

Geography

Hillcrest High school

Time: 90 minutes

Grade 10

Paper 2- Map work

Marks: 80

November 2012

Examiner: CR Madeley

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- Instructions:
1. Answer all questions in the spaces provided on this paper.
  2. Write your name clearly on the question paper
  3. Work in blue or black ink and show your working for calculations.
  4. Use pencil for any working on the map and erase all pencil marks from the map.

Name: \_\_\_\_\_

Teacher: \_\_\_\_\_

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**Refer to the topographical map and orthophoto of Brits to answer the following questions.**

Question One      Geographical skills

1. Write down the map reference/map code of the topographical map.

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

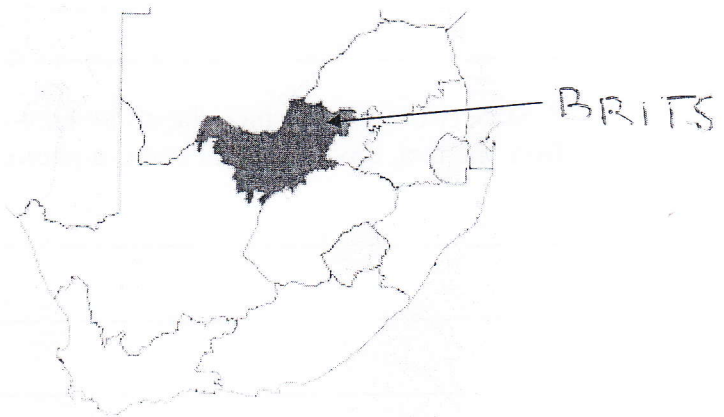
2. Which province:

a. is Brits located in?

b. is located directly to the South east of Brits?

a. \_\_\_\_\_

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



3. Which has the larger scale, the orthophoto or the topographical map?

Explain your answer.

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4. The magnetic declination of the topographical map is

\_\_\_\_\_

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5. What is magnetic declination? Why is it important to know the declination

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6. By how many minutes will the declination have changed from the time the map was produced to the present day.

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7. State two ways in which the orthophoto differs from the topographical map- (apart from the fact, obviously that one is a photograph.)

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9. What is the contour interval used on the orthophoto? 1

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10. Write the co-ordinates for trig. beacon 9 West of the Hartebeespoort dam 4

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\_\_\_\_\_

11. Calculate the approximate area in square kilometers of the area covered by the orthophoto. 3

\_\_\_\_\_

\_\_\_\_\_

12. Locate the landing strip in grid G5 near Gina's glen. Calculate the true bearing an aeroplane will be following if it takes off towards the Hartebeespoort dam nature Reserve. 3

\_\_\_\_\_

13. Calculate the gradient of the slope between the landing strip and trig beacon 104 in grid K6. 4

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Answer: \_\_\_\_\_

14. In this same area, (grids J/K 4-6) give an example of each of the following land uses:

- a. historical
- b. tertiary activity
- c. a primary activity

3

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

### Question two

### Interpretation

You will need to use the map and orthophoto together to answer the following questions:

2.1 State two pieces of evidence from the topographical map area that Brits is an important mining area. 2

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2.2 The land use at C on the orthophoto is:

- a. a railway station
- b. a hotel
- c. a factory
- d. school 2

2.3 F on the orthophoto is:

- a. residential
- b. industrial
- c. recreational
- d. agricultural 2

2.4 The main land use surrounding the town of Brits is: 2

- a. subsistence farming
- b. mining
- c. commercial farming
- d. transport \_\_\_\_\_

2.5 Describe two possible reasons for the choice of the site for the industrial area/township outside Brits.

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2.6 Study the course of the Krokodilrivier (Crocodile River) between the Hartebeespoort dam and Brits.

a. in which compass direction does the river flow?

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b. What evidence exists to suggest that the river is important to farmers?

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c. Give a reason for the rows of trees planted along it.

2

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d. Why would this be regarded as a perennial river?

2

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e. Name two possible types of agricultural produce grown in this area.

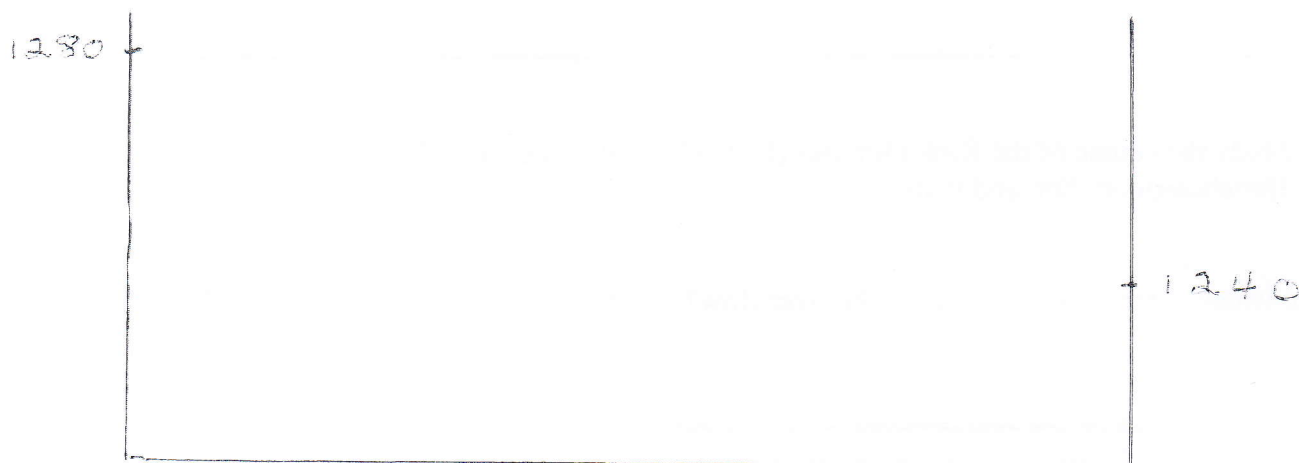
2

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2.7 Draw a free hand cross section between spot height 1268 and trig, beacon 77 using the grid below. Label the following on your cross section

6

- the spot height
- the trig. Beacon
- any roads and streams



2.8 Assume you were asked to use a vertical scale of 1 cm = 20m for your cross section, Calculate the vertical exaggeration of the cross section. (remember, the horizontal scale will be 1: 50 000)

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2.9 Are the spot height and the trig. Beacon on your cross section intervisible? 3  
Explain your answer.

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2.10 This is an old map (1985). If you were to compare an orthphoto view of the area for 2012 to this one there would be several differences between the two. 6

Describe three changes to the landscape or area that you would expect to see on the 2012 orthophoto and map.

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