basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY P2

FEBRUARY/MARCH 2014

MARKS: 100
TIME: 1½ hours

EXAMINATION NUMBER:													
CENTRE NUMBER:													

MARK SCORED	Q1	Q2	Q3	Q4	TOTAL
MARKER					
SENIOR MARKER					
CHIEF MARKER					
MODERATOR					
TOTAL	20	20	40	20	100

GEOGRAPHY: Paper 2
1078E

10782E

This question paper consists of 9 pages and 1 page for rough work.

X05

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GAUTENG

RESOURCE MATE

1. An extract from topographical map 2930CA MERRIVALE

2. Orthophoto map 2930 CA 5 MERRIVALE

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

INSTRUCTIONS AND INFORMATION

1. Write your EXAMINATION NUMBER and CENTRE NUMBER in the spaces on the cover page.

2. Answer ALL the questions in the spaces provided in this question paper.

3. You are supplied with a 1 : 50 000 topographical map 2930CA of MERRIVALE and an orthophoto map of a part of the mapped area.

4. You must hand the topographical map and the orthophoto map to the invigilator at the end of this examination session.

5. You must use the blank page at the back of this paper for all rough work and calculations. Do NOT detach this page from the question paper.

6. Show ALL calculations and formulae, where applicable. Marks will be awarded for these.

7. You may use a non-programmable calculator.

8. The following English terms and their Afrikaans translations are shown on the topographical map.

ENGLISH	**AFRIKAANS**
Diggings	Uitgrawings
Caravan park	Karavaanpark
Sewage works	Rioolwerke
Golf course	Gholfbaan
Wetland	Vlei

QUESTION 1: MULTIPLE-CHOICE QUESTIONS

The questions below are based on the 1 : 50 000 topographical map 2930CA MERRIVALE, as well as the orthophoto map of a part of the mapped area. Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) in the block next to each question.

1.1 The feature at 29°34,5'S 30°11,4'E **/** 29°34'30"S 30°11'24"E is …

A a dam.
B a water point.
C sewage works.
D a reservoir.

1.2 The silo in block **C9** is used as …

A residences for the workers.
B storage for agricultural products.
C storage for machines.
D storage for water.

1.3 The N3 that passes through Merrivale and Zenzele is a/an …

A national freeway.
B arterial route.
C main road.
D secondary road.

1.4 The street pattern at Merrivale in block **A12** on the topographical map is a/an … pattern.

A grid
B radial
C planned irregular
D unplanned irregular

1.5 The pattern of rural settlements in block **F10** is …

A nucleated/clustered.
B dispersed/isolated.
C randomly nucleated.
D linear.

1.6 The man-made feature **8** on the orthophoto map is a …

A bridge.
B road.
C railway station.
D bus stop.

1.7 Feature **9** on the orthophoto map is …

A a forest.
B rocks.
C a firebreak.
D a row of trees.

1.8 The height of the land on which the rifle range in block **D10** is located is … metres.

A 1 120
B 1 100
C 1 080
D 1 060

1.9 Landform **B** in block **A12** on the topographical map is a …

A spur.
B mountain.
C valley.
D gorge.

1.10 Riversdale farm in block **A10** is situated in the … land-use zone of Merrivale.

A transition
B industrial
C residential
D rural-urban fringe

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

QUESTION 2: MAP CALCULATIONS AND INTERPRETATION

2.1 Refer to the communication tower in block **D10** and spot height number 1 079 in block **B8**.

2.1.1 Give the direction of the communication tower to spot height number 1 079.

_____ (1)

2.1.2 Determine the true bearing of the communication tower from spot height number 1 079.

_____ (1)

2.2 Find spot height 1 152 in block **D6** and trigonometric station 1 in block **F6**.

2.2.1 Calculate the average gradient between spot height 1 152 in block **D6** and trigonometric station 1 in block **F6**.

(6)

2.2.2 How would you describe the gradient you have calculated in QUESTION 2.2.1: STEEP or GRADUAL?

(1)

2.2.3 Explain your answer to QUESTION 2.2.2.

(2)

2.2.4 Give evidence from the topographic map to support your answer to QUESTION 2.2.2.

(1)

2.2.5 If you were walking from spot height 1 152 (**D6**) towards trigonometric station 1 (**F6**), would you be walking UPSLOPE or DOWNSLOPE?

(1)

2.3 Find points **6** and **7** on the orthophoto map.

2.3.1 Draw a simple, freehand cross-section from **6** to **7**. Clearly indicate the position of the dam on your cross-section.



(4)

2.3.2 What is the main use of the dam indicated on your cross-section?

_____ (1)

2.3.3 Give evidence from the orthophoto map or topographic map to support your answer to QUESTION 2.3.2.

_____ (1)

2.3.4 State ONE use of a cross-section in Geography.

_____ (1)
[20]

QUESTION 3: APPLICATION AND INTERPRETATION

3.1 Refer to the drainage pattern in block **B5/6** and **C5/6** at Mount Ashley.

3.1.1 Identify the drainage pattern in block **B5/6** and **C5/6**.

_____ (1 x 2) (2)

3.1.2 Explain how the drainage pattern in QUESTION 3.1.1 is formed.

_____

_____ (1 x 2) (2)

3.2 In which direction does the Gqishi River (**D3**) flow? Motivate your answer.

Direction: _____

Reason: _____

_____ (2 x 2) (4)

3.3 If you travelled from Merrivale to Pietermaritzburg, which road would be the shortest distance to travel, the N3 or the R103? Also indicate the distance that you would travel.

Road: _____

Distance: _____

_____ (2 x 2) (4)

3.4 Refer to residential area **4** and Howick West (next to **5**) on the orthophoto map.

3.4.1 Which one, RESIDENTIAL AREA **4** or HOWICK WEST, is an informal settlement?

_____ (1 x 2) (2)

3.4.2 Give TWO reasons that are visible on the orthophoto map, for your answer to QUESTION 3.4.1.

_____

_____ (2 x 2) (4)

3.5 State TWO problems that the inhabitants of Mbubu and Mashingeni in block **F10** might experience as a result of their isolated location.

_____

_____ (2 x 2) (4)

3.6 Identify TWO disadvantages of the location of the sewage works along the Mthinzima River in block **E9**.

_____

_____ (2 x 2) (4)

3.7 Refer to the farm Rosedene in block **C11**.

3.7.1 Identify the type of farming that is practised at Rosedene and give a reason for your answer.

Type: _____

Reason: _____ (2 x 2) (4)

3.7.2 Is the farmer of Rosedene a SUBSISTENCE or a COMMERCIAL farmer? Give a reason to explain your answer.

Type of farmer: _____

Reason: _____ (2 x 2) (4)

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3.8 The woodlands/plantations on the topographic map are highly protected. Support this statement by using evidence from the topographic map.

_____ (1 x 2) (2)

3.9 State TWO different ways in which the people living in the mapped area can use the Midmar Dam.

_____

_____ (2 x 2) (4)
[40]

QUESTION 4: GEOGRAPHIC INFORMATION SYTEMS (GIS)

4.1 Distinguish between *spatial data* and *attribute data*.

Spatial data: _____

_____

_____

Attribute data: _____

_____

_____ (2 x 2) (4)

4.2 Justify the need to create a buffer zone along the Mthinzima River where it passes close to Mpophomeni (**D/E9**).

_____

_____

_____ (2 x 2) (4)

4.3 McDonald's would like to open a new outlet in Merrivale. How would they use GIS to determine whether the location is suitable?

_____

_____

_____

_____ (2 x 2) (4)

4.4 Answer the following questions with reference to remote sensing.

4.4.1 Define the concept *remote sensing*.

_____

_____ (1 x 2) (2)

4.4.2 Name the object that is used to capture remote images from outer space.

_____ (1 x 2) (2)

4.4.3 How can remote sensing be of use in disaster management?

_____

_____

_____ (2 x 2) (4)

[20]

TOTAL: 100

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ROUGH WORK

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