KZN - DEPARTMENT OF EDUCATION

GREENBURY SECONDARY SCHOOL

JUNE EXAMINATION 2017

GEOGRAPHY P2

pp 8

GRADE: 10
EXAMINER: D. RAMASAMI
MODERATOR: S. SINGH

DATE: 15/06/17
TIME: 1.5 HOURS
MARKS: 60

NAME:

GRADE/ DIV:

EDUCATOR

QUESTION	CONTENT	MARKS
ONE	Multiple choice questions	10
TWO	Map calculations	22
THREE	Map and photo interpretation	18
FOUR	Geographical Information System	10

MARKS:

60

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INSTRUCTIONS AND INFORMATION

RESOURCE MATERIAL

1. An extract from topographical map 3126DD QUEENSTOWN
2. Orthophoto map 3126 DD 13 QUEENSTOWN
3. **NOTE:** The resource material must be collected by schools for their own use.

INSTRUCTIONS AND INFORMATION

1. Write your Name in FULL and Educator's initials in the spaces on the cover page.
2. Answer ALL the questions in the spaces provided in this question paper.
3. You are provided with a 1 : 50 000 topographical map (3126DD QUEENSTOWN) and an orthophoto map (3126 DD 13 QUEENSTOWN) 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 may 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 and formulae, where applicable. Marks will be allocated for these.
7. Indicate the unit of measurement in the final answer of calculations.
8. You may use a non-programmable calculator.
9. The following English terms and their Afrikaans translations are shown on the topographical map:

ENGLISH	AFRIKAANS
Aerodrome	Vliegveld
Caravan Park	Karavaanpark
College	Kollege
Diggings	Uitgrawings
Golf Course	Gholfbaan
Gorge	Ravyn (Kloof)
Holiday Resort	Vakansieoord
Purification Plant	Watersuiweringsaanleg
River	Rivier
Sewage Works	Rioolwerke
Yacht Club	Seiljagklub

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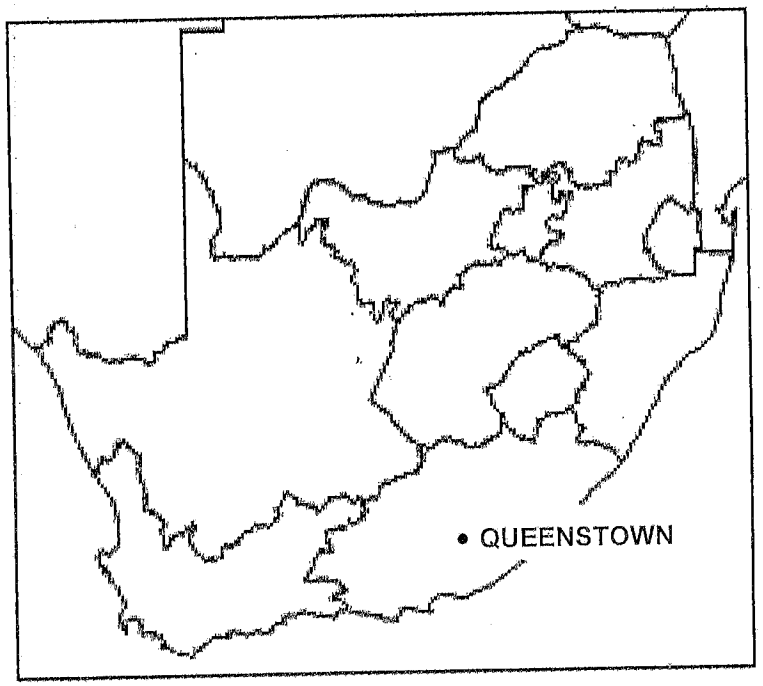
GENERAL INFORMATION ON QUEENSTOWN



Coordinates: 31°54'S 26°53'E

Queenstown is a town in the Eastern Cape in South Africa. It lies on the Komani River, which forms part of the Great Kei system of rivers. Queenstown has a refreshing climate and plentiful water supply from the surrounding rugged mountains. The water is collected in the Bonkolo Dam (the name has been changed from Bongolo Dam recently), set in the hills. This dam is used extensively for recreation and water sports. Close to Queenstown is a nature reserve (Lawrence de Lange Nature Reserve) with numerous antelope, white rhinoceros and spectacular flowering plants, together with panoramic views from the mountain summit. Queenstown has rich sandstone layers deposited by meandering rivers on the flood plain. Queenstown's layout reflects its original objective as a defensive stronghold for the frontier area and has a most unusual design. There is a central hexagonal area where canon or rifle fire could be directed down six thoroughfares radiating from the centre.

[Adapted from http://en.wikipedia.org/wiki/Queenstown, Eastern Cape]

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 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. The scale of the orthophoto 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. The river at L on the topographic map is ...

A) perennial
B) non perennial
C) permanent
D) both A and C

_____

1.5. The latitudinal position of the map reference 3126 is

A) 31° s
B) 31° e
C) 26° s
D) 26° e

_____

1.6. The direction of X from N is ....

A) South west
B) North east
C) South east
D) North

_____

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1.7. Feature 7- 8 on the orthophoto map is a...

A) hill
B) valley
C) spur
D) none of the above

_____

1.8. The line at U on the topographic map is a/an ...

A) railway line
B) main road
C) national road
D) arterial route

_____

1.9. Queenstown is found in the...

A) Eastern Cape
B) Western Cape
C) Northern Cape
D) Mpumalanga

_____

1.10. The magnetic declination for Queenstown is given for ...

A) 2002
B) 2000
C) 2005
D) 2003

_____

(10 x 1) = 10

QUESTION TWO

MAP CALCULATIONS

2.1. Calculate the distance in kms of the line N on the topographic map.

_____

_____

_____

_____(3)

2.2. State the method used to show height in (A2)

_____ (2)

2.3. Calculate the true bearing of spot height 1365 (G8) from trig beacon 203 (G6).

_____ (3)

2.4. Calculate the magnetic bearing of the points mentioned in 2.3 for 2002.

_____

_____

_____ (3)

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

_____ (2)

2.6. State the grid reference of spot height 1290 in C7

latitude_____

longitude_____ (6)

2.7. Calculate the difference in height between the trig beacons in D7 and spot height 1290.

_____

_____

_____ (3)

[22]

QUESTION 3

MAP AND PHOTO INTERPRETATION

3.1.1. State two possible uses of the Bonkolo Dam in B8 and C8.

a)_____

b)_____ (4)

3.2. Refer to the topographic map and orthophoto map:

3.2.1. Give a reason why no farming takes place in H6.

_____ (2)

3.2.2. Quote evidence from the topographic map to show that Queenstown is practicing conservation.

_____

_____ (2)

3.2.3. Identify and give a reason for the type of slope represented by T on the Topographic map

_____

_____ (4)

3.2.4. Refer to the topographic map and the orthophoto map and indentify the following land uses.

S _____

2 _____ (4)

3.2.5. Name the landform/feature found at L on the topographic map

_____ (2)

[18]

QUESTION 4

GEOGRAPHICAL INFORMATION SYSTEM

4.1. What is Geographical Information system?

_____ (2)

4.2. Give two advantages of GIS over normal paper maps.

a)_____

_____

b)_____

_____ (2)

4,3,1, Name two types of data found on vector maps

a)_____

b)_____(2)

4.3.2. Differentiate between Active and passive remote sensing

_____

_____

_____ (2)

4.3.3. Explain how GIS can be used in meteorology.

_____

_____ (2)

[10]

TOTAL = 60

ROUGH WORK

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H.O.D. MR D RAMASAMI
Ramasami
08/06/17

11. B

12. A

13. A

14. B

15. A

16 C

17. A

18. A

19. A

110 A

21. Map distance = 8,4 cm ✓ (8,2 - 8,6)

Ground distance = 8,4 ÷ 2 km ✓

= 4,2 km ✓ (4,1 - 4,3)

22. Contour line //

23. 74° (72° - 76°) ///

24. 74° + 24° 16' = 98° 16' (96° 16' - 100° 16')

25. 1468,9 m //

26. Latitude : 31° 52' 37" S (34" - 41") ($^{23}/_{37} \times 60 = 37"$)

Longitude : 26° 54' 33" E (29" - 37") ($^{17}/_{31} \times 60 = 33"$)

27. 1468,9 - 1290 m = 178,9 m

311.a) Recreation //

b) Water //

3.21 Mountainous // / Hilly / Steep slopes / Non perennial rivers

3.22. Lawrence De Lange Nature reserve. //

3.23. Steep //
Contours are close //

3.24 S - Recreation / Sports field //
2 - Golf Course (Not recreation) //

3.25. Non perennial river //

4.1. Use of computer technology to study geographical information. //

4.2.a) Durable - lasts longer ✓
b) Can be edited easily ✓

4.3.1 a) Points ✓
b) Lines / Polygons ✓

4.3.2. Active - sending out signal & capturing information/image ✓
Passive - Picking up the natural radiation of the earth ✓

4.3.3. Used to track the path of weather phenomenon //