SECTION A

QUESTION 1: MULTIPLE-CHOICE QUESTIONS

Refer to the 1:50 000 topographical map 3419 AB and the orthophoto map 3419 AB 24 of Caledon (attached) to answer the following questions:

Various possible options are provided as answers for the following questions. Write only the letter (A – D) next to the question number (1.1 – 1.10) in the block on the right-hand side of the page.

1.1   The town of **Caledon** is located in the ... part of the country.

        A   north-western
        B   south-western
        C   eastern
        D   western

     B

1.2   Caledon receives most of its rainfall during ...

        A   winter.
        B   spring.
        C   summer.
        D   autumn.

     A

1.3   The contour interval of the topographical map is...metres.

        A   10
        B   20
        C   40
        D   5

     B

1.4   The ocean found closest to Caledon, is the ... Ocean.

        A   Indian
        B   Pacific
        C   Atlantic
        D   Southern

     **A /
C**

1.5   The TWO types of scales shown on the topographical map are the ...

        A   line scale and a word scale.
        B   word scale and a ratio scale.
        C   ratio scale and a line scale.
        D   line scale and Richter scale.

     C

1.6   The line labelled 34° on the topographical map refers to ...

A   temperature.
B   longitude.
C   true bearing.
D   latitude.

D

1.7   The CBD (F on the topographical map) of Caledon has a/an ... street pattern.

A   circular
B   gridiron/block/rectangular
C   irregular
D   radial

B / C

1.8   Name the man made feature found at block C5 on the topographical map, is a ...

A   lake.
B   marsh and vlei.
C   reservoir.
D   dam.

D

1.9   The height of the trigonometrical station in block M1 is ... metres.

A   106
B   280,8
C   307,8
D   257,1

C

1.10   The drainage pattern found in block K15 is a ... pattern.

A   trellis
B   rectangular
C   dendritic
D   radial

C

TOTAL SECTION A: (10 x 2) 20

SECTION B

QUESTION 2: MAP TECHNIQUES AND CALCULATIONS

2.1 Write the scale of the topographical map as a word scale.
     1 cm on the map represents 500 m on the ground   OR
     1 cm on the map represents 0,5 km on the ground   (1 x 2) (2)

2.2 Calculate the straight line distance between spot height ● 199
     (block O5) and spot height ● 230 (block O7) in kilometres.
     Show ALL calculations.

     $\dfrac{50\sqrt{}\ mm \times 50\ 000}{1\ 000\ 000}$ OR   *1 cm represents 0,5 km*
                                                            5 cm√ x 0,5 km√
                                                            2,5 km√√

     $= \dfrac{250\ \sqrt{}}{100}$

     $= 2,5\ km\sqrt{}\sqrt{}$ (Range: 2,4km to 2,6km)   (4)

2.3 Give the true bearing (geographical bearing) of trigonometrical
     station 220 in block N11 from trigonometrical station 217 in
     block O10.

     16° to 18°   (4)

2.4 Calculate the area of the region demarcated (marked off) by the
     letter H on the topographical map in km².

     Area = Length x Breadth (Given: Length 11 cm; Breadth 6 cm)

     $\dfrac{(110\ mm \times 50\ 000)}{1\ 000\ 000\ \sqrt{}} \times \dfrac{(60\ mm \times 50\ 000)}{1\ 000\ 000\ \sqrt{}}$ *(11 cm x 0,5)x (6 cmx0,5)*

     $= \dfrac{55}{100} \quad x \quad \dfrac{300}{100}$ OR   *5,5km √√ x 3km √√*

     $= \quad 5,5 \quad \sqrt{} \quad x \quad 3\ \sqrt{}$ *16,5 km² √√*

     $= \quad 16,5\ km²\sqrt{}\sqrt{}$ (6)

2.5 Will the magnetic declination for 2006 be greater than or less
     than 23°46'W? Give a reason for your answer.

     Greater
     Because the declination moves west   (2 x 2) (4)

                                           TOTAL SECTION B: 20

SECTION C

QUESTION 3: RELIEF AND DRAINAGE

Use the topographical map and the orthophoto map (attached) to answer the following questions:

3.1 Associate the landforms listed below with the letters A, B and C marked on the topographical map:

valley, mesa, neck/saddle

3.1.1 A in block J 1 = *Neck/saddle*		(1x2)(2)
3.1.2 B in block F 4 = *Valley*		(1x2)(2)
3.1.3 C in block H 12 = *Mesa*		(1x2)(2)

3.2 Choose the correct term given in brackets to make the statement TRUE. Most of the rivers on the map are (perennial/non-perennial) because of the low rainfall.

Non-perennial (1x2)(2)

3.3 Choose the correct term given in brackets to make the statement TRUE.

The Riviersonderend river has a lot of marshes and vleis.
The river is therefore in its (upper/middle/lower) course.

Lower course / Middle (1x2)(2)

3.4 You take the hiking trail in block L12. Is the slope steep or gentle?

Gentle (1x2)(2)

Explain your answer.

The contours are far from each other (1x2)(2)

3.5 What is the height of the windpump in block H11?

420 - 440 metres (1)

TOTAL SECTION C: 15

SECTION D

QUESTION 4: SETTLEMENT

4.1   Refer to the settlement in block L2.

    4.1.1   Identify the settlement pattern.

        Dispersed/scattered/isolated   (1x2)(2)

    4.1.2   Give **TWO** advantages of living in this type of settlement.

        Farmer can make own decisions (2)
        Large farm size (2)
        Facilitates use of machinery (2)
        Reducing traveling time to fields – stays on the farm (2)
        [Any TWO]   (2x2)(4)

4.2   The CBD of Caledon is located at F (block N 11) on the topographical map. Give ONE piece of evidence from the map to support this statement.

    Church (2)
    Monument(2)
    Town hall (2)
    High building density (2)
    Most accessible area –central location (2)
    Old street pattern / gridiron (2)
    Transport routes focus on the CBD (2)
    [Any ONE]   (1x2)(2)

4.3   Refer to the street pattern at Tuinsig (block N11/12)

    4.3.1   Identify the street pattern.

        Irregular / planned irregular (2)   (1x2)(2)

    4.3.2   Give ONE advantage of this street pattern.

        Traffic flows easily (2)
        Fewer accidents (2)
        Aesthetic (2)
        Interesting (2)
        [Any ONE]   (1x2)(2)

4.4   Block O12 shows the rural-urban fringe. Which recreational activity appears in this land use zone?

    Golf course (2)
    Showgrounds (2)
    Sportground (2)
    [Any ONE]   (1x2)((2)

4.5   Give ONE piece of evidence from the orthophoto map to prove that Vleiview (block O12) is a low-income residential area.

The workers are near the work place (2)
Plots are small (2)
Limited recreational areas (2)
Houses are close together (2)
Houses appear in rows (2)
Houses are more or less identical in shape (2)
Limited vegetation (2)
[Any ONE]   (1x2)(2)

4.6   Give one piece of evidence from the topographical map which indicates that the inhabitants of Caledon practise conservation of the environment.

There are nature reserves (2)
The Wild Flower Park (2)
Fire-breaks (2)
Lots of dams (2)
Woodlands / afferestation (2)
Rows of trees / wind breaks (2)
Contour ploughing (2)
[Any ONE]   (1x2)(2)

4.7   Name a recreational feature found in block N12 on the topographical map.

The Caledon Casino and Spa (2)
Hot springs (2)
Bath River Bridge[feature of historical importance] (2)   (1x2)(2)

TOTAL SECTION D: 20

GRAND TOTAL: 75

AFDELING A

VRAAG 1: MEERVOUDIGEKEUSE-VRAE

Verwys na die 1:50 000 topografiese kaart 3419 AB en die ortofotokaart 3419 AB 24 van Caledon (aangeheg) om die volgende vrae te beantwoord:

Verskeie moontlike opsies word as antwoorde vir die volgende vrae verskaf. Skryf slegs die letter (A - D) langs die vraagnommer (1.1 - 1.10) in die blokkie wat voorsien is aan die regterkant van die bladsy neer.

1.1   Die dorp Caledon is in die ... deel van die land geleë.

    A   noordwestelike
    B   suidwestelike
    C   oostelike
    D   westelike

| B |

1.2   Caledon ontvang die meeste reën in die ...

    A   winter.
    B   lente.
    C   somer.
    D   herfs.

| A |

1.3   Die kontoerinterval op die topografiese kaart is ... meter.

    A   10
    B   20
    C   40
    D   5

| B |

1.4   Die oseaan wat die naaste aan Caledon is, is die ... Oseaan.

    A   Indiese
    B   Stille
    C   Atlantiese
    D   Suidelike

| A / C |

1.5   Die TWEE soorte skale wat op die topografiese kaart voorkom, is die ...

    A   lynskaal en woordskaal.
    B   woordskaal en verhoudingskaal.
    C   verhoudingskaal en lynskaal.
    D   lynskaal en Richterskaal.

| C |

1.6   Die 34°-lyn op die topografiese kaart verwys na ...

        A   temperatuur.
        B   die lengtelyn.
        C   ware noord.
        D   die breedtelyn.

[D]

1.7   Die SSK (F op die topografiese kaart) van Caledon het 'n ... straatpatroon.

        A   sirkel-
        B   rooster-/ruit-/reghoekige
        C   onreëlmatige
        D   radiale

[B / C]

1.8   Die mensgemaakte verskynsel op die topografiese kaart in ruit C5, is 'n ...

        A   meer.
        B   moeras en vlei.
        C   reservoir.
        D   dam.

[D]

1.9   Die hoogte van die trigonometriese stasie in ruit M1 is ... meter.

        A   106
        B   280,8
        C   307,8
        D   257,1

[C]

1.10   Die dreineringspatroon in ruit K15 is 'n ... patroon.

        A   tralie-
        B   reghoekige
        C   dendritiese
        D   radiale

[C]

TOTAAL AFDELING A: (10 x 2)   20

AFDELING B

VRAAG 2: KAARTWERKTEGNIEKE EN BEREKENINGE

2.1   Skryf die skaal van die topografiese kaart as 'n woordskaal.

1 cm op die kaart stel 500 m op die grond voor   OF
1 cm op die kaart stel 0,5 km op die grond voor OF
1cm op die kaart stel 50 000cm op die grond voor.   (1 x 2)   (2)

2.2   Bereken die werklike afstand tussen punthoogte ● 199 (ruit O5) en punt-
       hoogte ● 230 (ruit O7) in kilometer. Toon AL die berekeninge.

$$\frac{50\ mm\ \sqrt{}\ x\ 50\ 000}{1000\ 000}$$ *OF*   *1 cm represents 0,5 km*
                                                  5 cm $\sqrt{}$ x 0,5 km$\sqrt{}$

                                                  2,5 km$^{\sqrt{}\sqrt{}}$

$$= \frac{250\sqrt{}}{100}$$

       = *2,5 km $\sqrt{}\sqrt{}$ (Speling: 2,4km tot 2,6km)*   (4)

2.3   Gee die ware peiling (geografiese peiling) van trigonometriese stasie 220 in
       ruit N11 vanaf trigonometriese stasie 217 in ruit O10.

       16° tot 18°   (4)

2.4   Bereken die oppervlakte van die afgemerkte deel gemerk H op die topografie-
       se kaart in km².

       Oppervlakte = Lengte x Breedte (Gegee: Lengte 11 cm; Breedte 6 cm)

$$\frac{(110\ mm\ x\ 50\ 000)}{1000\ 000\ \sqrt{}}\ x\ \frac{(60\ mm\ x\ 50\ 000)}{1000\ 000\sqrt{}}$$ *(11 cm x 0,5)x (6 cmx0,5)*

       = $\frac{55}{100}$ x $\frac{300}{100}$ *5,5km $\sqrt{}$ $\sqrt{}$x   3km $\sqrt{}\sqrt{}$*
                                                OF

       =   5,5 $\sqrt{}$ x   3 $\sqrt{}$ *16,5 km² $\sqrt{}$ $\sqrt{}$*

       =   16,5km² $\sqrt{}$ $\sqrt{}$ (6)

2.5   Sal die magnetiese deklinasie vir 2006 groter of kleiner wees as 23°46' W?
       Gee 'n rede vir jou antwoord.

       Groter
       Omdat die deklinasie weswaarts beweeg   (2 x 2)   (4)

                                           TOTAAL AFDELING A: 20

AFDELING C

VRAAG 3: RELIëF EN DREINERING

Gebruik die topografiese kaart en die ortofotokaart (aangeheg) om die volgende vrae te beantwoord:

3.1   Pas die onderstaande landvorme by die letters A, B en C op die topografiese kaart:

vallei; mesa; nek

    3.1.1 A in ruit J1 = *Nek*   (1 x 2)   (2)

    3.1.2 B in ruit F4 = Vallei   (1 x 2)   (2)

    3.1.3 C in ruit H12 = Mesa   (1 x 2)   (2)

3.2   Kies die korrekte term tussen hakies om die volgende stelling WAAR te maak:

Die meeste van die riviere op die kaart is (standhoudend/nie-standhoudend) as gevolg van lae reënval.

Nie-standhoudend   (1 x 2)   (2)

3.3   Kies die regte term tussen hakies om die volgende stelling WAAR te maak:

Die Riviersonderendrivier het baie moerasse en vleie, daarom is die rivier in sy (boloop/middelloop/benedeloop).

Benedeloop / middel   (1 x 2)   (2)

3.4   Jy stap die staproete in ruit L12. Is die helling steil of geleidelik?

Geleidelik   (1 x 2)   (2)

Verduidelik jou antwoord.

Die kontoere is ver uit mekaar.   (1 x 2)   (2)

3.5   Wat is die hoogte van die windpomp in ruit H11?

420 m –440m   (1)

TOTAAL AFDELING C: **15**

AFDELING D

VRAAG 4: NEDERSETTING

4.1   Verwys na die nedersetting in ruit L2.

    4.1.1   Identifiseer die nedersettingspatroon van hierdie nedersetting.

        Verspreid/geïsoleerd   (1 x 2)   (2)

    4.1.2   Noem TWEE voordele om in hierdie tipe nedersetting te woon.

        Boer kan eie besluite neem (2)
        Groot plase (2)
        Maksimale meganisasie (2)
        Minder heen-en-weerryery (2)   *(Enige TWEE)*   (2 x 2)   (4)

4.2   Die SSK van Caledon kom by F (ruit N11) op die topografiese kaart (aange-
       heg) voor. Gee EEN rede, vanaf die kaart, om hierdie stelling te staaf.

    Kerk (2)
    Monument (2)
    Stadsaal (2)
    Hoë gebouedigtheid (2)
    Mees toeganklike gebied (2)
    Ou straatpatroon / rooster (2)
    Sentrale ligging (2)
    Vervoerroetes kom in SSK bymekaar (2)   *(Enige EEN)*   (1 x 2)   (2)

4.3   Verwys na die straatpatroon by Tuinsig (ruit N11/12).

    4.3.1   Identifiseer die straatpatroon.

        Onreëlmatig / bepland onreëlmatig   (1 x 2)   (2)

    4.3.2   Noem EEN voordeel van hierdie straatpatroon.

        Verkeer vloei maklik (2)
        Minder ongelukke (2)
        Esteties (2)
        Interessant (2)   *(Enige EEN)*   (1 x 2)   (2)

4.4   In ruit O12 kom die landelik-stedelike oorgangsone voor. Watter ontspan-
       ningsaktiwiteit kom hierin voor?

    Gholfbaan (2)
    Skougronde (2)
    Sportgronde (2)   *(Enige EEN)*   (1 x 2)   (2)

4.5   Gee EEN bewysstuk vanaf die ortofotokaart dat Vleiview (ruit O12) 'n lae-inkomstewoonbuurt is.

Werkers bly naby die werkplek (2)
Erwe is klein (2)
Beperkte ontspanningsgebiede/-areas (2)
Huise is naby mekaar (2)
Huise kom in rye voor
Huise lyk dieselfde (2)
Beperkte plantegroei (2)   *(Enige EEN)*   (1 x 2)   (2)

4.6   Gee 'n bewys vanaf die topografiese kaart (aangeheg) om aan te dui dat die inwoners van Caledon omgewingsbewaring toepas.

Daar is natuurreservate (2)
Die Wild Flower Park (2)
Baie damme (2)
Woude (2)
Rye bomme / Windlanings (2)
Kontoerploeëry (2)   *(Enige EEN)*   (1 x 2)   (2)

4.7   Noem 'n ontspanningskenmerk in ruit N12 op die topografiese kaart (aangeheg).

Caledon Casino en Spa (2)
Warmbronne (2)
Bath River Bridge (2)[Kenmerk van historiese belang]   (1 x 2)   (2)

                                       TOTAAL AFDELING D: **20**

                                       GROOTTOTAAL: **75**