



Province of the  
**EASTERN CAPE**  
EDUCATION

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**SEPTEMBER 2011**

**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 examination number 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 on the label. If your work is 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 functions of the programs 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 African)* 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 Data disk that you receive with this question paper contains the folder and the files listed below. Ensure that you have ALL these files before you begin this examination.

A folder called **Health Club**

and the files called:

- |                  |                      |
|------------------|----------------------|
| • q1Answer Sheet | Word processing file |
| • q2BMI          | Word processing file |
| • q3Poster       | Word processing file |
| • q4GYM          | Database file        |
| • q5GYMTable     | Spreadsheet file     |
| • q6TRAIL        | Spreadsheet file     |
| • q7Form         | Word processing file |
| • q7ProgressCard | Word processing file |
| • Logo Club      | Image file           |

## SCENARIO

Your school has its own Health Club. The LO learners are part of the club. After repeated incidents with learners suffering from bad eating habits, and an increasing number of overweight learners on the school campus, the Health Club Chairman decided that action needs to be taken. You have been asked to help with the administrative tasks of the Health Club as they know you have more computer skills, being a CAT learner.

## QUESTION 1

The following folder structure has been created:



Answer the following questions related to the folder called **Health Club**.

- 1.1 Move the **Eating Plan** folder so that it becomes a sub-folder of the **Balance diet** folder. (2)
- 1.2 Create a sub-folder called **Hockey** within the folder **Sports code**. (1)
- 1.3 Compress (zip) the file **Exercise Plan.xls**. (1)
- 1.4 Delete the image file called **Obese** in **Exercise** sub-folder. (1)
- 1.5 Protect the file **Diabetes** in **Disease** folder with the Password **4me**, so that it cannot be opened without the password. (2)
- 1.6 Copy the image file **imagesCAZ** in the **Exercise** folder to the **Disease** folder. (1)

- 1.7 Rename the word processing file called **GoodHealth2** to **Life**. (1)
- 1.8 Create a shortcut to the file **Search Engines** (in the **Health Club** folder) and place the shortcut in the **Balance Diet1** folder. (2)
- 1.9 Change the format of the text file **Club** to a *web page* format. (1)
- 1.10 Move all the image files in **Health Club** folder (not including the sub-folders) to the **Photos** folder. (2)
- 1.11 Answer the following questions in the **q1Answer Sheet** file in your **Data files** folder.
- 1.11.1 Enter the size of the largest file in the **Photos** (folder and sub-folders) in the space provided in **q1Answer Sheet** file for **1.11.1**. (1)
- 1.11.2 Change the view settings in **Health Club** folder so that all the extensions of the files are visible. Make a screenshot and paste it in the space provided for **1.11.2** in the **q1Answer Sheet** file. (2)
- 1.11.3 Sort the files in the **Health Club** folder by 'Date modified' from the oldest to the newest. Move the 'Date modified' field so that it appears first. Paste a screenshot showing the changes you have made in the space provided for **1.11.3** in the **q1Answer Sheet** file. (4)
- 1.11.4 Change the attribute of the **Balance Diet2** folder and its sub-folders so that it is *read only*. Make a screenshot of the Properties window showing the changes you have made and past it in the space provided for **1.11.4** in the **q1Answer Sheet** file. (1)
- Remember to save and close the **q1Answer Sheet.doc** file. [22]

## QUESTION 2

A brochure on the Body Mass Index needs to be prepared for distribution, as part of the drive to encourage a healthy lifestyle.

Open the file **q2BMI** and make the changes as indicated below:

- 2.1 Change the language of the whole document to *English (South Africa)*. (1)
- 2.2 Check for any spelling errors in the paragraphs (under the heading "**What is it?**"). (2)
- 2.3 Replace all occurrences of the words "**Body Mass Index**" in the document with the word "**BMI**". The replacements must appear in italics. (2)

- 2.4 Make the following style changes to the headings as indicated:
- 2.4.1 Change the *heading style* of the heading “**What is it?**” (on the first page) from *Heading 1* to the *DocHeading1* style. (1)
- 2.4.2 Change the *heading style* of the heading “**BMI-for-age**” (at the bottom of the second page) from *Heading2* to the *DocHeading2* style. (1)
- 2.5 Modify the *Normal* style so that the font size is 11 pt. (1)
- 2.6 Apply a *red font colour* to the heading “**Table of Contents**”. (1)
- 2.7 Add a comment to the heading “**Table of Contents**”. Add the text “**Update**” to the comment. Use the comment facility of the Word Processing Application. (2)
- 2.8 Insert an automatic table of contents under the heading “**Table of Contents**”.
- Use the *DocHeading1* style as the only style on which to build your table of contents, all the other styles must be removed from the table of contents. The table of contents should therefore show only one level.
  - No page numbers should be displayed. (4)
- 2.9 Border lines need to be added in order to make the table of contents stand out.
- Add a solid border line across the page directly above the “**Table of Content**” heading and directly below the last item in the table of contents.
  - Centre all the text between these border lines. (4)
- 2.10 Change the text “**kg/m2**” in the second paragraph below the heading “**What is it?**”, so that the 2 appears in *superscript* e.g. “**kg/m<sup>2</sup>**”. (1)
- 2.11 The heading “**Categories**” should be on a new page.
- 2.11.1 Insert a section break before the heading “**Categories**” so that it will appear on a new page. (1)
- 2.11.2 Insert a section break before the heading “**Applications**” so that this heading also appears at the top of a new page. (1)
- 2.11.3 The page orientation of the page with the heading “**Categories**” should be changed to landscape. (1)
- 2.11.4 The text of the paragraph under the heading “**Categories**” (excluding the heading “**Categories**”) must be placed in four columns. (1)

- 2.12 Find the text “*Recommended Dietary Allowance*” in the second paragraph under the sub-heading “**Statistical Device**”.
- Insert a footnote immediately after the word “*Allowance*”. You may make use of any symbol.
  - Insert the following text reference in the footnote: “*RDA*”. (2)
- 2.13 Insert a *page break* so that the heading “**Reference**” starts on a new page. (1)
- 2.14 Add a *hanging indent* to the *list of References* under the heading “**Reference**”. (1)
- 2.15 Format the text under the heading “**Source**” as follows:
- Change the reference to Wikipedia under the heading “**Source**” so that it hyperlinks to the given URL.
  - Insert the star symbol ✦ (Webdings 108) in front of the hyperlink. (2)

Remember to enter your examination number in the header of the document.  
Save and close the document.

**[30]**

### QUESTION 3

The Health Club needs to create a poster to demonstrate the possible health risks of an unhealthy lifestyle. They have given you their attempt to improve on.

Open the document called **q3Poster**.

Type your examination number in the **footer** of the document.

- 3.1 Change the page orientation to landscape. (1)
- 3.2 Change the **header** of the document as follows:
- Move the text “**Our bodies come in different shapes and sizes**” to the header of the document.
  - Centre the text you have moved to the header and change the font size to 10 pt. (2)
- 3.3 Convert the heading, “Body Mass Index”, to *WordArt* so that is similar to the example below.

Body Mass Index

- Change the *WordArt* to 32 pt font size and centre it on the page. (2)

3.4 Move the image (that gives the BMI formula) from the bottom of the page to just below the *WordArt* heading.

- Centre the image on the page, and
- make the image 2.5 cm high. (3)

3.5 Convert the text below the image to a table. Use the comma to separate the text.

BMI Range		
Category	Severely underweight .....	< 16.5
	Underweight.....	6.5 – 18.5
	Normal .....	18.5 – 25
	Overweight.....	25 – 30
	Obese .....	30 – 35
	Clinically obese.....	35 – 40
	Morbidly obese .....	> 40

(1)

3.5.1 Make the following changes to the table.

- Change all the text in the table to 16 pt font size.
- Remove all unwanted rows.
- Merge the cells in the left column as indicated.
- Change the text direction in the left column as indicated. (4)

3.5.2 Centre the text in the left column horizontally and vertically (middle) in the cell. (1)

3.5.3 Merge the top row and centre the text “BMI Range”. (2)

3.5.4 Shade both the merged areas containing the headings with a yellow colour. (1)

3.5.5 Insert a 6 pt paragraph spacing before and after the text in the table. (1)

3.5.6 Format the second column as follows:

- The second column should be 10 cm wide with the text left aligned and leader tabs inserted as indicated in the example above. (2)

3.5.7 The first and third columns should be resized so that the text fits neatly into these columns and the text must be centred in these two columns. (1)



3.5.8 Change the table borders as indicated:

- Use a 3 pt solid line border around the outside of the table.
- Use thin solid lines inside the table where indicated and remove the inside lines for the areas that are not shaded. (3)

3.5.9 Centre the table horizontally on the page. (1)

3.6 Centre the document vertically on the page. (1)  
Remember to save and close the **q3Poster.doc** file. [26]

#### QUESTION 4

Open the database **q4GYM**. Work in the **tbIGYM** table.

4.1 Make sure that the Data Type of each field as well as the properties of each field is the same as indicated in the table below. Do not add the description.

FIELD NAME	DESCRIPTION	TYPE
<b>Surname</b>	Surname of learner	Text – Field size 50
<b>Date of Birth</b>	Date of birth of learner	Date/Time – Short Date
<b>Weight</b>	Weight of learner	Number – 1 decimal
<b>Health condition</b>	List of medication	Memo

(5)

4.2 Add the following fields that were left out:

##### 4.2.1 Gender

- Add this field between the fields **Date of Birth** and **Weight**.
- The *Data Type* is Text – with a *Field Size* of 1.
- Add a *Validation Rule* that will make sure that only the characters B or G will be accepted when data is entered into this field.
- Add *Validation Text* that will give the appropriate message when another character is entered into this field.
- Make the *Default Value* for this field B. (6)

### 4.2.2 Main Goal

- Add this field at the *bottom* of the Field Name list.
- Make use of the *Lookup Wizard* and add the following options to the drop down list.
  - Become fit
  - Stay fit
  - Lose weight
  - 1st Team Play
  - Tone and firm

(3)

### 4.2.3 Nr

- Add this field to the *top* of the *Field Name* list.
- This field must be set to *AutoNumber* and must be used as the *Primary Key*.

(3)

### 4.3 Insert the **Main Goal** and **Gender** for each of the members:

	Surname	Name	Main Goal	Gender
	Mdingi	Patience	Become fit	G
	Reddy	Fatima	Loose weight	G
	Dekker	Danie	Stay fit	B
	Deneysen	Charlotte	1st Team Play	G
	Verwey	Adriaan	1st Team Play	B
	Mogoerane	Martiens	Become fit	B
	Daniels	Ethal	Tone and firm	G
	Cloete	Abrie	1st Team Play	B
	Stewart	Reynold	Become fit	B
	Skozana	Prince	1st Team Play	B
	Goliath	Nonni	Tone and firm	G
	Morris	Douglas	Stay fit	B
	Cooks	Danielle	1st Team Play	B
	Lemmer	Suzanne	Stay fit	G
	Parkey	Nimmi	Loose weight	G

(2)

### 4.4 After checking the details, some of the learners are referred for medical examinations to clear them for their exercise program.

Add the field **Medical**.

- Change the *Data Type* to **Yes/No**.
- Change the value of this field to **Yes** for all the learners who have the following health conditions:
  - **Asthma**, and
  - **Diabetes**

(3)

4.5 Change the *Field Name* of the **Health condition** field to **Illnesses**. (1)

4.6 Add the following record:

Surname	Name	Date of Birth	Gender	Weight	Height	Illness	Start date	Main Goal	Medical
Philander	Solly	1995/01/28	B	105	2.1	None	2010/01/03	Become fit	No

(2)

4.7 Change the *field widths* in this table to best fit the data. (1)

4.8 Add an *Input Mask* to the **Telephone** field so that it will return all the telephone numbers in the following format: 000-000 0000  
This field must be left open. (2)

Save the table.

4.9 A suitable exercise plan for all the boy's whose weight (mass) is more than 90 kg or less than 60 kg needs to be worked out. Create a **query** making use of the table **tblGYM** to extract the following information.

- Display the following fields: **Surname**, **Name**, **Weight**, and **Height**.
- Sort this query according to the **Weight** from heaviest to lightest.
- Save the query as **qryGYM**. (4)

4.10 Create a **form** based on the **tblGYM** using the following criteria.

- The form should have a *justified* layout.
- Use the following fields: **Surname**, **Name**, **Date of Birth**, **Weight** and **Illnesses**.
- Save the form as **frmGYM**. (2)

4.10.1 Make the following changes to the **Illnesses** field in the **frmGYM** form:

- Add a *Combo Box* (Form Control) to the **Illnesses** field with the following options:
  - Asthma
  - Diabetes
  - None
- Link the *Combo Box Control Source* to the **Illnesses** field in the Table.
- Change the background colour of the **Illnesses** label so that it stands out from the rest of the field names. (4)
- Save and close the form.

4.11 Create a **report** based on the **tblGYM** table using the following criteria.

- The fields **Surname**, **Name**, **Date of Birth**, **Weight**, **Height** and **Gender** should be displayed.
- *Group* the report by **Gender**.
- *Sort* the report by **Height** in descending order.
- Save the report as **rptGYM**. (3)

4.11.1 Make the following changes to the **rptGYM** report:

- The Title in the Report Header should read "**Health Conditions**".
- Insert the image called **Logo Club** (which can be found in the Data Files folder) below the heading.
- Move the Title and the logo to the centre of the *Report Header*.
- Use a function in the *Gender Footer* to calculate the total number of Girls and Boys in the two groups and add a suitable label.
- Add your examination number to the *Report Footer*. (8)

Save and close the database.

**[49]**

## QUESTION 5

You have been asked to determine which of the members of the Health Club are overweight.

Open a Spreadsheet file called **q5GYMTable**.

Work in the **Sheet2** worksheet.

5.1 Import the table **tblGYM** from the database **q4GYM** to the **Sheet2** worksheet.

- Rename the worksheet **Sheet2** to **DATA**. (2)

Work on **Sheet1** worksheet and make the following changes:

(Drag the formulas/functions down where needed)

5.2 Insert a row at the top of the worksheet. (1)

5.3 Use the **function** to display **today's date** in the cell **A1**. (1)

5.4 Use a **formula** to calculate the **age** of each person today in **column F**.  
(Reminder: a year has 365.25 days)

- Use **cell A1** in your calculation.
- Drag the formula down for all the people. (5)

5.5 Change the cell properties of the **Height** in **column E** so that the data is displayed as **Number** with **1 decimal place**. (2)

5.6 Calculate the **LMI Factor** in **column G** as follows:

- **Weight** divided by the **Height** to the **power of two**.
- Show only two decimal places. (4)

5.7 The **LMI factor** is an indication if the member is *overweight*, *underweight* or the *correct weight*.

Use the **IF function** to determine if a member is overweight.

- If the members **LMI factor** is **equal to or above 25** a number **1** must appear in **column H** and if it is **less than 25** the number **0** must appear in **column H**. (3)

5.8 Use **Conditional Formatting** in **column G** to display the **LMI factor** for everybody suffering from obesity in a red font colour.

- A member is obese when his/her **LMI factor** is larger than 30. (2)

5.9 Use the **nested IF** statement to determine the **Goal** weight of all the members in **column I**.

Determine the **Goal** weight as follows:

- If the person is younger than 30 years use the following formula: **(Height\*Height)\*20**.
- If the person is 30 to 39 years old use the following formula: **(Height\*Height)\*21**.
- If a person is 40 years or older use the following formula: **(Height\*Height)\*23**.

**Fill the formula down** for all members and show only 1 decimal place. (6)

5.10 You need to calculate the amount of weight that each member must **lose** in **column J**.

- Subtract the **Goal** weight from the **Weight**.
- Use a **function** to **round** your answer off to 1 decimal place.
- Fill the formula down for all the members. (3)

5.11 Create a password for each member of the Health Club in **column K**.

The password must be created as follows:

- Combine the **first three characters** of the **Surname** in **column A** and the **last two characters** of the **Name** in **column B**. (5)

Save and close the spreadsheet.

## QUESTION 6

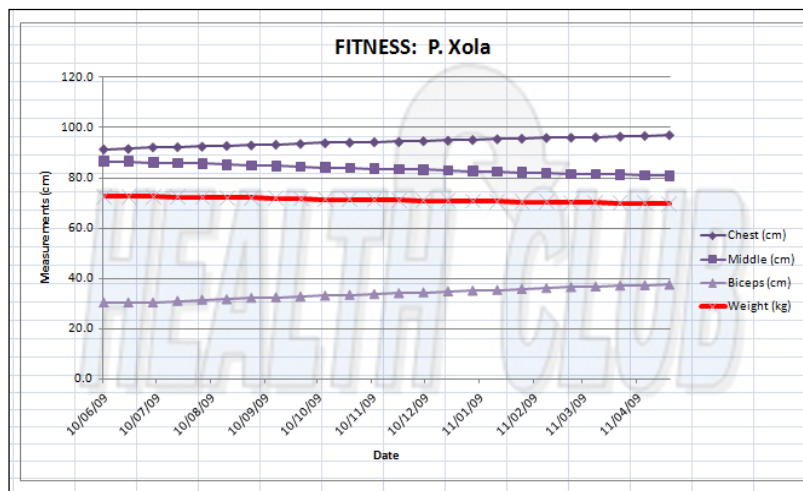
A fitness program is being tested. One of the members has been selected to run with the program and his progress will be closely monitored.

Open the spreadsheet **q6TRAIL**.

Work in the **Sheet1** worksheet.

6.1 Create a **line chart** using all the measurements given.

The dates must appear below the X-axis.



(2)

6.1.1 Add a Chart Title above the chart reading: **"FITNESS: P. Xola"**. (1)

6.1.2 The Axis Title for the X-axis should be **Date**. (1)

6.1.3 The Axis Title for the Y-axis should be **Measurements (cm)**.  
Display a rotated Axis Title as the example above. (2)

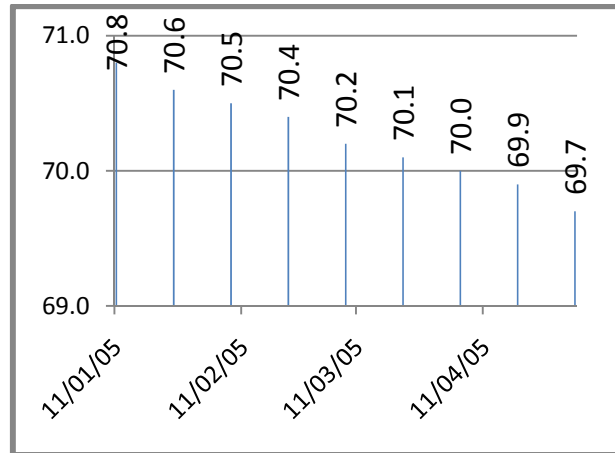
6.1.4 Change the colour of the **Weight** line to **red** with a width of **4 pt**. (2)

6.1.5 Place the **Logo Club.jpg** image saved in your **Data Files** folder, in the background of the Chart Area. The image must have a transparency setting of 85%. The Plot Area must have no fill. (3)

6.1.6 Place the Chart as an object in the worksheet. (1)

6.2 Create a **column chart** by using the **Date** and **Weight** columns.

Use only the 2011 data (11/01/05 to 11/04/27) for your chart.



(2)

6.2.1 Save this chart as a sheet on its own.

(1)

6.2.2 Remove the legend.

(1)

6.2.3 Add the Data Labels to the columns.

(1)

6.2.4 Change the text direction of the Data Labels to vertical and the font size to 12 pt.

(1)

6.2.5 Format the Y-axis so that the minor unit consists of intervals of 1.

(1)

Remember to save and close your document.

**[19]**

## QUESTION 7

You have been asked to use a Word Processing Application to modify the registration form that the learners need to fill in when they enrol at the Health Club.

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

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

7.1 The form must fit on one A4 page.

(1)

7.2 Insert the image **Logo Club.jpg** saved in your Data Files folder at the top right hand corner of the form.

(1)

7.3 Insert leader tabs next to “**Any other health problems?**” as indicated.

(2)

7.4 Use the Legacy tools to create a *Drop-Down Form Field* next to the word **Gender**.

(1)

7.4.1 Edit the properties of the *Drop-Down Form Field* and add “**M**” and “**F**” to the list.

(2)

- 7.5 Add a *Text From Field* next to the word **Weight** and restrict it to 5 digits. (2)
- 7.6 Add *Check Box Form Fields* where the blocks are indicated on **Annexure-A**. (1)
- 7.7 Make use of the table function and add the DATE OF BIRTH table as indicated on **Annexure-A** below the NAME. (2)

DATE OF BIRTH:						
	Y	Y	M	M	D	D

(2)

- 7.8 Protect the form with the password “2011” so that only the *Form Field areas* can be filled in electronically. (2)

Save and close the **q7Form** document.

The Health Club Chairperson also requested you to use the *Mail Merge* function of the Word Processing Application to generate the Progress Cards for the clients.

Open the file **q7ProgressCard**.

- 7.9 Replace all the sections between <> with the relevant fields from the table “**tbIGYM**” in the database file **q4GYM**. (6)
- Complete all 6 steps of the Mail Merge Wizard and save the document.
  - Select the “Edit individual letters” option in step 6 and save the individual letters as **Question 7**.

Save and close all your documents.

[20]

TOTAL: 200



**Annexure-A**

(Use the following example as guideline)

**TOP HEALTH CLUB FORM**

SURNAME: \_\_\_\_\_

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

DATE OF BIRTH:

Y	Y	M	M	D	D

GENDER: ☒ M ☐ F

HEIGHT: \_\_\_\_\_ m

WEIGHT:  kg

REASON FOR JOINING:

HEALTH PROBLEMS:

*(Mark applicable box)*

- ☐ I want to become fit  
☐ I want to stay fit  
☐ I want to lose weight  
☐ I want to control my weight  
☐ I want to build muscles

*(Mark applicable box)*

- ☐ High blood pressure  
☐ Heart problems  
☐ Diabetes  
☐ Back problems  
☐ None

Any other health problems?

Name

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---

Signature

Date

For office use only

	Yes	No
Refer for medical examination		
Special diet		
Special exercise programme		