KZN DEPARTMENT OF EDUCATION

JUNE EXAMS - 2015

GEOGRAPHY – GRADE 10 PAPER TWO

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MODERATOR: F.Paruk

DURATION: 1 ½ HOURS   MAX. MARKS: 60

NAME OF LEARNER: _____ GR.DIV:_____

INSTRUCTIONS TO CANDIDATES:

1. Check that this paper has 7 printed pages and 4 questions.
2. Answer all questions in the spaces provided on the question paper.
3. You are supplied with 1:50000 topographical map 3424BB HUMANSDORP and an orthophoto map. Refer to both maps.
4. Show all calculations.
5. Write neatly and legibly.

P.t.o. QUESTION ONE

P1

PTO to Pg 2

QUESTION ONE

Choose the correct answer and write down only the letter of the correct answer in the block next to the question.

1.1. The reference number of the topographical map directly north west of the map 3424BB Humansdorp is...

   A) 3324DC
   B) 3424BA
   C) 3325CC
   D) 3324DD

1.2. The landform found at P(B11) is a

   A) rocky outcrop
   B) cape
   C) sandy beach
   D) coastal rock

1.3. The contour interval of the topographical map is

   A) 10m
   B) 5m
   C) 20m
   D) 2m

1.4. The scale of the orthophoto map is ..... than that of the topographical map.

   A) 5 times larger
   B) 5 times smaller
   C) 10 times larger
   D) 15 times larger

P2

1.5 The type of slope numbered 5-6 on the orthophoto map is a
_____slope.

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

1.6   An orthophoto map is a _____ photograph with a map scale of
    1:10000

    A) Vertical aerial
    B) High oblique
    C) Low oblique
    D) Horizontal

1.7   The man made feature numbered 2 on the orthophoto map is
    a/an_____.

    A) cemetery
    B) dam
    C) excavation
    D) cultivated land

1.8   The type of road that links Humansdorp and Knysna on the
    orthophoto map is_____.

    A) Arterial road
    B) Secondary road
    C) Other road
    D) Main road

(8)

P3

QUESTION TWO [Mapwork calculations] (16 marks)

2.1. A group of learners decide to embark on a hiking expedition from Humansdorp at trignometrical station Δ140 (block B3) and proceed to Δ139(block A5).

2.1.1. In what direction will they be travelling? (2)

_____

2.1.2. Calculate the true bearing of the start of the hike from Δ139(A5). ( )

_____(4)

2.1.3. Calculate the magnetic bearing of Δ140(B3) from Δ139(A5). for July 2001

_____

_____

_____

_____

_____

_____

_____

_____

_____   (

_____

_____(4)

2.2. State the grid reference of Δ294(Block F1).

_____

_____

_____

_____

_____

(4)

P4

2.3. Calculate the straight line distance between R(D4) and S(A7) in kilometers. (3)

_____

_____

_____

_____

Total (17)

QUESTION THREE

Analysis and interpretation of Topographical maps and orthophoto map.

3.1. Identify the type of map projection in both orthophoto and topographical map. _____(2)

3.2.1 Identify the landform marked **3-4** on the orthophoto map.

_____(2)

3.2. 2 Draw a simple cross – section of the land form marked 3-4 that you identified in 3.2.1 (label X and Y axis)

(5)
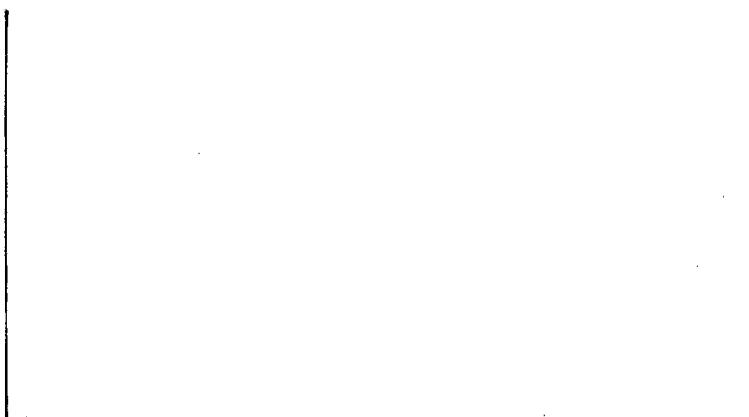
P5

3.3 Give one significance of the Swartrivier dam to Ashton Bay (E9/10) and its surrounding areas. (2)

_____

_____

3.4 Name the ocean on the east coast of Humansdorp and give two significances of this ocean to the people living in Humansdorp. ( )

Name:_____(2)

Significance

i) _____(2)

ii)_____(2)

3.5 Differentiate between vertical aerial photographs and oblique photographs. (

_____

_____

_____

_____(4)

3.6 State one advantage of oblique photographs_____

_____(2)

(Total = 23)

P6

QUESTION FOUR - GIS (12 Marks)

4.1. Define the following terms:

a) **GIS**

_____
_____
_____
_____(2)

b) Remote Sensing

_____
_____
_____
_____(2)

4.2. Give two reasons for the development of GIS.

i_____(2)

ii_____(2)

4.3. Differentiate between vector and raster data maps.

Vector Data

_____
_____
_____

Raster Data

_____
_____
_____

2x2= (4)

[TOTAL MARKS = 60]

[12]

P7

Memo – Grade 10 Geog.
Paper 2.

1.1. A.   1.5   A
1.2. D   1.6. A
1.3. C   1.7
1.4. A   1.8. A/D.   * check.

2.1.1   North East (NE)

2.1.2.   77°

2.1.3.   MB = TB + MD   MD for 2001 – 25°29' W of T.N.
         TB = 180° + 75°
            = 255°.   ∴ MB = 255° + 25°
                                        = 280°29' W of TN.

2.2. $\dfrac{14}{37} \times \dfrac{60}{1}$ $\dfrac{15}{31} \times \dfrac{60}{1}$ | A294 = 34°05'23"S; 24°45'29"E |

       = 23"   = 29" 05'23"S; 24'45'3

2.3. $\dfrac{14 \text{cm.}}{2}$ or   14 × 0,5

       = 7 km.

P.T.O. for
Q3

3.1. Gaus Conform.

3.2. Valley.

3.2.2.
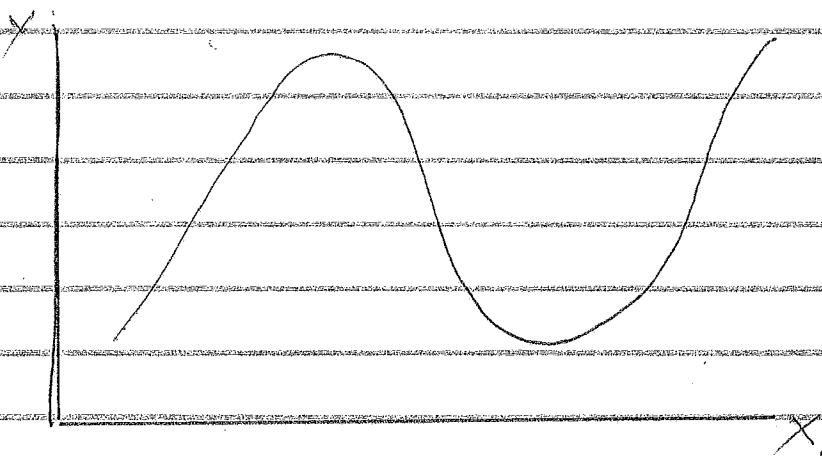
3.3. Storage water
Irrigation - farming
Water sport

3.4 Name - Indian Ocean.
"Significance
1) Harbour - Trade
2) Warm Ocean - Increase winter T^{o} -
- Watersport / outdoor activities etc.

3.5. Vertical - Directly above - Perpendicular to ground (90°) - only top ca
Oblique - Angle - Top + side view - Shapes of buildings/landform
can be seen.

3.6 - Can view side view - 3 dimension
- Shapes of buildings and land forms can be recognised.

Question 4.

4.1. a) GIS - A system (computer) for capturing, storing, analysing & displaying geographic data.

b) Remote Sensing: Involves capturing data of objects from a distance, usually outer space eg satellite images

4.2. - GIS allows people to investigate complex (difficult) data. to find trends, patterns & relationships.
- Paper maps - less info & not updated - GIS - linked to satellite tracking images, remote sensing & GIS - hence regularly update changes etc.

(accept any reasonable answer)

4.3. Vector Data/Maps - real world - represented by points, lines & polygon
- 2 co-ordinates - describe location

Raster Data/Maps - real world features are represented by grid cells called pixels. - each pixel - small square.