KZN - DEPARTMENT OF EDUCATION

GREENBURY SECONDARY SCHOOL

FINAL EXAMINATION 2015

GEOGRAPHY P2

GRADE: 10   **DATE:** 04/11/15
EXAMINER: D. RAMASAMI   **TIME:** 1.5 HOURS
MODERATOR: R. RANGANATHAN   **MARKS:** 75

NAME:

GRADE/ DIV:

EDUCATOR

QUESTION	CONTENT	MARKS
ONE	Multiple choice questions	15
TWO	Map calculations	20
THREE	Map and photo interpretation	25
FOUR	Geographical Information System	15

MARKS:

75

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INSTRUCTIONS AND INFORMATION

1. This paper consists of **NINE** pages inclusive of the cover page.

2. Write your name and your educator's name in the spaces provided on the question paper.

3. Answer ALL the questions in the spaces provided in this question paper. Show all Calculations where required.

4. You should receive a 1:50 000 topographical map 2930CA MERRIVALE and an orthophoto map 2930 CA 5 MERRIVALE of a part of the mapped area.

5. The topographical map and the orthophoto map must be handed to the invigilator at the end of the examination session.

6. You may use the blank page at the back of this question paper for all rough work and calculations.

7. A non-programmable calculator may be used.

8. The orthophoto map covers blocks 10, 11, 12 A and B of the topographic map.

9. The following English terms and/or their Afrikaans translations may appear on the topographical map:

ENGLISH	AFRIKAANS
Caravan park	Karavaanpark
Cemetery	Begraafplaas
Copper mine	Kopermyn
Diggings	Uitgrawings
Disused mine	Ongebruikte myn
Drive-in theatre	Inryteater
Fish farm	Visplaas
Landing strip	Landingstrook
Refuse dump	Afvalstortingsterrein
Rifle range	Skietbaan
River	Rivier
Sewage disposal works	Rioolafvalwerke
Shaft	Skag
Slimes dam	Slykdam

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QUESTION ONE

MULTIPLE CHOICE QUESTIONS

The following questions are based on the 1:50 000 topographical map, as well as the orthophoto map. Various options are provided as possible answers to the following questions. Choose the answer and circle only the letter (A – D) of the correct answer.

1.1.   The contour interval of the topographic map map is ...

    A) 5M
    B) 10M
    C) 20M
    D) 15M

                _____

1.2.   The map projection used on the orthophoto map map is ...

    A) Gauss Conform Projection
    B) Lamberts Projection
    C) Mercator
    D) Universal Transverse.

                _____

1.3.   The scale of the topographic map means that 1 cm on the map represents ..

    A) 0,1 Km
    B) 10 Km
    C) 0,5 Km
    D) 50 Km

                _____

1.4.   Land use D is .... of land use A

    A) SE
    B) NW
    C) E
    D) N

                _____

1.5.   The road linking Mooirivier and Pietermaritzburg in the NE corner of the topographic map is a/an .... road

    A) arterial
    B) main
    C) national
    D) minor

                _____

1.6.　The method used to show height in block E1 is a ...

    A) Bench mark
    B) Spot height
    C) Trignometrical station
    D) None of the above   _____

1.7.　The slope in block 10E is ...

    A) Gentle
    B) Steep
    C) Vertical
    D) Terraced   _____

1.8.　The feature numbered 3 on the orthophoto map is a/an ..

    A) Soccer field
    B) Sewage work
    C) Dam
    D) Marsh   _____

1.9.　The orthophoto map is an example of a/an ...

    A) Vertical
    C) Oblique
    C) High oblique
    D) Low oblique   _____

1.10.　The scale of the topographic map is ....than the orthophoto map.

    A) Smaller
    B) larger
    C) Same as
    D) None of the above .   _____

1.11.　The scales that is reflected on the topographic map is a ratio scale and ... ..

    A) Ratio scale
    B) Word scale
    C) Linear scale
    D) All of the above   _____

1.12.　The distance from Merrivale to Mooirivier in the north is

    A) 58 km
    B) 45 km
    C) I do not have a string to measure
    D) 14 km   _____

1.13.   The main primary activity in F 12 is …

    A)   Farming
    B)   Forestry
    C)   Mining
    D)   Orchards   .   _____

1.14.   The latitudinal position in the reference 2930 is ..

    A)   29° S
    B)   29° E
    C)   30° S
    D)   30° E   _____

1.15.   Merrivale is found in ……

    A)   KZN
    B)   Limpopo
    C)   Western Cape
    D)   Eastern cape   _____

(15 x 1)   **[15]**

QUESTION TWO

MAP CALCULATIONS

2.1.   Calculate the distance in metres between spot height 1674 (F2) and spot height 1491(F4).

_____

_____

_____

_____(3)

2.2.   State the height of the highest point in E 10.

_____ (1)

2.3.   State three methods used to show height in E10 and E 11

a)_____

b)_____

c)_____(3)

2.4.   Calculate the difference in height between the two heights reflected in E 10 and E 11.

_____ (2)

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2.5. Calculate the true bearing of spot height 1491 (F4) from spot height 1079 (D5).

_____ (3)

2.6. Will the magnetic bearing of the mapped region be greater than or smaller than the true bearing for 2015?

_____ (2)

2.7. State the grid reference of spot height 1079 in D5. Marks will be allocated for minutes, seconds and direction.

latitude_____

longitude_____ (6)

[20]

QUESTION 3

MAP AND PHOTO INTERPRETATION

3.1.1. Quote Evidence from the topographic map to show the authorities in this area is taking Steps to protect the environment.

_____(2)

3.2. **Refer to the topographic map and orthophoto map and answer the questions that follow:**

3.2.1. State two uses of the Midmar Dam to the residents of Merrivale.

a) _____

b)_____ (2)

3.2.2. Name the famous sporting event that the Midmar dam is noted for.

_____ (2)

3.2.3. Name the factor that favoured the location of the landing strip in D 10

_____ (2)

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3.3.1. Identify the land use labeled 8 on the orthophoto map.

_____ (2)

3.3.2. State the type of road you would use if you want to travel South from Merrivale.

_____ (2)

3.3.3. Refer to the topographic map and identify the following land uses/ features

A _____

F 12 _____ (4)

3.4.1. Study the atlas index below and answer the questions

Lobatse   25°.11 S   25°.40 E   68

3.4.1.1.   State the following

Latitude: _____

Page number: _____

Longitude: _____ (3)

3.4.2. Describe and give an example of the following types of maps:

Political map _____

_____

Electronic map _____

_____ (4)

3.5.   State the purpose of the firebreak in B5 and B6

_____ (2)

[25]

QUESTION 4

GEOGRAPHICAL INFORMATION SYSTEM

4.1.   Define the concept of GIS

_____ (2)

4.2.   Give two problems experienced with paper maps .

a)_____

_____

b)_____

_____ (4)

4.3.   Give an example of the following types of data from F12

Line: _____ (2)

Point:: _____ (2)

4.4.   Explain how satellite images can be used in disaster management. (2 answers)

_____

_____

_____

_____

(4)

4.5.   Explain the meaning of active remote sensing

_____ (1)

[15]

TOTAL = 75

GOOD LUCK

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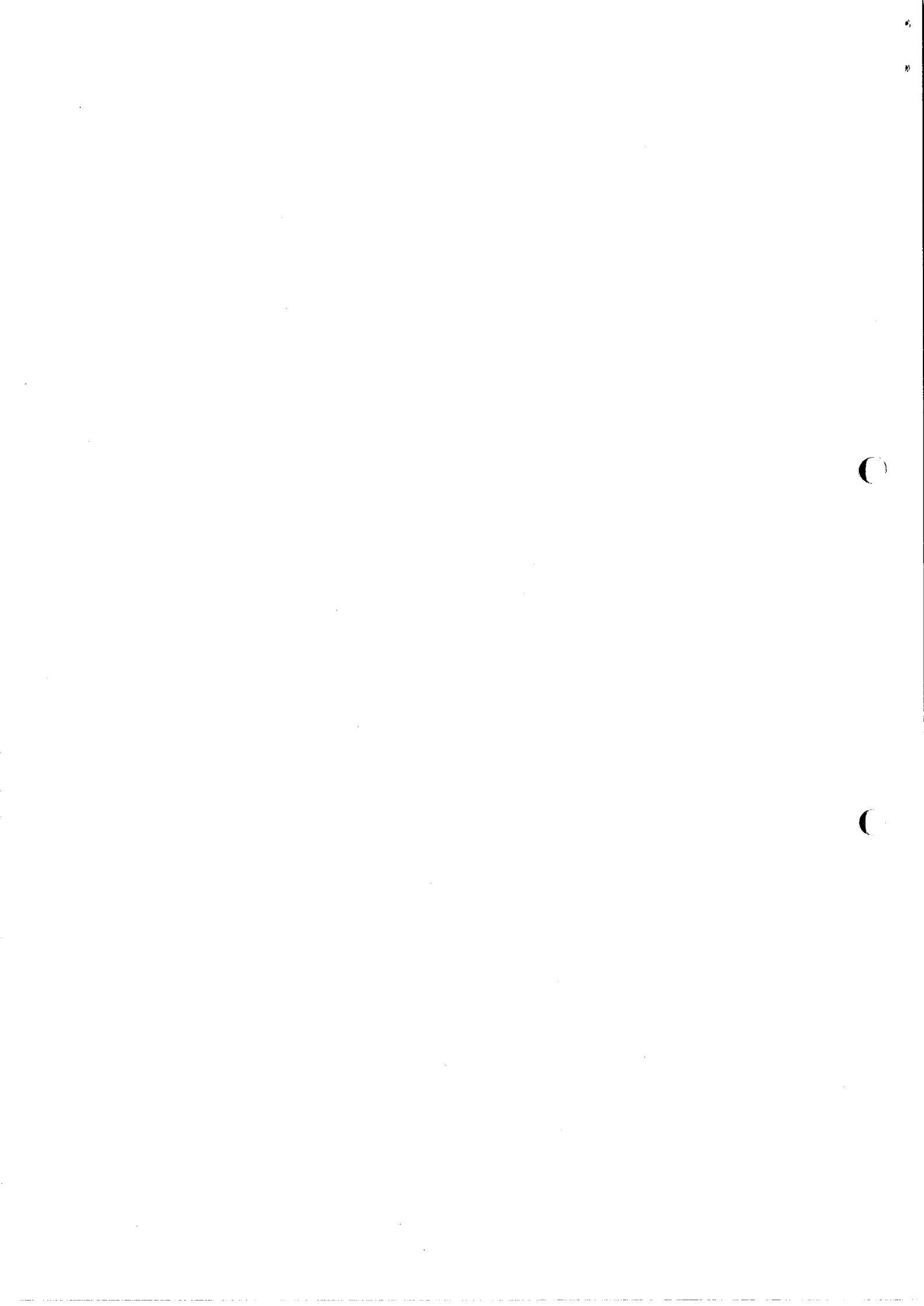**ROUGH WORK**

GREENBURY SECONDARY SCHOOL
DEPARTMENT OF HSS
H.O.D. MR D RAMASAMI
27/10/15

1.1.	C		1.9.	A
1.2.	A		1.10.	A
1.3.	C		1.11.	C
1.4.	A		1.12.	B
1.5.	C		1.13.	B
1.6.	C		1.14.	A
1.7.	B		1.15.	A
1.8.	C			

2.1. $7,1\sqrt{} / 2 = 3,55KM\sqrt{} = 3550M\sqrt{}$ (6,9 – 7,3) (3450 – 3650)

2.2. 1382,0m OR 1382m

2.3. contour

Spot height

Trig beacon / trignometrical station

2.4. 1388m – 1382m = 6m

2.5. $180°\sqrt{} + 13°\sqrt{} = 193°\sqrt{}$ (10° – 16°)

2.6. greater

2.7. lat - 29° 33'$\sqrt{}$ 24''$\sqrt{}$ S$\sqrt{}$ (20'' – 29'')

Long – 30° 07'$\sqrt{}$ 15''$\sqrt{}$ E$\sqrt{}$ (11,, - 19'')

3.1.1. Midmar Publie Resort Nature Reserve

3.2.1. water sports

Water for domestic and industrial use, etc

3.2.2. Midmar mile

3.2.3. Flat land/ transport

3.3.1. railway line

3.3.2. arterial/ main road

3.3.3. A – River

F12 – forestry

3.4.1. lat – 25°.11 S

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Long – 25°.40 E

3.4.2. Political map shows boundries eg a map showing the provinces of SA

Electronic map uses an electronic device to access these maps.

3.4.3. Prevents the spread of fires in a forest.

4.1. GIS is the use of computer technology to study geographical information

4.2. a) gets damaged easily

b) information is cluttered

4.3. line – contour/ boundry/ animal track

Point – lookout tower/ spot height

4.4. Assess the extent of the damage

Check for access points to disaster area

4.5. This is where a signal is sent to earth and the reflection of these signals creates an image.