

Province of the

**EASTERN CAPE**

EDUCATION

**NATIONAL**

**SENIOR CERTIFICATE**

**GRADE 11**

**NOVEMBER 2010**

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| **GEOGRAPHY P2** |

**NAME:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**MARKS: 100**

**TIME: 1½ hours**

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| This question paper consists of 11 pages. |

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| **INSTRUCTIONS AND INFORMATION** | | |
|  |  | |
| 1. | Write your NAME in the space provided on the cover page. | |
|  |  | |
| 2. | Answer ALL the questions in the spaces provided ON THIS QUESTION PAPER. | |
|  |  | |
| 3. | You are supplied with a 1:50 000 topographical map (3318 DB PAARL) and an orthophoto map (3318 DB 25 PAARL) of a part of the mapped area. | |
|  |  | |
| 4. | The topographical map and the orthophoto map must be handed over to the invigilator at the end of the examination session. | |
|  |  | |
| 5. | NOTE: The resource material (topographical map and orthophoto map) must be collected by the schools for their own future use. | |
|  |  | |
| 6. | A non-programmable calculator may be used. | |
|  |  | |
| 7. | The following English terms or their Afrikaans translations are shown on the 1:50 000 topographical map. | |
|  |  |  |
|  | **ENGLISH** | **AFRIKAANS** |
|  | Boland Agriculture College | Boland Landboukollege |
|  | Landing Strip | Landingstrook |
|  | Main Street | Hoofstraat |
|  | Nature Reserve | Natuurreservaat |
|  | Show Grounds | Skougronde |
|  | Trout Farm (fish) | Forelplaas (vis) |
|  |  | |
|  | **POSITION OF PAARL WITHIN SOUTH AFRICA** | |
|  | C:\Users\sfd\Desktop\Geog exams\Paarl map.jpg | |

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| **SECTION A** | | | | | | |
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| **QUESTION 1: MULTIPLE-CHOICE QUESTIONS** | | | | | | |
|  | | |  |  |  | |
| The following statements are based on the 1:50 000 topographical map 3318 DB PAARL and the orthophoto map of the same area. Various options are provided as possible answers to the following statements. Choose the correct answer and write only the letter (A – D) in the block next to the statement. | | | | | | |
|  | | |  |  |  | |
| 1.1 | In the title reference number of the topographical map of Paarl, the figure 33 refers to the … | | | | |  |
|  |  | | | | |  |
|  | A | | | longitude. | |  |
|  | B | | | scale. | |  |
|  | C | | | latitude. | |  |
|  | D | | | height above sea level. | |  |
|  |  | | |  | |  |
| 1.2 | The index number of the topographical map directly south of the map 3318 DB Paarl is … | | | | |  |
|  |  | | |  | |  |
|  | A | | | 1833 DB. | |  |
|  | B | | | 3318 DD. | |  |
|  | C | | | 3319 CA. | |  |
|  | D | | | 3318 DC. | |  |
|  |  | | |  | |  |
| 1.3 | The type of slope between A and B (in blocks 10H and 10I) can be described as … | | | | |  |
|  |  | | |  | |  |
|  | A | | | steep. | |  |
|  | B | | | terraced. | |  |
|  | C | | | gentle. | |  |
|  | D | | | convex. | |  |
|  |  | | |  | |  |
| 1.4 | An orthophoto map refers to a/an … | | | | |  |
|  |  | | |  | |  |
|  | A | | | vertical aerial photo. | |  |
|  | B | | | oblique aerial photo. | |  |
|  | C | | | the photo from which a map is drawn. | |  |
|  | D | | | an aerial photo with contours superimposed on it. | |  |
|  |  | | |  | |  |
| 1.5 | The true bearing of spot height 649 in block L10 from the Paarl station in block N10 is … | | | | |  |
|  |  | | |  | |  |
|  | A | | | 290º. | |  |
|  | B | | | 240º. | |  |
|  | C | | | 90º. | |  |
|  | D | | | 23º. | |  |

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| 1.6 | The land-use marked E on the orthophoto map is a/an … | |  |
|  |  |  |  |
|  | A | residential zone. |  |
|  | B | zone of transition. |  |
|  | C | industrial zone. |  |
|  | D | commercial zone. |  |
|  |  |  |  |
| 1.7 | The man-made feature marked I on the orthophoto map is a/an … | |  |
|  |  |  |  |
|  | A | dam. |  |
|  | B | slimes dam. |  |
|  | C | excavation. |  |
|  | D | sports field. |  |
|  |  |  |  |
| 1.8 | Ground water is used around Paarl for agricultural purposes. One piece of evidence to prove the use of ground water on the topographical map is the presence of … | |  |
|  |  |  |  |
|  | A | rivers. |  |
|  | B | dams. |  |
|  | C | wind pumps. |  |
|  | D | taps. |  |
|  |  |  |  |
| 1.9 | The distance from the Huguenot Station (in block 10N) to Cape Town is … kilometres. | |  |
|  |  |  |  |
|  | A | 60 |  |
|  | B | 4,6 |  |
|  | C | 62,3 |  |
|  | D | 2,3 |  |
|  |  |  |  |
| 1.10 | The exact location (grid reference) of Huguenot Station (in block 10N) on the topographical map is … | |  |
|  |  |  |  |
|  | A | 33°42’30’’E 18°56’20’’S. |  |
|  | B | 33°43’55’’S 18°58’40’’E. |  |
|  | C | 33°46’15’’S 19°01’25’’E. |  |
|  | D | 18°58’40’’E 33°43’55’’S. |  |
|  |  | (10x2) | (20) |
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|  |  | **TOTAL SECTION A:** | **20** |

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| **SECTION B** | |  |
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| **QUESTION 2: MAPWORK TECHNIQUES AND CALCULATIONS** | |  |
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| 2.1 | Calculate the average gradient from trigonometrical station Δ 177 (block J11) to the spot height **.**139 (block G11). |  |
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|  |  | (6) |
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| 2.2 | Calculate the vertical exaggeration of a cross section. The vertical scale is as follows: 1 cm = 50 m; the horizontal scale is 1: 50 000. Show all calculations. |  |
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|  |  | (5) |

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| 2.3 | Calculate the magnetic declination for the year 2010. Show all calculations. | |  |
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|  |  | | (5) |
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| 2.4 | What is the straight line distance from P to Q on the orthophoto map? Give your answer in metres. | |  |
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|  |  | | (4) |
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|  |  | **TOTAL SECTION B:** | **20** |

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| **SECTION C** | | | |  |
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| **QUESTION 3: MAP INTERPRETATION AND ANALYSIS** | | | |  |
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| 3.1 | 3.1.1 | Is the system of farming shown on the topographical map and orthophoto map commercial or subsistence? | |  |
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|  |  | (1x2) | | (2) |
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|  | 3.1.2 | Explain your answer to QUESTION 3.1.1 by referring to evidence and examples on the map. | |  |
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|  |  | (3x2) | | (6) |
| 3.2 | Environmental damage has taken place at I10 and J10 on the topographical map. Name the type of primary activity that is responsible for this damage. | | |  |
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|  | (1x2) | | | (2) |
| 3.3 | The Paarlberg Nature Reserve and Paarl have been intensely used for tourism/ecotourism. Justify this statement by giving THREE features from the map. | | |  |
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|  | (3x2) | | | (6) |

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| 3.4 | List TWO potentially negative impacts of the caravan park on the surrounding environment marked H on the orthophoto map. | |  |
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|  | (2x2) | | (4) |
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| 3.5 | Which factors influenced the site of the factories in Paarl on the topographical map? | |  |
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|  |  | (3x2) | (6) |
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| 3.6 | Refer to both the orthophoto map and the topographical map and identify the features/land-uses labelled K and J on the orthophoto map. | |  |
|  |  |  |  |
|  | K = |  |  |
|  |  |  |  |
|  | J = |  |  |
|  |  | (2x2) | (4) |

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| 3.7 | Fruit farming is an important economic activity in Paarl. List and explain any THREE factors that have favoured this type of activity in this area. | |  |
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|  | (3x2) | | (6) |
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| 3.8 | Which TWO factors determined the shape of Paarl? | |  |
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|  | (2x2) | | (4) |
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|  |  | **TOTAL SECTION C:** | **40** |

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| **SECTION D** | | | | |  |
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| **QUESTION 4: GEOGRAPHICAL INFORMATION SYSTEMS (GIS)** | | | | |  |
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| 4.1 | | Define the following concepts: | | |  |
|  | |  | | |  |
|  | | 4.1.1 | | Geographical Information Systems (GIS): |  |
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|  | |  | |  |  |
|  | |  | | (1x2) | (2) |
|  | | 4.1.2 | | Describe THREE components of Geographical Information Systems (GIS). |  |
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|  | |  | | (3x2) | (6) |
|  | |  | |  |  |
| 4.2 | | Geographical Information Systems (GIS) is a computerized digital mapping system that represents objects in the real world as points, lines or areas (polygons). Name the following conventional signs indicated in the topographic map: | | |  |
|  | |  | | |  |
|  | | 4.2.1 | | The line object used for transport in block H1. |  |
|  | |  | |  |  |
|  | |  | |  |  |
|  | |  | |  |  |
|  | | 4.2.2 | | The point object in block E3. |  |
|  | |  | |  |  |
|  | |  | |  |  |
|  | |  | | (2x2) | (4) |
| 4.3 | | Data storage in GIS should be in a form of: | | |  |
|  | |  | |  |  |
|  | | 4.3.1 | |  |  |
|  | |  | |  |  |
|  | | 4.3.2 | |  |  |
|  | |  | | (2x2) | (4) |

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| 4.4 | Answer the following on *spatial resolution*. | |  |
|  | 4.4.1 | Define the term “spatial resolution”*.* |  |
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|  |  |  |  |
|  |  | (1x2) | (2) |
|  |  | |  |
|  | 4.4.2 | Does the orthophotomap or the topographical map have a higher spatial resolution? |  |
|  |  |  |  |
|  |  |  |  |
|  | (1x2) | | (2) |
|  |  | |  |
|  | **TOTAL SECTION C:** | | **20** |
|  |  | |  |
|  | **GRAND TOTAL:** | | **100** |