COMPUTER PRACTICE FARMING

N5

Internal Exam Paper

TIME: 3 HOURS
MARKS: 200

INSTRUCTIONS AND INFORMATION

READ THE INSTRUCTIONS CAREFULLY BEFORE ANSWERING THE QUESTION PAPER.

1. The question paper comprises of THREE sections:
    SECTION A: Theory (40 marks)
    SECTION B: Word Processing (60 marks)
    SECTION C: Spreadsheet (60 marks)
    SECTION D: PowerPoint (40 marks)
    SECTION A must be answered on the attached ANSWER SHEET. Approximately 30 minutes should be spent on this section.
    SECTION B is done with the aid of a word processing program. Approximately 60 minutes should be spent on this section.
    SECTION C is done with the aid of a spreadsheet program. Approximately 60 minutes should be spent on this section.
    SECTION D is done with the aid of a presentation program. Approximately 30 minutes should be spent on this section.

2. In the event of a power failure or a computer or printer breakdown, the invigilator must make the necessary arrangements for the candidate to continue and the actual time lost must be added.

3. The candidate may be in possession of a list of ASCII codes.

4. Each answer must contain your name and surname in a header or footer, as instructed.

5. At the conclusion of the examination session, all printouts must be placed in the correct sequential order in a folder and handed to the invigilator. NO printouts whatsoever may be removed from the examination room. The invigilator must collect and destroy printouts not submitted for marking.

6. Save your files in the correct folder on the computer at regular intervals to prevent loss of work in the event of a power failure.

7. At the end of the examination session a candidate should upload their folder to the cloud (Google Drive) and send a link to the lecturer via electronic mail.

8. NO question paper may be taken out of the examination room, ALL papers must be handed in together with the candidate's printouts.

9. No candidate may print their work for another candidate or make their files accessible to other candidates.

**DO NOT TURN THE PAGE BEFORE
THE INVIGILATOR INSTRUCTS
YOU TO DO SO**

SECTION A: THEORY

Retrieve the file **N5 Answer Sheet** from your *N5 Exam folder* and insert your name and surname (left) as header. Answer the questions and print the file. Place the printout in your examination folder. Approximately 30 minutes should be spent on this section.

Question 1
Choose a description from COLUMN B that matches a term in COLUMN A.
Type only the letter (A-J) next to the question number (1.1 – 1.10) in the answer sheet.

COLUMN A	COLUMN B
1.1 Irrigation technology	A. Computer-aided design (CAD) software is the application of computer technology for the purposes of design, used by …
1.2 Genetic Modification (GM)	B. Prediction of climate
1.3 Engineers	C. Wireless pairing of nearby devices and accessories
1.4 Surveying	D. e.g. Android, Windows Mobile, iOS (for iPhones)
1.5 Forecasting	E. High-tech sensors and computer controls that monitor and record the soil conditions
1.6 Office automation	F. Different devices and software used to create, collect, store, manipulate, and relay office information needed for accomplishing basic farming tasks
1.7 Bluetooth	G. Built-in technology that can perform a variety of tasks including fitness or health monitoring, interacting with phones and other devices
1.8 Application software	H. MS Word, MS Excel, MS Publisher
1.9 Smart clothing	I. New DNA is transferred into plant cells
1.10 Operating systems	

[10]

Question 2
Indicate whether the following statements are TRUE or FALSE. Type only TRUE or FALSE next to the question number (2.1 – 2.10) in the answer sheet.

2.1 A Metropolitan Area Network (MAN) is a network that covers multiple cities and connects different local area networks.
2.2 A WAN is a network that covers multiple cities and connects different local area networks.
2.3 An example of a LAN is where computers in a college classroom are connected to a file server, sharing the same printer.
2.4 Network architecture refers to how computers are arranged in the classroom.
2.5 The Internet is an example of a WAN.
2.6 The network architectures of Client-Server and Peer-to-Peer (P2P) networks are identical.
2.7 To become a part of a Peer-to-Peer network, a computer user must initially join the network.
2.8 e-Government attempt to simplify government procedures, improve access to information by citizens, improve service delivery, and strengthen accountability and transparency.
2.9 A Client-Server network is more reliable than a Peer-to-Peer network.
2.10 FTP is exactly the same as F2P or FtP.

[10]

Question 3
Do the following question on the computer.

Create screen prints of the instructions done and paste them into the **N5 Answer Sheet** file under Question 3 as indicated. Save regularly.

3.1   Open the folder, *GRAIN*, in the *N5 Exam* folder.
3.2   Create subfolders, *Barley* and *Maize* in the *GRAIN* folder.
3.3   Rename the file *Soybean* to *Soya bean* in the *GRAIN* folder.
3.4   Create Excel files, *Cereals.xlsx* and *Cornflakes.xlsx* in the *GRAIN* folder.
3.5   Delete the .docx file, *Cornflakes*, from the *GRAIN* folder.
      ➢ Display the content of the *GRAIN* folder and make a screen print.
3.6   Move the *Cornflakes.xlsx* file to the *Maize* subfolder.
3.7   Create an Excel file *Maize flour.xlsx* in the *Maize* subfolder.
      ➢ Display the content of the *Maize* subfolder and make a screen print.
3.8   Rename the file *Barley flower.docx* to *Barley flour.docx* in the *GRAIN* folder.
      ➢ Display the content of the *GRAIN* folder and make a screen print.
3.9   Move the file *Barley flour.docx* to the *Barley* subfolder.
3.10   Create a .xlsx file *Cereals* in the *Barley* subfolder.
      ➢ Display the content of the *Barley* subfolder and make a screen print.
3.11   Create a pptx file *Biscuits* in the *Wheat* subfolder.
3.12   Create .docx files *Bread flour* and *Pastries* in the *Wheat* subfolder.
3.13   Create .xlsx file *Pasta* in the *Wheat* subfolder.
3.14   Sort the *Wheat* subfolder according to the file name in descending order.
      ➢ Display the content of the *Wheat* subfolder and make a screen print.

[16]

Question 4
Answer the following questions by using full sentences as indicated to "explain", "define" and "discuss". Single-word answers will not be accepted. Type the answer next to the question number (4.1 – 4.4) in the **N5 Answer Sheet** file.

4.1   Discuss how PCs or mobile computers and applications can be used as part of the farming industry.
4.2   Define electronic mail.
4.3   Explain how a farmer can use a mobile office.
4.4   Discuss the difference between Wi-Fi, Bluetooth and NFC connections in terms of their communication range/distance.
4.5   Save and print the **N5 Answer Sheet** file and place the printout in your examination folder.

[4]
TOTAL: [40]

SECTION B: WORD PROCESSING

Question 5

1. Open the word processing program and retrieve the file **SA Grain** from the *N5 Exam* folder.
2. Edit the document as indicated in the text and according to the instructions below.
3. Insert your name and surname (left) and the question number (right) as header.
4. Change the font of the whole document to Calibri 12 pt. (including the headers and footers).
5. Change the main heading to 20 pt., bold, underline and centre.
6. Change the alignment of the rest of the text to *Justify* (distribute the text evenly between the margins).
7. Insert the page breaks as indicated.
8. Change the left and right margins of page 2 only to 3.5 cm each.
9. Insert page numbers at the bottom centred. Start at 20 and use the form of Page 20, Page 21, etc.
10. Use the Multilevel numbering function to apply numbers and bullets as indicated. Customise the first option on the list as follows:

Level 1	1.	aligned at 0 cm	indent at 1 cm
Level 2	1.a.	aligned at 0 cm	indent at 1.25 cm
Level 3	1.a.i.	aligned at 0 cm	indent at 1.75 cm
Bullets		aligned at 1.25 cm	indent at 2 cm

    Hint:
    Indent the text correctly and use the Format painter to brush over all paragraphs with the same format.
11. Find and replace the acronym SA with **South Africa** (in bold) in the first two paragraphs only.
12. Insert the picture **Grain.jpg** on the bottom right of the last page. Change the picture layout to *Square* and the size to 3 cm x 4 cm.
13. Save the file as **SA Grain Done** in the N5 Exam folder and print. Place the printout in your examination folder. Only ONE document may be handed in for this question.

[30]

Question 5 *(continued)*

Font: Calibri

SA Grain

Centre, bold, underline, 20 pt.

South Africa is one of the major exporters of maize/corn in Africa of which barley, sorghum, and rice are the main grains. White and yellow corn are the country's two most widely grown corn varieties. According to the International Trade Centre Statistics of 2020, the total exports of maize from **South Africa** were 2.5 million metric tons, compared to 2.2 million metric tons in 2018.

South Africa depends on Poland, Russian Federation, Lithuania, and Germany for its Wheat imports. The open free trade agreements made by the **South Africa** government with other African countries are promoting the growth of grains in the region. The government is also making agreements, such as The Economic Partnership Agreement (EPA) with the European countries, to expand its presence across other regions.

Just: Full

The following grains are produced in SA:
1. Maize
2. Barley
3. Sorghum
4. Wheat
5. Soybeans

Apply numbers

1. **Maize**

Level 1, bold, 14 pt.

Maize is the most important field crop produced in SA under diverse environments.

1.a. **Climate requirements**

Level 2, bold

Level 3

1.a.i.   Temperature

Maize is a warm-weather crop not grown in areas where the mean daily temperature is less than 19 ºC or the mean of the summer months is less than 23 ºC.

1.a.ii.   Water

Approximately 10 to 16 kg of grain is produced for every millimetre of water used. At maturity, each plant will have used 250 l of water in the absence of moisture stress.

1.b. **Uses of maize**

Level 2, bold

Food products made from maize include:
- corn starch,
- corn syrup,
- high-fructose corn syrup,
- dextrose,
- corn oil,
- maize flour,
- maize meal,
- maize grits, and
- corn flakes.

Apply bullets

Insert page break here

Question 5 *(continued)*

Margins: 3.5 cm

2.   Barley ← Level 1, bold, 14 pt.

Malting barley is a particular type of barley used in the making of beer, flavourings, and extracts. Only a portion of the malting barley planted each year has the specific qualities required for malt selection. To produce malt the barley kernels are soaked, germinated and dried. Although the kernels have the same appearance on the outside, this process causes chemical changes on the inside. After this process, the malted barley is used to make malt extract, beer and flour.

2.a.   Climate requirements ← Level 2, bold

Level 3

2.a.i.   Temperature

Barley requires a mild winter climate and grows better in dry, cool climates than in hot, moist areas. Barley requires a shorter growing period and needs an average temperature of *15 °C to 17 °C during flowering*.

2.a.ii.   Water

Barley is a drought-resistant crop and requires 390 to 430 mm of rainfall for optimum yield.

2.b.   Uses of barley ← Level 2, bold

Barley grain may be milled to produce:

- barley flour,
- flakes, and   Apply bullets
- bran.

3.   Sorghum ← Level 1, bold, 14 pt.

Sorghum is a gluten-free grain and is the fifth most commonly grown grain crop in the world after wheat, rice, corn, and barley. It is a tall growing grassy plant with flat maize-like leaves, producing grains in grass-like plumes.

3.a.   Climate requirements ← Level 2, bold

Level 3

3.a.i.   Temperature

A temperature of 27 °C to 30 °C is required for optimum growth and temperatures lower than freezing will harm the plant.

3.a.ii.   Water

Sorghum grows in both high and low-rainfall areas. Sorghum does not require irrigation but should be planted when the soil is moist.

3.b.   Uses Sorghum ← Level 2, bold

Sorghum is used for human consumption and for animal feeding and products include:

- Maltabella,
- flour,   Apply bullets
- beer, and
- hay.   ← - - - - - - - - Insert page break here

Question 5 *(continued)*

4. Wheat *Level 1, bold, 14 pt.*

The Free State was known as the bread basket of South Africa but lately produces hardly any wheat as farmers opt for crops that are more economically viable with lower production risks.

4.a. Climate requirements *Level 2, bold*

4.a.i. Temperature

Warm temperatures are suitable for summer wheat (22 °C to 34 °C) and cool temperatures are suitable for winter wheat (5 °C to 25 °C).

4.a.ii. Water

Lately, about 75% of our wheat is produced in dryland conditions and 25% under irrigation. The water requirement for wheat is about 350 – 600 mm per annum. In many areas, the winter rainfall covers these needs.

Level 3

4.b. Uses of Wheat *Level 2, bold*

Wheat is used for the production of:

- bread flour,
- cake flour, and   *Apply bullets*
- pasta.

5. Soybeans *Level 1, bold, 14 pt.*

The soybean is one of the richest and cheapest sources of protein and is a staple in the diets of people and animals in numerous parts of the world. The seed contains 17% oil and 63% meal, 50% of which is protein. Because soybeans contain no starch, they are a good source of protein for diabetics.

5.a. Climate requirements *Level 2, bold*

5.a.i. Temperature

Soybean crops require warm weather and sunlight and grow at their best at daytime temperatures averaging 21 °C.

5.a.ii. Water

Rainfall of 500 to 900 mm per year is required for better yields and seed quality, depending on growth conditions. Soybeans have a deep root system and can tolerate dry conditions prior to flowering but adequate moisture becomes essential once the buds are formed and the pods have filled.

Level 3

5.b. Uses Soybeans *Level 2, bold*

Soy foods include:

- soy milk,
- soy sauce,   *Apply bullets*
- tofu,
- tempeh,
- miso, and
- fermented bean paste.

Insert the picture

Question 6

You are the admin clerk at SA Grain. Send the invitation for various workshops to possible delegates on the data list.

Question 6A

1. Use the mail merge function to create a data file using the information in the table below:

NAME	John	Thabo	Cyril	Ann
SURNAME	Smit	Makheba	Mbeki	Bosch
ADDRESS	Johnnies Farm	Chalala Ranch	CM Farmstead	Saamstaan Plaas
TOWN	Malmesbury	Malmesbury	Paarl	Paarl
CODE	7299	7299	7646	7646
WORKSHOP	Weed control	Pest control	Irrigation of maize	Calibration of planters
VENUE	Sasko Mills, Malmesbury	Sasko Mills, Malmesbury	Sasko Grain, Paarl	Sasko Grain, Paarl
DATE	15 April 20??	16 April 20??	17 May 20??	18 May 20??

2. Adjust the column widths as required and change the orientation to landscape.
3. Insert your name and surname (left) and the question number (right) as the footer.
4. Save the document as *Grain Data* in the N5 Exam folder and print.
5. Place the printout in your examination folder. Only ONE document may be handed in for this question.

[8]

Question 6B

1. Use the mail merge function to prepare the letters. Font: Arial 12 pt.
2. Insert your name and surname (left) and the question number (right) as the footer.
3. Insert fields as indicated in brackets, e.g. [NAME].
4. Insert a tab stop at 10.16 cm/4".
5. Set left- and right-hand margins of 2.54 cm/1"/Normal for this document.
6. Save the document as *Grain Letter* in the N5 Exam folder and print on one A4 portrait paper.
7. Place the printout in your examination folder. Only ONE document may be handed in for this question.

Question 6B *(continued)*

Tab stop: 10.16 cm

SA GRAIN
262 Main Road
PAARL
7646

Insert today's date

[ADDRESS]
[TOWN]
[CODE]

Workshop Invitation ◄─── *Uppercase, bold*

Dear [NAME] [SURNAME]

You are cordially invited to the [WORKSHOP] workshop at [VENUE] on [DATE].

The cost of the workshop is R500 per person. For groups of 15 persons or more a discount of 12% will apply. Breakfast and/or lunch will be served at an additional cost of R50 per meal.

Should you wish to attend, please reply by email with full contact details (name, surname, phone number).

Regards

3 open lines

Sheldon Williams
Marketing Manager   *uppercase*

[12]

Question 6C
1. Merge the documents **Grain Data** and **Grain Letter** into a new document.
2. Change the header to include the new question number on all pages.
3. Save the merged invitations as **Grain Merge Letters** in the N5 Exam folder and print the letters for Cyril Mbeki and Ann Bosch.
4. Place the printouts in your examination folder. Only the TWO printouts may be handed in for this question.

[6]

Question 6D

1. You are requested to create mailing labels for the possible delegates on the data list. Use the appropriate function of the word processing program to create 21 labels (3 columns × 7 rows –AONE 28315).

2. Display the borders of all the labels.

3. Insert the following field names (from *Grain Data*, left aligned) on the labels:

```
[NAME] [SURNAME]
[ADDRESS]
[TOWN]
[CODE]
```

4. Use the fifth label for your name and surname. Complete the merge process.
5. Save the labels as *Grain Labels* in the N5 Exam folder and print.
6. Place the printout in your examination folder. Only ONE document may be handed in for this question.
7. Close all open files and exit the program.

[4]

TOTAL: [60]

SECTION C: SPREADSHEET

Question 7A

1. Retrieve the spreadsheet file **Workshops1.xlsx** from the N5 exam folder. A copy of the file appears below:

	A	B	C	D	E
1	Grain SA workshops				
2					
3	Western Cape region				
4					
5	Workshops	Venue	Duration	Breakfast/	Group size
6			(Days)	Lunch	
7					
8	Weed control	Sasko Mills, Malmesbury	0.5	R 50.00	15
9	Pest control	Sasko Mills, Malmesbury	0.5	R 50.00	18
10	Irrigation of maize	Sasko Grain, Paarl	0.5	R 50.00	9
11	Calibration of planters	Sasko Grain, Paarl	1	R 100.00	8
12	Calibration of sprayers	Sasko Grain, Paarl	1	R 100.00	5
13	Soil moisture conservation	Sasko Grain, Paarl	0.5	R 50.00	20

2. Insert your name and surname (left) and question number (right) as a footer.
3. Make all the changes as indicated in the spreadsheet on the following page.
4. Insert formulas where the alphabet letters appear to do the following calculations:
   - A   Cost per person = Price per day multiplied by the Duration plus the cost of Breakfast/Lunch. Use an absolute cell reference as required.
   - B   Workshop fees = Cost per person multiplied by the Group size.
   - C   Discount = 12% of Workshop fees only if the Group size is 15 people or more. Use an absolute cell reference as required.
   - D   Total fees = Workshop fees minus Discount.
   - E   Count the number of workshops.
   - F   Calculate the total number of participants.
   - G   Calculate the total fees for all the workshops.
   - H   Calculate the average cost per person.
   - I   Calculate the minimum total fees.
   - J   Calculate the maximum total fees.
5. Display all the monetary values in currency with two decimal numbers.
6. Sort the records in alphabetical order according to the names of the workshops.
7. Adjust the column widths to fit the spreadsheet on ONE A4 landscape page.
8. Save the spreadsheet as **Workshops2** in the N5 Exam folder and print. Place the printout in your examination folder.

Question 7A *(continued)*

u/c, bold, 14 pt, merge & center

	A	B	C	D	E	F	G	H	I
1	**GRAIN SA WORKSHOPS**								
2									
3	**Western Cape region** *(bold, und)*								
4									
5	Price per day:	R 500.00							
6									
7	**Workshops**	**Venue**	**Duration (Days)**	**Breakfast/ Lunch**	**Cost per person**	**Group size**	**Workshop fees**	**Discount 12%**	**Total fees**
8									
9	Weed control	Sasko Mills, Malmesbury	0.5	R 50.00	A	15	B	C	D
10	Pest control	Sasko Mills, Malmesbury	0.5	R 50.00		18			
11	Irrigation of maize	Sasko Grain, Paarl	0.5	R 50.00		9			
12	Calibration of planters	Sasko Grain, Paarl	1	R 100.00		8			
13	Calibration of sprayers	Sasko Grain, Paarl	1	R 100.00		5			
14	Soil moisture conservation	Sasko Grain, Paarl	0.5	R 50.00		20			
15	Number of workshops	E							
16	Number of participants	F							
17	Total fees for all workshops								
18	Average cost per person	H					G		
19	Minimum total fees	I							
20	Maximum total fees	J							

Callouts: *insert text*, *insert 2 rows and data*, *insert columns*, *delete row*, *draw borders/lines*, *bold*

[40]

Question 7B

1. Retrieve the spreadsheet saved as ***Workshops2*** from the N5 exam folder and change the footer to Question 7B.
2. Display the formulas.
3. Adjust the column widths so that all the formulas are legible.
4. Hide columns C and D.
5. Switch on the row and column headings.
6. Save the spreadsheet as ***Workshops Form*** in the N5 exam folder and print on ONE A4 landscape page.
7. Place the printout in your examination folder.

[14]

Question 7C

1. Retrieve the spreadsheet saved as ***Workshops2*** from the N5 exam folder.
2. Create a column chart on a separate sheet to compare the *Workshop fees* with the *Total fees* for all the workshops.
3. Insert the following chart title:
    COMPARISON BETWEEN
    WORKSHOP and TOTAL FEES
    Type your name and surname here.
4. Insert the following axis titles:
    WORKSHOPS (X-axis)
    AMOUNTS (Y-axis).
6. Display the Data Labels (outside end).
7. Display the Legend at the bottom of the chart.
8. Save the chart as ***Workshops Chart*** in the N5 exam folder.
9. Print the chart on ONE A4 landscape page.
10. Place the printout in your examination folder.
11. Close all open files and exit the program.

[6]
TOTAL: [60]

SECTION D: PRESENTATIONS

Question 8

You are an employee of SA Grain. Prepare a presentation for a group of local upcoming farmers providing them with information on maize.

1. Create the following presentation to inform the audience about maize.
2. Apply any theme of your own choice to make it more presentable.
3. Apply any animation of your own choice. *(optional)*
4. Apply any transition of your own choice. *(optional)*
5. Save the presentation as *Maize Info* in your *N5 Exam folder* and close the presentation and exit the program.

SLIDE 1: Title slide. Insert picture *Maize 1.jpg* and resize as required.

Question 8 *(Continued)*

SLIDE 2: Title and Content. Insert picture *Maize 2.jpg* and resize as required.

SLIDE 3: Title and Content. Insert a column chart by using the following information:

Chart title: Exports. Resize and move the chart as required.

Question 8 *(Continued)*

SLIDE 4:   Title and Content. Insert picture *Maize 3.jpg* and resize as required.

Question 8 *(Continued)*

SLIDE 5:   Two Content. Centre the title text. Underline the sub-headings as indicated. Use arrow bullets.

SLIDE 6:   Title and Content. Insert a table ⊞. Insert pictures *Maize 4.jpg*, *Maize 5.jpg*, and *Maize 6.jpg* and resize as required.

Question 8 *(Continued)*

SLIDE 7: Title and Content. Insert the picture *Maize 7.jpg* and resize as required.

SLIDE 8: Title and Content. Insert the picture *Maize 8.jpg* and resize as required.

Question 8 *(Continued)*

SLIDE 9: Title and Content. Insert the picture *Maize 9.jpg* or any Online Picture and resize as required.

TOTAL: [40]

GRAND TOTAL: 200

COMPUTER PRACTICE FARMING

N5

Internal Exam Memorandum

SECTION A: ANSWER SHEET

Question 1
1.1   E ✔
1.2   I ✔
1.3   A ✔
1.4   J ✔
1.5   B ✔
1.6   F ✔
1.7   C ✔
1.8   H ✔
1.9   G ✔
1.10 D ✔

_____/10

Question 2
2.1   FALSE ✔ MAN is networking between banks or between college campuses in a city. ✔
2.2   TRUE ✔
2.3   TRUE ✔
2.4   FALSE ✔ Network architecture refers to the organisation of computers in a system and how tasks are allocated amongst these computers.
2.5   TRUE ✔
2.6   FALSE ✔ The Peer-to-Peer (P2P) networking model does not distinguish between client and server.
2.7   TRUE ✔
2.8   TRUE ✔
2.9   FALSE ✔ If the dedicated server in a Client-Server network is not working, the whole network collapses. In a Peer-to-peer network services are provided by several nodes, therefore the network as such is not influenced when one node does not work.
      OR
      While a Client-Server network performs less effectively when more clients join the network, a P2P network can improve its performance when more clients join.
2.10 FALSE ✔ FTP = File Transfer protocol, F2P = Free to play and FtP = online games.

_____/10

Question 3
Create sub-folders *Barley* and *Maize* in the *GRAIN* folder. ✔✔
Rename the file *Soybean* to *Soya bean.* ✔
Create Excel files, *Cereals* and *Cornflakes.* ✔✔
Delete the .docx file, *Cornflakes.* ✔
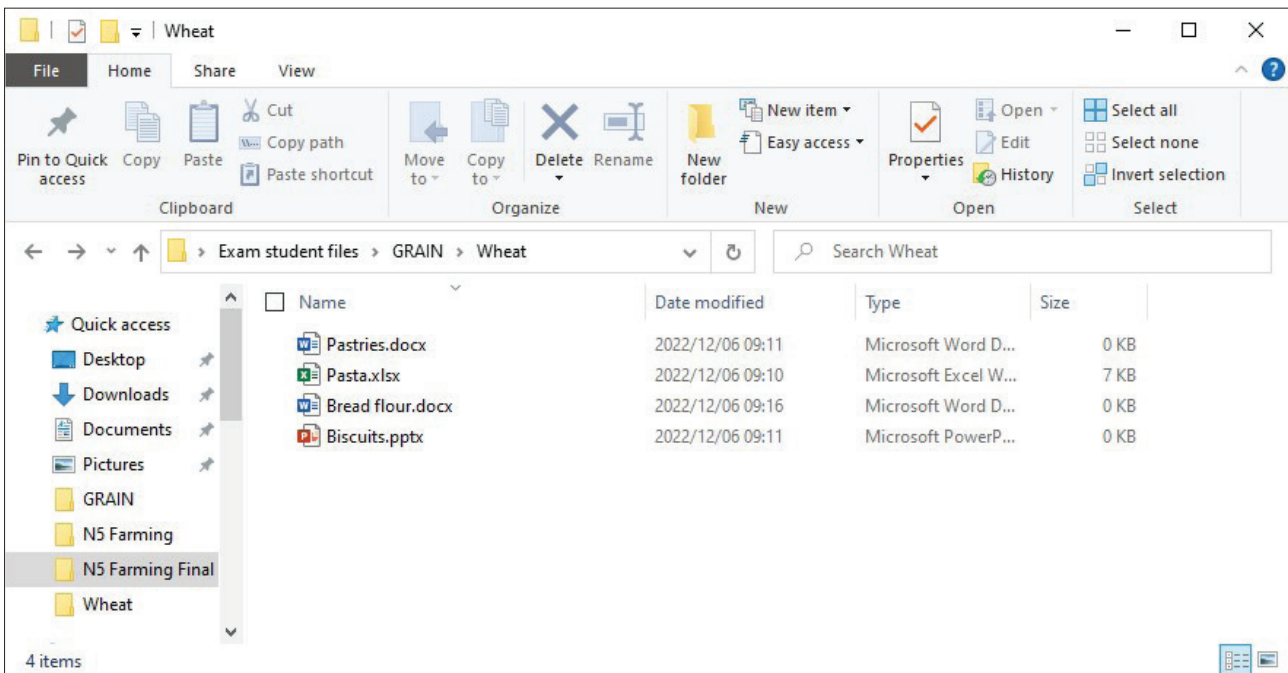Display the content of the *GRAIN* folder.
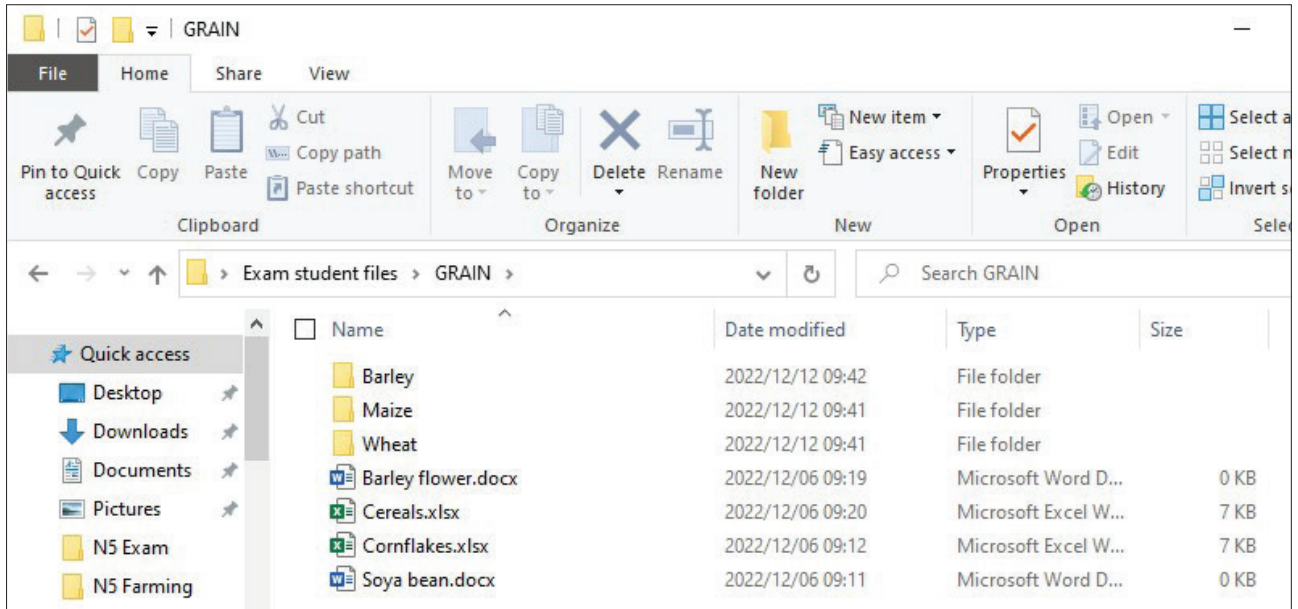
Move the *Cornflakes.xlsx* file to the *Maize* subfolder. ✔
Create an Excel file *Maize flour.xlsx* in the *Maize* subfolder. ✔
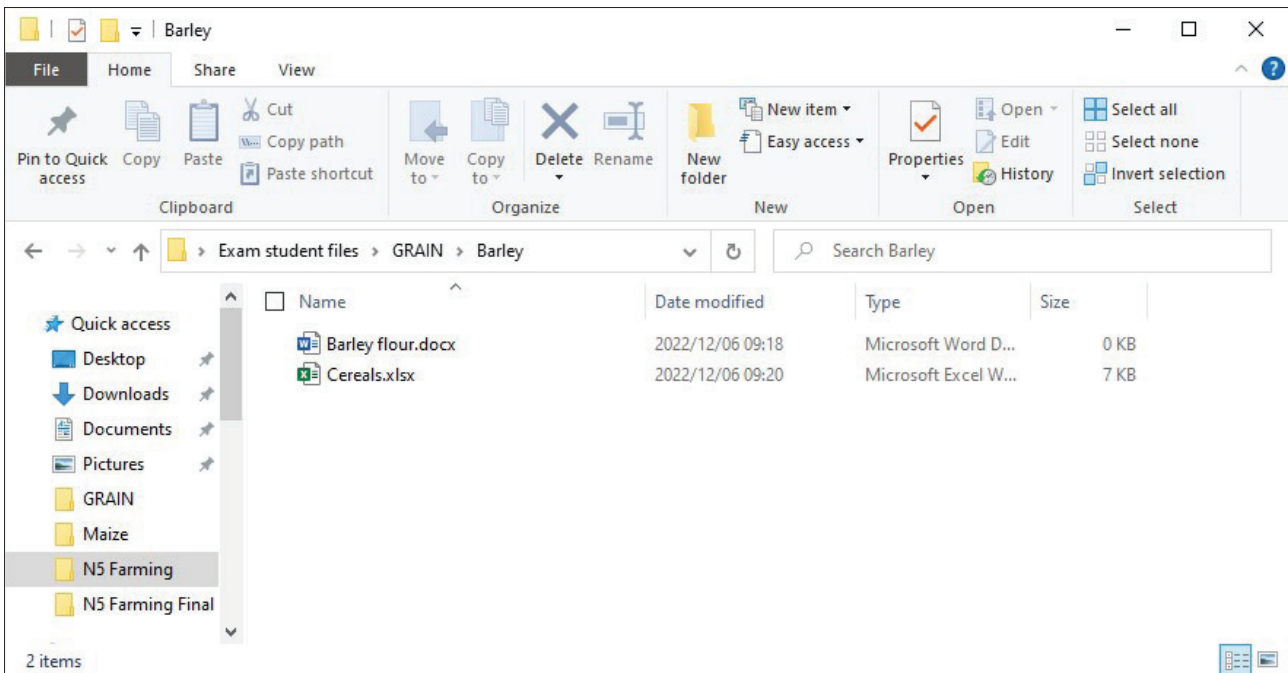Display the content of the *Maize* subfolder.
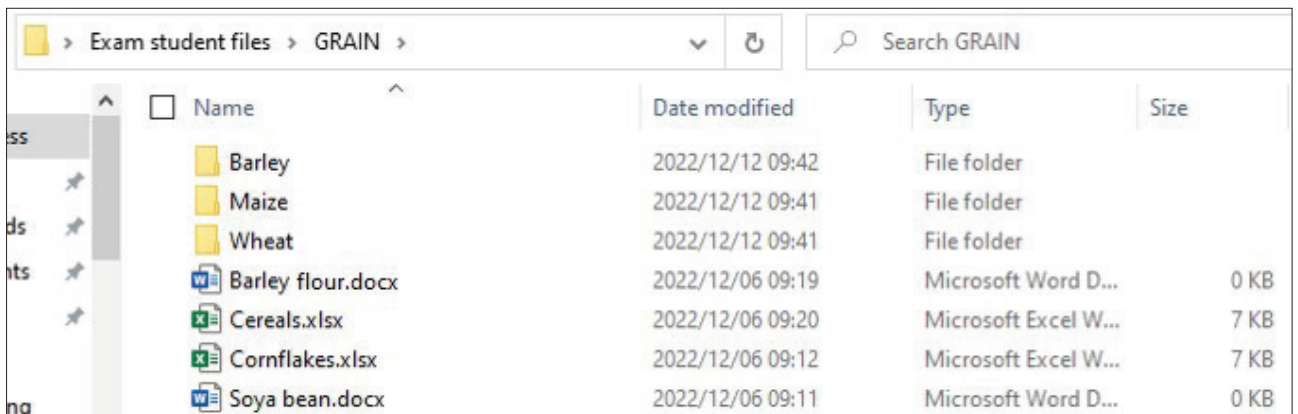
Question 3 *(continued)*
Rename the file *Barley flower.docx* to *Barley flour.docx* in the *GRAIN* folder. ✔
Display the content of the *GRAIN* folder.

Move the file *Barley flour.docx* to the *Barley* subfolder. ✔
Create a .xlsx file *Cereals* in the *Barley* subfolder. ✔
Display the content of the *Barley* subfolder.

Question 3 *(continued)*
Create a .pptx file *Biscuits* in the *Wheat* subfolder. ✔
Create .docx files *Bread flour* and *Pastries* in the *Wheat* subfolder. ✔✔
Create .xlsx file *Pasta* in the *Wheat* subfolder. ✔
Sort the *Wheat* subfolder according to the file name in descending order. ✔
Display the content of the *Wheat* subfolder.
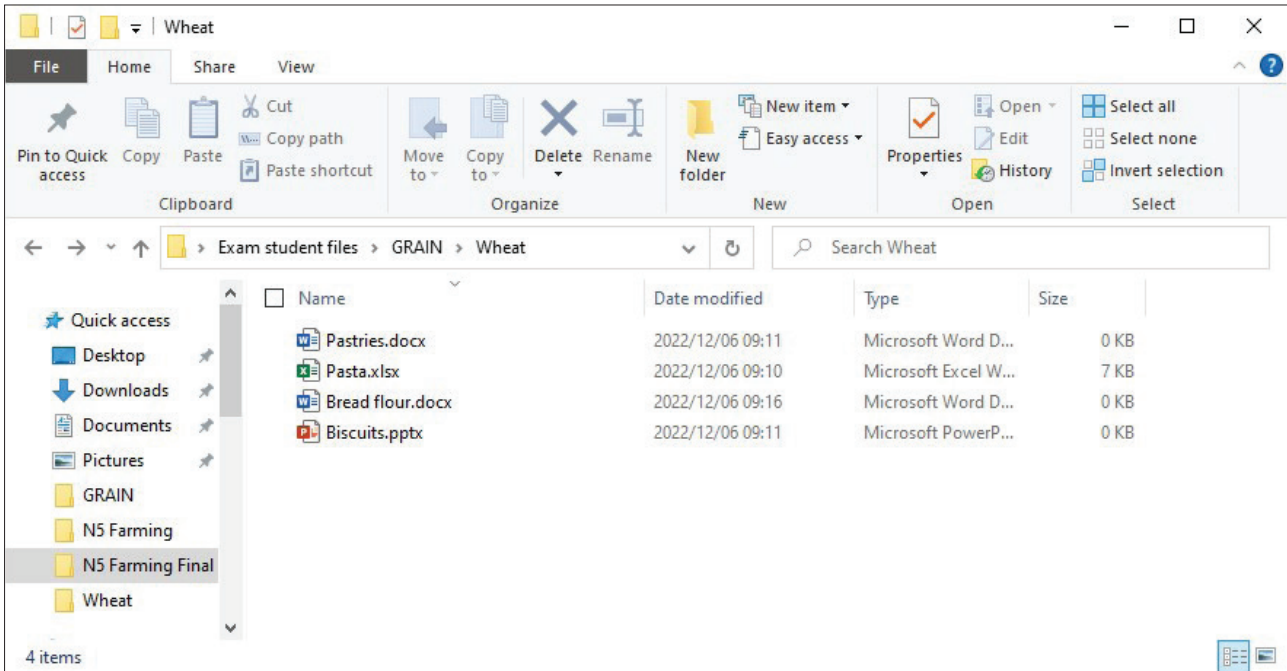
_____/16

Question 4
4.1   Discuss how PCs or mobile computers and applications can be used as part of the farming industry.
PCs or mobile computers with MS Office application programs (e.g. Word, Excel, PowerPoint) as well as access to the Internet and a web browser program (e.g. Microsoft Edge or Google Chrome) can be used to do general admin jobs, e.g. wage sheets, budgets, research on the Internet, electronic mailing, online banking, etc. ✔
4.2   Define electronic mail.
Electronic mail (email) is a computer-based application for the exchange of messages through the Internet. It enables users to easily send and receive documents, images, links, and other files instantly. ✔

Question 4 *(continued)*

4.3 Explain how a farmer can use a mobile office.
A farmer's bakkie and cellular phone can be considered as a *mobile office*. By using apps on their phone, a farmer will be able to:
- communicate with suppliers and employees via telephoning, voice message, WhatsApp and email,
- look at the weather forecast to determine if operations such as pest control, fertilisation, harvesting or irrigation should be done, and
- obtain information from the Internet on various topics. ✔

4.4 Discuss the difference between Wi-Fi, Bluetooth and NFC connections in terms of their communication range/distance.

The communication distance of Wi-Fi is 32 metres indoors and 95 metres outdoors. The range of Bluetooth is shorter at approximately 5 to 30 metres while the range of NFC can only connect at only 20 cm. ✔

_____/4

TOTAL: _____/40

Question 5 (File name: SA Grain Done)

SA Grain

South Africa is one of the major exporters of maize/corn in Africa. Barley, sorghum, and rice are some of the other major grain crops grown in the country. White and yellow corn are the country's two widely grown corn varieties. According to the International Trade Centre Statistics, in 2020, the total exports of maize from the country were 2.5 million metric tons, compared to 2.2 million metric tons in 2018.

South Africa depends on Poland, Russian Federation, Lithuania, and Germany for its Wheat imports. The open free trade agreements made by the **South Africa** government with other African countries are promoting the growth of grains in the region. The government is also making agreements, such as The Economic Partnership Agreement (EPA) with the European countries, to expand its presence across other regions.

The following grains are produced in SA:
1. Maize
2. Barley
3. Sorghum
4. Wheat
5. Soybeans

1.   Maize
Maize is the most important field crop produced in SA under diverse environments.

1.a.   Climate requirements

1.a.i.   Temperature
Maize is a warm-weather crop not grown in areas where the mean daily temperature is less than 19 ºC or the mean of the summer months is less than 23 ºC.

1.a.ii.   Water
Approximately 10 to 16 kg of grain is produced for every millimetre of water used. At maturity, each plant will have used 250 l of water in the absence of moisture stress.

1.b.   Uses of maize
Food products made from maize include:
*   corn starch,
*   corn syrup,
*   high-fructose corn syrup,
*   dextrose,
*   corn oil,
*   maize flour,
*   maize meal,
*   maize grits, and
*   corn flakes.

Page 20

Question 5 (File name: SA Grain Done)

Memorandum   Question 5

2.   Barley

Malting barley is a particular type of barley used in making beer, flavourings, and extracts. Only a portion of the malting barley planted each year has the specific qualities needed to be selected for malt. To produce malt, barley kernels are soaked, germinated, and dried. Although the kernels look the same on the outside, this process causes chemical changes inside. The malted barley can now be used to make malt extract, beer and flour.

2.a.   Climate requirements

2.a.i.   Temperature
Barley requires a mild winter climate and grows better in dry, cool climates than in hot, moist areas. Barley requires a shorter growing period and needs an average temperature of 15 °C to 17 °C during flowering.

2.a.ii.   Water
Barley is a drought-resistant crop and requires 390 to 430 mm of rainfall for optimum yield.

2.b.   Uses of barley

Barley grain may be milled to produce:
* barley flour,
* flakes, and
* bran.

3.   Sorghum

Sorghum is a gluten-free grain and is the fifth most commonly grown grain crop in the world behind wheat, rice, corn, and barley. It is a tall growing grassy plant with flat leaves (like maize) and produces grains in a grass-like plume.

3.a.   Climate requirements

3.a.i.   Temperature
A temperature of 27 °C to 30 °C is required for optimum growth and temperatures lower than freezing will harm the plant.

3.a.ii.   Water
Sorghum grows in both high and low-rainfall areas. Sorghum does not require irrigation but should be planted when the soil is moist.

3.b.   Uses of Sorghum

Sorghum is used for human consumption and for animal feeding and products include:
* Maltabella,
* flour,
* beer, and
* hay.

Question 5 (File name: SA Grain Done)

Memorandum   Question 5

4. Wheat

The Free State used to be seen as the breadbasket of South Africa, but now hardly produces any wheat because farmers opt for crops that are more economically viable and have lower associated production risks.

4.a. Climate requirements
4.a.i.   Temperature

Warm temperatures are suitable for summer wheat (22 °C to 34 °C) and cool temperatures are suitable for winter wheat (5 °C to 25 °C).

4.a.ii.   Water

Today about 75% of our wheat is produced under dryland conditions and 25% under irrigation. The water requirement for wheat is about 350 – 600 mm per annum. In many areas, the rainfalls during the winter season cover those needs.

4.b. Uses of Wheat

Wheat is used for the production of:
- flour for bread,
- flour for cakes, and
- pasta.

5. Soybeans

The soybean is one of the richest and cheapest sources of protein and is a staple in the diets of people and animals in numerous parts of the world. The seed contains 17% oil and 63% meal, 50% of which is protein. Because soybeans contain no starch, they are a good source of protein for diabetics.

5.a. Climate requirements
5.a.i.   Temperature

Soya beans are warm-weather plants and need sunlight too. Soya beans grow best where the daytime temperature averages 21 °C.

5.a.ii.   Water

Rainfall of 500 to 900 mm per year is required for better yields and better seed quality, depending on growth conditions. Because of its long root system, the soybean can tolerate dry conditions prior to flowering but adequate moisture becomes essential once the buds are formed and until the pods have filled.

5.b. Uses of Soybeans

Soy foods include:
- soy milk,
- soy sauce,
- tofu,
- tempeh,
- miso, and
- fermented bean paste.

Page 22

Question 6 (File names: Grain Data, Grain Letter, Grain Merge Letters, Grain Labels)

NAME	SURNAME	ADDRESS	TOWN	CODE	WORKSHOP	VENUE	DATE
John	Smit	Johnnies Farm	Malmesbury	7299	Weed control	Sasko Mills, Malmesbury	15 April 20??
Thabo	Makheba	Chalala Ranch	Malmesbury	7299	Pest control	Sasko Mills, Malmesbury	16 April 20??
Cyril	Mbeki	CM Farmstead	Paarl	7646	Irrigation of maize	Sasko Grain, Paarl	17 May 20??
Ann	Bosch	Saamstaan Plaas	Paarl	7646	Calibration of planters	Sasko Grain, Paarl	18 May 20??

SA GRAIN
262 Main Road
PAARL
7646

13 February 2023

«ADDRESS»
«TOWN»
«CODE»

WORKSHOP INVITATION

Dear «NAME» «SURNAME»

You are cordially invited to the «WORKSHOP» workshop at «VENUE» on «DATE».

The cost of the workshop is R500 per person. For groups of 15 persons or more a discount of 12% will apply. Breakfast and/or lunch will be served at an additional cost of R50 per meal.

Should you wish to attend, please reply by email with full contact details (name, surname, phone number).

Regards

SHELDON WILLIAMS
MARKETING MANAGER

Question 6 (File names: Grain Data, Grain Letter, Grain Merge Letters, Grain Labels)

SA GRAIN
262 Main Road
PAARL
7646

13 February 2023

Johnnies Farm
Malmesbury
7299

WORKSHOP INVITATION

Dear John Smit

You are cordially invited to the Weed control workshop at Sasko Mills, Malmesbury on 15 April 2023.

The cost of the workshop is R500 per person. For groups of 15 persons or more a discount of 12% will apply. Breakfast and/or lunch will be served at an additional cost of R50 per meal.

Should you wish to attend, please reply by email with full contact details (name, surname, phone number).

Regards

SHELDON WILLIAMS
MARKETING MANAGER

Question 6 (File names: Grain Data, Grain Letter, Grain Merge Letters, Grain Labels)

SA GRAIN
262 Main Road
PAARL
7646

13 February 2023

Chalala Ranch
Malmesbury
7299

WORKSHOP INVITATION

Dear Thabo Makheba

You are cordially invited to the Pest control workshop at Sasko Mills, Malmesbury on 16 April 2023.

The cost of the workshop is R500 per person. For groups of 15 persons or more a discount of 12% will apply. Breakfast and/or lunch will be served at an additional cost of R50 per meal.

Should you wish to attend, please reply by email with full contact details (name, surname, phone number).

Regards

SHELDON WILLIAMS
MARKETING MANAGER

Question 6 (File names: Grain Data, Grain Letter, Grain Merge Letters, Grain Labels)

SA GRAIN
262 Main Road
PAARL
7646

13 February 2023

CM Farmstead
Paarl
7646

WORKSHOP INVITATION

Dear Cyril Mbeki

You are cordially invited to the Irrigation of maize workshop at Sasko Grain, Paarl on 17 May 2023.

The cost of the workshop is R500 per person. For groups of 15 persons or more a discount of 12% will apply. Breakfast and/or lunch will be served at an additional cost of R50 per meal.

Should you wish to attend, please reply by email with full contact details (name, surname, phone number).

Regards

SHELDON WILLIAMS
MARKETING MANAGER

Question 6 (File names: Grain Data, Grain Letter, Grain Merge Letters, Grain Labels)

SA GRAIN
262 Main Road
PAARL
7646

13 February 2023

Saamstaan Plaas
Paarl
7646

WORKSHOP INVITATION

Dear Ann Bosch

You are cordially invited to the Calibration of planters workshop at Sasko Grain, Paarl on 18 May 2023.

The cost of the workshop is R500 per person. For groups of 15 persons or more a discount of 12% will apply. Breakfast and/or lunch will be served at an additional cost of R50 per meal.

Should you wish to attend, please reply by email with full contact details (name, surname, phone number).

Regards

SHELDON WILLIAMS
MARKETING MANAGER

Question 6 (File names: Grain Data, Grain Letter, Grain Merge Letters, Grain Labels)

John Smit Johnnies Farm Malmesbury 7299	Thabo Makheba Chalala Ranch Malmesbury 7299	Cyril Mbeki CM Farmstead Paarl 7646
Ann Bosch Saamstaan Plaas Paarl 7646	*Student Name and Surname*	

Question 7 (File names: Workshops2, Workshops Form, Workshops Chart)

GRAIN SA WORKSHOPS

Western Cape region

Price per day: R 500.00

Workshops	Venue	Duration (Days)	Breakfast/ Lunch	Cost per person	Group size	Workshop fees	Discount 12%	Total fees
Calibration of planters	Sasko Grain, Paarl	1	R 100.00	R600.00	8	R4 800.00	R0.00	R4 800.00
Calibration of sprayers	Sasko Grain, Paarl	1	R 100.00	R600.00	5	R3 000.00	R0.00	R3 000.00
Irrigation of maize	Sasko Grain, Paarl	0.5	R 50.00	R300.00	9	R2 700.00	R0.00	R2 700.00
Pest control	Sasko Mills, Malmesbury	0.5	R 50.00	R300.00	18	R5 400.00	R648.00	R4 752.00
Soil moisture conservation	Sasko Grain, Paarl	0.5	R 50.00	R300.00	20	R6 000.00	R720.00	R5 280.00
Weed control	Sasko Mills, Malmesbury	0.5	R 50.00	R300.00	15	R4 500.00	R540.00	R3 960.00
Number of workshops	6							
Number of participants					75			
Total fees for all workshops								R24 492.00
Average cost per person				R400.00				
Minimum total fees								R2 700.00
Maximum total fees								R5 280.00

Student Name and Surname

Question 7A

Question 7 (File names: Workshops2, Workshops Form, Workshops Chart)

	A	B	E	F	G	H	I
1	=UPPER("Grain SA workshops")						
2							
3	Western Cape region						
4							
5	Price per day:	500					
6							
7	Workshops	Venue	Cost per	Group size	Workshop	Discount	Total
8			person		fees	0.12	fees
9	Calibration of planters	Sasko Grain, Paarl	=$B$5*C9+D9	8	=E9*F9	=IF(F9>=15,G9*$H$8,0)	=G9-H9
10	Calibration of sprayers	Sasko Grain, Paarl	=$B$5*C10+D10	5	=E10*F10	=IF(F10>=15,G10*$H$8,0)	=G10-H10
11	Irrigation of maize	Sasko Grain, Paarl	=$B$5*C11+D11	9	=E11*F11	=IF(F11>=15,G11*$H$8,0)	=G11-H11
12	Pest control	Sasko Mills, Malmesbury	=$B$5*C12+D12	18	=E12*F12	=IF(F12>=15,G12*$H$8,0)	=G12-H12
13	Soil moisture conservation	Sasko Grain, Paarl	=$B$5*C13+D13	20	=E13*F13	=IF(F13>=15,G13*$H$8,0)	=G13-H13
14	Weed control	Sasko Mills, Malmesbury	=$B$5*C14+D14	15	=E14*F14	=IF(F14>=15,G14*$H$8,0)	=G14-H14
15	Number of workshops	=COUNTA(B9:B14)					
16	Number of participants			=SUM(F9:F14)			
17	Total fees for all workshops						=SUM(I9:I14)
18	Average cost per person		=AVERAGE(E9:E14)				
19	Minimum total fees						=MIN(I9:I14)
20	Maximum total fees						=MAX(I9:I14)

Student Name and Surname

Question 7B

Question 7 (File names: Workshops2, Workshops Form, Workshops Chart)

COMPARISON BETWEEN
WORKSHOP and TOTAL FEES
Student Name and Surname
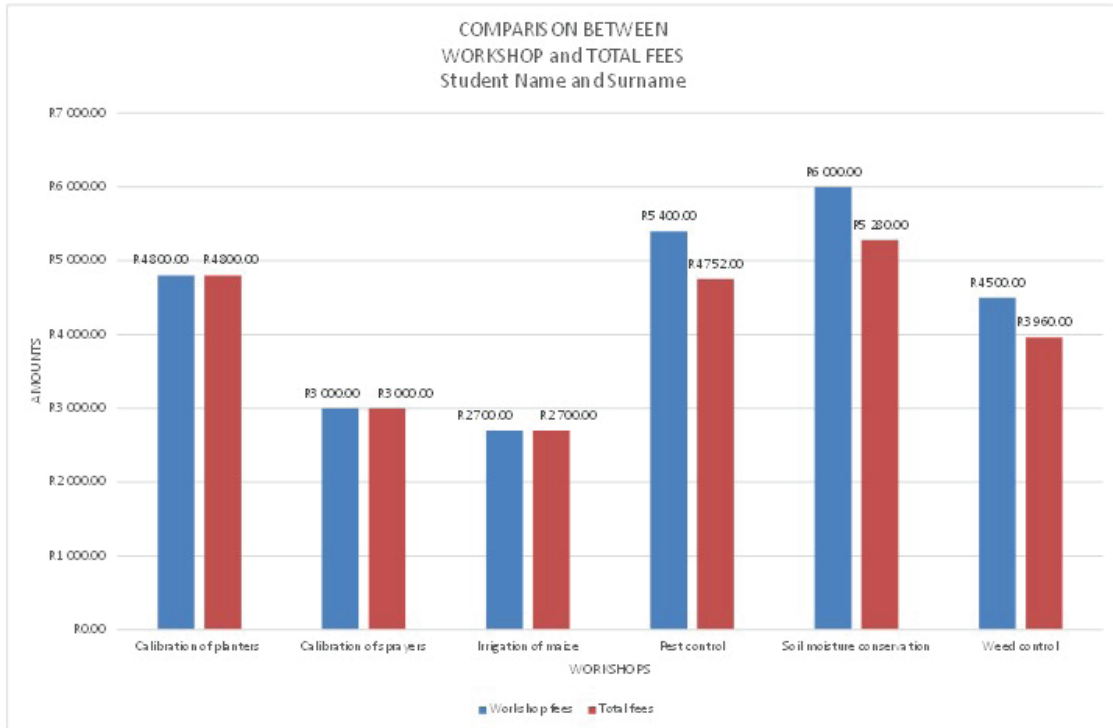
Question 8 (File name: Maize Info)

SLIDE 1: Title slide. Insert picture *Maize 1.jpg* and resize as required.

SLIDE 2: Title and Content. Insert picture *Maize 2.jpg* and resize as required.
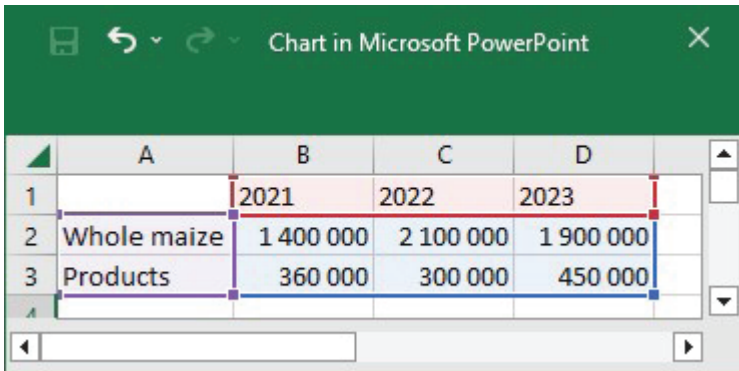
Question 8 (File name: Maize Info)

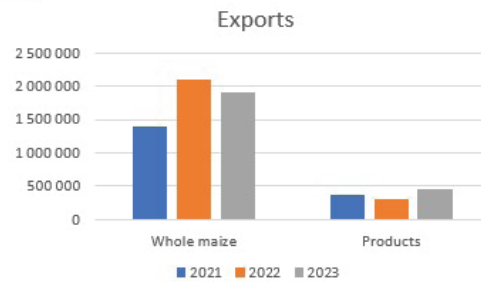**SLIDE 3:** Title and Content. Insert a column chart by using the following information:

Chart title: Exports. Resize and move the chart as required.

Question 8 (File name: Maize Info)

SLIDE 4: Title and Content. Insert picture *Maize 3.jpg* and resize as required.

SLIDE 5: Two Content. Centre the title text. Underline the sub-headings as indicated. Use arrow bullets.

Question 8 (File name: Maize Info)

SLIDE 6: Title and Content. Insert a table ⊞. Insert pictures *Maize 4.jpg*, *Maize 5.jpg*, and *Maize 6.jpg* and resize as required.

SLIDE 7: Title and Content. Insert the picture *Maize 7.jpg* and resize as required.

Question 8 (File name: Maize Info)

SLIDE 8: Title and Content. Insert the picture *Maize 8.jpg* and resize as required.

SLIDE 9: Title and Content. Insert the picture *Maize 9.jpg* or any Online Picture and resize as required.