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Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

GEOGRAPHY P2

COMMON TEST

JUNE 2014

MARKS: 75

TIME: 1½ hours

NAME: _____

DIVISION: _____

**This question paper consists of 12 pages and
1 page for rough work.**



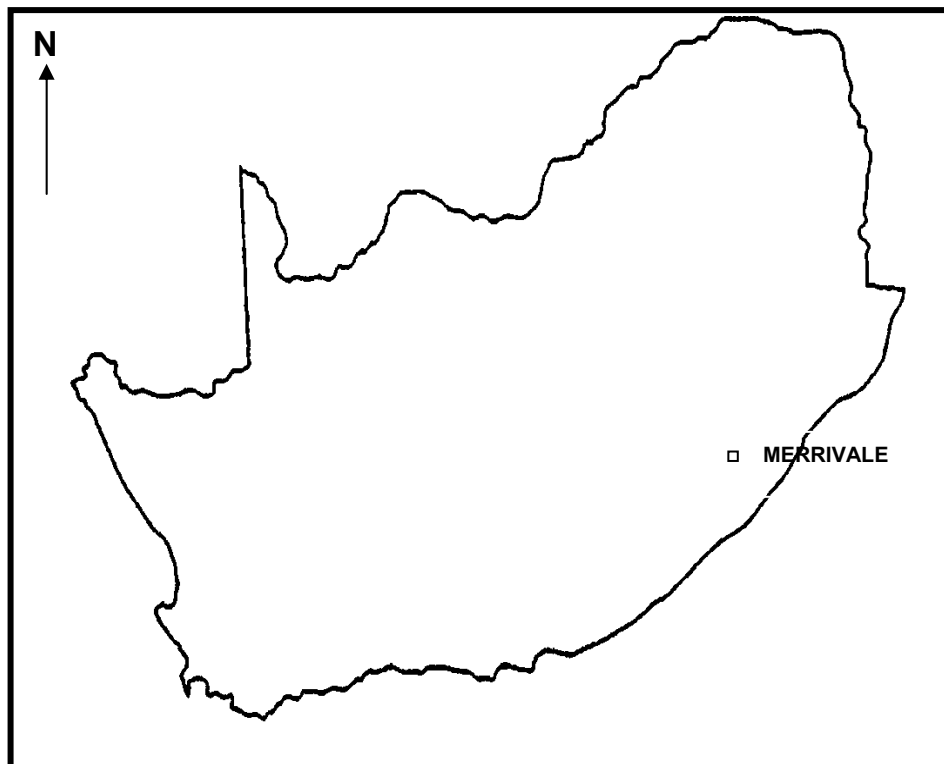
★ G E O G E 2 ★

RESOURCE MATERIAL

1. An extract from topographical map 2930 CA MERRIVALE.
2. Orthophoto map 2930 CA 5 MERRIVALE.

INSTRUCTIONS AND INFORMATION

1. Write your name and division in the spaces provided 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 2930 CA MERRIVALE and an orthophoto map 2930 CA 5 MERRIVALE 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 question paper for all rough work and calculations. DO NOT detach this page from the question paper.
6. Show ALL calculations. Marks will be allocated for calculations and formulae.
7. You may use a non-programmable calculator.

POSITION OF MERRIVALE WITHIN SOUTH AFRICA

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

ENGLISH

Diggings
Caravan park
Rifle Range
Sewage Works

AFRIKAANS

Uitgrawings
Voorbrande
Skietsbaan
Rioolwerke

QUESTION 1: MULTIPLE-CHOICE QUESTIONS

The questions below are based on the 1:50 000 topographical map 2930 CA MERRIVALE, as well as the orthophoto map 2930 CA 5 MERRIVALE as part of the mapped area. Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A–D) in the block next to each question.

1.1 The contour interval on the orthophoto map is ... metres.

- A 10
- B 5
- C 20
- D 15

1.2 The topographical map scale is ... times smaller than the orthophoto map scale.

- A 5
- B 10
- C 15
- D 20

1.3 The direction of the Midmar dam from KuNtshoni in block **F1** on the topographical map is ...

- A north west.
- B north east.
- C south east.
- D south west.

1.4 The type of road found in block **D5** on the topographical is a/an ... road.

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

1.5 The method of transporting water to the woodlands in block **E3** on the topographical is done by the use of ...

- A canals.
- B wind pumps.
- C pipelines.
- D furrows.

1.6 The stream order at **A** in block **A1** on the topographic map is ...

- A first order.
- B second order.
- C third order.
- D fourth order.

1.7 The geomorphological feature found between **6** and **7** on the orthophoto map is a ...

- A valley.
- B spur.
- C saddle.
- D watershed.

1.8 The height of the largest dam wall in block **B11** is ... metres.

- A 1080
- B 1100
- C 1060
- D 1040

1.9 The dams that found in the rural areas of Merrivale are mainly used for ...

- A recreation.
- B domestic purposes
- C industrial purposes.
- D irrigation.

1.10 The railway station in block **A12** on the topographical map is indicated as label number ... on the orthophoto map.

- A 4
- B 5
- C 8
- D 10

1.11 The Rifle Range in block **D10** on the topographical map is situated in the ... zone of Mpophomeni.

- A transitional
- B industrial
- C residential
- D rural-urban fringe

1.12 The water feature labelled **3** on the orthophoto map is a ...

- A non-perennial river.
- B dry water course.
- C dam.
- D non-perennial water.

☐

1.13 The man-made feature found in block **A1** on the topographical is a/an ...

- A river.
- B cultivated land.
- C firebreak.
- D lookout tower.

☐

1.14 The diggings in block **E8** on the topographical is an example of a/an ... economic activity.

- A primary
- B secondary
- C tertiary
- D quaternary

☐

1.15 The pattern of rural settlements at Glencall in block **F4** on the topographical is ...

- A isolated.
- B nucleated.
- C dispersed.
- D uniform dispersed.

☐

[15]

QUESTION 2: GEOGRAPHICAL TECHNIQUES AND CALCULATIONS

- 2.1 Calculate the straight line distance from spot height **.1279** (Block **F7**) to the school (Block **F8**). Your answer must be in metres. Show all calculations.

(3)

- 2.2 Calculate the difference in altitude between Mount Ashley (Block **B5 / C5**) and spot height **.1079** (Block **D5**).

(2)

- 2.3 Write the scale of the orthophoto map as a word scale.

(1)

- 2.3.1 Calculate the average gradient of spot height **.1214** (Block **A2**) to spot height **.1067** (Block **A3**). Show all calculations.

(5)

- 2.3.2 Interpret the above gradient in QUESTION 2.3.1.

(2)

- 2.4 Refer to the spot height **.1288** (Block **E2**) from spot height **.1763** (Block **F1**) on the topographical map and answer QUESTIONS 2.4.1 and 2.4.2.

2.4.1 Calculate the true bearing.

_____ (1)

2.4.2 Calculate the magnetic bearing for the year 2015.

_____ (6)
[20]

QUESTION 3: APPLICATION OF THEORY/MAP AND PHOTO INTERPRETATION

3.1 Refer to the drainage pattern in block **E2**.

3.1.1 Identify the drainage pattern.

_____ (1 x 1) (1)

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 Nguklu river (**D7/8**) on the topographical map flow. Give ONE piece of evidence from the map to support this statement.

Direction: _____

Reason: _____

_____ (1 + 2)(3)

3.3 Refer to the farming area of Happy Valley in block **D11**.

3.3.1 Identify the type of farming practised here.

_____ (1 x 1) (1)

3.3.2 Is the type of farming at Happy Valley commercial or subsistence. Give a reason for your answer.

Type: _____

Reason: _____

_____ (1 + 2)(3)

3.3.3 Suggest ONE factor that favoured this type of farming.

_____ (1 x 2) (2)

- 3.4 The industrial area of Merrivale is located in a valley in the vicinity of the area labelled **10** on the orthophoto map. Explain TWO ways how this location may impact on the health of the people living in the area especially during winter.

(2 x 2) (4)

- 3.5 The landing strip in blocks **D10/11** on the topographical map has a good location. Give TWO reasons to support this statement.

(2 x 2) (4)

- 3.6 Extreme precaution has been taken to protect the woodlands/plantations. Provide TWO pieces of evidence from the topographical map to support this statement.

(2 x 2) (4)

- 3.7 Merrivale has a good tourism potential. Give any ONE significant feature found on the map that may attract tourists to the area.

(1 x 1) (1)

[25]

QUESTION 4: MAP PROJECTION AND GEOGRAPHICAL INFORMATION SYSTEMS

4.1 Explain the difference between the following components of GIS.

a) Hardware: _____
_____ (1 x 1) (1)

b) Software: _____
_____ (1 x 1) (1)

4.2 Refer to the topographical map and answer the questions.

4.2.1 Name ONE line object in Block **F8**.

_____ (1 x 1) (1)

4.2.2 Identify ONE point feature in Block **E9**.

_____ (1 x 1) (1)

4.3 GIS has a wide variety of users. South Africa recently held its “Elections”. The IEC (Independent Electoral Commission) successfully made use of different layers of data to achieve its task.

4.3.1 Define the term *data layering*.

_____ (1 x 1) (1)

4.3.2 Suggest ONE type of data layer that was used in locating voting stations.

_____ (1 x 1) (1)

4.3.3 “All voters had be registered as voters in advance (well before) the day of voting”. Provide the term for the following description.

“Voter registration was therefore captured on a predetermined agreed format to facilitate quick and easy checking of registered voters.”

_____ (1 x 2) (2)

4.3.4 Name the instrument used by “Census Enumerators” to locate places they were not familiar with.

_____ (1 x 1) (1)

4.3.5 Provide ONE reason why the IEC did not use secondary sources to update their database on voter registration.

_____ (1 x 2) (2)

4.4 State TWO advantages of using GIS in investigations and planning.

_____ (2 x 2) (4)
[15]

TOTAL: 75

ROUGH WORK AND CALCULATIONS

