

KZN - DEPARTMENT OF EDUCATION

GREENBURY SECONDARY SCHOOL

FINAL EXAMINATION 2016

GEOGRAPHY P2

**GRADE:** 11  
**EXAMINER:** D. RAMASAMI  
**MODERATOR:** F. PARUK

**DATE:** 02/11/16  
**TIME:** 1.5 HOURS  
**MARKS:** 75

**NAME:****GRADE/  
DIV:****EDUCATOR**

| QUESTION | CONTENT                         | MARKS |
|----------|---------------------------------|-------|
| ONE      | Multiple choice questions       | 15    |
| TWO      | Map calculations                | 20    |
| THREE    | Map and photo interpretation    | 26    |
| FOUR     | Geographical Information System | 14    |

**MARKS:**

|           |
|-----------|
|           |
| <b>75</b> |

**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. Write down the letter of the correct answer in the spaces provided..

- 1.1. The contour interval of the orthophoto map is ...  
 A) 5M  
 B) 10M  
 C) 20M  
 D) 15M
- 1.2. The map projection used on the topographical map is ...  
 A) Gauss Conform Projection  
 B) Lamberts Projection  
 C) Mercator  
 D) Universal Transverse.
- 1.3. Queenstown is found in the ....  
 A) Western Cape  
 B) KZN  
 C) Eastern Cape  
 D) Gauteng
- 1.4. The scale of the topographic map is .....than the topographic map  
 A) 5 times smaller  
 B) 5 times larger  
 C) 50 times smaller  
 D) 50 times larger
- 1.5. The type of rock found on the floodplains of Queenstown is  
 A) Igneous  
 B) Sedimentary  
 C) Metamorphic  
 D) None of the above
- 1.6. The latitudinal position of Queenstown is ....  
 A) 31° S  
 B) 26° E  
 C) 31° E  
 D) 26° S

1.7. The river at Q on the topographic map is a/an ..... river

- A) Perennial
  - B) Non Perennial
  - C) Episodic
  - D) Exotic
- 

1.8. The road used to travel to East London in a South Easterly direction is a/an....

- A) National road
  - B) Main road
  - C) Secondary road
  - D) Other road
- 

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

- A) Vertical
  - B) Oblique
  - C) High oblique
  - D) Low oblique
- 

1.10. The magnetic declination in 2016 will be ... than the MD for 2002.

- A) Smaller
  - B) Bigger
  - C) Same
  - D) None of the above .
- 

1.11. The landuse 14 on the orthophoto map is ....

- A) Primary
  - B) Secondary
  - C) Tertiary
  - D) Quaternary
- 

1.12. The land use 3 on the orthophoto map is a ....

- A) School
  - B) factory
  - C) Commercial
  - D) Warehouse
- 

1.13. The slope at K on the topographic map is ....

- A) Steep
  - B) Gentle
  - C) Concave
  - D) Convex
-

1.14. The relief of Queenstown prevents expansion in a/an .... direction

- A) Easterly
- B) Westerly
- C) South Westerly
- D) Northerly

1.15. Recreational feature 2 on the orthophoto map is a/an....

- A) Soccer field
- B) Golf Course
- C) Park
- D) Rugby field

(15 x 1)

[15]

## QUESTION TWO MAP CALCULATIONS

2.1. Calculate the average gradient between spot height 1192 (J3) and trig beacon 203 (G6) on the topographic map map..

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(4)

2.2. Using the topographic map, calculate the magnetic bearing of spot height 1192 (J3) from trig beacon 203 (G6) for 2002.

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(4)

- 2.3. Refer to the orthophoto map and calculate the area in kms of the box labeled 1.

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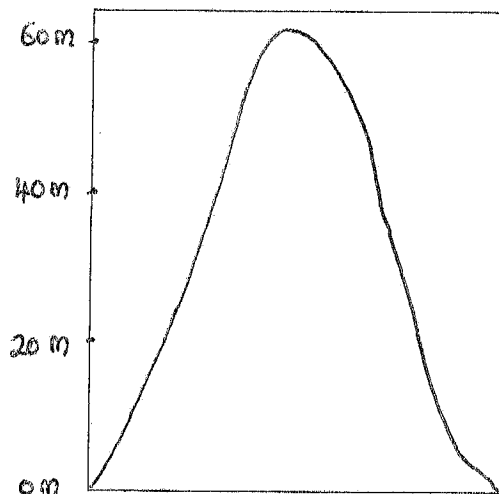
(3)

- 2.4. State the grid reference of the reservoir in G5 on the topographic map.

latitude \_\_\_\_\_

longitude \_\_\_\_\_ (4)

- 2.5. Study the cross drawn from the topographic map section below and answer the questions



- 2.5.1. Calculate the vertical exaggeration of this cross section

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(3)

- 2.5.2. State one importance of calculating vertical exaggeration.

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(2)

[20]

**QUESTION 3****MAP AND PHOTO INTERPRETATION**

3.1.1. Identify the feature represented by the number 10 on the orthophoto map

\_\_\_\_\_ (2)

3.1.2. State one economic advantage of this feature. (Answer 3.1.1.)

\_\_\_\_\_  
\_\_\_\_\_ (2)

3.2. Refer to the topographic map and orthophoto map:

3.2.1. State one factor favouring farming in the SW corner of the topographic map.

\_\_\_\_\_  
\_\_\_\_\_ (2)

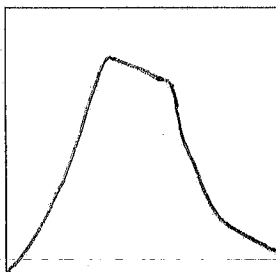
3.2.2. Name two recreational activities that can be done in/on the Bonkolo dam (B8/C8)

\_\_\_\_\_  
\_\_\_\_\_ (2)

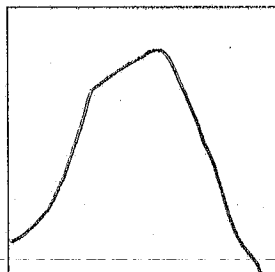
3.2.3. State two measures that people in Queenstown put in place to cater for the low rainfall

\_\_\_\_\_  
\_\_\_\_\_ (2)

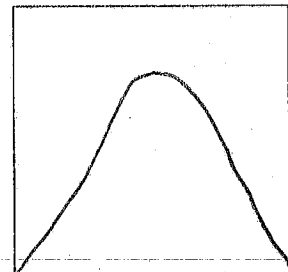
3.3.1. Which cross section, A, B, or C represents the cross section of Bonker'kop between points 7 and 8?



A



B



C

\_\_\_\_\_ (2)

3.3.2. State the height of the trig beacon in D7.

\_\_\_\_\_ (2)

3.3.3. Refer to the topographic map and orthophoto map and identify the land use/ feature.

L (specify type) \_\_\_\_\_

S \_\_\_\_\_

U \_\_\_\_\_

9 \_\_\_\_\_

6 (type of slope) \_\_\_\_\_ (10)

3.3.4. State two reasons for the location of the sewage works in E4.

1. \_\_\_\_\_

2. \_\_\_\_\_ (2)

[26]

#### QUESTION 4

#### GEOGRAPHICAL INFORMATION SYSTEM

4.1. What is Geographical Information system?

\_\_\_\_\_ (2)

4.2. Differentiate between primary and secondary source of data

a) \_\_\_\_\_

\_\_\_\_\_

b) \_\_\_\_\_

\_\_\_\_\_

(4)

4.3. Give an example of primary data for a student doing research on crime of his area.

\_\_\_\_\_ (1)

4.4. Define and give an example of the following type of data.

Raster: \_\_\_\_\_

\_\_\_\_\_ (3)

Vector: \_\_\_\_\_

\_\_\_\_\_ (3)

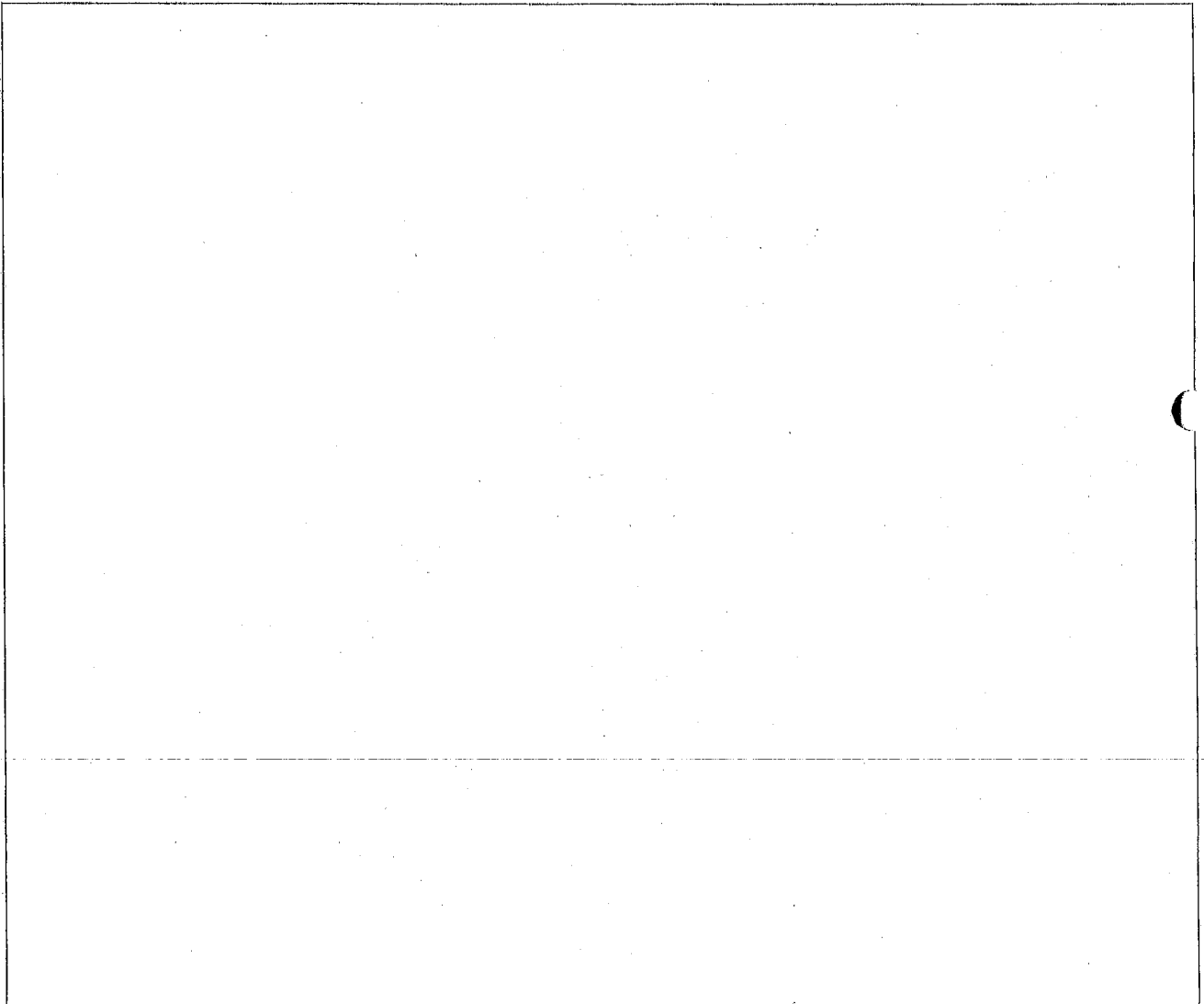
4.5. Give an example of a polygon in G4

\_\_\_\_\_ (1)

[14]

**TOTAL = 75**

**ROUGH WORK**



## QUESTION ONE

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

## QUESTION TWO

- 2.1. GR = VI : HE ✓ OR VI/HE
- = 1417.3 – 1192 m : 14.2/2 km (14.0- 14.4)
- = 225.3 m ✓ : 7.1km x1000 (7.0 – 7.2 km)
- = : 7100 m ✓ (7000 – 7200)
- = 225.3/225.3 : 7100/225.3
- = 1 : 31.5 ✓ (31 – 32)
- 2.2. TB =  $180^\circ + 44^\circ$  ✓ =  $220^\circ$  ✓ (42° - 46°) = (221° - 226°)
- MB = TB + MD ✓
- =  $220^\circ + 24^\circ 16'$
- =  $244^\circ 16'$  ✓ (246° 16' - 250° 16')
- 2.3. Area = L x B
- L = 7.7 / 10 = 0.77 km ✓ (7.5 – 7.9)
- B = 7.1 / 10 = 0.71 km ✓ (6.9 – 7.3)
- Area = 0.77 x 0.71 = 0.55 km<sup>2</sup> ✓ (0.52 – 0.58)
- 2.4. Latitude -  $31^\circ 56' 23''$  ✓ S (20'' – 25'')
- Longitude -  $26^\circ 52' 19''$  ✓ E (17'' – 21'')
- 2.5.1. VE = VS/HS = 2cm rep 20m/1:50000 ✓ = 1cm rep 10m/1:50000 = 1:1000/1:50000 ✓
- = 50000/1000 = 50 times ✓
- 2.5.2. Allows us to study details of the cross section. ✓✓

### QUESTION THREE

- 3.1.1. Road/ national road ✓
- 3.1.2. Helps in transportation of goods and services ✓✓
- 3.2.1. Flat land, presence of water, transport ✓✓
- 3.2.2. Fishing ✓, swimming ✓ (any water sport)
- 3.2.3. Reservoirs ✓, dams, furrows ✓
- 3.3.1. A ✓✓
- 3.3.2. 1468.9 ✓✓
- 3.3.3. ~~Non-Perennial~~  
L – river ✓✓
  - S – recreation/ sportsfield ✓✓
  - 9 – residential ✓✓
  - U – railway line ✓✓
  - 6 – steep slope ✓✓
- 3.3.4. Flat land ✓
  - Away from residential area ✓
  - River

### QUESTION FOUR

- 4.1. The use of computer technology to study geographical data ✓✓
- 4.2. Primary – information collected by the user ✓✓
  - Secondary – using info researched by other people ✓✓
- 4.3. The student can interview residents in his area ✓
- 4.4. Raster – information represented by means of pixels/grid cells ✓✓ eg. Orthophoto map ✓
  - Vector – Information represented by means of points lines and polygons ✓✓
  - eg. topographic map ✓
- 4.4. Farm , ✓ Dam