

1.7 The landform between D and E is a/an ...

- A spur.
- B river valley.
- C saddle.
- D excavation.

1.8 A study of the Orange River in the area labelled G, clearly indicates that ...

- A the river is narrowing.
- B the river has dried up.
- C a dam is situated at this point.
- D the river is widening.

1.9 The man-made feature, labelled J, is a/an ...

- A hiking trail.
- B river.
- C railway line.
- D fence.

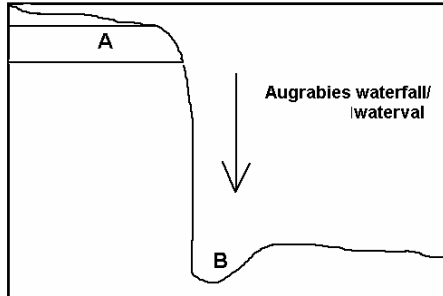
1.10 The direction of flow of the Orange River at the chimney labelled L, is ...

- A westwards.
- B southwards.
- C northwards.
- D eastwards.

**(10 x 2) [20]**

**QUESTION 2**

2.1 Study the Augrabies Waterfall, labelled 8 (C6), on the topographical map as well as the following diagram of the waterfall:

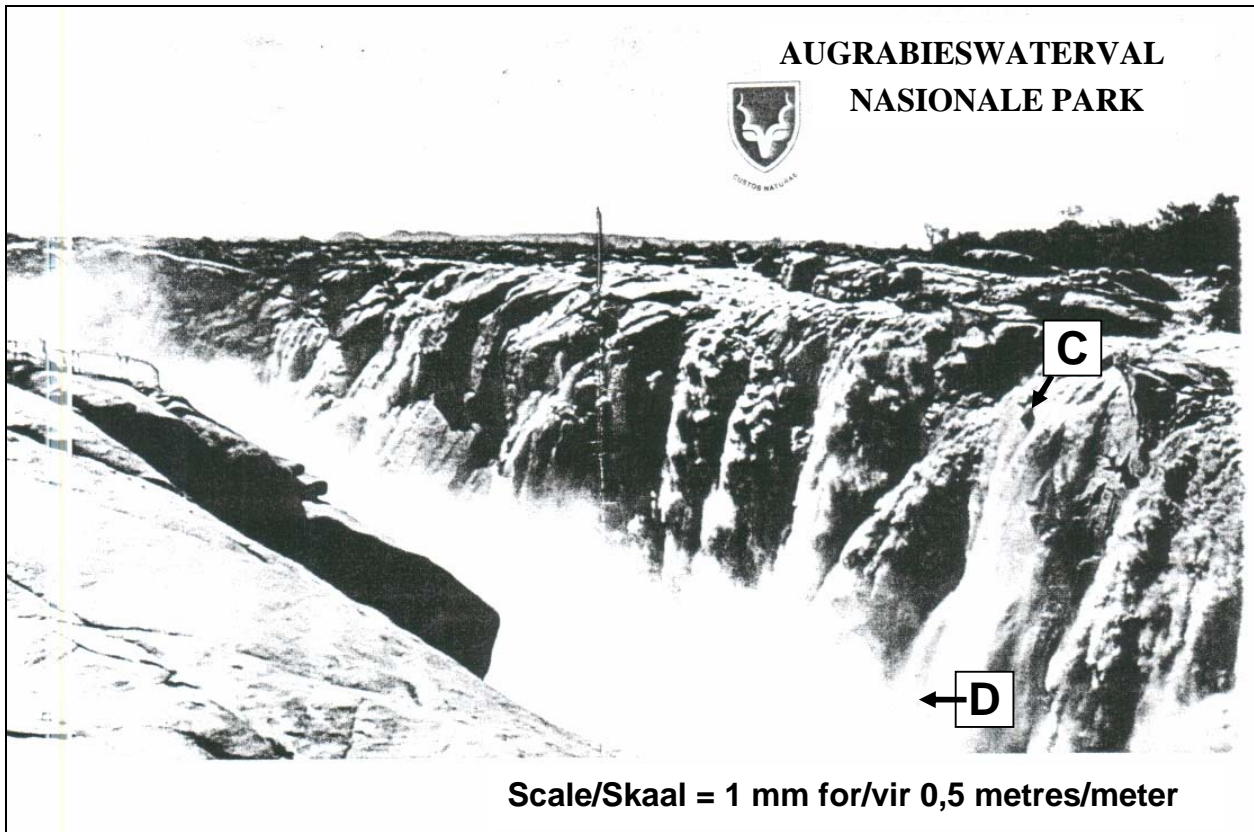


2.1.1 Indicate whether the rock layer at point A is resistant or non-resistant to erosion.  
\_\_\_\_\_ (1 x 2) (2)

2.1.2 Name the feature at B on the diagram.  
\_\_\_\_\_ (1 x 2) (2)

2.1.3 Briefly describe how a waterfall is formed.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (3 x 2) (6)

2.2 Study the following photograph of the Augrabies Waterfall.



2.2.1 Name the type of photograph.

\_\_\_\_\_ (1 x 2) (2)

2.2.2 Give ONE advantage and ONE disadvantage of this type of photograph.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (2 x 2) (4)

2.2.3 Calculate the height of the waterfall between points C and D in metres. Use the word scale as indicated on the photograph. Use the arrow as the points.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (2 x 2) (4)

- 2.3 Study the rivers indicated in the area labelled 9 (D5, E5) on the topographical map.
- 2.3.1 Name the type of streams found in this area.
- \_\_\_\_\_
- (1 x 2) (2)
- 2.3.2 Do the streams have a high or low potential for irrigation?
- \_\_\_\_\_
- (1 x 2) (2)
- 2.3.3 Is the slope in this area gentle or steep?
- \_\_\_\_\_
- (1 x 2) (2)
- 2.4 Study the agricultural area in the vicinity of the area numbered 10 on the topographical map.
- 2.4.1 Name TWO agricultural activities found in this area.
- \_\_\_\_\_
- \_\_\_\_\_
- (2 x 2) (4)
- 2.4.2 Would you describe the farming activities in this area as extensive or intensive? Give TWO reasons for your answer.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- (3 x 2) (6)
- 2.4.3 Name the irrigation feature found in this area.
- \_\_\_\_\_
- (1 x 2) (2)
- 2.4.4 Name any TWO factors that favour agricultural development in this area.
- \_\_\_\_\_
- \_\_\_\_\_
- (2 x 2) (4)

2.5 Study the section of the river between the contour lines indicated as M and N on the orthophoto map.

Determine the gradient of the river between the two points.

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(3 x 2) (6)

2.6 Study the features indicated by P and R on the orthophoto map.

2.6.1 What feature do these letters represent?

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(1 x 2) (2)

2.6.2 Give the true bearing of an aeroplane flying from P to R.

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(1 x 2) (2)

2.7 Study the area indicated as Auwabes Waterfall National Park on the topographical map.

2.7.1 Name TWO features of interest to tourists visiting the park.

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(2 x 2) (4)

2.7.2 The Park is situated in the drier area of South Africa. Give TWO characteristics of the typical plant life found in this area.

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(2 x 2) (4)

2.8 Geographic Information Systems (GIS) is a computerised digital mapping system that represents objects in the real world as points, lines or areas (polygons). Name the following conventional signs indicated:

2.8.1 The point object in block G1  
\_\_\_\_\_  
(1 x 1) (1)

2.8.2 The line object used for transport in block E3  
\_\_\_\_\_  
(1 x 1) (1)

2.8.3 The area object in block D9  
\_\_\_\_\_  
(1 x 1) (1)

2.8.4 The segment between the windmill (C9) and the other road (E8)  
\_\_\_\_\_  
(1 x 1) (1)

2.9 USES OF GEOGRAPHIC INFORMATION SYSTEMS (GIS)

2.9.1 Name TWO types of data representation techniques used in digital maps in GIS.  
\_\_\_\_\_  
\_\_\_\_\_  
(2 x 2) (4)

2.9.2 Explain the following concepts:  
(a) Data acquisition  
\_\_\_\_\_  
\_\_\_\_\_  
(1 x 2) (2)

(b) Remote sensing  
\_\_\_\_\_  
\_\_\_\_\_  
(1 x 2) (2)

(c) Data pre-processing

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(1 x 2) (2)

(d) Data processing

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(1 x 2) (2)

2.10 Differentiate between *spatial data* and *non-spatial data*.

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(2 x 2) (4)

**TOTAL: 100**