basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

GEOG.2

GEOGRAPHY P2

FEBRUARY/MARCH 2011

MARKS: 100
TIME: 1½ hours

CENTRE NUMBER															
EXAMINATION NUMBER															

MARK SCORED	100
MARKER	
SENIOR MARKER	
CHIEF MARKER	
MODERATOR	
TOTAL	
	100

This question paper consists of 10 pages and 1 page for rough work.

AFTERNOON SESSION

RESOURCE MATERIAL

1.   An extract from topographical map 3424BB HUMANSDORP.

2.   Orthophoto map 3424 BB 1 HUMANSDORP.

3.   NOTE: The resource material must be collected by the schools for their own use.

INSTRUCTIONS AND INFORMATION

1.   Fill in your centre number and your examination number 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 3424BB HUMANSDORP and an orthophoto map of a part of the mapped area.

4.   You must hand in 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.

7.   You may use a non-programmable calculator.

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

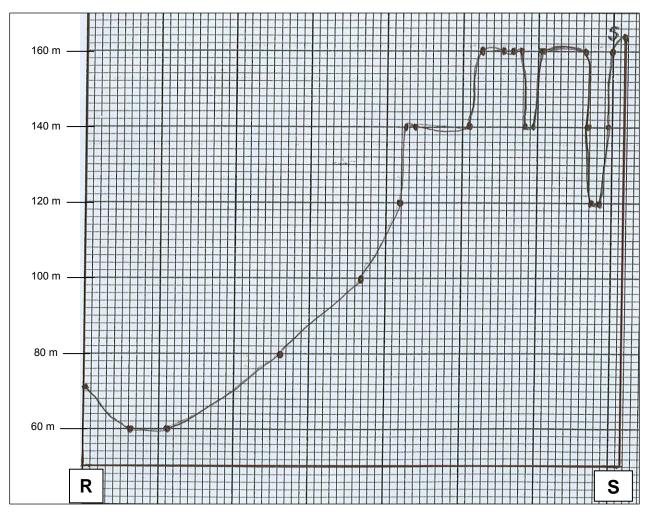| ENGLISH	AFRIKAANS
Diggings	Uitgrawings
Caravan park	Karavaanpark
Sewage works	Rioolwerke
Wetland	Vlei

WESTERN CAPE

QUESTION 1

The questions below are based on the 1:50 000 topographical map 3424BB HUMANSDORP, as well as the orthophoto map of a part of the mapped area. Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A – D) in the block next to each question.

1.1 Jeffreys Bay is situated next to the … Ocean.

      A   Atlantic
      B   Pacific
      C   Indian
      D   Mozambique

1.2 The height of the national road in block A4 is …

      A   209 m.
      B   346 m.
      C   20,9 m.
      D   297,3 m.

1.3 The direction of **X** from **Y** on the topographical map is …

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

1.4 The true bearing (geographic bearing) of **X** from **Y** on the topographical map is …

      A   42°.
      B   132°.
      C   222°.
      D   312°.

1.5 The word scale of the orthophoto map is …

      A   1 cm represents 0,01 km.
      B   1 cm represents 0,1 km.
      C   1 cm represents 1 000 m.
      D   1 cm represents 10 m.

1.6 Jeffreys Bay can be classified as a/an …

      A   holiday town.
      B   industrial town.
      C   gap town.
      D   break-of-bulk point.

1.7   The slope between **5** and **6** on the orthophoto map is …

A   convex.
B   concave.
C   gentle.
D   steep.

1.8   The order of the stream at the point labelled **V** on the topographical map is …

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

1.9   The feature that is found at 34°05,8′S 24°50,2′E/34°05′48″S 24°50′30″E is a …

A   furrow.
B   reservoir.
C   wetland.
D   dam.

1.10   Paradise Beach (G8 and G9) developed a … shape.

A   round
B   cross-road
C   linear
D   stellar

(10 x 2)   **[20]**

WESTERN CAPE

QUESTION 2

2.1   Cross sections provide geographers with valuable information.

2.1.1   The diagram below is a cross section drawn from **R** in block D4 to **S** in block A7. Indicate the exact location of the following features by means of arrows on the cross section drawn:

(a)   Power line
(b)   N2
(c)   Dam
(d)   Railway line
(e)   Tracks and hiking trails
(f)   Cliff/Scarp slope

(1 x 6)   (6)

2.1.2   Is there any intervisibility between points **R** and **S** on the cross section?

_____

(1 x 2)   (2)

WESTERN CAPE

2.2   Calculate the vertical exaggeration of the cross section drawn in QUESTION 2.1. Show ALL calculations. Marks will be allocated for calculations.

_____

_____

_____

_____

_____

_____

_____

_____   (4)

2.3   Why are cross sections exaggerated when they are drawn?

_____   (1)

2.4   Calculate the average gradient of the main road between benchmark 97,1 and 101,7 in block B10 on the topographical map. Show ALL calculations. Marks will be allocated for calculations.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____   (7)
                                                                      [20]

QUESTION 3

3.1   Identify the landforms below indicated by letters **P**, **Q** and **T** on the topographical map.

        3.1.1   **P** _____

                                                                     (1 x 2)   (2)

        3.1.2   **Q** _____

                                                                     (1 x 2)   (2)

        3.1.3   **T** _____

                                                                     (1 x 2)   (2)

3.2   Refer to the drainage pattern in blocks D6 and D7.

        3.2.1   Identify the drainage pattern found in blocks D6 and D7.

                _____

                                                                    (1 x 2)   (2)

        3.2.2   Give ONE reason for your answer to QUESTION 3.2.1.

                _____

                _____

                                                                     (1 x 2)   (2)

        3.2.3   Name ONE characteristic of the rock type underlying the drainage pattern mentioned in QUESTION 3.2.1.

                _____

                _____

                                                                     (1 x 2)   (2)

3.3   Refer to block G1 on the topographical map.

        3.3.1   Identify the stream channel pattern in block G1.

                  _____

                                                                   (1 x 2)   (2)

        3.3.2   In which course of the stream will the stream channel pattern mentioned in QUESTION 3.3.1 be found?

                _____

                _____

                                                                     (1 x 2)   (2)

Please turn over

3.4   Refer to number **10** on the orthophoto map.

　　　3.4.1   Identify the man-made feature at **10**.

　　　　　　　_____
　　　　　　　　　　　　　　　　　　　　　　　　　　(1 x 2)   (2)

　　　3.4.2   Why is the man-made feature mentioned in QUESTION 3.4.1 located at that place?

　　　　　　　_____

　　　　　　　_____

　　　　　　　_____

　　　　　　　_____
　　　　　　　　　　　　　　　　　　　　　　　　　　(2 x 2)   (4)

3.5   Refer to the settlement at Sanddrift in block E5 on the topographical map.

　　　3.5.1   Identify this settlement in terms of its size and function respectively.

　　　　　　　Size: _____

　　　　　　　Function: _____
　　　　　　　　　　　　　　　　　　　　　　　　　(2 x 2)   (4)

　　　3.5.2   (a)   What type of farming (commercial/subsistence) is practised in this settlement?

　　　　　　　　　　_____
　　　　　　　　　　　　　　　　　　　　　　　　　(1 x 2)   (2)

　　　　　　(b)   Give TWO reasons for your answer to QUESTION 3.5.2(a).

　　　　　　　　　　_____

　　　　　　　　　　_____

　　　　　　　　　　_____
　　　　　　　　　　　　　　　　　　　　　　　　　(2 x 2)   (4)

3.6   Refer to the residential areas numbered **11** and **12** on the orthophoto map.

        3.6.1   Which ONE of the residential areas **11** and **12** will be a higher
                income residential area?

                _____
                                                              (1 x 2)   (2)

        3.6.2   Give ONE reason for your answer to QUESTION 3.6.1.

                _____
                                                              (1 x 2)   (2)

3.7   Refer to **13**, which is part of Graslaagte, on the orthophoto map.

        3.7.1   In which land-use zone is Graslaagte situated?

                _____
                                                              (1 x 2)   (2)

        3.7.2   State ONE problem that people living in **13** might experience.

                _____
                                                              (1 x 2)   (2)
                                                                         [40]

QUESTION 4

4.1   Choose a term from COLUMN B that matches a description in COLUMN A.
        Write only the letter (A – E) next to the question number (4.1.1 – 4.1.3), for
        example 4.1.4 F.

COLUMN A	COLUMN B
4.1.1 The raw facts that are collected about a feature	A raster data
	B vector data
4.1.2 Gathering of data about the Earth from a distance, using satellites such as Landsat	C remote sensing
	D data base
4.1.3 Data represented by pixels in the form of grid cells or pixels	E data

                                                              (3 x 2)   (6)

4.2   Name any TWO functional elements of GIS.

_____

_____
                                                                        (2 x 2)   (4)

4.3   With reference to the term buffering:

       4.3.1   Define the term *buffering*.

                 _____

                 _____
                                                                        (1 x 2)   (2)

       4.3.2   Explain how buffering can be used to protect the coastal
                environments visible on the topographical map.

                 _____

                 _____
                                                                        (1 x 2)   (2)

4.4   Which ONE, the topographical map or the orthophoto map, is an example of
       vector data?

_____
                                                                        (1 x 2)   (2)

4.5   The police have not been able to track a car hijacking gang in the greater
       Jeffreys Bay area. How can they use GIS to narrow their search?

_____

_____

_____

_____

_____
                                                                        (2 x 2)   (4)
                                                                                    [20]

                                                                        TOTAL: 100

ROUGH WORK AND CALCULATIONS