



Province of the  
**EASTERN CAPE**  
EDUCATION

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 11**

**NOVEMBER 2012**

**COMPUTER APPLICATIONS TECHNOLOGY P1**

**MARKS: 200**

**TIME: 3 hours**



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This question paper consists of 17 pages including an annexure.

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## INSTRUCTIONS AND INFORMATION

1. Due to the nature of this three hour examination, it is important to note that you will NOT be permitted to leave the examination room before the end of the examination period.
2. Enter your name and surname in the *header* of every document that you create or save.
3. The invigilator will give you a disk containing ALL the files needed for the examination or you will be told where the files can be found on the network. If a disk has been issued to you, you must write your name and surname on the label. If you work on the network, you must follow the instructions provided by the invigilator.
4. A copy of the *master files* will be available from the invigilator. Should you accidentally corrupt the files given to you, you may request further copies from the invigilator.
5. Make sure that you save each document using the file names given. Save your work at regular intervals as a precaution against possible power failures.
6. Read through EACH question before answering or solving the problem. Do NOT do more than what is required by the question.
7. At the end of the examination you must hand in the disk given to you by the invigilator with all the answers saved on the disk or make sure that all the files have been saved on the network as explained to you by the invigilator/educator. Ensure that ALL files can be read.
8. Note that NO printing is required.
9. During the examination you may use the help function of the program which you are using. You may NOT use any other resource material.
10. Note that if data is derived from a previous question that you cannot answer, you should still proceed with the questions that follow.
11. Formulas and/or functions must be used for ALL calculations in questions involving spreadsheets, unless otherwise specified. *Absolute cell references* must only be used where necessary to ensure that formulas are correct when they are copied to other cells in the spreadsheet.
12. In ALL questions involving word processing, the language should be set to *English (South Africa)* and the paper size is assumed to be *A4 Portrait*, unless otherwise instructed.
13. All measuring units should be set to *centimetres*.
14. This question paper consists of *seven* questions. Answer ALL the questions.

**NOTE:**

The examination folder/data that you will receive with this question paper contains the folder and the files listed below. Ensure that you have the folder and ALL these files before you begin this examination:

A folder called **EXAM DATA**

with files and a subfolder called:

- q1DATA Folder
- q1AnswerSheet Word processing file
- q2CensusAtSchool Word processing file
- q3Population Word processing file
- q4Favourite Subjects Spreadsheet file
- q5Samples Spreadsheet file
- q6Learners Database file
- q7Form Word processing file
- Length Image file
- Logo Census@School Image file

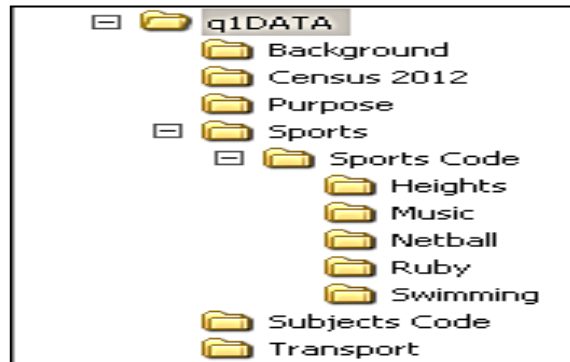
**SCENARIO:**

A census is a process whereby one acquires data and information about matters such as population, housing etc.

The School Management Team wants to involve the learners in a school census. Your Learners' Council asked you to assist them with the editing of some of the documents that are needed for the census, as you are computer literate.

**QUESTION 1**

The following folder structure has been created in preparation for the census.



Answer the following questions related to the subfolder called **q1DATA** in your **EXAM DATA** folder.

- 1.1 Move the **Subjects Code** folder so that it becomes a subfolder of the **Census 2012** folder. (1)
- 1.2 Create a subfolder called **Students** within the folder **Purpose**. (1)
- 1.3 Delete all the files that are 7 KB or less in size from **Sports** folder and its subfolders. (1)
- 1.4 Compress (Zip) the presentation file called **Census Presentation** in the **q1DATA** folder. (1)
- 1.5 Change the properties of the file **Rules** in the **q1DATA** folder so that your name appears as the Author. (1)
- 1.6 Protect the file **Presentation** in the **q1DATA** folder with the Password **22x**, so that it cannot be opened without the password. (2)
- 1.7 Copy the image file, **imageCAY** in the **q1DATA** folder, to the **Background** folder. (1)
- 1.8 Create a shortcut to the file **Access** (in the **q1DATA** folder) and place the shortcut in the **Transport** folder. (2)
- 1.9 Create a new *Rich Text Format* file called **School** and save it in the **q1DATA** folder. The file need not contain any data. (2)
- 1.10 Rename the folder called **Transport** in the **q1DATA** folder to **Mode of Transport**. (1)

- 1.11 Answer the following questions in the **q1AnswerSheet** file in your **EXAM DATA** folder.
- 1.11.1 Find out how many words are contained in the file **Census Definition.doc**. Type the number of words in the space provided in the **q1AnswerSheet** file for QUESTION 1.11.1. (1)
- 1.11.2 Sort the files in the **q1DATA** folder by **Name** in descending order, with only the **Date Modified** field and **Name** field appearing. The **Date Modified** field must appear before the **Name** field.
- Paste a screen shot/dump of the above selection in the space provided in **q1AnswerSheet** file for QUESTION 1.11.2. (4)
- Remember to save and close the **q1AnswerSheet** file. [18]

**QUESTION 2**

A document **q2CensusAtSchool** has been saved in your **EXAM DATA** folder. The School Management Team requested you to make the following changes:

Open the file **q2CensusAtSchool**.

- 2.1 Justify the entire document. (1)
- 2.2 Format the main heading "**CensusAtSchool**" as follows:  
• change the font size to 27 pt and  
• apply an **Outline** effect to the heading (2)
- 2.3 Insert the image **Logo Census@school** (that can be found in your **EXAM DATA** folder) behind the heading at the top of the first page and change the image to a washout colour. (3)
- 2.4 Change the left and the right margin to 3 cm and the top and the bottom margin to 2 cm. (2)
- 2.5 Make sure that the paper size is A4 and the Page Orientation is set to Portrait. (2)
- 2.6 Resize the picture of a footprint at the end of the document to 60% of its original height and rotate it 90° left. (3)
- 2.7 Make the following changes to the first paragraph starting with "**It should ...**" and ending with "**... these lessons**":  
• indent the paragraph with 2 cm on the left and right hand side  
• change the line spacing of the paragraph to exactly 18 pt  
• add a Drop Cap effect that runs over 4 lines to the first letter of the paragraph (4)
- 2.8 Set the paragraph spacing for the entire document to **3 pt Before** and **12 pt After**. (2)
- 2.9 Change the numbered list under the heading "**Method**" to red bullets with the following symbol: ◀ (Wingdings 231). (3)
- 2.10 Insert a page break so that the heading "**Interpreting questions**" appears at the top of a new page. (1)
- 2.11 Change the orientation of the second last page to Landscape. (2)

Enter your **Name** and **Surname** in the header of the document and save and close it.

[25]

**QUESTION 3**

A document making students aware of the purpose of a census needs to be finalised.

Open the file **q3Population**, and make the following changes:

- 3.1 Change the language of the entire document to English (South Africa). (1)
- 3.2 Correct all spelling errors. (2)
- 3.3 Change the main heading “**CENSUS STATS**” as follows:
- Place a border around the main heading of the document (apply the border to the text and not to the paragraph)
  - The border must have a shadow
  - Make the border line 2¼ pt thick
  - Make use of any dotted border
  - Give the heading a yellow background shading (5)
- 3.4 Highlight all the occurrences of the word “HIV” in green, by making use of the find and replace function. (2)
- 3.5 Format the text under second and third heading so that it appears in two columns with a column line between the columns. Use a word processing function to ensure that the heading of paragraph three appears at the top of the right hand column as the example below. The space between the columns must be 2 cm.

#### 2. Demographic and other assumptions

Our knowledge of the HIV epidemic in South Africa is based primarily on the prevalence data collected annually from pregnant women attending public antenatal clinics (ANC) since 1990. However antenatal surveillance data produce biased prevalence estimates for the general population because only a select group of people (i.e. pregnant women attending public health services) are included in the sample. To correct this bias we adjusted the ANC prevalence estimates by adjusting for relative attendance rates at antenatal clinics and for the difference in prevalence between pregnant women and the general adult population. For a detailed description of the adjustment see, [www.statssa.gov.za](http://www.statssa.gov.za).

#### 3 Antiretroviral therapy (ART) for adults and children

Those who become infected with HIV do not need treatment with antiretroviral drugs immediately. There is an asymptomatic period during which the body's immune system controls the HIV infection. After some time the rapid replication of the virus overwhelms the immune system and the patient is in need of antiretroviral treatment (USAID Health Policy Initiative, 2009).

The WHO recommends that cotrimoxazole be provided to all children born to HIV+ mothers until their status can be determined. With normal antibody tests a child's HIV status cannot be determined until 18 months of age because the mother's antibodies are present in the child's blood. Thus all children born to HIV-positive mothers should receive cotrimoxazole until aged 18 months. For children aged between 18 months and 5 years the WHO recommends cotrimoxazole should be provided to all children who are HIV positive. After the age of 5 years children should be on cotrimoxazole if they have progressed to Stage III or IV. If early diagnosis is available then only HIV-positive children are considered in need of cotrimoxazole (USAID Health Policy Initiative, 2009).

(4)

3.6 Format the Table below the heading “6. Provincial estimates by sex” as follows:

- Merge the cells as indicated in the table below.
- Centre the content horizontally and vertically in the table.
- Delete the two rows at the bottom of the table.
- Sort the content of the table by **Column 1** in descending order. Exclude the headings and the **Total** row when sorting the table.
- Add the borders as indicated below.
- Add shading to the cells as indicated below.
- Change the text direction of the top row as indicated below.
- Use a function to calculate the total in the bottom row.
- Change the width of the first column to exactly 3 cm.

Date	Male		Female		Total
	Number	% of Male Population	Number	% of Female Population	% of Total population
White	2 227 526	9,1	2 338 299	9,0	4565825
Indian/Asian	626 690	2,6	648 177	2,5	1274867
Coloured	2 188 782	8,9	2 351 008	9,0	4539790
African	19 472 038	79,4	20 734 237	79,5	40206275
	<b>Total</b>				50586757

(9)

3.7 Insert the date at the end of the document where indicated, in the format YYYY-MM-DD. The date must update automatically.

(3)

3.8 Insert the word **Census** as a watermark to the background of the document. The watermark must appear in the font type Arial and the font size must be 38 pt.

(3)

3.9 Convert the text (that is shaded in blue) at the end of the document to a table, so that it appears as the example below:

Boys	2
Girls	5
Men	9
Women	11

(2)

Enter your name and surname in the header of the document.

Save the document and close it.

**[31]**



### QUESTION 4

The following spreadsheet shows the results of a Grade 8 to 12 survey, where students chose their favourite subjects. Help the Learners' Council to complete the spreadsheet.

Open the file called **q4Favourite Subjects**.

Work in the **Sheet 1** worksheet.

- 4.1 Merge **Cells A1:G1** and centre the text vertically and horizontally across the new merged cell. (2)
- 4.2 Change the font size of the heading in **Row 1** to 14 pt and add a green border above and below the merged cell. (3)
- 4.3 Wrap the text in **Row 3** and change the text alignment to 45°. (2)
- 4.4 Add cell borders to the headings in **Row 3** so that they appear as follow:

The diagram shows a single row of a spreadsheet with six columns. Each cell contains a header text rotated 45 degrees for readability. The headers are: 'Learning Area/subject', 'Male', 'Male %', 'Female', 'Female %', and 'Total Male and Female'. The last cell is labeled 'Percentage' in the diagram, which likely corresponds to the 'Percentage' column mentioned in the question. The entire row is enclosed in a rectangular border.

Learning Area/subject	Male	Male %	Female	Female %	Total Male and Female	Percentage
-----------------------	------	--------	--------	----------	-----------------------	------------

- 4.5 Ensure that ALL the data on the worksheet is clearly visible. (1)
- 4.6 Use a function to display today's date in **Cell A2**. (1)
- 4.7 Delete the worksheet called **Sheet 2**. (1)
- 4.8 Rename **Sheet 1** to "**Subjects**" and change the tab colour to blue. (2)
- 4.9 Change the Page Orientation of the **Subjects** worksheet to Landscape. (1)
- 4.10 Add a formula in **Cell F4** to calculate the total number of males and females for Languages and drag the formula down for all the remaining subjects. (3)
- 4.11 Add **Conditional Formatting** to **Column F** so that cells with a value of more than 150 will have a *Red Fill* colour, and cells with a value of less than 100 a *Green Fill* colour. (4)
- 4.12 Determine the percentage of learners who favour the various subjects. Use the number in **Column F** and the total number of learners in **Cell I3** to determine the percentage in **Column G**. Format the cells so that the results appear with a % sign. (4)

- 4.13 Insert a blank row above **Row 22**. (1)
- 4.14 Copy the *Subject Names* in **Column A** and the corresponding *Totals for Males and Females* in **Column F** and paste them transposed on **Sheet 3**. Paste only the values of the copied cells. The data should be similar to the example below.

	A	B	C	D	E	F	G	H	I	J
1	Languages	Maths	Life Orientation	Technology	Arts & Culture	Maths	Maths Literacy	Natural science	Computer Applications	Tech
2	231.2	114.75	78.2	44.2	62.05	44.2	45.05	41.65		43.35
3										

- 4.15 Use **functions** for the following calculations on the **Subjects** worksheet:
- 4.15.1 Calculate the average number for the males who took part in the survey, in **Cell B15**. Use a function to round your answer off to the nearest whole number. (4)
- 4.15.2 Calculate the highest number for female votes in **Cell B16**. (2)
- 4.15.3 Determine the 2<sup>nd</sup> highest number of male and female votes in **Cell B18**. (3)

Remember to save and close the **q4Favourite Subjects** file.

**[38]**

**QUESTION 5**

The Learners' Council used a spreadsheet to save statistics about subject choices. They requested that you design a graph that will make it easier for them to interpret the data.

Open the spreadsheet file called **q5Samples**.

Enter your **Name** and **Surname** in the header of the document.

Work in the **Schools** worksheet.

5.1 Edit the first row of the worksheet as follows:

5.1.1 Change the Row Height of **Row 1** to 40. (1)

5.1.2 Add a heading "Census At Schools" to the left hand side of the top row. Make use of any **WordArt** with the font type **Arial Narrow** and the font size 16 pt. (3)

5.2 Shade the merged **Cell A4** any blue colour. (1)

5.3 Move the picture, which can be found in the worksheet called **Logo** to **Cell A3**. Resize the picture so that it is the exact size of the cell. (2)

5.4 The Learners' Council wants to grade provinces depending on the total number of schools in the province, as indicated in their spreadsheet.

Provinces with less than 250 schools in **Column F** are labelled "Small" and those with 250 or more in **Column F** are labelled "Large".

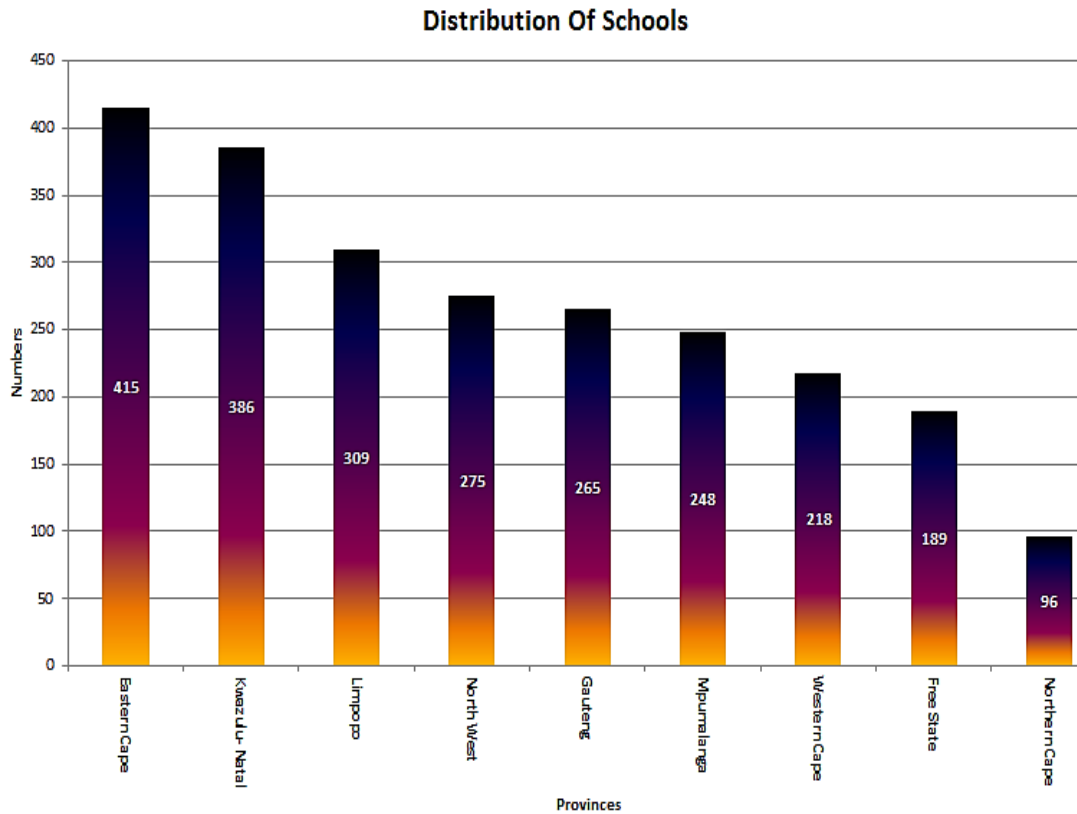
Use the **If** function in **Column G** to determine whether the province is "Small" or "Large". Remember to drag the formula down for all the provinces. (3)

5.5 Insert a function in **Cell B17** to count the number of provinces in the **Range A7:A15**. (2)

5.6 Use a function in **Cell B18** to count the number of empty cells in the **Range B7:E15**. (2)

5.7 Use a function in **Cell B19** to determine the total number of times the word "Small" appears in the **Range G7:G15**. The **Range G7:G15** must appear in your function. (3)

- 5.8 Sort the **Provinces** and their matching data in descending order according to the **Total** in **Column F**. Do not include the headings in the sorting. (2)
- 5.9 Create a **Column Chart** using the **Provinces** and the **Total** columns. Make the changes as instructed so that the chart looks similar to the example below. (2)



- 5.9.1 Add a Chart Title above the chart, reading: “**Distribution Of Schools**”. (1)
- 5.9.2 The Axis Title for the (Y-axis) Vertical axis should be **Numbers** and the Axis Title for the (X-axis) Horizontal axis should be **Provinces**. (2)
- 5.9.3 Remove the legend. (1)
- 5.9.4 Rotate the text on the Horizontal axis with 90°. (1)
- 5.9.5 Add **Data Labels** to the **Data Series**. The **Data Labels** must appear in the centre of the column and the font colour must be changed to white. (3)
- 5.9.6 Format the **Data Series** by filling the series with a Pre-set gradient colour, namely “Late Sunset”. (2)
- 5.10 Move this chart to a new worksheet. (1)
- Save and close the document. [32]

**QUESTION 6**

The School Management Team will be using the data collected during the census to keep track of subject allocations. Help the Learners' Council to edit the database for the School Management Team.

Open the database **q6Learners** and work in the **Subjects** table.

The following questions refer to the table:

6.1 Make sure the **Data Type** as well as the **Field Properties** of the following fields are the same as indicated in the table below.

Field Name	Data Type	Field Size
Firstname	Text	15
Surname	Text	25

(2)

6.2 Delete the record of Peter Marhala in 10E.

(1)

6.3 Add the following field to the table and place it directly below the **Surname** field.

- **Field Name:** Age
- **Data Type:** Date/Time
- **Format:** Long Date

(4)

6.4 Add the following record to the **Subjects** table.

Firstname	Surname	Age	Class	Subject1	Subject2	Subject3	Subject4	Subject5	Subject6
Khanya	Zwelibanzi		12E	English	IT	Adrikaans	Mathematics	Visual Arts	CAT

(2)

6.5 Sort the table in descending order according to **Surname**.

(2)

6.6 Show only vertical gridlines of the table.

(1)

Save and close the table.

**Queries:**

- 6.7 Create a query based on the **Subjects** table to find all learners who are taking **CAT** as a subject, in the **Subject 6** field. Save the query as **CAT Learners**.

Show only the following fields in the query:

- **ID, Firstname, Surname, Class** (3)

- 6.8 Open the query **Maths** and edit it so that it only shows the grade **12 E** learners who take **Mathematics** as a subject in the **Subject 2** field. Sort the query according to **Surname**. (3)

Save and close all your queries.

**Forms:**

- 6.9 Create a form called **Subjects** by using all the fields from the **Subjects** table and edit it as follows:

- Use the **Justified** layout for the form.
- Insert the date in the *Form Footer* as a function. (4)

Save and close your form.

**Reports:**

- 6.10 Open the **2012Subjects** report and make the following changes to it:

6.10.1 Add your name to the *Report Footer*. (1)

6.10.2 Edit the heading in the *Report Header* so that it reads: "**2012 Census**". Change the font colour of the heading to blue and centre the heading in the *Header* of the report. (3)

6.10.3 Group the report by the **Class** field. (1)

6.10.4 Add a function to the *Class Footer* that will count the number of students in the class. The label for the function should read: "**Number of students**". (4)

Remember to save and close all your documents. [31]

**QUESTION 7**

You have been asked to modify the **Census** form so that it is more user friendly.

Open the document **q7Form** and make the necessary changes.

Use **Annexure-A** as a guideline.

7.1 Remove all the **Section Breaks** from the form so that it eventually fits on to one A4 page. (1)

7.2 Convert the heading "**Census Form 2012**" to **WordArt** style 1 and make the following changes to it:

- Add a picture fill to the **WordArt** heading. Use the image named **Length** that is saved in your **EXAM DATA** folder.
- Centre the **WordArt** at the top of the page.
- Change the **Text Wrapping** of the **WordArt** to **In Front of Text** and change the size of the **WordArt** to exactly 2 cm high by 13 cm wide.
- Add a **Striped Right Arrow** shape from the **Block Arrows** group and place it behind the **WordArt** heading.
- Group the **Arrow** shape and the **WordArt**. (6)

7.3 Add the following tab stops to the top row of the form, as indicated in the example below:

EMIS: \_\_\_\_\_ → Class: \_\_\_\_\_ → Learner Number: \_\_\_\_\_ ¶

- Centre Tab – 7 cm
- Right Tab – 14,5 cm (2)

7.4 Insert a **Horizontal Border Line** across the page below the **Learner name**. (1)

7.5 Insert the symbol (**Wingdings 168**) □ next to the words **Boy?** and **Girl?** as indicated in **Annexure-A**. Change the symbol font size to 20 pt. (3)

7.6 Remove the border around the heading **Section B**. (1)

7.7 Move the **Where were you born?** and the **How do you travel?** sections to the empty table at the bottom of the form as indicated in **Annexure-A**. (2)

7.8 The **Page Colour** must be changed to any light grey colour. (1)

- 7.9 Add the following table next to the text: **What is your date of birth?**

D	D	M	M	Y	Y	Y	Y
---	---	---	---	---	---	---	---

Resize the table so that the columns are set to **AutoFit** to content. (4)

- 7.10 Insert the image (that can be located on the **Sheet3** worksheet of the **q5Samples** spreadsheet) on the right hand side of Section B as indicated in **Annexure-A**. Resize the image so that it appears similar to the example in **Annexure-A**. (2)

- 7.11 Make use of leader tabs to edit the table at the bottom as the form so that it appears similar to the table in **Annexure-A**. (2)

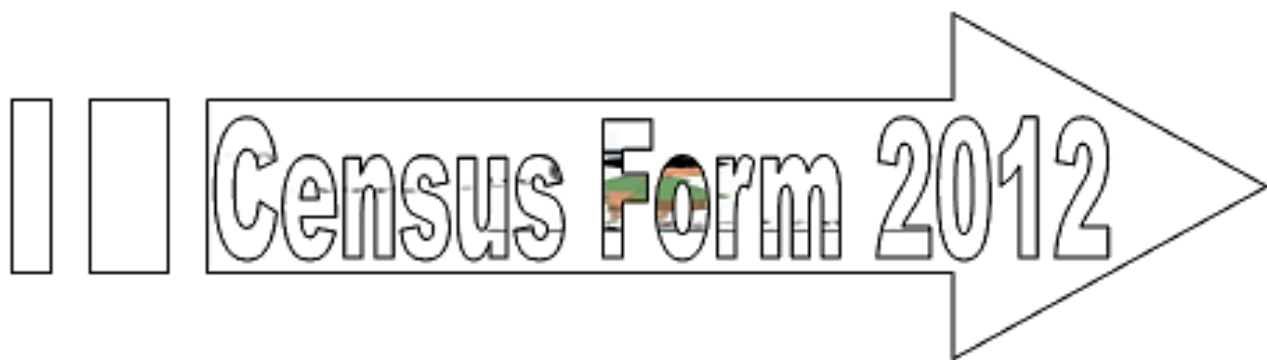
**[25]**

**TOTAL: 200**





ANNEXURE-A (Use the following example as guideline.)



EMIS: \_\_\_\_\_ Class: \_\_\_\_\_ Learner Number: \_\_\_\_\_

Learner name:

Section B

Are you a:

1. Boy?

2. Girl?



What is your date of birth?

D	D	M	M	Y	Y	Y	Y

Where were you born?

(Mark applicable box)

- ..... Western Cape
- ..... Eastern Cape
- ..... Northern Cape
- ..... KwaZulu Natal

How do you travel to school?

(Mark applicable box)

- ..... Walk/Foot
- ..... Car
- ..... Taxi
- ..... Bus
- ..... Bicycle